

Name of Tool	Inventory of Offender Risk, Needs and Strengths (IORNS)
Category	General Risk Assessment (Awaiting Validation)
Author / Publisher	Miller
Year	2006

### Description

- The IORNS is a self-report actuarial measure used for the assessment of static risk, dynamic needs and protective strength factors in relation to reoffending, treatment needs and management in adults ([Miller, 2018](#)).
- There are 130 items in total providing 4 indexes: a static risk index (SRI) of historical (unchanging) items related to offending behaviour and recidivism; dynamic need index (DNI), targeting specific areas of risk related to offending behaviour; protective strength index (PSI), examining factors to promote resilience. All of these are calculated to produce a composite score in the form of the overall risk index (ORI) ([Miller, 2018](#); [Ullrich and Coid, 2011](#)).

### Age Appropriateness

Men: 18-75; Women: 18-60

### Assessor Qualifications

Can be administered by persons who do not have training in forensic or clinical psychology or psychiatry, with supervision and interpretation by a licensed or certified professional.

### Tool Development

- [Miller \(2006\)](#) found that those who served longer custodial sentences and had more arrests for non-violent offences had higher composite scores in the IORNS than those who served shorter prison sentences and had fewer arrests for non-violent offences.
- [Bergeron and Miller \(2013\)](#) found that the measurement properties of the dynamic needs index (DNI) are acceptably invariant over time. There was also evidence that the intercept of alcohol/drug problems scale is higher before treatment and the intra/interpersonal problems scales are higher before treatment.
- A study by [Miller \(2015\)](#) found that the likelihood of reoffending increased when those who had committed sexual offences increased their favourable impression on the IORNS. The conclusion was reached that self-perceived protective strengths were significantly predictive of recidivism for general, sexual and violent offending.

### General Notes

- Since it is a self-reported measure, the scores of needs, risk and strengths are all the individual's own perception ([Miller, 2015](#)).
- Treatment providers and evaluators can infer from the IORNS scores possible hypotheses around problem areas, needs and treatment progress ([Miller, 2018](#)).
- The IORNS includes two validity scales: the 'Inconsistent response style' (IRS), checking for consistency between answers; the 'favourable impression scale' to determine whether the individual was trying to portray themselves positively ([Miller, 2018](#)).
- The creator cautions that the IORNS is not meant to be an actuarial tool ([Miller, 2018](#)).

Name of Tool	Oxford Risk of Recidivism Tool (OxRec)
Category	General Risk Assessment (Awaiting Validation)
Author / Publisher	Fazel, Change, Fanshawe, Långström, Lichtenstein, Larsson and Mallett
Year	2016

### Description

- This tool is designed to predict violent reoffending in individuals being released from prison after 1 or 2 years ([Fazel et al., 2016](#)).
- Fourteen variables are included in the tool: gender, age, immigrant status, length of incarceration, violent index offence, previous violent offence (before index offence), neighbourhood deprivation, income level, mental disorders, civil status, highest education, employment, disposable income, neighbour deprivation scale, alcohol abuse, drug abuse, any mental disorder, any severe mental disorder ([Fazel et al., 2016](#)).
- Violent offences within this tool refer to homicide, assault, robbery, arson, any sexual offence (rape, sexual coercion, child molestation, indecent exposure or sexual harassment), illegal threats or intimidation ([Fazel et al., 2016](#)).
- Socioeconomic deprivation is defined via a standardised, normalised score, including rates of welfare reciprocity, unemployment, poor education, crime rates and median income in an individual's residential area ([Fazel et al., 2016](#)).
- The tool categorises individuals into three level of risk: low, <10% risk; medium, 10-50% risk; high, >50%. If one or more of the variables are set to 'unknown,' then a range of risk levels are displayed ([Fazel et al., 2016](#)).

### Age Appropriateness

16+

### Assessor Qualifications

Although no specific training or qualifications are required to use the tool, appropriate application and scoring of cases requires the judgment of criminal justice or healthcare professionals.

