

# RESEARCH BRIEF: NEW HAMPSHIRE CHILD WELFARE SDM<sup>®</sup> PARTICIPATORY RISK VALIDATION STUDY

## BACKGROUND AND PROJECT DESIGN

In 2020, Evident Change and the New Hampshire Division for Children, Youth, and Families (DCYF) used a collaborative, stakeholder-informed approach to conduct a *participatory risk validation* of the Structured Decision Making<sup>®</sup> (SDM) risk assessment. DCYF uses the risk assessment classification, alongside the SDM<sup>®</sup> safety assessment and caseworker and supervisor expertise, to determine which families should receive ongoing child welfare services.

Actuarial risk assessments classify families into groups based on the likelihood of a future occurrence (e.g., a new investigation or substantiated finding of child abuse or neglect). However, these likelihoods are never 100%. A validation seeks to explore how well the assessment supports decision making. This requires consideration beyond predictive accuracy; risk assessments must have utility—staff need to both use and trust them and promote equity through consistent and fair decision making.

In a validation study, researchers work to identify revisions to the policy, practice, or the assessment to improve decision support. Revisions may struggle to balance the empirical nature of risk assessment with equity and utility values. These trade-offs are best considered by blending data with the expertise and cultural understanding of diverse stakeholders (e.g., child welfare agency staff, community partners, impacted families, and researchers) through a participatory risk validation approach. Borrowing from the principles of human-centered design (Freckmann et al., 2020) and action research (Streubert & Carpenter, 2002) the process centers attention on those who are most impacted and seeks action to improve practice. DCYF convened a risk steering committee composed of staff at all levels, DCYF licensed alcohol and drug counselors, domestic violence partners, a representative from the Office of Child Advocate, and parent partners with previous DCYF involvement. The risk steering committee's role was to ask questions, provide

feedback, assess current risk assessment function, and suggest recommendations to improve performance. Goals for the New Hampshire risk validation study included the following.

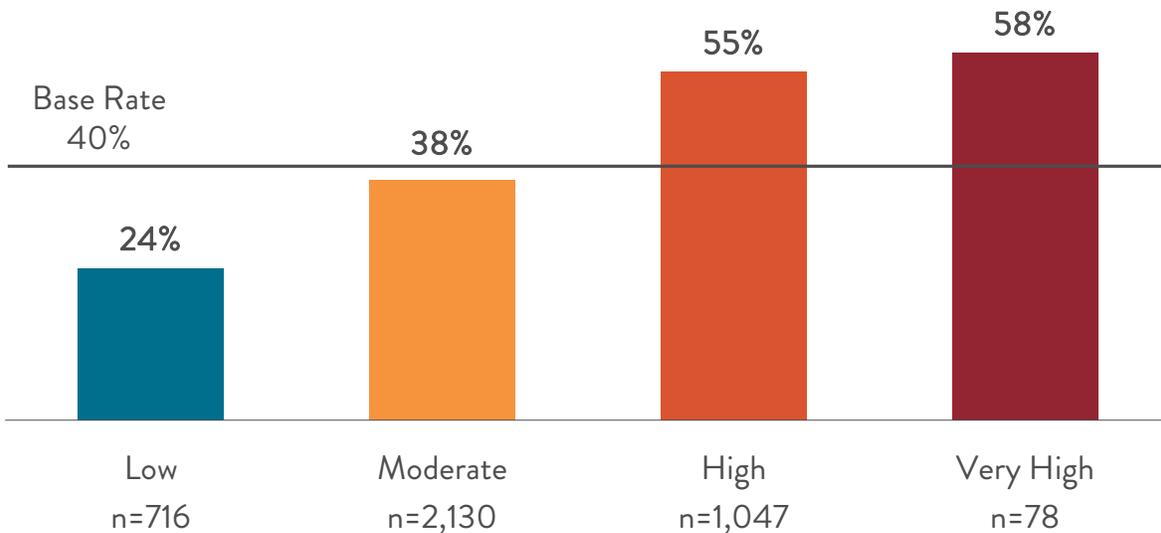
- Engage a diverse stakeholder group in every step of the risk validation process to ensure that the evaluation of the state's current risk assessment and any changes to the assessment meet shared values around equity, accuracy, and utility.
- Understand how the current risk assessment is performing across three of the SDM system principles: utility (how useful the assessment is), accuracy (how accurately it classifies families by their likelihood of subsequent involvement), and equity (how comparatively well it works for different subgroups in the population).
- If current risk assessment did *not* meet stakeholders' and Evident Change's expectation for performance across these three principles, model revisions using available data and explore with the stakeholder group how revisions to the risk assessment improve utility, accuracy, and/or equity.
- Collaboratively recommend a revised risk assessment to DCYF leadership.

