

## Risk/Needs Assessments for Youths

Risk/needs assessments are standardized tools that help practitioners collect and synthesize information about a youth to estimate that youth's risks of recidivism and identify other factors that, if treated and changed, can reduce the youth's likelihood of reoffending (NIJ and OJJDP 2014; Vincent, Guy, and Grisso 2012). Risk/needs assessments are not only designed to inform and guide decisions about estimating a juvenile's risk of recidivating. They are also helpful when creating plans for appropriate treatment or services. They allow juvenile justice professionals and practitioners to classify offenders and target limited resources to juveniles who may need intensive supervision and services (Pew Center on the States 2011). The risk factors have generally been shown through research to be strongly associated with the likelihood that an individual will recidivate or continue to exhibit problem behavior (Pew Center on the States 2011).

Risk/needs assessments generally consist of two components. The risk assessment component provides a way to predict the likelihood of recidivism of the youth. Recidivism is generally defined as future contact with the justice system – when the youth commits additional criminal or delinquent acts that come to the attention of law enforcement or other justice system personnel, such as a probation officer. The needs assessment component identifies factors about the youth that can be changed through individualized treatment or programming to reduce the likelihood that the youth will reoffend. Risk/needs assessment instruments generally consider static and/or dynamic risk factors (criminogenic needs factors) to determine a risk score or risk level classification (Vincent, Guy, and Grisso 2012). Although the early generations of risk/needs assessments centered more on predicting and classifying risk levels, recent assessment instruments usually include items that estimate risks of recidivating as well as the need for treatment and other services (Schwalbe 2008; Desmarais and Singh 2013; NCCD 2014).

Risk/needs assessments can be used at various stages in the juvenile justice system, including diversion, adjudication, and disposition. However, the categorization of risk will depend on the stage in the system. For example, a risk/needs assessment administered when the youth first enters the justice system (at arrest or intake) can gauge whether the youth is appropriate for diversion programming, whereas an assessment administered at disposition may guide a judge's decision about sentencing the youth to out-of-home placement or a community-based alternative (Watcher 2014).

### Limitations of Risk/Needs Assessments

The use of risk/needs assessments in the juvenile justice system has been growing since the 1990s (Schwalbe 2008). Risk/needs assessments are designed to incorporate more objectivity into the

**Suggested Reference:** Development Services Group, Inc. 2015. "Risk and Needs Assessment for Youths." Literature review. Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention.

<https://www.ojjdp.gov/mpg/litreviews/RiskandNeeds.pdf>

Prepared by Development Services Group, Inc., under cooperative agreement number 2013–JF–FX–K002. Points of view or opinions expressed in this document are those of the author and do not necessarily represent the official position or policies of OJJDP or the U.S. Department of Justice.

process of determining the possible risks of reoffending among youths who have come into contact with the justice system, and to assist in the development of individualized treatment options based on youths' identified needs. Although risk/needs assessments attempt to take some discretion and subjectivity out of the justice system and incorporate important factors that have been shown through research to be strongly associated with delinquent or problem behaviors, there are still some important limitations to these assessments that should be taken into account.

It is critical for policymakers and practitioners to be aware of these limitations, and to consider them when selecting and implementing risk/needs assessment tools. For instance, it is important to ensure there is no measurement bias present in a risk/needs assessment that may result in different predictions of reoffending depending upon youths' race/ethnicity, gender, age, or other demographic characteristics (Vincent, Guy, and Grisso 2012).

Another significant concern is that the use of risk/needs assessments may contribute to the racial disparities and disproportionate minority contact (DMC) observed in the juvenile justice system. Static risk factors, such as prior criminal history or prior offenses, are included in risk/needs assessments as indicators of past offending behavior. However, research on DMC in the juvenile justice system has shown that minority youths are more likely to come into contact with and remain in the juvenile justice system, compared with white youths (Huizinga et al. 2007) (for more information on racial/ethnic disparities in the juvenile justice system, see the Model Programs Guide literature review on [Disproportionate Minority Contact](#)). Furthermore, Thompson and McGrath (2012) argued that certain "socially constructed identifiers" (such as race, ethnicity, gender, age, and socioeconomic status) can influence the processing of youths in the juvenile justice system, including what offenses youths are charged with, what diversionary options may (or may not) be available to them, and what offenses they are convicted of. Therefore, prior offenses may reflect a juvenile's past behavior *or* could be an indication of the justice system's unequal response to offending behavior of different racial groups (Jannetta, Breaux, and Ho 2014; National Research Council 2013).

