

Validation Study: The California Structured Decision Making® Child Welfare Risk Assessment

About the SDM® Risk Assessment

The Structured Decision Making® risk assessment's objectives are to increase the consistency of worker case management decisions, target service interventions, reduce subsequent child maltreatment, and increase the child protection system's effectiveness.

California first developed an actuarial risk assessment in 1998 using a sample of families investigated for child maltreatment in 1995. The 1998 study showed that the final risk classification clearly identified groups of families by likelihood of a future allegation or substantiation.

A 2003 validation study showed that the risk assessment implemented in 1998 classified families well by their likelihood of subsequent child protective services (CPS) involvement and suggested some adjustments that were implemented in February 2005. The risk assessment was again validated and revised in 2007.

The Validation Study

The objective of the validation study was to assess how well the current risk assessment estimates future maltreatment, particularly across subgroups such as race/ethnicity and substantiation decision. A second objective was to possibly suggest revisions that might improve its classification abilities.

Study Takeaways

- The current risk assessment performs well as an estimate of future maltreatment—each step up in risk level corresponded with a clear step up in recurrence rates.
- Analysis results also suggested potential revisions that could improve classification abilities, particularly for Native American families.
- Because the analysis showed that the risk assessment can validly and accurately classify families according to the likelihood of future maltreatment, California counties can use the assessment with confidence to ensure consistency, target service interventions, reduce subsequent maltreatment, and increase the overall effectiveness of the child protection system.

Actuarial risk assessment is a statistical procedure for estimating the probability that a critical event, such as child maltreatment, will occur in the future. Knowing a family's likelihood of subsequent maltreatment allows CPS workers to identify the families most in need of services.

Validity in general refers to how well an assessment measures what we are trying to measure.

Validity can be judged by examining **distribution** (how cases are spread across the risk levels) and **discrimination** (the corresponding subsequent maltreatment rates for each level). Adequate distribution is needed to justify providing services to some families while withholding services from others.

For example, the smaller the proportion of low-risk families who have a subsequent investigation and the larger the proportion of high-risk families who have subsequent investigation, the better the assessment is.

The **sample** consisted of unique families from substantiated and inconclusive investigations from select California counties between July 1, 2010, and June 30, 2011. Subsequent CPS outcomes were observed for each family for 18 months following their assessment.

The **outcome** measures included new investigations of abuse or neglect allegations, substantiations of maltreatment, and subsequent child placements during the standardized follow-up period.

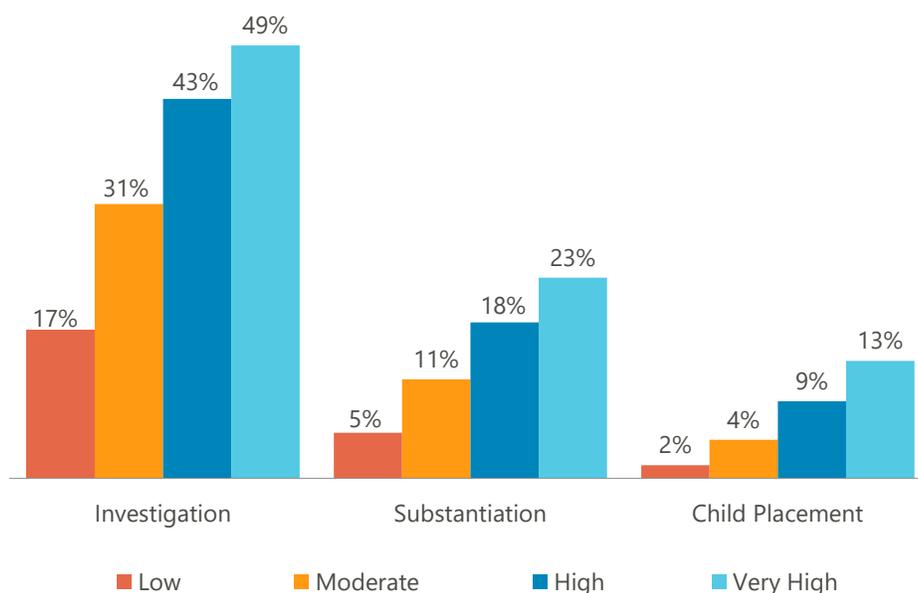
The Results

The current risk assessment produced a good distribution across risk levels.

