A Five-Level Risk and Needs System:
Maximizing Assessment Results in Corrections through the Development of a Common Language

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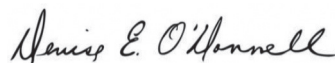The Council of State Governments Justice Center

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Since 2009, the Bureau of Justice Assistance (BJA) has supported the National Reentry Resource Center (NRRC) to serve as the primary source of information and guidance in reentry, advancing the use of evidence-based practices and policies and creating a network of practitioners, researchers, and policymakers invested in reducing recidivism.

This white paper represents the culmination of two years of work undertaken as a special project of the NRRC. Initially aimed at improving the communication among justice practitioners and policymakers regarding risk information, a cornerstone of evidence-based practice, the collaborators made great advances over the course of the project, arriving at a thought-provoking framework for how to improve application of the Risk-Need-Responsivity (RNR) principles of evidence-based correctional intervention.

BJA is proud to have supported the development of this white paper, which we believe has the potential to improve justice system outcomes. Although much work remains—including pilot testing the model and tracking its impacts—we are hopeful that this paper can help move us all toward a "common language" of risk.

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Acknowledgments

Introduction

Risk and needs assessments are now routinely used in correctional systems in the United States to estimate a person's likelihood of recidivism and provide direction concerning appropriate correctional interventions.[1] Specifically, they inform sentencing, determine the need for and nature of rehabilitation programs, inform decisions concerning conditional release, and allow community supervision officers to tailor conditions to a person's specific strengths, skill deficits, and reintegration challenges. In short, risk and needs assessments provide a roadmap for effective correctional rehabilitation initiatives. When properly understood and implemented, they can help correctional organizations to provide the types and dosages of services that are empirically related to reductions in reoffending.[2]

Despite considerable advances in risk and needs assessment, however, the widespread use of a variety of risk and needs assessment instruments has created new challenges. Foremost, how do we compare the results of assessments conducted with different instruments? Although all of these instruments are trying to measure risk and needs, each instrument is unique in that it may comprise varying factors and weight those factors differently from other instruments. Furthermore, the field has not set standards or specifications about the terminology used to describe risk and needs categories across all of these instruments.[3] Although some risk and needs instruments use three nominal risk and needs categories (low, moderate, high), others use four nominal categories (low, low-moderate, moderate-high, high), and still others use five (low, low-moderate, moderate, moderate-high, high). Some instruments use different terms entirely (e.g., poor, fair, good, very good).[4]

Complicating matters further, there are no standard definitions of these nominal risk and needs categories, so "low risk," for example, might have different definitions from one instrument to the next. As such, the field of assessment and risk research struggles with perhaps its most significant obstacle: the absence of a precise, standardized language to communicate about risk. To further illustrate this problem, researchers[5] compared risk-level definitions among five assessment measures and found that only 3 percent of the people assessed were identified as high risk across all five *instruments* and only 4 percent of the people were identified as low risk by all five *measures*. This means that the same person can be described by different categories across different assessment instruments, or people in the same category can be described differently across different assessment instruments.

Beyond the lack of standard definitions of risk and needs categories, there is no consensus about what various labels mean with regard to the probability of reoffending or the specific profile of needs in each risk level.[6] This lack of consensus occurs not just across different instruments, but also across and within jurisdictions that use the same instrument but in different ways. The case study in Box 1 illustrates some of these challenges and the impact on the provision of effective correctional services.

Box 1. Challenges of Applying Risk and Needs Assessments in Corrections: The Case of Mr. Red

Mr. Red was sentenced to prison for committing a violent offense while he was drunk. Prison staff assessed Mr. Red using their prison risk and needs assessment instrument and classified him as having a moderate level of risk and needs. This classification did not have much impact on the treatment services he received in prison, because every person in the prison with a history of committing a violent offense is referred to the same 24-hour anger management group and would not typically receive any other treatment services. Upon Mr. Red's release from prison, his parole officer administered the parole risk and needs assessment instrument, which classified him as high risk. The parole officer talked with Mr. Red about what his score meant, which led them to work together to develop an individualized case plan. Commensurate with his high risk and needs classification, the initial plan included frequent contacts with parole staff, relatively restrictive supervision conditions, and a referral to an intensive substance use and cognitive skills program. A longer-term case plan included job training and possibly more treatment.

Mr. Red's case raises numerous questions:

How reliable and accurate were the two risk and needs assessment instruments administered to Mr. Red?

Assuming the two instruments were reliable and accurate, why might he be identified as different risk and needs levels by these two instruments?

Did the two instruments have the same number of risk and needs levels (e.g., three—low, moderate, and high) and how were these levels defined?

How was his case plan in prison and later in the community informed by his scores on the two risk and needs assessment instruments?

Were the differing amounts of treatment services Mr. Red received in prison and then in the community, along with the amount of community supervision and case management services he would receive, likely to increase, decrease, or have no effect on his risk of reoffending?

What is the appropriate level of treatment, supervision, and case management services for people who exhibit different levels of risk and needs?

How is a judge, probation or parole officer, treatment provider, or administrator to understand and communicate about what risk and needs assessment results mean?

For corrections and other criminal justice professionals, establishing a standard system for communicating about risk and needs levels would have tremendous benefits for the effectiveness of correctional systems. First, if professionals within and across jurisdictions used agreed-upon terms to describe risk and needs levels, everyone would have confidence that they knew what the terms meant, regardless of the instrument used. Consequently, they could have increased confidence that like people would be treated in like ways, regardless of the instrument used. Second, closely aligned, clearly defined, evidence-informed risk and needs levels would help to ensure that assessment results are used to determine the appropriate type and intensity of program and supervision resources and inform case planning. Third, this system would allow jurisdictions to save costs without jeopardizing public safety by more effectively matching interventions to people based on their likelihood of reoffending and their profile of needs and strengths. Fourth, for researchers, standardized risk and needs levels would facilitate comparative research, thereby further informing policy and practice.

Over the past two years, the NRRC, in partnership with Drs. Karl Hanson and Guy Bourgon of Public Safety Canada[7], has facilitated efforts to examine and improve the standardization of the terminology associated with risk and needs levels and the interpretation and application of risk and needs assessment results in correctional settings. From August 2014 to December 2015, the NRRC convened meetings of leading international experts on risk and needs assessments—including researchers from multiple disciplines, scientists, policymakers, and correctional practitioners—to develop a standard way to communicate about risk and needs, regardless of the assessment instrument in use.