Consequently, the number of prior arrests or prior adjudications that are considered by practitioners when administering a risk/needs assessment could impact the predicted risk level of youths and may result in youths being incorrectly classified into a higher risk level. Because of the various other factors that may affect the assessment of risk, the classification into a higher risk level could be a reflection of which youths are more likely to come into contact with the justice system again, and not necessarily which youths are more likely to reoffend. A 2013 report from the National Research Council explains:

These instruments thus provide estimates of the likelihood of detection, apprehension, and prosecution for illegal acts, not involvement in illegal activity. Given the well-documented patterns of selective law enforcement, gender differences in processing, and disproportionate minority contact (DMC), this means that risk/needs instruments might be conflating risk with ongoing biases in the juvenile justice system and enforcing the status quo in juvenile justice processing (p. 148).

However, as the report notes, further research on this particular issue and other possible unintended consequences of using risk/needs assessments is needed in the field (National Research Council 2013).

In addition, the research on risk/needs assessments for juvenile offenders is limited when compared with adult offenders. Many of the assessment tools were initially developed for adults and later modified for juveniles. Although the literature on juvenile risk/needs assessments has grown, some of the research is limited by issues such as small sample sizes and questions with regard to external

validity (i.e., an assessment tool may have differential validity in different jurisdictions) [Hannah-Moffat and Maurutto 2003].

## Definitions

There are several different components and factors involved in risk/needs assessments.

In the context of risk/needs assessment, *risk* refers to the likelihood that a youth will recidivate, reoffend, or continue to engage in delinquent behavior over a specific period of time (Schwalbe 2008). Risk/needs assessments are generally administered to youths who have come into contact with the juvenile justice system (i.e., the youths have been arrested or adjudicated for an offense).

*Risk factors* are characteristics of a youth or the environment surrounding the youth that increase the likelihood of engaging in delinquency. Risk factors are variables associated with problem behaviors (specifically, delinquent offending or violence). Some examples of risk factors are early onset of aggressive behavior; patterns of high family conflict; school-related problems such as truancy; gang involvement; and availability of drugs or firearms in the neighborhood (see the Model Programs Guide literature review on [Risk Factors](#)).

There are two types of risk factors: *static* and *dynamic*. *Static risk factors* are those historical characteristics of juveniles that cannot be changed through treatment or programming, such as the age at which the first offense was committed, history of violent behavior, and parental criminality. *Dynamic risk factors* are characteristics that can change over time, because of treatment or the normal developmental process (Vincent, Guy, and Grisso 2012). Some examples are poor parenting practices, substance misuse, association with delinquent peers, and poor academic achievement.

*Criminogenic needs factors* are related to dynamic risk factors and refer to characteristics of the youth that, when changed, are associated with changes in risk of reoffending (Vincent, Guy, and Grisso 2012). For example, substance use is a risk factor but can also be a criminogenic needs factor if a youth's substance use is related to his or her delinquent behavior. If that youth's substance use is targeted and treated properly, his or her risk to reoffend should be reduced. There are also characteristics known as *noncriminogenic needs factors*. These are dynamic risk factors that may indicate a need for treatment or programming for the youth; however, they are not related to delinquent behavior. Low self-esteem is a prime example of a noncriminogenic factor. Although a youth's low self-esteem may suggest a need for counseling, it is not a risk factor for delinquency, and changing a youth's self-esteem level will not change the likelihood of reoffending (Vincent, Guy, and Grisso 2012).

*Protective factors* are characteristics of the youth or the environment surrounding the youth that interact with risk factors to reduce the odds of involvement in delinquent or criminal activities. Some examples of protective factors are the presence of caring and supportive adults in the community and at school; having a stable family; and having a positive/resilient temperament (see the Model Programs Guide literature review on [Protective Factors](#)). Some risk/needs assessment tools take a more strengths-based approach by considering the presence of protective factors when estimating a youth's level of risk (Vincent, Guy, and Grisso 2012).

