

Independent Research: Background	
Where can I find it?	What is this resource about?
Meehl, P. (1954). <i>Clinical Versus Statistical Prediction: A Theoretical Analysis and a Review of the Evidence</i> . Minneapolis, University of Minnesota Press.	This book on clinical versus statistical prediction indicates that proper linear models (e.g., actuarial risk models) outperform clinical intuition.
Dawes, R. M. (1979). The robust beauty of improper linear models in decision making. <i>American Psychologist</i> , 34, 571–582.	Proper linear models are those in which predictor variables are given weights in such a way that the resulting linear composite optimally predicts some criterion of interest. Improper linear models are those in which the weights of the predictor variables are obtained by some non-optimal method, for example, on the basis of intuition, derived from a clinical judge's predictions. This article presents evidence that even such improper linear models are superior to clinical intuition.
Rossi, P., Schuerman, J., & Budde, S. (1996). <i>Understanding child maltreatment decisions and those who make them</i> . Chicago: Chapin Hall Center for Children, University of Chicago.	This study examined the decision-making process in child maltreatment cases and found areas of inconsistency as well as the need for greater decision-making training for investigative workers. The researchers compared decisions to remove children from the home or to offer family preservation services made by child protection workers and "experts," and found a low level of agreement among these groups.

Independent Research: Publications and Evaluations	
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Johnson, W. (2011). The validity and utility of the California Family Risk Assessment under practice conditions in the field: A prospective study. <i>Child abuse & neglect</i> , 35, 1, 18–28.	The study analyzed 7,685 child abuse/neglect reports originating in five California counties followed prospectively for two years to identify further substantiated abuse/neglect. Measures of model calibration and discrimination were used to assess the California SDM risk assessment's validity and compare its accuracy with the accuracy of clinical predictions made by child welfare workers. Imperfect but better-than-chance predictive validity was found for the risk assessment. For a subset of 114 cases where both risk assessment and child welfare worker clinical risk assessments were available, the risk assessment exhibited evidence of imperfect but better-than-chance predictive validity, while child welfare worker risk assessments were found to be invalid.
Johnson, W. (2004). <i>Effectiveness of California's child welfare Structured Decision Making® model: A prospective study of the validity of the California family risk assessment</i> . Sacramento, CA: California Department of Social Services. http://www.nccd-crc.org/crc/pubs/ca_sdm_model_feb04.pdf	This report reviews findings from an independent evaluation of the validity and utility of the SDM risk assessment and other assessments using data collected by social workers under field conditions. Dr. Johnson conducted numerous validity tests that showed the actuarial risk assessment accurately classified families based on the likelihood of future child abuse/neglect. He also found that the relationship between the risk score obtained from the actuarial risk assessment and future child maltreatment was consistent across ethnic groups

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	with sufficient sample size.
Stewart, A., & Thompson, C. (2004). <i>Comparative Evaluation of Child Protection Assessment Tools</i> . Queensland: Griffith University.	<p>The purpose of this report was to evaluate the evidence base for the selection of risk, safety, and needs/strengths tools and to make recommendations about which of these tools might best meet Queensland's unique needs and current circumstances. Six risk assessments were considered and compared.</p> <p>The CRC risk assessment tool was recognized as having the strongest evidence base in relation to reliability and validity. Furthermore, the links between assessment and practice and the outcomes for children were considered. On the basis of this comparative evaluation, the SDM risk assessment tool was recommended.</p>
Loman, L. A., & Siegel, G. L. (2004). An evaluation of the Minnesota SDM Family Risk Assessment. Institute of Applied Research. www.iarstl.org/papers/FinalFRAReport.pdf	<p>This study sought to determine the reliability, validity, and effects on services of the risk assessment (FRA). Five subpopulations were considered: Caucasian, African American, American Indian, Southeast Asian, and Hispanic.</p> <p>Analysis showed that the FRA has predictive validity. Low risk families have fewer new reports than moderate risk families. Similarly, moderate risk families have fewer new reports than high and intensive risk families.</p> <p>Analysis of a vignette survey in which workers determined the risk of family in a written description showed that workers tended to use the FRA consistently.</p> <p>While the study of the five racial and ethnic subpopulations indicated some differences in the application of individual FRA items, many of these were evened out in the final categorization of families into the fourfold classification of low, moderate, high, and intensive risk. The FRA showed levels of predictive validity for the subpopulations similar to the entire study sample, with the same exceptions. It was more accurate with Southeast Asian families and less accurate with American Indian families.</p>
Wood, J. M. (1997, April). Risk predictors for re-abuse or re-neglect in a predominantly Hispanic population. <i>Child Abuse & Neglect</i> , 21(4) 379–389.	This study sought to determine whether risk indicators of re-abuse/re-neglect, identified in earlier research by the Children's Research Center (CRC), would be predictive in a predominantly Hispanic population. Of 19 CRC indicators, seven (37%) correctly predicted both allegations and substantiations of re-abuse/re-neglect during a two-year follow-up. An additional five items (26%) predicted subsequent allegations but not substantiations. When item scores were summed, total risk scores significantly predicted re-abuse/re-neglect.