This white paper reports the results of those efforts. It is written for researchers, practitioners, and policymakers who share the goal of reducing recidivism by improving the application of risk and needs assessments. Specifically, this white paper presents a model for supporting the implementation of Risk-Need-Responsivity (RNR) principles (see Box 2 on page 5)[8] through a standardized five-level risk and needs assessment system. The five levels are designed to inform case planning, guide how corrections and criminal justice professionals classify risk and needs, and help identify people who can benefit most from intervention. This empirically based system is intended to be broadly applicable and useful, and to increase the accountability of all system actors. Implementing this system does not require developing or adopting new risk and needs assessment instruments; rather, it involves realigning the existing information collected by agencies from

their validated risk and needs assessment instruments into a system that uses standard terminology. This standard terminology allows for greater clarity when people move from one part of the system to another or from one jurisdiction to another, facilitates clear communication between different treatment providers and correctional supervisors, and provides guidance regarding treatment dosage and transition from one risk and needs level to another, regardless of what risk and needs assessment instrument is used or in what jurisdiction a person may reside.

Box 2. Risk-Need-Responsivity (RNR) Principles

The RNR principles have three major components:

Risk Principle: Match the intensity of services to a person's level of risk for criminal activity

The risk principle states that the level of service should match a person's risk of reoffending. Research shows that prioritizing supervision and program services for people at a moderate or higher risk of reoffending can lead to a significant reduction in recidivism for this population. Conversely, intensive interventions for people who are at a low risk of reoffending may actually be harmful and contribute to increasing the person's likelihood of engaging in criminal behavior. High-intensity supervision or programming for lower-risk people has been shown to be an ineffective use of resources.

Need Principle: Target **criminogenic needs** (factors that contribute to the likelihood of new criminal activity)

The need principle directs that treatment and case management should prioritize the core criminogenic needs that can be positively impacted through services, supervision, and supports. Major criminogenic needs include **attitudes supportive of crime**, procriminal peers, lack of engagement in work/family, substance use, aimless use of leisure time, and **lifestyle instability**. Research indicates that the greater the number of criminogenic needs addressed through interventions, the greater positive impact those interventions will have on reducing recidivism.

Responsivity Principle: Account for a person's abilities and learning styles when designing services

The responsivity principle highlights the importance of reducing barriers to learning by addressing learning style, reading ability, and motivation when designing supervision and program service strategies. The two types of responsivity—general and specific—have implications at the program and individual levels.

The general responsivity principle refers to the need for interventions that help to address criminogenic risk factors such as antisocial thinking. Research shows that social learning approaches and cognitive behavioral therapies can be effective in meeting a range of these needs, regardless of the type of crime committed. Prosocial modeling and skills development, teaching problem-solving skills, and using more positive than negative reinforcement have all been shown to be effective.

Specific responsivity refers to the principle that distinct personal needs should be addressed in order to prepare someone for receiving the interventions used to reduce criminal behavior. Specific responsivity relates to the "fine-tuning" of services or interventions, such as modifying a cognitive behavioral intervention to account for a cognitive impairment associated with mental illness. It also accounts for the person's strengths; personality; learning style and capacity; motivation; and cultural, ethnic, racial, and gender characteristics, as well as behavioral health needs. Abiding by the responsivity principle can help to ensure that interventions are available and accessible and tailored to people in ways that can motivate them for services.

Expressing and Using Levels of Risk and Needs

Assignment to a risk and needs level should have an empirical basis and be aligned with a recognizable pattern of meaningful, distinct characteristics. Useful risk and needs levels provide rich individual-level client information that includes statistical indicators about the likelihood of reoffending and the number and nature of risk-relevant propensities. These levels should also inform how one person compares with other people in the criminal justice system and inform appropriate correctional management strategies and treatment responses. There are several statistical indicators to use for describing people's risk and needs and for developing a common language to communicate this information.[9]

Statistical Indicators of Risk

Absolute Recidivism Rates. An absolute recidivism rate is arguably the most useful and easily understood metric for reporting risk of reoffense. It is the percent likelihood of reoffending for people with the same risk score. Using the case illustration of Mr. Red (see Box 1, pages 3–4), an example of risk expressed as an absolute recidivism rate is the following: "Mr. Red's score on the parole risk and needs assessment instrument was 42, which places him in the instrument's high-risk category. People with scores in the high-risk category on the parole instrument have been found to have a 90 percent likelihood of being convicted of committing a new criminal offense within two years of returning to the community." Risk and needs assessment instrument manuals include probability tables that report the actual or predicted reoffense rates linked to clusters of scores (i.e., nominal risk levels) or to each possible score on the assessment tool.

Percentile Ranks. Percentile ranks express the percentage of scores that are less than a given score. They are used to compare a person's risk score with other people in the correctional population in a reference group, such as a representative sample from the person's own jurisdiction. Options for comparing a person's percentile rank to others include indicating that the person's risk score (and risk of reoffending) is lower, the same, or higher in comparison to the reference group. The following is an example of how percentile rank might be linked to nominal risk level: "Mr. Red's score on the parole risk and needs assessment instrument places him in the top 5 percent in terms of risk to reoffend, so 95 percent of people in the reference group have a lower risk score than Mr. Red." It can be advantageous to use percentile ranks because they are presented in a simple format and easily understood; however, they do not tell us what a person's *actual* probability of reoffending is, or how it compares with others in the reference group.