### Tool Development

- The variables considered for inclusion were drawn from the existing evidence of criminal history and sociodemographic and clinical factors ([Chang et al., 2015](#); [Fazel et al., 2012](#)).
- A fourteen item tool was derived using Swedish population registers (sample size=37,100) and externally validated on a sample of 10,226 individuals. Risk of violent reoffending at the 1 year time point indicated a sensitivity of 76% and a specificity of 61%. At 2 years, the sensitivity and specificity were 67% and 70% respectively. The external validation model displayed good discrimination for violent reoffending within 1 year (AUC=0.75) and 2 years (AUC=0.76) after prison release. Good

calibration was also evident for violent reoffending at 1 and 2 years after prison release, with Brier scores of 0.095 and 0.108 respectively ([Fazel et al., 2016](#)).

- OxRec has recently been validated in a national sample of individuals who have offended in the Netherlands; although the model required recalibration prior to use. This showed moderate discrimination with an AUC of 0.68 for 2 year violent reoffending and 0.69 for any reoffending in the prison cohort. Adequate calibration scores were also shown ([Fazel et al., 2019](#)).

### General Notes

- OxRec takes around 10 to 15 minutes to complete, relies on mostly routinely collected information, is freely available and does not require any formal training ([Fazel et al., 2019](#)).
- The authors indicate that criminal justice, forensic and healthcare professionals might take different approaches to using such a tool. Prison healthcare may use it to treat prisoners before their release or by probation services or case workers to plan sentencing and release arrangements ([Fazel et al., 2016](#)).
- In terms of timing, OxRec could be used towards the end of prison sentences to assist with post-release management of risk, including linkage with community addition and mental health services ([Fazel et al., 2016](#)).
- Some items of the OxRec are not easily generalizable to other countries and may require modification (e.g. neighbourhood deprivation score) ([Fazel et al., 2019](#)).
- This tool has only been validated in Sweden and the Netherlands thus far ([Fazel et al., 2016](#); [Fazel et al., 2019](#)). Other validations are in progress.
- OxRec is available in English, Swedish, Greek, French and Chinese versions.
- The tool is freely available online: <https://oxrisk.com/oxrec/>

Name of Tool	Self-Appraisal Questionnaire (SAQ)
Category	General Risk Assessment (Awaiting Validation)
Author / Publisher	Loza
Year	1996

### Description

- The SAQ is a 72-item actuarial self-report assessment consisting of true and false questions. The purpose of it is to predict violent and non-violent recidivism among adults who have offended ([Mitchell, Caudy and Layton, 2012](#)).
- These 72 items are spread across seven subscales included in the assessment: (1) Criminal Tendencies (antisocial attitudes, beliefs, feelings and behaviours); (2) Antisocial Personality Problems, looking at characteristics similar to those covered in antisocial personality disorder; (3) Conduct Problems (assesses childhood behavioural issues); (4) Offender’s criminal history; (5) Alcohol and drug abuse; (6) Antisocial Associates. These six subscales are used to predict recidivism. There is an Anger subscale, measuring reactions to anger; however, this is not included in the total score because of the controversial relationship between anger and recidivism. This scale is instead used to assign individuals to treatment programmes dealing with anger. Also included is a Validity subscale for validating an individual’s truthfulness in responding to SAQ Items ([Loza, 2018](#)).
- Of the 72 items presented in the assessment, only 62 items are used to predict recidivism. The remainder of statements may assist with determining issues such as substance abuse and personality disorders. Risk is classified as ‘low’, ‘low-moderate,’ ‘moderate,’ ‘high-moderate’ and ‘high’ ([Loza, 2018](#)).
- The SAQ could potentially be used to determine the most appropriate treatment program, e.g. if an individual who has offended has a high score on the SAQ anger sub-scale, an anger management program could be offered to them ([Loza, 2018](#)).

### Age Appropriateness

18+

### Assessor Qualifications

The SAQ can be administered by a variety of forensic professionals: psychologists, psychiatrists, parole officers, behavioural technologists, nurses and others trained in administering psychological tests or questionnaires. A minimum of The assessor should have graduate-level training and qualifications in administering other similar tests and measures. ([Loza, 2018](#)).