Independent Commentary	
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Gelles, R. J., & Kim, B. <i>The Tipping Point of Child Welfare Systems: Decision Making, Information, and Risk Assessment</i> . Philadelphia, PA: School of Social Policy and Practice, University of Pennsylvania. http://www.sp2.upenn.edu/fieldctr/current_issues/white_paper_tipping_point.pdf	This review of decision points and decision making in child welfare argues that clinical judgment often leads workers to poor and inconsistent decisions, and that consensus risk assessments lack research evidence to support their use. Actuarial risk models (of which the SDM risk assessment is cited as an example) and neural networks are identified as more promising decision-making practices.
Harbert, A., Tucker-Tatlow, J., & Hughes, K. (2010). <i>Review of the Literature: Child Maltreatment Fatalities–Risk Factors and Lessons Learned</i> . California: Southern Area Consortium of Human Services. http://theacademy.sdsu.edu/programs/SACHS/literature/SACHS-Child%20Fatalities%20Literature%20Review-Feb%202010.pdf	The Southern Area Consortium of Human Services, a program of the Academy for Professional Excellence at San Diego State University School of Social Work, reviewed the available literature regarding child maltreatment fatalities to understand risk factors and identify prevention strategies. Among the report’s recommendations to minimize the risk of harm to children was the use of standardized safety and risk assessment tools (Structured Decision Making).
D’Andrade, A., Austin, M. J., & Benton, A. (2008). Risk and Safety Assessment in Child Welfare: Instrument Comparisons. <i>Journal of Evidence-Based Social Work</i> , 5(102) 31–56.	This review of the research literature on different instruments for assessing risk and safety in child welfare focuses on instrument reliability, validity, outcomes, and the use with children and families of color. The review finds that actuarial instruments, including the SDM system, have stronger predictive validity than consensus-based instruments.
Fontes, L. A. (2008). <i>Assessment Instruments and Structured Decision Making in Child Abuse and Culture</i> . New York: Guilford Press.	The author argues that formal processes such as the SDM system provide workers with simple and objective tools to help make the best possible decisions in individual cases. She additionally asserts that these tools may also help weed out bias, in that the assessments focus primarily on objective criteria. This may have the potential for reducing the likelihood that a child’s risk status will be misjudged because of the parents’ ethnicity or the evaluator’s bias.
Lee, S., Aos, S., & Marna Miller, M. (2008). Evidence-based programs to prevent children from entering and remaining in the child welfare system: Benefits and costs for Washington. Olympia: Washington State Institute for Public Policy, Document No. 08-07-3901.	The Washington State Institute for Public Policy was directed by the 2007 Washington Legislature to estimate whether “evidence-based” programs and policies can “reduce the likelihood of children entering and remaining in the child welfare system, including both prevention and intervention programs.” SDM is mentioned as an administrative policy shown by research shown to reduce child abuse and neglect outcomes while increasing permanency outcomes.
Rycus, J. S., & Hughes, R. C. (2003). <i>Issues in risk assessment in child protective services: Policy white paper</i> . Columbus, OH: North American Resource Center for Child Welfare. http://www.nccd-crc.org/crc/pubs/ra_issues_whitepaper_2003.pdf See also Rycus, J. S., & Hughes, R. C. (2007). Issues in risk assessment in child protective services. <i>Journal of Public Child Welfare</i> , 1(1), 85–116.	The Center for Child Welfare Policy of the North American Resource Center for Child Welfare undertook an extensive risk assessment initiative. These publications set forth findings from this initiative and make recommendations to promote and guide the development of risk assessment policy and practice. The authors support the use of actuarial risk assessment and identify this approach as superior to consensus-based models when determining the likelihood of future maltreatment. They recommend that risk assessment be embedded within a suite of tools and that risk assessment focus on one decision only. The authors encourage the use of empirically derived tools