Evident Change partnered with the risk assessment steering committee to review and consider how well the current assessment was performing. Data analyses were presented to examine the risk assessment's accuracy, equity, and utility. The analysis used a population of all families who experienced an assessment and had a risk assessment completed between January 1 and December 31, 2017. These 7,455 families were followed for 18 months after their initial assessment, with subsequent DCYF involvement tallied. Data presented in this brief are from the risk construction sample (53%, n=3,971), which was used to examine current risk performance and test revisions. After deliberation and conversation, the risk assessment steering committee noted the following.

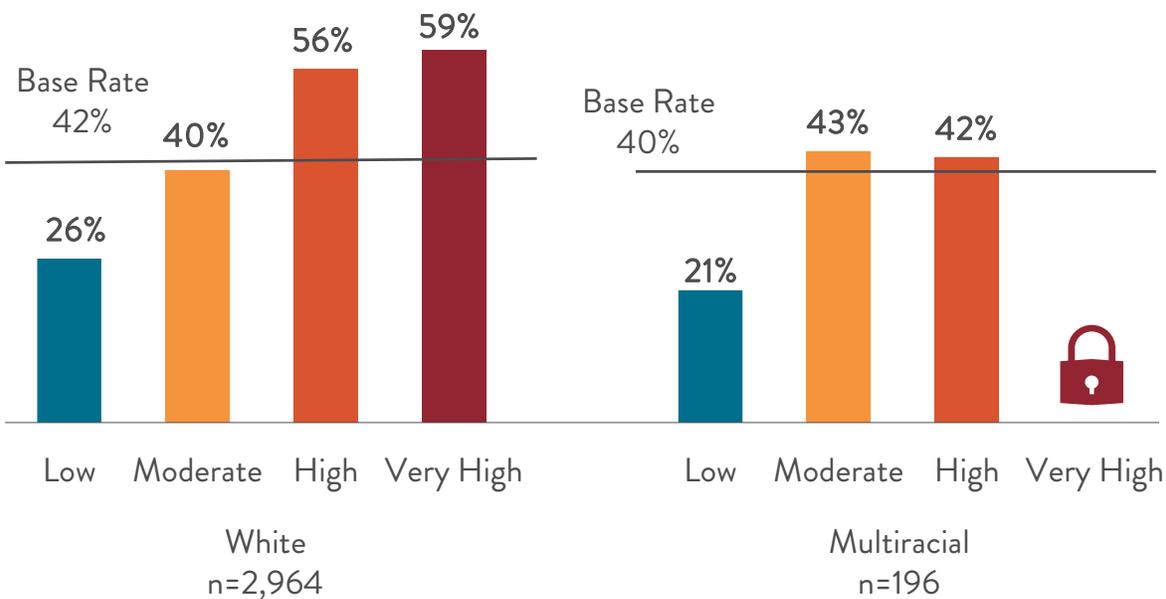
## THE CURRENT ASSESSMENT

- The current assessment, overall, classified more than half (54%) of families as moderate risk; 18% of families were classified as low risk, and 28% were classified as high or very high risk.
- The current assessment classified families accurately based on their likelihood of subsequent DCYF involvement. Families classified as high or very high risk were more likely to have a new assessment for abuse or neglect than families classified as low or moderate risk.
- The current assessment did not work accurately for all race/ethnicity groups. For example, families in households with multiple races/ethnicities classified as high risk had a lower subsequent assessment rate compared to moderate-risk families. Additionally, a larger proportion of families in households with multiple races/ethnicities were classified as high or very high risk compared to the proportions of families in other race/ethnicity groups.