*Responsivity factors* may also be considered in risk/needs assessments. They are noncriminogenic factors that should *not* be considered when estimating the level of risk but which are important to consider when determining appropriate treatment and services for the youth. They are factors that may affect a youth's ability to respond to treatment and programming, such as motivation to change, cognitive functioning, and access to transportation (Vincent, Guy, and Grisso 2012).

## Theoretical Foundation

Most risk/needs assessments are guided by the principles of the Risk-Need-Responsivity (RNR) framework. The risk principle suggests that the level of service should match the risk level of the offender, so that the highest-risk offenders receive the most intensive services and surveillance. The need principle emphasizes targeting criminogenic needs factors that are associated with criminal or delinquent behavior. The responsivity principle suggests that treatment and interventions should be guided by characteristics of the offender that may affect his or her ability to respond and change (such as learning style or motivation) [Andrews, Bonta, and Hoge 1990; Vincent, Guy, and Grisso 2012].

## Approaches to Administering Risk/Needs Assessments

There are two approaches to administering risk/needs assessments: the *actuarial approach* and the *structured professional judgment approach*. The actuarial approach involves scoring items related to reoffending from an assessment tool, then weighting and summing the items. A statistical formula is then used to calculate a total risk score. The risk score is cross-referenced with an actuarial table that provides an estimate of risk over a specified timeframe, such as 5 or 10 years. The estimate is based on the number of individuals who received the same risk score and recidivated during the development of the assessment tool. As Desmarais and Singh explain:

[I]f an offender receives a score of +5 on an instrument which is translated into a risk estimate of 60 percent over 10 years, this means that 60 percent of those individuals who received a score of +5 in the instrument's original study went on to recidivate within that time. This does not mean that the offender has a 60 percent chance of recidivating over a period of 10 years." [2013, 5]

There is usually little room for practitioners and professionals to use their discretion when calculating risk using the actuarial approach, though there may be an override option available (NIJ and OJJDP 2014; Vincent, Guy, and Grisso 2012).

Under the structured professional judgment approach, practitioners consider risk factors that are related to delinquency or reoffending as well as other factors that may be unique to the juvenile being assessed. The practitioner determines what risk factors to consider and how they should be measured, and then categorizes the level of risk. The process involves more discretion when estimating risk (NIJ and OJJDP 2014; Vincent, Guy, and Grisso 2012). A total risk score may be calculated, but when making a final judgment, the practitioner administering the assessment can consider the relevance of items to an individual youth as well as any other factors specific to the youth that may not be on the list (Desmarais and Singh 2013).

## Risk Levels

Risk/needs assessments generally categorize youth into one of three levels of risk: *low risk*, *moderate risk*, or *high risk*. *Low risk* means youths are unlikely to reoffend or engage in delinquent behavior in the near future. Generally, youths who are low risk do not need the number of services or the supervision that moderate- or high-risk youths may require. However, "low risk" does not indicate "no risk." Youths who are categorized as low risk are unlikely to recidivate, but there is still a chance they could commit a crime or delinquent act (Vincent, Guy, and Grisso 2012).

Conversely, youths who are *high risk* are those with a greater likelihood of committing a crime or reoffending in the near future if they do not receive appropriate services and supervision. *Moderate risk* is neither low nor high risk. It is unclear whether moderate-risk youths require the same services and supervision as high-risk youths, but they may need more attention than low-risk youths (Vincent, Guy, and Grisso 2012).

The three risk categories do not provide specific probabilities that youth will reoffend. The terms are relative, meaning juveniles are considered at a specific risk to recidivate when compared with other juveniles in similar situations. For example, a juvenile offender categorized as high risk during disposition is at greater risk to recidivate when compared with a low-risk juvenile offender in the disposition stage (Vincent, Guy, and Grisso 2012).