### Tool Development

- The SAQ was initially developed to cover the main themes found in the recidivism literature (most prominently featured in anti-social theories) (Loza, 1996).

- [Loza, Loza-Fanous and Heseltine \(2007\)](#) in a 9 year follow-up study, the SAQ demonstrated a sensitivity of 59% for non-violent recidivism and 70% for violent recidivism. It was also found that the SAQ had a specificity of 74% for non-violent recidivism and 62% for violent recidivism.
- Mitchell and Mackenzie (2006) found that the SAQ was unable to predict recidivism in high-risk individuals with drug offences. However the findings of this study have been disputed by the author of the SAQ on the grounds of limitations in the methodology, statistical analyses and sample selection (see Dhaliwal, Loza and Reddon, 2007).
- [Loza et al. \(2005\)](#) found moderate predictive accuracy (AUC =.70) in relation to re-incarceration in a sample of females. No significant differences were found between the responses of African American individuals compared to Caucasian ones.
- [Hemmati \(2004\)](#) in a sample of individuals aged between 12 and 20 years, significant differences were found between violent and non-violent individuals on the SAQ total scores.
- [Villeneuve, Oliver and Loza \(2003\)](#) found the composite SAQ scores were significantly higher in the high-risk psychiatric sample when compared to general correctional individuals with no history of major psychiatric illness. Moderate to large correlations ranging from .28 to .50 were found for violent recidivism, general recidivism, 'new sentence' and 'any failure'.
- [Mitchell, Caudy and Layton \(2012\)](#) found that the SAQ total score yielded a modest prediction of reconviction, accurately predicting this for circa 63% of all possible pairs of individuals.
- [Kubiak et al. \(2014\)](#) assessed the usefulness of the SAQ with a sample of 534 incarcerated females. Whilst self-reported violence was considered to be a strong predictor of SAQ scores, many of the women in the most violent group did not reach the cut-off points in their scoring. To that end, the authors suggest that the scoring thresholds are modified for females in order to adequately assess their treatment needs.
- A study of 125 males in South Africa found that the SAQ produced reliable scores, suggesting it is appropriate for application in this country ([Prinsloo and Hesselink, 2011](#)).
- [Rodrigues and colleagues \(2016\)](#) applied the SAQ to 121 males within a correctional facility for mental health issues. It was found that the tool significantly predicted general recidivism (AUC=.74) and predicted institutional aggression (includes threats, verbal aggression or assault) (AUC=.61).
- [Andreau-Rodriguez, Peña-Fernández and Loza \(2016\)](#) administered the SAQ to 276 individuals in Spain to test its ability to measure recidivism. Recidivism in this study was defined as a second or subsequent entry in prison by the same person for committing a violent crime in the community. The SAQ showing acceptable accuracy in discriminating between violent and non-violent recidivists, with the total score generating an AUC of .80.

### General Notes

- Majority of research has been conducted or co-authored by the author of the SAQ assessment; although some international studies have emerged in recent years.
- The SAQ showed moderate correlations with the PCL-R and VRAG total scores, suggesting a degree of concurrent validity (assessing measures to see if they produce similar results) ([Andreau-Rodriguez, Peña-Fernández, and Loza, 2016](#)).
- For the most accurate predictions, [Mitchell, Caudy and Layton \(2012\)](#) advised using the SAQ total scores with those generated by age and number of prior arrests.