Risk Ratios. Risk ratios show how a particular person's risk to reoffend compares with that of the people who received an average score on the risk tool (i.e., the base rate of reoffending). There are several types of risk ratio statistics (e.g., rate ratio, hazard ratio, odds ratio). They vary from being complex to calculate and understand to being quite straightforward. Using a simple rate ratio statistic to add to what we already know about Mr. Red, we may say, "The risk of reoffending for people in Mr. Red's category is two and half times higher than that of people who received an average score on the risk tool." Simply put, if 40 out of 100 people reoffended over the course of 2 years, then the 2-year base rate of reoffending for that group of people is 40 percent. If Mr. Red's relative risk were 2.5 times the base rate (2.5 times 40 percent equals 90 percent), then out of 100 high-risk people like Mr. Red, 90 would be expected to reoffend after 2 years.[10]

A Five-Level Risk and Needs System

At the NRRC's convening of risk and needs assessment advisors in August 2014, test developers and researchers considered what should be conveyed by nominal risk and needs levels and how many risk and needs levels are necessary to match people to appropriate supervision and services.[11] There was consensus that risk and needs assessment should go beyond simply categorizing people statistically. Rather, risk and needs assessment results should give us information about a person that will help guide *appropriate* and *differential* interventions and management strategies. Development of these strategies involves closely reviewing the domains captured in the risk and needs assessment. These

domains should include the underlying psychological, interpersonal, and lifestyle issues that relate to a person's criminogenic risk factors.[12] The *psychological domain* concerns cognitive, emotional, and behavioral features of a person that are empirically linked to offending. The *interpersonal domain* concerns a person's intimate, family, and peer relationships and how they support either prosocial or procriminal behavior. The *lifestyle domain* encompasses factors such as employment, education, housing, leisure activity, and substance use. When risk factors are grouped according to these risk- and needs-relevant domains in risk and needs assessment results, decision makers and treatment providers are positioned to understand the interconnection of a person's criminogenic needs, other life problems and circumstances, strengths, and likelihood of reoffending.

When considering the optimal number of risk and needs levels at the August 2014 convening, each member of the group presented a recommended number along with justification. Suggested options included from 2 to 11 levels, with serious consideration given to 3, 4, and 5 levels. Given our current knowledge of what works to reduce recidivism (e.g., providing treatment, supporting prosocial strengths, and the passage of time), there was sufficient evidence to support a five-level system. Subsequent field testing and consultations with program administrators, managers, analysts, and practitioners (i.e., clinicians) found that these five risk and needs levels, as described below, are highly recognizable to people working in corrections and align with many current practices. Field testing, however, generated little consensus on preferred names/labels for the levels. Consequently, the levels are labeled only by Roman numerals: I, II, III, IV, and V, with Level I describing the group of people identified with the lowest risk of reoffending and Level V describing the group of people with the highest risk of reoffending. Table 1 in Appendix A summarizes the five-level system.

Level I

People assessed as Level I have few, if any, identifiable criminogenic or **non-criminogenic needs**. Any needs they exhibit are minimal and/or transitory in nature. Level I people have clearly identifiable resources and strengths within the psychological,

interpersonal, and lifestyle domains, and they are psychologically and socially similar to people without a criminal record. Their risk of new criminal behavior is no different from the rate of spontaneous, first-time offending for people without a criminal record, which is estimated at 1–2 percent per year among 18- to 25-year-old males,[13] with an upper limit of 5 percent over two years.

Correctional Response. Custody (i.e., placement in prison or jail) will be counterproductive in reducing recidivism for people grouped in Level I. The base rate of reoffending is low enough that prison may worsen recidivism outcomes.[14] People in this level are expected to comply with the conditions of community supervision, regardless of the supervision strategy, so minimal levels of monitoring would be warranted. The only human services needed are referral services and sharing of information on services and programs available in the community, such as family counseling.

Prognosis. The expected rate of reoffending for people in this level is very low.[15] Accordingly, there are not any expected changes in this level's base rate of reoffending because it is already low, and intervention is unlikely to lower it further. The risk of reoffending for this level is the same as the risk of criminal behavior for people in the community at large (less than or equal to 5 percent over three years).[16] The majority of people classified as Level I are expected to desist from criminal behavior, even without a correctional response.[17]

Level II

People assessed as Level II have one or two identifiable criminogenic needs, and the severity of these needs is considered lower than the average risk defined in Level III. The needs are transitory or acute, rather than ingrained or sustained over time. People classified in Level II may have some non-criminogenic needs, but these, too, would not be severe. Like people assessed as Level I, Level II people have some identifiable resources and strengths. People in this level are expected to respond quickly and positively to services. The two-year rate of reoffending for this level is higher than for the community at large (i.e., greater than or equal to 5 percent), but is lower (estimated to be less than 30 percent) than the typical or average rate of reoffending for people designated as Level III (40 percent). The rate of reoffending for

this level is between 10 and 30 percent, with an average two-year reoffense rate of 19 percent.[18]

Correctional Response. Long-term custody of people identified as Level II would be counterproductive due to the negative effects of incarceration, such as destabilizing social supports and potentially increasing recidivism.[19] Members of this level are expected to comply with the conditions and requirements of community supervision. The most appropriate strategy for working with Level II people is simple, traditional case management to monitor compliance and service/program participation. In terms of human services, the focus should be on short-term interventions with an emphasis on problem solving and assistance in accessing community services.

Prognosis. By affording people identified as Level II with the correctional strategies outlined above, the majority would transition down to Level I and its respective rate of reoffending (i.e., less than 5 percent over two years) in a short time frame (e.g., six months or less).[20] Desistance from criminal offending is likely for those assessed as Level II when their criminogenic needs are addressed.

Level III

Level III describes people in the middle of the risk and needs distribution of the entire correctional population (i.e., the national population of all people in custody or under community supervision). People identified as Level III have multiple criminogenic needs—varying in severity—in their psychological, interpersonal, and lifestyle domains. Generally, these people may have one or two discrete criminogenic needs that are considered primary drivers of their criminal behavior. People in Level III are also likely to have some non-criminogenic needs typical of the general correctional population (e.g., past trauma or mental health needs). Members of this level tend to have some identifiable resources and strengths, but their needs (criminogenic and non-criminogenic) are likely to be barriers to effective use of these resources and strengths. The rate of reoffending for Level III people who do not receive any interventions is equivalent to the overall correctional population's average rate of reoffending, presently estimated to be approximately 40 percent over two years.[21] The statistical boundaries of this risk level were designed to reflect the impact of routine effective correctional intervention, a reduction of approximately 10 percent in the absolute recidivism

rate.[22] Thus, using the 40 percent average reoffense rate, the upper boundary was set at about 10 percent higher (i.e., 49 percent) and the lower limit 10 percent lower (i.e., 30 percent).