## Examples of Risk/Needs Assessments

There are several different risk/needs assessments available to juvenile justice practitioners. Some assessments target the general population of juvenile offenders, whereas others center on estimating risk for specific juvenile populations (such as juvenile sex offenders) or specific delinquent or offending behaviors (such as violent offending). When looking at the various types of risk assessment tools used in juvenile justice systems across the United States, Watcher (2014) found that there were more than 20 different tools being implemented statewide. Below are three examples of risk/needs assessments that illustrate the variety of formats that assessment tools can take. The Youth Level of Services/Case Management Inventory (YLS/CMI) is an example of an assessment instrument that estimates a youth's risk of recidivating and need for services based on a variety of factors. The Youth Assessment and Screening Instrument (YASI) is an example of an instrument that includes a Prescreen section that identifies moderate- or high-risk youths, who are then administered the full assessment. The Structure Assessment of Violence Risk in Youth (SAVRY) is an example of an assessment designed to estimate the risk of youth committing a specific offending behavior (in this instance, violent acts).

*Youth Level of Service/Case Management Inventory.* The YLS/CMI is a 42-item risk/needs assessment measure developed specifically for youth. It was designed to assess a juvenile offender's risk level, identify criminogenic needs that may be targeted by treatment or program services, and inform decisions regarding community supervision and case management (Bechtel, Lowenkamp, and Latessa 2007; Olver and Stockdale 2012). The YLS/CMI is based on measures from the Level of Service Inventory, which is a risk/need assessment for adults that links offender risk assessment, treatment, and case management. The assessment measures eight domains associated with a juvenile offender's criminogenic risk and needs, including prior and current offenses/adjudications; family circumstances and parenting issues; education and employment; peer relations; substance abuse; leisure and recreation; personality and behavior; and attitudes and orientation. The total score ranges from 0 to 42. A score of 0 to 8 classifies youth as low risk, a score from 9 to 22 classifies youth as moderate risk, a score of 23 to 34 classifies youth as high risk, and a score of 35 to 42 classifies youth as very high risk (Bechtel, Lowenkamp, and Latessa 2007).

*Youth Assessment and Screening Instrument.* The YASI is a risk, needs, and strengths assessment tool developed for use in a juvenile justice setting. The Prescreen version of YASI includes 33 static and dynamic items that classify a youth's level of risk as low, moderate, or high. The Prescreen also provides an overall protective factor rating of low, moderate, and high. Youths classified as moderate or high risk are administered the Full Assessment. The Full Assessment consists of 88 items across 10 domains: legal history, family, school, community and peers, alcohol and drugs, mental health, aggression/violence, attitudes, skills, and employment/use of free time (Baird et al. 2013). The YASI assessment is based on reviewing the juvenile's official criminal record, conducting a semistructured interview with the youth, and looking at any information from additional sources such as family, service agencies, police, and school officials (Orbis Partners, Inc., 2011).

*Structure Assessment of Violence Risk in Youth.* The SAVRY is a risk assessment designed to assess violence risk in adolescents. It includes 24 items in three risk domains: historical risk factors,

social/contextual risk factors, and individual/clinical factors. All of the risk items are rated on a three-point scale. The SAVRY also includes six protective factor items, which are rated as present or absent. Some of the items included on the SAVRY are violence history, poor school achievement, peer delinquency, risk taking/impulsivity, and substance abuse (Meyers and Schmidt 2008). SAVRY uses a structured professional judgment approach and guides practitioners to make informed decisions about a juvenile's risk for future violence or violent offending (low, moderate, or high). The SAVRY also identifies dynamic risk factors that can help guide treatment and intervention planning (Meyers and Schmidt 2008).

## Outcome Evidence

Risk/needs assessments are studied using methods different from those used to examine the effectiveness of programs or interventions. The validity and reliability of the assessments are important to ensure that the estimated levels of risk and treatment needs of youth are accurate and appropriate.

Interrater-reliability testing ensures that different practitioners would reach the same conclusions about a youth's risk level when assessing the same case information (Baird et al. 2013). Interrater reliability measures the consistency among different practitioners administering an assessment instrument and can be examined by looking at different standardized measures of agreement, such as a kappa value or intraclass correlation coefficient.

Validity is the extent to which a risk/needs assessment measures what it is supposed to measure. The classification of a youth's level of risk should be measured with items related to recidivism. Examining the predictive validity is important to ensure that a juvenile's risk is accurately categorized as low, moderate, or high (Baird et al. 2013). Similarly, studying the equity of risk/needs assessment is also important to make sure that all youths are assessed uniformly and that some youths are not unfairly assessed because of factors such as gender or race/ethnicity (Baird et al. 2013).

