

# BRINGING DATA TO THE DEBATE ON RISK ASSESSMENTS

NOVEMBER 2024

## KEY TAKEAWAYS

- ▶ Current evidence overall signals that risk assessments are not resulting in harsher treatment for individuals with minoritized racial and ethnic identities.
- ▶ More than one third of articles in this systematic review found that risk assessments helped decrease pre-existing racial and ethnic disparities in legal decision making.
- ▶ Most of the included articles focused on pretrial-related outcomes and a narrow type of risk assessment (e.g., brief pretrial risk screening tools).
- ▶ Overall, most studies tended to be methodologically weak. More gold-standard (i.e., pre-post comparison) studies are needed.

## INTRODUCTION

Risk assessment instruments estimate the likelihood of legal outcomes (namely recidivism; failure to appear in court is also included in the case of pretrial tools) in the adult and juvenile legal systems. They include brief risk screening tools and comprehensive risk-needs assessments measuring static and/or changeable risk factors. These tools rate people across different criteria such as number of prior convictions or impulsivity.<sup>1,2</sup>

The heightened awareness of structural inequities throughout the United States legal system has led to an influx of criticism of risk assessment instruments. Despite the anticipated benefits of risk assessments,<sup>3,4</sup> critics highlight that they incorporate risk factors (e.g., criminal history items) that reflect relative disadvantage and compound structural racism carried over from earlier legal contacts.<sup>5,6,7</sup> As a result, critics argue that the use of risk assessments will disproportionately lead to harsher legal outcomes for individuals of color (disparate impact). Disparate impact would occur if people of color obtained higher scores, on average, and

they received harsher penalties (e.g., pretrial detention versus release) from the system as a result.<sup>8</sup>

A prior systematic review on the disparate impact of risk assessment instruments found insufficient evidence at the time to offer clear conclusions.<sup>9</sup> Accordingly, the Law & Psychiatry Program at the UMass Chan Medical School updated this systematic review to examine the disparate impact of risk assessments by race and ethnicity across diverse legal decision points.<sup>10</sup>

## METHODOLOGY

Our updated systematic review synthesized available articles that investigated the real-world impact of juvenile and adult risk assessments on racial/ethnic disparities in legal decision making. We examined published and unpublished literature available between January 2000 and July 2023. Three primary inclusion criteria guided our search of articles:

- ▶ Used a population from a legal setting.
- ▶ Examined disparate impact of a risk assessment on a legal outcome.

- ▶ Compared racial/ethnic differences in the system before and/or after a risk assessment was implemented.

Our systematic review synthesized the results from 21 articles that investigated the disparate impact of 13 risk assessments on various legal outcomes. We assessed study quality with the Quality Assessment Tool (QAT) for Quantitative Studies.

## FINDINGS

### Article Characteristics

About half of the articles were peer-reviewed and reported findings from pretest-posttest designs. Most of the research focused on pretrial risk screening tools and, thus, evaluated preadjudication outcomes (e.g., pretrial release versus detention, length of detention, bond type, charges dismissed). Only about one in four studies were from the youth justice system. All 21 articles investigated actuarial risk assessments (i.e., where the risk-level decision is score-based); no studies involved structured professional judgment instruments (i.e., individuals' risk level is determined by professional judgement after rating all the risk factors). About half of the articles exclusively investigated disparate impact for only Black versus White individuals, with the next

most common group being Hispanic or Latinx. Few articles (k = 5) explicitly indicated they were testing "disparate impact."

### Disparate Impact

Overall, our synthesis of the literature showed little evidence of differential treatment by the legal system for different racial or ethnic groups as a result of risk assessment use. Ten articles reported that the use of risk assessments did not lead to the creation of racial or ethnic disparities in legal decision making, nor did it worsen disparities that already existed (i.e., null effect). Eight articles showed that the application of risk assessments decreased racial and ethnic disparities in legal outcomes. Conversely, three articles found risk assessments may have increased disparities. However, one of these three articles found that disparate impact was not in the hypothesized direction; White individuals on probation received longer sentences than Black individuals on probation after implementation of a risk assessment.

### Study Quality

Out of the 18 articles that found risk assessments did not lead to a disparate impact, five had strong

#### Article Characteristics (Total Articles=21)



## Disparate Impact Findings



methodological quality, but most were rated as moderate or weak on the QAT. Only one of the three articles that found evidence of disparate impact received a strong QAT score. Overall, articles tended to be methodologically weak due to not reporting racial/ethnic differences before use of the risk assessment, not identifying or controlling for other factors that may have affected the legal decisions, and/or biases in how samples were selected.

## POLICY RECOMMENDATIONS

In sum, our systematic review supports the use of risk assessment instruments, particularly actuarial pretrial screening tools which have the most research on their impact to date. Over one third of articles meeting our criteria found that risk assessments helped decrease pre-existing racial and ethnic disparities in legal decision

making. This study yielded several observations that practitioners and researchers should consider in their use and study of risk assessments.