**Figure 1**  
**New Assessment Within 18 Months by CURRENT Risk Level**  
 n=3,971



**Figure 2**  
**New Assessment Within 18 Months by CURRENT Risk Level: White and Multiple-Race Families**



Note: Any subgroup with a sample size less than 25 was too small to report and is indicated by the lock symbol.

## THE REVISION PROCESS

Although the current assessment classified families accurately overall, the data findings and feedback from the steering committee suggested revisions should be considered. Specifically, there was interest in examining the possibility of reducing the proportion of families classified as high or very high risk so that the risk distribution more aligned with the capacity of the agency to provide services to families at the highest risk of subsequent involvement. Another area of focus was on improvements to the equity of the assessment—testing revisions to see if the risk level distribution and accuracy could be improved for families in households with multiple races/ethnicities.

Evident Change developed hundreds of potential revised models, checking each for improvements to equity and risk level distribution. Two of those models were presented to the steering committee for consideration. Following data presentations and small- and large-group discussions, polling was used to gain consensus for a revised model recommendation among steering committee members who clearly favored one revised model (with more than 85% support) over the current risk assessment and the other revised option.

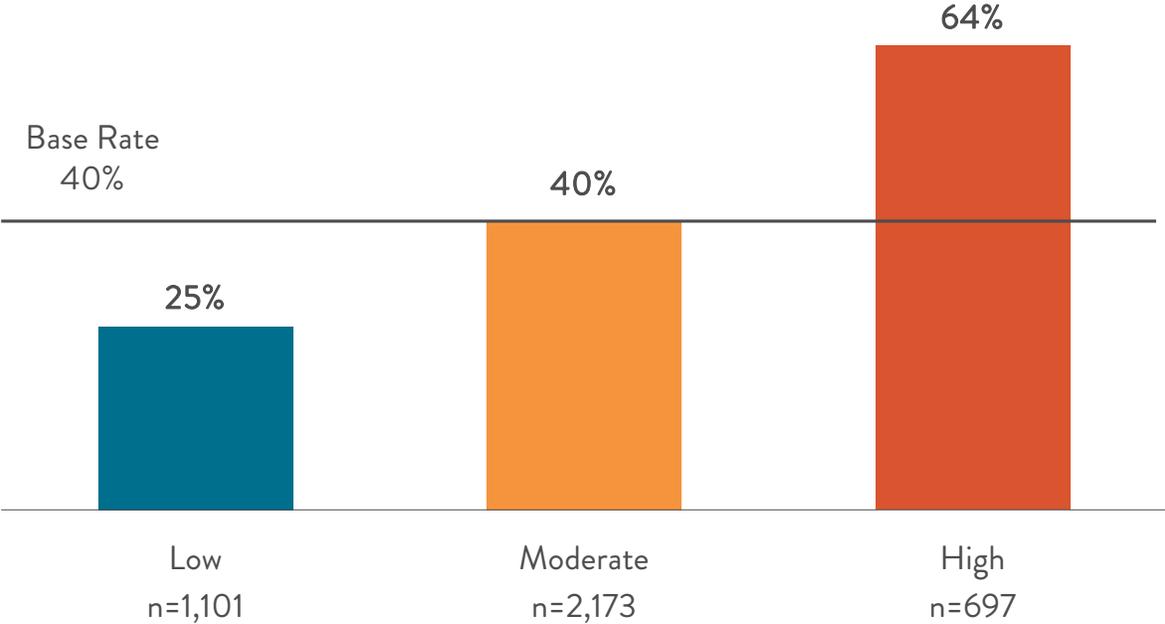
## THE REVISED ASSESSMENT

### UTILITY AND ACCURACY REVISIONS

The revised risk assessment shifted from a four-level classification to a three-level classification. The current risk assessment identified a small percentage of families as very high risk, and there was no clear policy distinction for these families. Collapsing to a three-level assessment was essentially a design choice to improve utility by better aligning to policy.