A study conducted by the National Council on Crime & Delinquency evaluated commonly used risk assessments in juvenile justice by examining their predictive validity, reliability, equity, and cost (Baird et al. 2013). Some of the evaluated instruments were the YASI, the YLS/CMI, and the Positive Achievement Change Tool. With regard to interrater reliability, the results showed a high percentage of agreement among workers administering the assessment instruments. Static risk factors, such as prior delinquency history, showed higher levels of interrater agreement than dynamic factors, especially for more subjective measures such as youth attitudes. There were mixed results with regard to the validity and equity of the risk assessments. Some assessment instruments were shown to be very accurate at categorizing juvenile cases as low, moderate, and high risk, whereas others did not provide a distinction among the risk categories. The authors of the evaluation suggested that "limiting factors on a risk assessment to those with a strong, significant relationship to outcomes will result in a more accurate risk classification" (Baird et al. 2013, iv) and that instruments using a straightforward actuarial approach generally do better than those with more complicated approaches.

## Conclusions

Risk/needs assessments are important tools to help juvenile justice practitioners assess, classify, and treat juvenile offenders. There are some aspects of risk/needs assessments that policymakers and practitioners should consider when selecting an appropriate instrument to implement. For instance, to reduce juveniles' likelihood of committing future crimes or delinquent acts, risk/needs assessments should center on factors that are strongly associated with reoffending (Flores, Travis, and Latessa 2003). Risk/needs assessments should be well designed, validated, reliable, and based on principles identified

through research as important to reducing offenders' recidivism and ensuring public safety, such as the RNR framework (Andrews, Bonta, and Hoge 1990; Pew Center on the States 2011).

Moreover, even if an assessment instrument is shown to have high predictive validity, interrater reliability, and equity, it is important to note that there is no one-size-fits-all assessment tool available (Pew Center on the States 2011). There are still limitations to their use, and the particular population of juvenile offenders that will be assessed by the instrument should be taken into account, as not all risk/needs assessments predict risk accurately for all populations. For example, assessments may (via inherent bias of the instrument or a complicated mixture of social and individual factors) perpetuate the disproportionate contact of racial minorities or inaccurately assess certain offending groups, such as juvenile sex offenders. Juvenile sex offenders should be evaluated with a psychological evaluation or specialized risk assessment, such as the Juvenile Sex Offender Assessment Protocol II. Juveniles who commit sexual offenses may score low on some risk/needs assessments with regard to risk of general reoffending, whereas their risk of sexual reoffending is actually high but not captured on the assessment tool (Vincent, Guy, and Grisso 2012).

For more information about selecting and implementing risk/needs assessments for juvenile populations, please see the guidebook developed by Models for Change titled [Risk Assessment in Juvenile Justice: A Guidebook for Implementation](#) (Vincent, Guy, and Grisso 2012).

## References

- Andrews, Donald A., James Bonta, and Robert D. Hoge. 1990. "Classification for Effective Rehabilitation: Rediscovering Psychology." *Criminal Justice and Behavior* 17:19–52.
- Baird, Chris, Theresa Healy, Kristen Johnson, Andrea Bogie, Erin Wicke Dankert, and Chris Scharenbroch. 2013. *A Comparison of Risk Assessment Instruments in Juvenile Justice*. U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention (OJJDP).
- Bechtel, Kristin, Christopher T. Lowenkamp, and Edward J. Latessa. 2007. "Assessing the Risk of Reoffending for Juvenile Offenders Using the Youth Level of Service/Case Management Inventory." *Journal of Offender Rehabilitation* 45(3/4):85–108.
- Desmarais, Sarah L., and Jay P. Singh. 2013. *Risk Assessment Instruments Validated and Implemented in Correctional Settings in the United States*. Washington, D.C.: Council of State Governments, Justice Center.
- Flores, Anthony W., Lawrence F. Travis, and Edward J. Latessa. 2003. *Case Classification for Juvenile Corrections: An Assessment of the Youth Level of Services/Case Management Inventory*. Cincinnati, Ohio: University of Cincinnati, Division of Criminal Justice, Center for Criminal Justice Research.
- Hannah-Moffat, Kelly, and Paula Maurutto. 2003. *Youth Risk/Need Assessment: An Overview of Issues and Practices*. Toronto, Ontario: University of Toronto, Department of Sociology.  
[http://www.justice.gc.ca/eng/rp-pr/cj-jp/yj-jj/rr03\\_yj4-rr03\\_jj4/rr03\\_yj4.pdf](http://www.justice.gc.ca/eng/rp-pr/cj-jp/yj-jj/rr03_yj4-rr03_jj4/rr03_yj4.pdf)
- Holder, Eric. 2014. "Attorney General Eric Holder Speaks at the National Association of Criminal Defense Lawyers 57th Annual Meeting and 13th State Criminal Justice Network Conference." Philadelphia, Pa., Aug. 1. <http://www.justice.gov/iso/opa/ag/speeches/2014/ag-speech-140801.html>