- 25% of families were classified as low risk.
- 45% of families were classified as moderate risk.
- 23% of families were classified as high risk.
- 7% of families were classified as very high risk.

The current risk assessment also performed well when distinguishing between families classified at low, moderate, high, and very high risk of subsequent substantiated maltreatment. For all CPS outcomes (investigation, substantiation, and child placement) and among most sample subgroups, the recurrence rates observed among low-risk families were significantly lower than those of families classified at higher risk levels (see below).

- Families classified as low risk had a subsequent substantiation rate of 5%.
- Moderate-risk families had a rate of 11%.
- High-risk families had a rate of 18%.
- Very high-risk families had a rate of 23%.



An increase from low to moderate and moderate to high risk corresponded to:

- At least a 35% increase in the reinvestigation rate;
- At least a 55% increase in the subsequent substantiation rate; and
- A nearly twofold increase in the child placement rate.

Refinements and Improvements

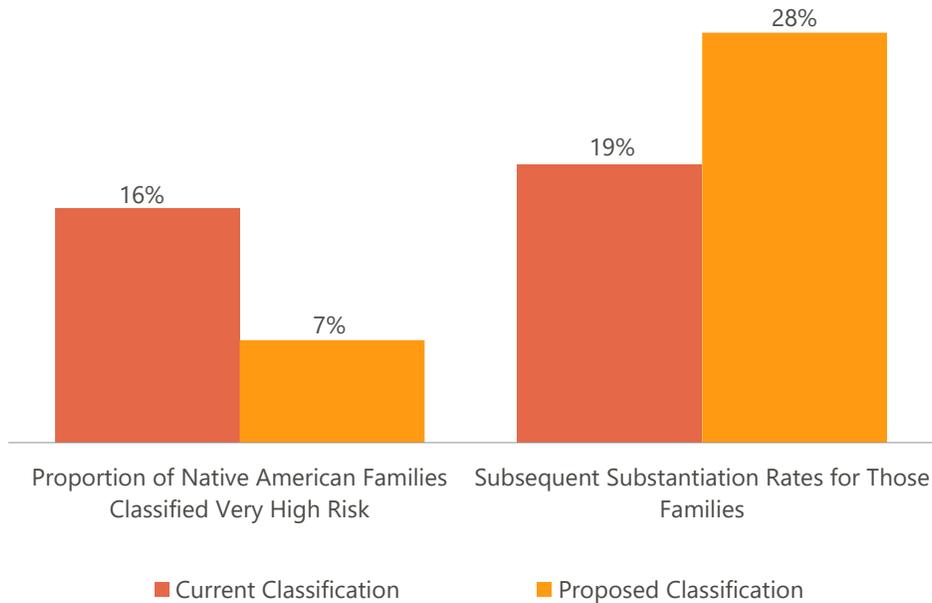
Although the current risk assessment classified families well overall, results suggest that there may be opportunities for improvement. For example, there was a less pronounced difference in outcome rates for high- and very high-risk families than between other risk levels.

The current assessment also did not differentiate between moderate-, high-, and very high-risk Native American families very well. More than 50%

of Native American families were classified as high or very high risk. This is particularly problematic given that outcome rates for high- and very high-risk Native American families did not significantly differ from those of moderate-risk Native American families.

Potential adjustments to the current assessment to address these concerns were developed and tested against outcomes. The risk assessment was then applied to a validation sample to examine classification findings with a different sample.

The revised risk assessment produced an incremental improvement—classifying fewer families overall as high and very high risk than the current assessment (26% compared to 30%), and a greater proportion of these families had a subsequent investigation, substantiation, and child placement compared to families classified as high or very high risk by the current risk assessment.



Learn More

For more information, contact Chris Scharenbroch, Associate Director of Research Analytics, at cscharenbroch@nccdglobal.org or call (800) 306-6223. The full study report is available at http://www.nccdglobal.org/sites/default/files/publication_pdf/risk-assessment-validation.pdf.