Correctional Response. Custody for people grouped in Level III may be appropriate for short-term risk management. People in this level are expected to benefit from community supervision practices that both enhance compliance and encourage prosocial change. Human services should focus on the person's criminogenic needs, with secondary attention to non-criminogenic needs. The adequate dosage (i.e., duration and intensity) of services would amount to approximately 100–200 hours,[23] including formal treatment programs and change-focused supervision activities.

Prognosis. When people identified as Level III are provided with evidence-based correctional interventions in sufficient dosage, a significant reduction in reoffending would be expected—that is, a reduction of approximately 10 percent in the absolute recidivism rate.[24] Even when interventions are successful, however, the reoffense rate for Level III people would still be discernibly higher than the rate of offending for the population at large. For approximately half of people in Level III, successful interventions would result in reoffense rates that approximate the base rate of reoffending similar to that of people in Level II (i.e., 19 percent over two years). Nevertheless, it is expected that a proportion of these people would continue to be involved in the criminal justice system over the next three to five years, but over the longer term (five to seven years), desistance from crime would become increasingly likely.[25]

Level IV

People assessed as Level IV have many criminogenic needs, likely representing all of the risk-relevant domains (psychological, interpersonal, and lifestyle), with a number of those needs being chronic and severe. In addition, these people have multiple, severe, and/or chronic non-criminogenic needs. The Level IV person may have some identifiable resources and strengths, but there are chronic barriers to accessing these resources, personal strengths, and social supports. The two-year rate of reoffending for people assessed as Level IV is approximately 65 percent (ranging from a low of 50 percent to a high of 84 percent), which is discernibly higher than the average

40-percent two-year rate of reoffending for the entire correctional population.

Correctional Response. The vast majority of people in Level IV have a history of incarceration, and when they are released to the community, they are likely to require intensive community supervision that is focused on monitoring for community safety, enhancing compliance, and strengthening treatment/service engagement, participation, and retention. Given the complexity and chronic nature of the criminogenic needs of people in this level, evidence indicates that intensive, lengthy (200–300 hours), and comprehensive services are required.[26] Correctional treatment and other social-service interventions should focus primarily on these people's numerous criminogenic needs, and include services such as formal in-custody treatment programs, community-based treatment programs, and change-focused post-release supervision. Non-criminogenic needs should be addressed after Level IV people receive these services and begin to initiate prosocial lifestyle changes.

Prognosis. A significant reduction of reoffending (i.e., 10 percent) would be expected when people in Level IV are provided evidence-based correctional strategies in sufficient dosage. At best, however, the reoffense rate of these people would still be high, though reducing over time, and some of these people would show recidivism rates approximating those found in Level III. Given their chronic pattern of criminal behavior, the expectation is that a substantial proportion of Level IV people will reoffend over the long term, with a greater risk of recidivism sooner after release. Successful rehabilitation of these people typically involves gradual life changes over a long period of time (i.e., 10+ years) with increasingly lower rates of recidivism as they age.[27]

Level V

People assessed as Level V have most, if not all, of the major criminogenic needs from the psychological, interpersonal, and lifestyle domains. Many of these needs are chronic, severe, and longstanding. In addition, these people likely have multiple, severe, and chronic non-criminogenic needs. Their identifiable resources and strengths are extremely limited, if they exist at all, or are used to support criminal behavior (e.g., superficial charm to support fraud). The base

rate of reoffending for Level V people (without intervention) is discernibly higher than that of Level IV. Their base rate of reoffending is that of people in the correctional population who reoffend most chronically (i.e., the highest 5 percent), with a corresponding minimum rate of reoffending of 85 percent within two years, and an average reoffense rate of approximately 90 percent.

Correctional Response. Custody is appropriate for people in Level V for the purposes of community safety. The degree of this group's propensity to engage in criminal behavior warrants treatment services that are highly structured, comprehensive, intensive, and lengthy (e.g., well over 300 hours, provided over years). Ideally, the provision of services would occur within secure facilities prior to release, with gradual step-down of secure settings over time as the person demonstrates incremental behavioral change. People grouped in Level V are expected to require the most intensive community supervision, including close monitoring and surveillance as a priority for public protection. Change-focused supervision should gradually be introduced as the person demonstrates incremental behavioral and attitudinal change over time.

Prognosis. Reductions in reoffending for people in Level V take place gradually over decades, if at all.[28] Significant reductions of reoffending may be possible; however, evidence-based correctional strategies in sufficient dosage would be required. Nevertheless, their recidivism rates would be expected to remain high over the long term, eventually approaching the base rate of people grouped in Level IV after years of appropriate interventions. The chronic and persistent pattern of criminal behavior for people in Level V means that considerable time and intensive services would be required before they would be expected to approach the psychological profile and reoffending base rate of people grouped in Level III. In advanced age (50+), many could reach the reoffending base rate of Level II.[29]

Returning to the Mr. Red Case Example

As shown in the Mr. Red case example, the five-level system allows us to identify and communicate about a person's risk and needs using five groups and statistical indicators, such as percentile rank, risk ratios, and absolute recidivism. For a visual

representation of the five-level risk and needs assessment system we are proposing, consider Figure 1, which shows the expected reoffense rates of the five risk levels based on national samples,[30] with Level I representing the lowest risk and needs group and Level V the highest risk and needs group. Of the 100 small squares representing 100 people in each of the 5 boxes, those shaded red represent the expected number of people who will be convicted of a new offense within 2 years of placement in the community. Our fictional Mr. Red's risk and needs level would be Level V. As the Level V graphic in Figure 1 shows, it is immediately evident that almost everyone (90 percent) assessed at this level of risk and needs is expected to reoffend within two years. Furthermore, by comparing the five levels, it is clear that the likelihood of reoffending of men similar to Mr. Red is significantly greater than that of people in the other four risk and needs levels. Appendix B provides more information about Mr. Red to illustrate psychological, interpersonal, and lifestyle domain factors relevant to his case, as well as his risk and needs assessment,

Figure 1. The number of people expected to reoffend out of 100 in each of the five standardized risk and needs levels
(Red boxes indicate the number of people expected to reoffend.)