- Huizinga, David, Terence Thornberry, Kelly Knight, and Peter Lovegrove. 2007. *Disproportionate Minority Contact in the Juvenile Justice System: A Study of Differential Minority Arrest/Referral to Court in Three Cities*. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, OJJDP.
- Jannetta, Jesse, Justin Breaux, and Helen Ho. 2014. "Could Risk Assessment Contribute to Racial Disparity in the Justice System?" MetroTrends Blog, Urban Institute. [http://blog.metrotrends.org/2014/08/risk-assessment-contribute-racial-disparity-justice-system/?utm\\_source=iContact&utm\\_medium=email&utm\\_campaign=UI%20Update&utm\\_content=August+2014+-+3rd+Thursday](http://blog.metrotrends.org/2014/08/risk-assessment-contribute-racial-disparity-justice-system/?utm_source=iContact&utm_medium=email&utm_campaign=UI%20Update&utm_content=August+2014+-+3rd+Thursday), Aug. 11.
- Meyers, Joanna R., and Fred Schmidt. 2008. "Predictive Validity of the Structured Assessment for Violence Risk in Youth With Juvenile Offenders." *Criminal Justice and Behavior* 35(3):344-55.
- NCCD (National Council on Crime & Delinquency). 2014. *NCCD Compares Juvenile Justice Risk Assessment Instruments: A Summary of the OJJDP-Funded Study*. San Diego, Calif.
- NIJ and OJJDP (National Institute of Justice and Office of Juvenile Justice and Delinquency Prevention). 2014. *Prediction and Risk/Needs Assessment*. Justice Research. Washington, D.C.
- National Research Council. 2013. *Reforming Juvenile Justice: A Developmental Approach*. Richard J. Bonnie, Robert L. Johnson, Betty M. Chemers, and Julie A. Schuck (eds.). The Committee on Assessing Juvenile Justice Reform. Washington, D.C.: The National Academies Press.
- Olver, Mark E., and Keira C. Stockdale. 2012. "Short- and Long-Term Prediction of Recidivism Using the Youth Level of Service/Case Management Inventory in a Sample of Serious Young Offenders." *Law and Human Behavior* 36(4):331-44.
- Orbis Partners, Inc. 2011. *Validation of the Youth Assessment and Screening Instrument for Use by the Vermont Department for Children and Families*. Ottawa, Ontario.
- Pew Center on the States. 2011. *Risk/Needs Assessment 101: Science Reveals New Tools to Manage Offenders*. Washington, D.C.
- Schwalbe, Craig S. 2008. A Meta-Analysis of Juvenile Justice Risk Assessment Instruments: Predictive Validity by Gender." *Criminal Justice and Behavior* 35(11):1367-81.
- Thompson, Anthony P., and Andrew McGrath. 2012. "Subgroup Differences and Implications for Contemporary Risk-Need Assessment with Juvenile Offenders." *Law and Human Behavior* 36(4):345-55.
- Vincent, Gina M., Laura S. Guy, and Thomas Grisso. 2012. *Risk Assessment in Juvenile Justice: A Guidebook for Implementation*. New York, N.Y.: Models for Change. <http://modelsforchange.net/publications/346>
- Watcher, Andrew. 2014. *Statewide Risk Assessment in Juvenile Probation*. JJGPS StateScan. Pittsburgh, Pa.: National Center for Juvenile Justice.