Estimates from the revised risk model suggest a risk distribution of 28% of families in the low-risk group, 55% in the moderate group, and 18% in the high-risk group (not shown). In this model, 64.4% of all high-risk families experienced a new investigation within 18 months (up nearly 10 percentage points from the current model's 55.6%). These data suggest that classification accuracy could be improved, with fewer families classified as high risk. This would be better aligned with service availability.

**Figure 3**  
**New Assessment Within 18 Months by REVISED Risk Level**  
**N = 3,971 families**

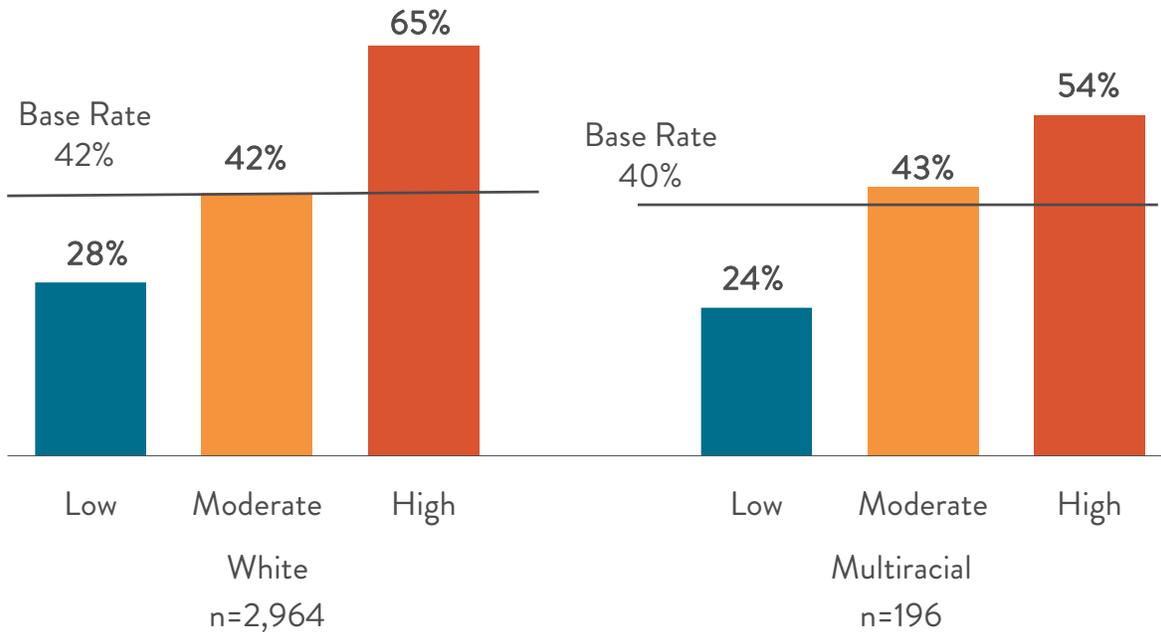


## EQUITY REVISIONS

In addition to improved distribution, the revised model demonstrated increased distinction in outcome rates for moderate- and high-risk multiracial families while maintaining race/equity values for all families and the overall classification abilities.

Figure 4

New Assessment Within 18 Months by REVISED Risk Level: White and Multiracial Families



## CONCLUSION

The risk steering committee recommendation was ultimately endorsed by DCYF leadership and followed a customization process involving a risk assessment workgroup, inter-rater reliability testing, and field testing. This is scheduled to be built into the new DCYF electronic data system and implemented upon its rollout in 2023.

This brief shares highlights of the participatory risk validation and a few key data considerations. A [full report](#) documents the entire research effort, study sample, research methods, and consensus-building process, while an accompanying [case study](#) shares more information on the collaborative process.

Evident Change offers this brief with gratitude and appreciation to DCYF and the entire risk steering committee. Their expertise, time, and partnership in the decision-making process provided a foundation and necessary insight to validate the SDM risk assessment.

For more information on the brief, report, or participatory risk validation model, please reach out to:

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