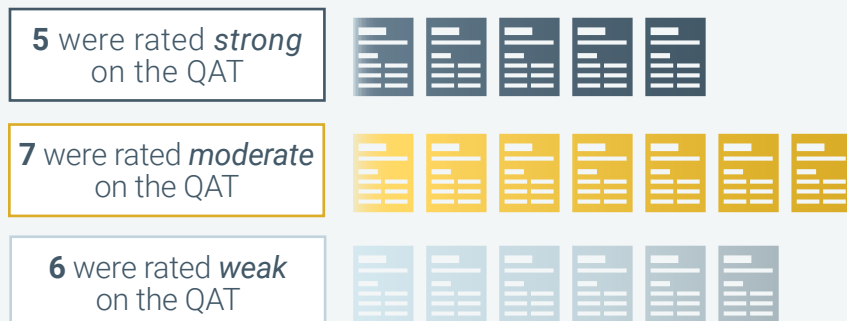
### To Practitioners and Policymakers

There is more (and stronger) evidence for the use of risk assessment in guiding legal decisions as a means to help reduce disparities than there is against its use. The Law & Psychiatry Program recommends:

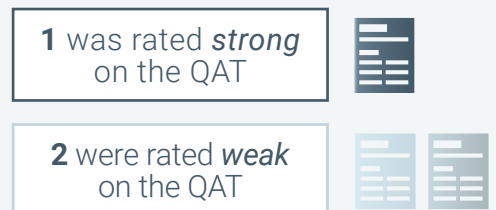
- ▶ Following best practice standards and guidelines for risk assessment implementation. One reason studies may have found no impact of risk assessments on pre-existing disparities is likely due to limited implementation quality (e.g., judges are not getting the information or are not using it to guide decisions).
- ▶ Using only risk assessments that have been validated

## Study Quality

Among the 18 articles that **did not find** evidence of disparate impact:



Among the 3 articles that **found** evidence of disparate impact:



across racial and ethnic identities represented in the agency's population.

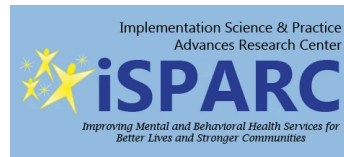
- ▶ Educating all staff and legal partners (i.e., users) about the risk assessment's validity, proper and improper use, and findings to date about racial and ethnic disparities.

## To Researchers

Researchers must improve the scientific rigor when studying the disparate impact of risk assessment in adult and juvenile legal settings. The Law & Psychiatry Program recommends:

- ▶ Using rigorous control-group or quasi-experimental, pre-post designs.

- ▶ Testing and controlling for potential covariates that are associated with the legal outcome of interest and may systematically differ between racial/ethnic groups (e.g., prior record, severity of charge).
- ▶ Expanding the racial and ethnic composition of disparate impact research (e.g., individuals with Hispanic or Latinx ethnicity and Indigenous peoples).
- ▶ Conducting disparate impact research in other legal contexts (e.g., impact on disposition versus diversion, detention following probation violations or at sentencing, prison classification).
- ▶ Incorporating comprehensive risk/needs assessments and those that use a structured professional judgment approach (e.g., Structured Assessment of Violence Risk in Youth, HCR-20) into disparate impact research.



The Law & Psychiatry Program is an interdisciplinary collaboration of UMass Chan Medical School faculty and staff devoted to advancing evidence-based practices in legal and forensic mental health settings through leading forensic postdoctoral training, research, clinical practice, and public service.

### Prepared by:

Spener G. Lawson, Ph.D.

Gina M. Vincent, Ph.D.

with assistance from Nicole Vincent-Roller, M.F.A.

The research and this policy brief were made possible by the John D. and Catherine T. MacArthur Foundation. The content and opinions expressed are solely the responsibility of the authors.

## Contact

### Law & Psychiatry Program

✉ [lawpsych@umassmed.edu](mailto:lawpsych@umassmed.edu)

🌐 [umassmed.edu/lawandpsychiatry](http://umassmed.edu/lawandpsychiatry)

### Policy Research Associates

🏠 433 River St, Suite 1005, Troy, NY 12180

✉ [pra@prainc.com](mailto:pra@prainc.com)

🌐 [prainc.com](http://prainc.com)

## ENDNOTES

- 1 Vincent GM, Guy LS, Grisso T. *Risk assessment in juvenile justice: A guidebook for implementation*. Chicago, IL: John D. and Catherine T. MacArthur Foundation; 2012.
- 2 Desmarais SL, Lowder EM. *Pretrial risk assessment tools: A primer for judges, prosecutors, and defense attorneys*. Safety and Justice Challenge, John D. and Catherine T. MacArthur Foundation; 2019.
- 3 Desmarais SL, Monahan J, Austin J. The empirical case for pretrial risk assessment instruments. *Criminal Justice and Behavior*. 2022;49(6):807–816.
- 4 Vincent GM, Viljoen JL. Racist algorithms or systemic problems? Risk assessments and racial disparities. *Criminal Justice and Behavior*. 2020;47(12):1576–1584.
- 5 Harcourt BE. Risk as a proxy for race: The dangers of risk assessment. *Federal Sentencing Reporter*. 2015;27(4):237–243.
- 6 Pretrial Justice Institute. *The case against pretrial risk assessment instruments*. Baltimore, Maryland; 2020.
- 7 Starr SB. Evidence-based sentencing and the scientific rationalization of discrimination. *Stanford Law Review*. 2014;66:803–872.
- 8 Skeem JL, Lowenkamp CT. Risk, race, and recidivism: Predictive bias and disparate impact. *Criminology*. 2016;54(4):680–712.
- 9 Viljoen JL, Jonnson MR, Cochrane DM, Vincent GM. Impact of risk assessment instruments on rates of pretrial detention, postconviction placements, and release: A systematic review and meta-analysis. *Law and Human Behavior*. 2019;43(5):397–420.
- 10 Lawson SG, Narkewicz EL, Vincent GM. Disparate impact of risk assessment instruments: A systematic review. *Law and Human Behavior*. 2024.