Level I
4 out of 100

Level II
19 out of 100

Level III
40 out of 100

Level IV
65 out of 100
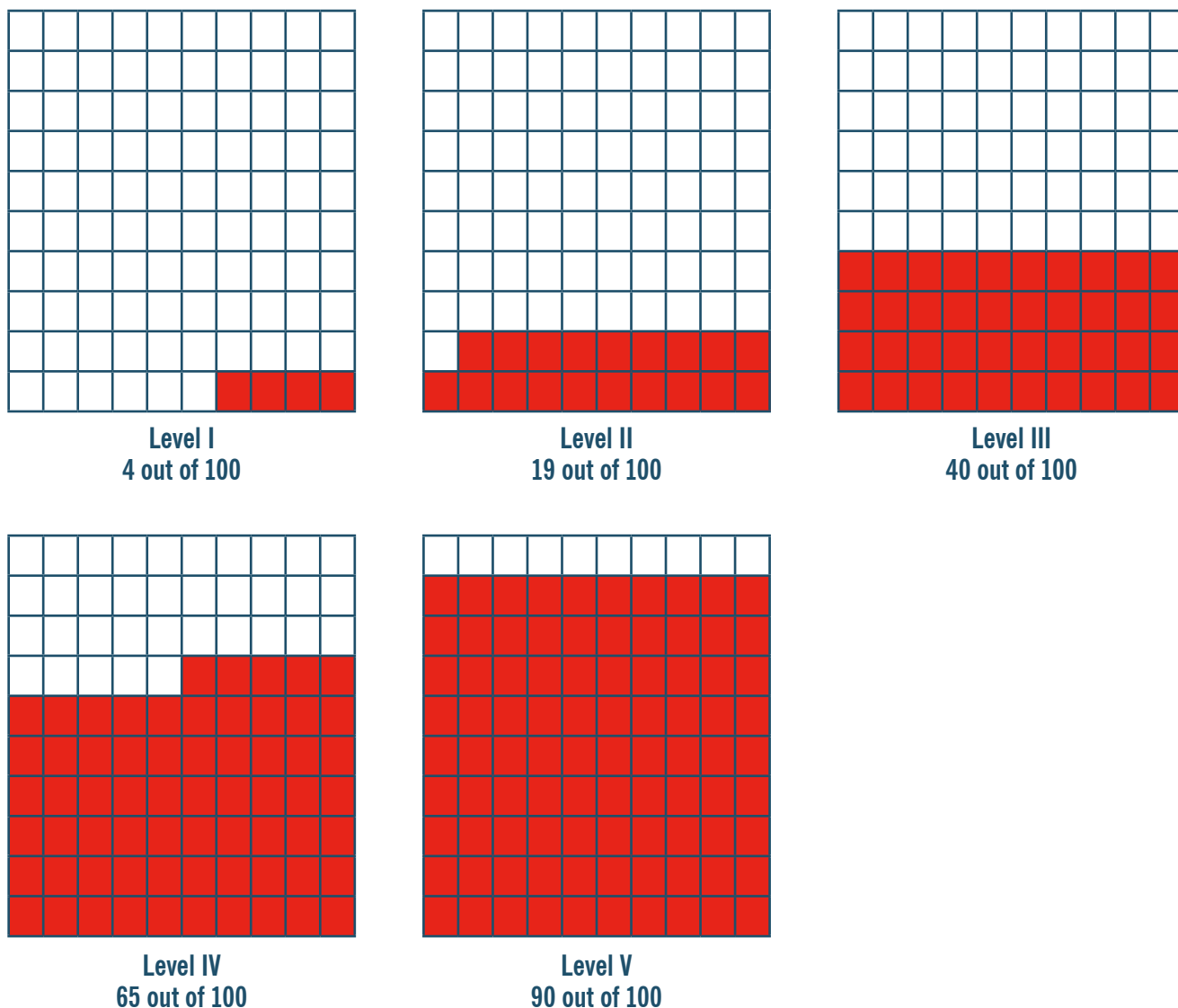
Level V
90 out of 100

case recommendations, and prognosis. The appendix also contains four other case examples of the remaining risk and needs levels.

Each standardized risk and needs level in the system is associated with a certain number and severity of **dynamic risk factors** within the psychological, interpersonal, and lifestyle domains. The standardized five-level system informs correctional responses and offers prognoses of success. Without knowing anything about Mr. Red other than that he is in Level V, service providers and jurisdictions that adopt the five-level risk and needs system will immediately know important information about his risk, needs, recommended services, and prognosis (although the more comprehensive the risk and needs instrument that is used, the easier it is to identify and address the characteristics underlying a person's risk and needs). This system will be invaluable for communicating about and coordinating the delivery of his correctional services.

Adopting the Five-Level Risk and Needs System

In order for the five-level system to be useful, test developers and jurisdictions must be able to adopt the system using their own instruments and data sets.[31] There are two separate issues that need be addressed before the five-level system can be used reliably. One, the recidivism boundaries that delineate the various levels require additional research to

further clarify the exact percentages. Specifically, the recidivism rate of the correctional population is presently estimated to be approximately 40 percent based on national statistics,[32] but these studies do not include descriptions of assessed risk levels and have some methodological limitations. We are cross-validating the "average" base-rate recidivism of three very large data sets to identify a more precise recidivism estimate. Regardless, the upper and lower recidivism boundaries of Level III are predetermined by the aforementioned treatment effect of a 10-percent reduction in recidivism, as are the defining characteristics of the five levels.

Further, in order for a jurisdiction to adopt the five-level risk and needs system, it must complete a validation study of its risk and needs assessment instrument that includes a sufficiently large and representative sample of people in the criminal justice system. A sufficient sample size is estimated to be approximately 500 people as long as the sample contains a minimum of 100 people who have reoffended within a follow-up period of two years. If the sample contains fewer than 100 people who have reoffended, then the sample size should be increased to meet this requirement.[33] Such a study permits the jurisdiction to (a) empirically demonstrate that the instrument it is using has at least moderate predictive accuracy (Area Under the Curve [AUC] values around .70); (b) establish reliable recidivism rates associated with each individual score of the risk and needs assessment instrument; and (c) identify the instrument's risk scores that are associated with each of the five levels.