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	that are reliable and valid, with clear definitions for each item.
The California Evidence-Based Clearinghouse for Child Welfare (CEBC) http://www.cachildwelfareclearinghouse.org/program/11	The CEBC helps to identify and disseminate information regarding evidence-based practices relevant to child welfare. Evidence-based practices are those that have empirical research supporting their efficacy. The CEBC provides guidance on evidence-based practices to statewide agencies, counties, public and private organizations, and individuals. The CEBC rates the SDM system as “promising practice,” meaning that (1) there is no evidence indicating a risk of harm to participants; (2) a manual specifies the components of the practice protocol; (3) at least one study utilizing some form of control has established the practice’s benefit over the placebo, or found it to be comparable to or better than an appropriate comparison practice; and (4) if multiple outcome studies have been conducted, the overall weight of evidence supports the benefit of the practice.
CrimeSolutions.gov http://www.crimesolutions.gov/ProgramDetails.aspx?ID=134	The Office of Justice Programs’ CrimeSolutions.gov uses rigorous research to inform practitioners and policy makers about what works in criminal justice, juvenile justice, and crime victim services. CrimeSolutions.gov assessed the SDM system as “promising,” meaning that programs have some evidence indicating they achieve their intended outcomes, and additional research is recommended.

CRC Research: Peer-reviewed Publications	
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Shlonsky, A., & Wagner, D. (2005). The next step: Integrating actuarial risk assessment and clinical judgment into an evidence-based practice framework in CPS case management? <i>Children and Youth Services Review</i> , 27, 409–427.	This article reviews the context of risk assessment in child protective service decision making, addresses some of the misconceptions about risk assessment, and outlines how risk assessment and objective family assessment should supplement a worker’s clinical judgment.
Baird, C., & Wagner, D. (2000). The relative validity and actuarial- and consensus-based risk assessment systems. <i>Children and Youth Services Review</i> , (22)11/12, 839–871.	This article compares the validity of an actuarial assessment and two consensus-based assessments and shows that the actuarial risk assessment more accurately classifies families by the likelihood of future child abuse or neglect.
Baird, C., Wagner, D., Healy, T., & Johnson, K. (1999). Risk assessment in child protective services: Consensus and actuarial model reliability. <i>Child Welfare</i> , 78(6), 723–748.	This article reviews findings from an inter-rater reliability test, which shows that the actuarial risk assessment demonstrated better reliability than did two consensus-based risk assessments.