Name of Tool	Women's Risk/Needs Assessment
Category	General Risk Assessment (Awaiting Validation)
Author / Publisher	National Institute of Corrections/University of Cincinnati (NIC/UC)
Year	2011

### Description

- The Women's Risk/Needs Assessment is designed to assess both gender-neutral (e.g. criminal history) and gender-responsive (e.g. self-efficacy) factors in females who have offended ([Van Voorhis, Bauman and Brushett, 2012](#)). The gender-responsive factors are: relationship support and conflict, parental involvement and stress, self-efficacy, prior physical and sexual trauma, housing, safety, mental health and anger/hostility. The gender-neutral items are: past and current substance abuse, criminal history, employment and financial stability, educational strengths and needs and antisocial attitudes ([Beppre and Salisbury, 2016](#)).
- The current assessments include; (1) the full instrument, Women's Risk/Needs Assessment which contains separate forms for pre-release, probation, prison settings and (2) the Women's Supplemental Risk/Needs Assessment ('Trailer') which is designed to supplement existing gender-neutral risk/need assessments such as the Level of Service Inventory (LSI) ([Van Voorhis, Bauman and Brushett, 2013](#)).
- The Trailer is not a screening version of the full assessment, rather, it is solely comprised of the gender-responsive factors contained within the full assessment which is used to supplement other validated risk assessment tools ([Van Voorhis, Bauman and Brushett, 2013](#)).
- As part of the assessment, individuals are interviewed. After that, they complete a self-report survey assessing additional gender-responsive factors ([Brushett, 2013](#)).

### Age Appropriateness

18+

### Assessor Qualifications

No assessor qualifications specified at present.

The University of Cincinnati Corrections Institute offers a 3 day training course in the administration of the WRNA and a 1 day booster course for those who have already the training which is customised for each individual site through survey feedback. Training courses are also offered in training the trainers, agency-wide training and quality assurance. Web-based individualised orientation and consulting sessions are available to agencies interested in learning more about the adoption of the WRNA.

### Tool Development

- The assessment is based on prior literature relating to the trajectories of offending in female populations ([Wright, Salisbury and Van Voorhis, 2007](#); [Van Voorhis et al., 2010](#)).
- The tool forms a response to the issues raised within the literature in terms of the gender-specific factors that increase the likelihood of offending in females: histories of victimisation and abuse, relationship problems, mental health issues, substance abuse, self-efficacy/confidence, poverty and parental stress ([Van Voorhis et al., 2010](#)).
- Many of the items contained in the assessments were developed by the members of the Women's Issues Committee of the Missouri Department of Corrections in collaboration with researchers at the University of Cincinnati ([Van Voorhis et al., 2008](#)).
- The gender-neutral factors are based on existing risk assessments such as the LSI.
- Preliminary studies have investigated the construction and validation of the items presented within the tool ([Van Voorhis et al., 2010](#); [Wright, Salisbury and Van Voorhis, 2007](#)).
- [Wright, Salisbury and Van Voorhis \(2007\)](#) - low to moderate associations found (correlations coefficients ranging from  $r=0.9$  to  $r=.20$ ) between the composite and subscale and item scores with institutional misconduct amongst incarcerated females. Moreover, their results showed that gender-responsive needs ( $r=.27$  to  $r=.34$ ) in some cases performed slightly better than gender-neutral ones ( $r=.23$  to  $r=.33$ ) when predicting institutional misbehaviour.
- The WRNA-T improved the predictive validity of the LSI-R by providing a means for screening the gender-responsive needs documented in the LSI-R. AUCs ranged from .55 to .77 for six months and .79 for 12 months for the LSI-R on its own. When the WRNA-T was added, predictive validity improved from .55 to .77 for outcomes at six months and .59 to .80 for twelve month outcomes ([Van Voorhis, Bauman and Bruschetti, 2013](#)).

#### General Notes

- The aim of this tool is to provide a structured assessment that will identify and link women to meaningful programs and services ([Van Voorhis et al., 2010](#)).
- Current use of the assessment requires a written agreement with the University of Cincinnati's Office of Intellectual Property (Bauman, personal communication, February 2012).
- [van Voorhis, Bauman and Bruschetti \(2013\)](#) found that the use of the WRNA-T to supplement the LSI-R in Rhode Island made it a stronger predictor of risk.
- For further information, please visit <http://www.uc.edu/womenoffenders.html> or e-mail enquiries to Ashley Bauman ([ashley.bauman@uc.edu](mailto:ashley.bauman@uc.edu)) or John Schwartz ([john.schwartz@uc.edu](mailto:john.schwartz@uc.edu)).