Box 3. Risk and Needs Assessment and Racial Disparity

Given the over-representation of people of color among those who are in the criminal justice system, it is important to consider how factors that influence decision making, including risk and needs assessment, can contribute to racial disparities in the justice system. Deliberate action should be taken to prevent racial bias from entering the risk and needs assessment process, including conducting a validation study whereby jurisdictions can confirm that the assessment instrument is accurate across all racial groups. Beyond validation, jurisdictions should have formal mechanisms in place to assess the quality of implementation of the risk and needs assessment instrument, and develop plans to address any bias found in the instrument itself or how it is being used. If used properly and effectively, risk and needs assessment can potentially help to limit racial bias in decision making in the criminal justice system by providing an objective, evidence-based assessment of criminogenic risk factors and needs.

The statistical analyses required to populate the categories are relatively simple. The assessment scores associated with reoffense rates of 5 percent or less after two years populate Level I. The scores of people whose reoffense rates are 85 percent or greater define Level V. The scores in the middle, Level III, represent people whose reoffense rates center on or are slightly above or below the average reoffense rate of the entire sample. In statistical terms, slightly above and slightly below are defined by the typical recidivism reduction observed in real-world implementation of cognitive-behavioral rehabilitation programs (i.e., an **r value** of .10 or 10 percent).[34] The scores for Levels II and IV are then quite simple to define: respectively, they are the remaining scores between Levels I and III and between Levels III and V.

In sum, Level III should be in the middle of the risk and needs distribution (centered on the median value of the risk tool). Level II should represent meaningfully lower risk and needs than average and Level IV should represent higher risk and needs than average. Those in Level I should have the same level of risk as the general population. People identified as Level V should have the very highest risk and needs. Their risk for recidivism is best managed through intensive community supervision and, in some cases, incarceration. Although the five-level risk and needs system was developed for general recidivism, the categories can also inform standardized risk category labels for other types of risk, such as sexual, spousal abuse, and any violent reoffending.[35]

Conclusion

Over the past 20 years, there have been significant advances in understanding what works to reduce recidivism for people who have become involved with the criminal justice system. We know now that effective correctional intervention—meaning the implementation of evidence-based practices with fidelity—requires taking into account a person's risk of reoffending and the needs that must be met to change that person's behavior. Risk and needs assessments should inform case management, not just predict risk. Consequently, risk and needs assessments need to not only provide information concerning a person's likelihood of reoffending but also identify that person's needs and strengths to enable appropriate evidence-based correctional responses, and provide statistical data about the expected success of various

appropriate risk-reduction strategies. The five-level risk and needs system proposed in this paper synthesizes the empirical knowledge already captured by existing risk and needs assessment instruments, and it integrates what we know about effective correctional interventions, **life-course development**, and desistance from criminal behavior. Above all, the five risk and needs levels provide a system for criminal justice professionals to communicate about people precisely, clearly, and consistently, regardless of the jurisdiction where the assessment is conducted or the instrument that is used. By aligning correctional activities to these standardized levels, we increase the likelihood that people will actually receive the services and supervision they need to reduce recidivism.

Appendix A

Table 1: Five-Level Risk and Needs System

LEVEL	CRIMINOGENIC NEEDS	PROFILE AND 2-YEAR RECIDIVISM RATE WITHOUT INTERVENTION	SUPERVISION DOSE	CORRECTIONAL TREATMENT DOSE	TREATMENT EFFECT	PROGNOSIS FOLLOWING INTERVENTION
I	None or few – if any, mild and/or transitory	Non-offending profile: similar to people with no criminal record Average = 3% Range = less than 5%	Minimal or no monitoring	None – if needed, refer to community services	Risk so low that it will not be reduced further	Excellent, will stay in Level I
II	A few – some mild and transitory, or possibly acute	Vulnerable prosocial profile: higher risk than non-offending profile but lower than average Average = 19% Range = 5%–29%	Some – monitor for compliance, provide some change-focused interventions	Minimal – if any, very short term, refer to community services if needed	Risk so low that intervention can only have a minor impact	Very good, most move from Level II to I
III	Multiple – some severe	Average offending profile: the middle of the risk and needs distribution Average = 40% Range = 30%–49%	Considerable – monitor for compliance and provide change-focused interventions	Significant – 100–200 hours	Intervention impact is significant and can meaningfully reduce reoffending	Good, many will move from Level III to II
IV	Multiple – some chronic and severe	Persistent offending profile: chronic and lengthy involvement in crime Average = 65% Range = 50%–84%	Intensive – monitor for safety and compliance, provide change-focused interventions	Very significant – 200–300 hours	Intervention impact can be significant but reduction will not quickly result in the lowest levels of risk	Improvement, some will move from Level IV to III, and as low as II after a significant period of time (i.e., 10+ years)
V	Multiple – chronic, severe, and entrenched, likely across psychological, interpersonal, and lifestyle domains	Entrenched criminal profile: virtually certain to reoffend Average = 90% Range = 85% or higher	Very intensive – monitor for safety and compliance, provide long-term and intensive change-focused interventions	Extensive – well over 300 hours, provided over years	Intervention can have an impact but initial risk so high that emphasis is on treatment readiness and behavioral management	Initial risk so high that reoffending will still be above average, some will move to Level IV or III, possibly as low as II in advanced age

Appendix B

Case Examples: Five Risk and Needs Levels

Level I
Mr. Green

Background. Mr. Green is 35 years old and was recently convicted of reckless driving causing injury. He was talking on his cell phone while driving his car, and he became distracted and hit a bicyclist, causing the person serious injury.

Psychological Domain. He has no previous history of criminal behavior or delinquency. He is thoughtful and goal oriented, expresses prosocial values, has remorse and takes responsibility for the crime, and is embarrassed by his actions.

Interpersonal Domain. He and his wife divorced seven years ago and share custody of their two children. They have a positive relationship. He has cohabited with his current girlfriend for the past three years. She is employed as a teacher and is prosocial. Their relationship appears quite healthy, and they socialize with prosocial peers from work, as well as the parents of his children's friends. His parents live nearby and they are prosocial and supportive.