CRC Research: Presentations

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<p>Wagner, D., & Johnson, K. (1999). Using actuarial risk assessment to target service interventions in pilot California counties. <i>13th National Roundtable on CPS Risk Assessment</i>. http://www.nccd-crc.org/crc/pubs/13th_roundtable_ca_risk.pdf</p>	<p>In 1998, the state of California contracted with the Children’s Research Center (CRC) to conduct a risk assessment study that observed 2,511 sample families substantiated for abuse or neglect during 1995. Risk assessment study findings derived from observation of these cases were employed to construct an actuarial instrument for identifying high risk families for service intervention and to assist agency administrators in planning future service delivery efforts.</p>
<p>Wagner, D., & Meyer, B. L. (1998). Using actuarial risk assessment to identify unsubstantiated cases for preventative intervention in New Mexico. <i>12th National Roundtable on CPS Risk Assessment</i>. http://www.nccd-crc.org/crc/pubs/nm_1998_roundtable_risk.pdf</p>	<p>In 1997, the New Mexico Children, Youth and Families Department (CYFD) and CRC developed a new child protective services decision-support system. To support this effort, CRC and CYFD staff conducted a risk assessment study of 1,450 sample families investigated for abuse or neglect during 1994–95. Based on the findings of this research effort, CPS staff in New Mexico decided to employ risk assessment procedures at investigation for both substantiated and unsubstantiated families. In addition, they determined that high risk, unsubstantiated cases should be systematically referred to voluntary services for preventative intervention. This report examines study findings that led to the administrative decision to screen unsubstantiated families with higher levels of risk and service needs into prevention services.</p>
<p>Wagner, D., & Bell, P. (1998). The use of risk assessment to evaluate the impact of intensive protective service intervention in a practice setting. <i>12th National Roundtable on CPS Risk Assessment</i>. http://www.nccd-crc.org/crc/pubs/uc_1998_roundtable_risk.pdf</p>	<p>In 1993, four Wisconsin urban counties, with the assistance of CRC, developed and implemented a new protective services decision support. This report summarizes findings from an impact evaluation. The study assessed the impact of intensive child protective services on maltreatment by comparing case outcomes of families opened for CPS intervention with those that were not opened while controlling for risk level. The results of this study demonstrate that focusing intensive service intervention on high risk families significantly reduces subsequent maltreatment during a 24-month observation period.</p>
<p>Wagner, D., Hull, S., & Luttrell, J. (1995). The Michigan Department of Social Services risk based Structured Decision Making system: An evaluation of its impact on child protection service cases. <i>Ninth National Round Table on CPS Risk Assessment</i>. http://www.nccd-crc.org/crc/pubs/mi_1995_cps_eval.pdf</p>	<p>A 1995 quasi-experimental outcome evaluation of Michigan’s SDM decision-support system demonstrated that implementation of the case management system resulted in fewer child maltreatment referrals, investigations, substantiations, and child placements.</p>

CRC Research: Jurisdiction Evaluation	
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<p>Johnson, K., Wagner, D., Scharenbroch, C., & Healy, T. (2006). <i>Minnesota Department of Human Services risk assessment validation: A prospective study</i>. Madison, WI: Children's Research Center. http://www.nccd-crc.org/crc/pubs/mn_2006_ra_validation.pdf</p>	<p>Minnesota's Department of Human Services (DHS) contracted with the Children's Research Center (CRC) to conduct a validation study of the risk assessment used to assess the likelihood of future child maltreatment among families investigated or assessed by DHS. The objective was to assess how well the current risk assessment estimates future maltreatment and, if necessary, propose revisions to improve its classification abilities. The sample included families assessed using an alternative response (currently known as family assessment response) as well as the traditional method. The report reviews the performance of the current risk assessment, then reviews findings for a proposed risk assessment that will replace the current risk assessment.</p>
<p>Johnson, K. (2005). <i>A retrospective support assessment study of foster and relative care providers</i>. Madison, WI: Children's Research Center. http://www.nccd-crc.org/crc/pubs/fcrp_support_assmnt_sept05.pdf</p>	<p>Five California counties worked with CRC to develop an actuarial tool that would classify relative caregivers and licensed foster homes based on probability of future maltreatment or disruption due to departmental disapproval or corrective action. The study led to the creation of a tool that can help agencies reduce maltreatment and increase placement stability by providing increased support to resource families who are at increased risk.</p>
<p>Wagner, D., Johnson, K., & Caskey, R. (2003). <i>Evaluation of Michigan's foster care Structured Decision Making case management system</i>. Madison, WI: Children's Research Center. http://www.nccd-crc.org/crc/pubs/mi_2002_fc_eval.pdf</p>	<p>Michigan expanded the SDM system into foster care in 1997 to increase the consistency of decision making and help ensure compliance with state and federal regulations regarding service provision, reunification, and permanency planning. An evaluation conducted in 2000 assessed pilot and comparison county performance during pre- and post-implementation periods. During the post-implementation period the pilot counties moved a significantly higher proportion of children to permanency than the comparison counties, and the type of permanency established was not skewed in any particular direction.</p>
<p>Johnson, K., Caskey, R., & Wagner, D. (2003). <i>Addendum to the evaluation of Michigan's foster care Structured Decision Making case management system</i>. Madison, WI: Children's Research Center. http://www.nccd-crc.org/crc/pubs/mi_2002_fc_eval_addendum.pdf</p>	<p>In 2002, CRC conducted further analysis to assess the impact of Michigan's new foster care decision-support system. A key question was whether children returned home in pilot counties reentered foster care at a higher rate. The addendum study found that the SDM system did not result in children's premature return home.</p>