Lifestyle Domain. He has worked full time since receiving his college degree about 14 years ago. He is a social drinker and has no history of drug abuse. He enjoys being involved in his children's activities, travels, plays in a basketball league, and plays cards with friends.

Risk and Needs Assessment. Mr. Green's score on the probation department's risk and needs assessment instrument was 3. This score identifies him as risk and needs Level I. Of 100 people with the same score, on average, 3 percent will be convicted of committing a new criminal offense within 2 years of placement in the community, with an upper limit of less than 5 percent.

Recommendations and Prognosis. Placement in prison or jail will be counterproductive in reducing recidivism for people in Level I, such as Mr. Green. The base reoffense rate is sufficiently low that prison may worsen recidivism outcomes. People in this level would be expected to comply with the conditions

of community supervision, regardless of the supervision strategy, so minimal levels of monitoring are warranted. The only human services that might be warranted would be sharing of information on and referral to services and programs available in the community.

Level II
Mr. Blue

Background. Mr. Blue is 32 years old and was recently convicted of driving while intoxicated (DWI) and possession of narcotics. At a routine traffic stop, he had a blood alcohol count of .10, and when his car was searched, police found him in possession of five grams of marijuana.

Psychological Domain. He successfully completed a year of probation following a conviction for assault at age 19. He is now more mature, and he is embarrassed about his offenses. He accepts responsibility for his actions and enrolled in alcohol treatment through his employee assistance program immediately after his arrest. He expresses prosocial values and respects authority.

Interpersonal Domain. He has been married for seven years, and he and his wife have two children. Their relationship is positive and stable. His wife works full time. They have several close friends, all of whom are employed and none have a criminal history. A few of his friends occasionally smoke marijuana. He and his wife are close to their families of origin, who are supportive and prosocial.

Lifestyle Domain. He has owned his own cleaning company for the past 5 years and employs 10 people. He has a history of "partying" as a teenager, and a recent assessment indicates alcohol use as "problematic" and drug use as "recreational." He is involved in many organized activities, including recreational hockey and a golf league.

Risk and Needs Assessment. Mr. Blue's score on the probation department's risk and needs assessment instrument was 15. This score identifies him as risk and needs Level II. Of 100 people with the same score, on average, 19 will be convicted of committing a new criminal offense within 2 years of placement in the community. Overall, the two-year recidivism rate of people in Level II ranges from 5 to 29 percent.

Recommendations and Prognosis. Long-term placement in prison or jail for people classified as Level II, such as Mr. Blue, would be counterproductive due to the negative effects of incarceration. Members of this level are expected to be compliant with the conditions and the requirements of community supervision. The most appropriate strategy for working with these people is simple, traditional case management to monitor compliance and service participation. In terms of human services, the focus should be on short-term interventions with an emphasis on social problem solving and assistance in obtaining existing community services. By affording people like Mr. Blue with appropriate short-term services, it is expected that they transition down to Level I within six months or less and that their rate of reoffending mirrors that of the general population.

Level III
Mr. Yellow

Background. Mr. Yellow is 32 years old and was recently convicted of DWI and driving without a license when he was stopped by police at 2 a.m. for erratic driving.

Psychological Domain. He has three previous convictions: one for a property offense in his early 20s, two DWIs in his mid-20s, and another DWI at age 30. He is generally prosocial. He views himself as a "blue-collar" man and does not identify himself as a criminal. He said he does not have a drinking problem and rationalizes his use of his vehicle without a license. He has poor problem-solving skills, is pessimistic about his life, has a rigid thinking style, and often makes impulsive decisions.

Interpersonal Domain. He has been divorced and now remarried for three years. He has one biological child and one stepchild. His relationship with his family is generally positive, with some discord about drinking and finances. He spends time primarily with coworkers in the construction trade and old friends, some of whom have criminal histories and most of whom drink. He has some interpersonal conflict with his boss at work. He has minimal contact with his father, who has a serious alcohol problem and was abusive. His mother passed away four years ago.

Lifestyle Domain. He has had fairly stable and full-time work with the same construction company for the past four years, with sporadic seasonal layoffs. He typically arranges a short workday on Fridays and then meets his friends at a bar afterward. He has had an alcohol use problem for about 10 years and has never been in treatment. He is not involved in any organized leisure activities.

Risk and Needs Assessment. Mr. Yellow's score on the probation department's risk and needs assessment instrument was 24. This score identifies him as risk and needs Level III. His risk of reoffending is similar to that of people who receive an average score on the instrument. Of 100 people with the same score, on average, 40 will be convicted of committing a new criminal offense within 2 years of placement in the community. Overall, the two-year recidivism rate for people in Level III ranges from 30 to 49 percent.

Recommendations and Prognosis. People like Mr. Yellow should generally receive approximately 100–200 hours of formal treatment programming and change-focused supervision activities. If Mr. Yellow is given a jail or prison sentence, these interventions should be initiated while he is in custody. Level III people would be expected to benefit from treatment and community-supervision services that both enhance compliance and encourage prosocial change, and target criminogenic needs, with secondary attention to non-criminogenic needs. Services for people in Level III, compared with other levels, are likely to have the greatest impact on risk of reoffending. For approximately half of Level III people, successful intervention would result in reoffense rates similar to that of people in Level II (i.e., 19 percent over two years). Therefore, it is expected that a proportion of people in this level would continue to be involved in the criminal justice system over the next few (three to five) years, but over the longer term (five to seven years), desistance from crime would become increasingly likely.

Level IV
Mr. Orange

Background. Mr. Orange is 27 years old. He was recently convicted of committing three burglaries and possession of narcotics.

Psychological Domain. He has four previous criminal convictions in addition to a juvenile criminal history. He served two prior prison sentences for robbery, weapons possession, and drug-related offenses. He

committed his current offenses while on community supervision after he began using illegal drugs again. He has a history of problems with impulsivity and expresses procriminal and anti-authority values. His previous probation officer described him as likable and motivated to do well, but said that he leads a rather chaotic lifestyle.

Interpersonal Domain. He has a history of several short-term intimate relationships with women, most of whom have had substance use problems. He has no contact with his one child. His present partner of three months is prosocial and not a substance user, but most of his friends use illegal drugs. His only family contact is with a brother who regularly uses illegal drugs and has a lengthy criminal history.

Lifestyle Domain. He is presently unemployed, but typically works sporadically as a house painter during the building season. He has had a chronic alcohol and drug use problem since his teenage years. He regularly frequents local pubs, gambles through a bookie, and occasionally plays pickup basketball.

Risk and Needs Assessment. Mr. Orange's score on the probation department's risk and needs assessment instrument was 30. This score identifies him as risk and needs Level IV. Of 100 people with the same score, on average, 65 will be convicted of committing a new criminal offense within 2 years of placement in the community. Overall, the two-year recidivism rate of people in Level IV ranges from 50 to 84 percent.

Recommendations and Prognosis. Given the multiple, complex, and chronic nature of criminogenic needs among people grouped in Level IV, such as Mr. Orange, evidence indicates that intensive, lengthy (200–300 hours), and comprehensive treatment services are required to reduce reoffending. If Mr. Orange is given a jail or prison sentence, these treatment services should be initiated while he is in custody. When being supervised in the community, Level IV people would be expected to require intensive supervision, focusing on monitoring for community safety, enhancing compliance, and enhancing engagement in treatment and services. A significant reduction of reoffending (i.e., 10 percent) is expected when people like Mr. Orange receive evidence-based correctional programming in sufficient dosage. However, even when treatment is beneficial, the reoffending rate of these people would still be high, reducing only to the average reoffending rate

(the Level III base rate of 30 to 49 percent). Given the chronic pattern of criminal behavior, the expectation is that a substantial proportion of people in Level IV will reoffend over the long term. Successful rehabilitation for people in this level typically involves gradual life changes over a long period of time (i.e., 10+ years).

Level V
Mr. Red

Background. Mr. Red is 39 years old. His most recent convictions were for multiple counts of aggravated assault and kidnapping. Two incidents involved serious physical assaults on adult males, and one incident involved a woman whom he kidnapped and forced to withdraw money from an ATM. He successfully appealed legal errors made at his sentencing hearing, won early release from prison, and is now on probation. His earlier convictions include several property, drug, fraud, and violent offenses. He began getting in trouble with the law in early adolescence, has continued to engage in criminal behavior throughout his adulthood, and has a poor record of following community supervision conditions.

Psychological Domain. He presents to correctional staff as hostile and resentful of authority. He has a long history of acting impulsively. He values aggression and power as ways to get what he wants in life. He places blame on others for his own misdeeds and shows no remorse for his antisocial actions. He also shows pride in his long criminal history.

Interpersonal Domain. Although he has had many short-term sexual partners, he has never married or had long-term romantic relationships as an adult. He has been a gang member since his late teens. Many in his immediate family also have extensive criminal histories, and he has loose connections to most of them.

Lifestyle Domain. He often takes on the role of "enforcer" in his gang. He has little record of employment during the last several years. He has a lengthy history of drug and alcohol use, and he committed a significant portion of his offenses while under the influence of substances.

Risk and Needs Assessment. Mr. Red's score on the probation department's risk and needs assessment instrument was 42. This score identifies him as risk and needs Level V. Of 100 people with the

same score, approximately 90 will be convicted of committing a new criminal offense within 2 years of placement in the community. Overall, the two-year recidivism rate of people in Level V is 85 percent or greater.

Recommendations and Prognosis. Treatment services for people grouped in Level V, such as Mr. Red, need to be highly structured, comprehensive, intensive, and lengthy—well over 300 hours. If Mr. Red is sentenced to incarceration, these treatment services should be initiated while he is in custody. If he is living in the community, intensive supervision with close monitoring and surveillance is a priority for public protection. People in Level V are described as participating in life-course persistent offending, meaning that considerable time and intensive services are required before they would be expected to benefit substantially from correctional intervention and reduce their risk to Level IV. In advanced age (50+), many could reach the reoffending base rate of Level III, which ranges from 30 to 49 percent.

Key Terminology

attitudes supportive of crime. Beliefs, expectations, and values that minimize the harm of criminal victimization, increase the reward of crime, and reduce compliance to rules, police, and courts. Examples of attitudes supportive of crime, or procriminal attitudes, include beliefs that the police are fundamentally corrupt and that nobody gets ahead without cheating.

criminogenic needs. Potentially changeable characteristics of people that increase their likelihood of engaging in criminal behavior. Examples of criminogenic needs include procriminal attitudes, negative peer associations, and unemployment. See **dynamic risk factors**.

domains. The broad categories—psychological, interpersonal, and lifestyle—that describe the features of people and their environments that increase or decrease their likelihood of criminal behavior.

dynamic risk factors. Factors that contribute to risk but can change over time (e.g., social networks, thinking patterns, housing, substance use, finances, etc.), also called criminogenic needs. Dynamic factors not only add to the predictive ability of an assessment instrument, they represent those areas that can be changed through programming and interventions.

life-course development. The predictable pattern of human development from childhood, through adolescence, adulthood, and advanced age. The likelihood of criminal behavior is highest in adolescence and young adulthood and steadily declines with age. People who are prone to social disruption and rule violation often show problematic behavior at multiple stages of the life course, although the nature of the problem changes (e.g., truancy during childhood, criminal convictions in youth, lifestyle instability in adulthood).

lifestyle instability. An inconsistent and/or chaotic pattern of daily living characterized by infrequent or nonexistent employment, high levels of substance use, unstable residence, short-term relationships, shifting priorities, and unrealistic goals.

non-criminogenic needs. Life problems that are worthy of intervention but are not directly related to the likelihood of criminal behavior. Examples of non-criminogenic needs include depression, sleep disorders, and poor physical health.

r value. In risk and needs assessment, the Pearson's r value is the measure of correlation between the risk score and recidivism. Pearson's r ranges from -1 to 1, with positive numbers indicating a positive relationship (i.e., higher risk and needs assessment scores are correlated with a higher likelihood of reoffending).

static risk factors. Risk factors that are unchanging or that cannot be changed through deliberate intervention (e.g., age, prior offenses). Static factors contrast with dynamic risk factors (or criminogenic needs), which can be used to inform the targets of supervision and human service interventions.

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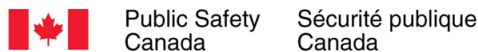
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