

Level of Service / Case Management Inventory (LS/CMI) in Scotland:

Practitioners' evaluations in cases where a risk of serious harm assessment was undertaken

Acknowledgements

The RMA would like to acknowledge the continued support and cooperation of each criminal justice social work service in Scotland in sharing LS/CMI data.

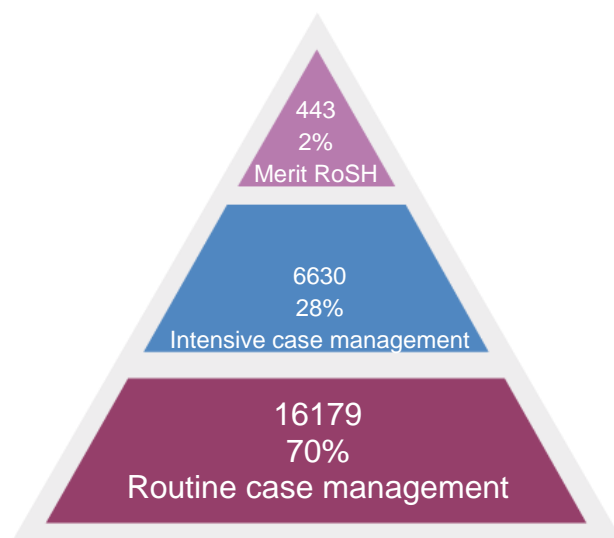
Background

Following the publication of local authority practice reports and the [LS/CMI in practice national report](#) (2014) a number of topics for further examination were identified by the RMA and Social Work Scotland. This report provides an initial overview of the profiles of those who met the criteria for further risk of serious harm assessment and goes on to compare cases assessed as high-very high risk of serious harm against those assessed as low-medium risk of serious harm.

DATASET

Between 2010 and April 2015, 26714 LS/CMI community assessments had been conducted. At the 'evaluation and conclusion' stage of the LS/CMI assessment process, 23252 assessments (87%) had been concluded as follows:

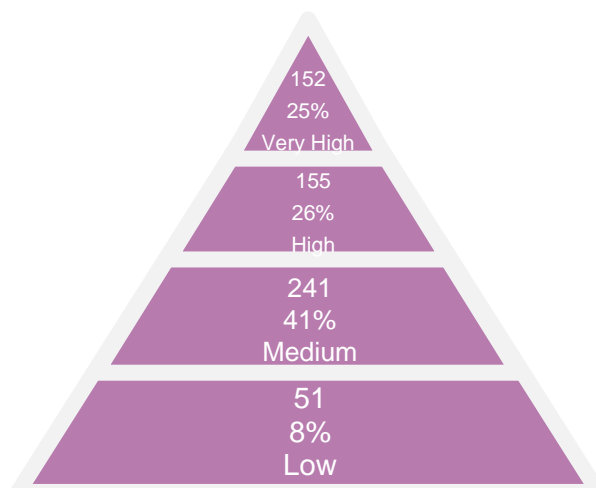
Figure 1. Evaluation and conclusions (Section 7.3.2) – 23252 assessments



In the 'analysis of offending of serious harm' stage of the LS/CMI assessment process, the assessor further analyses the *pattern, nature and seriousness* of offending to determine whether the case meets the criteria for risk of serious harm; (in section 9.3.3.) 644 assessments met the criteria and 306 did not.

Following this, assessors consider *likelihood* and *imminence* in order to conclude on an evaluation of the risk of serious harm (in section 9.3.6 of LS/CMI.) At the point that the data was submitted, this consideration had been undertaken in 599 (83%) cases, as follows:

Figure 2. Risk of Serious Harm levels (Section 9.3.6) - 599 assessments



For the purpose of this report, high and very high have been combined and low and medium combined to provide a comparison of those whose risk of serious harm was likely and/or imminent and those who were not likely, at least in current circumstances. This forms the basis of the data set for the following descriptive overview

Table 1. Risk of Serious Harm Levels

Risk of Serious Harm	Distributions n / %
High-very high	307 (51.3%)
Low-medium	292 (48.7%)

The risk levels which are outlined below essentially distinguish between the likelihood and imminence of serious harm.

307 assessments were judged to be high or very high risk of serious harm relative to the MAPPA risk levels:

Very high: *there is an imminent risk of serious harm. The potential event is more likely than not to happen imminently and the impact would be serious;*

High: *there are identifiable indicators of risk of serious harm. The potential event could happen at any time and the impact would be serious;*

292 assessments were judged to be low and medium risk of serious harm relative to the MAPPA risk levels:

Medium: *there are identifiable indicators of serious harm. The offender has the potential to cause such harm, but is unlikely to do so unless there is a change in circumstances, for example failure to take medication, loss of accommodation, relationship breakdown, drug or alcohol misuse; and*

Low: *current evidence does not indicate likelihood of causing serious harm.*

GENDER

The distributions across gender and imminence levels are similar.

Figure 3. Gender and Risk of Serious Harm

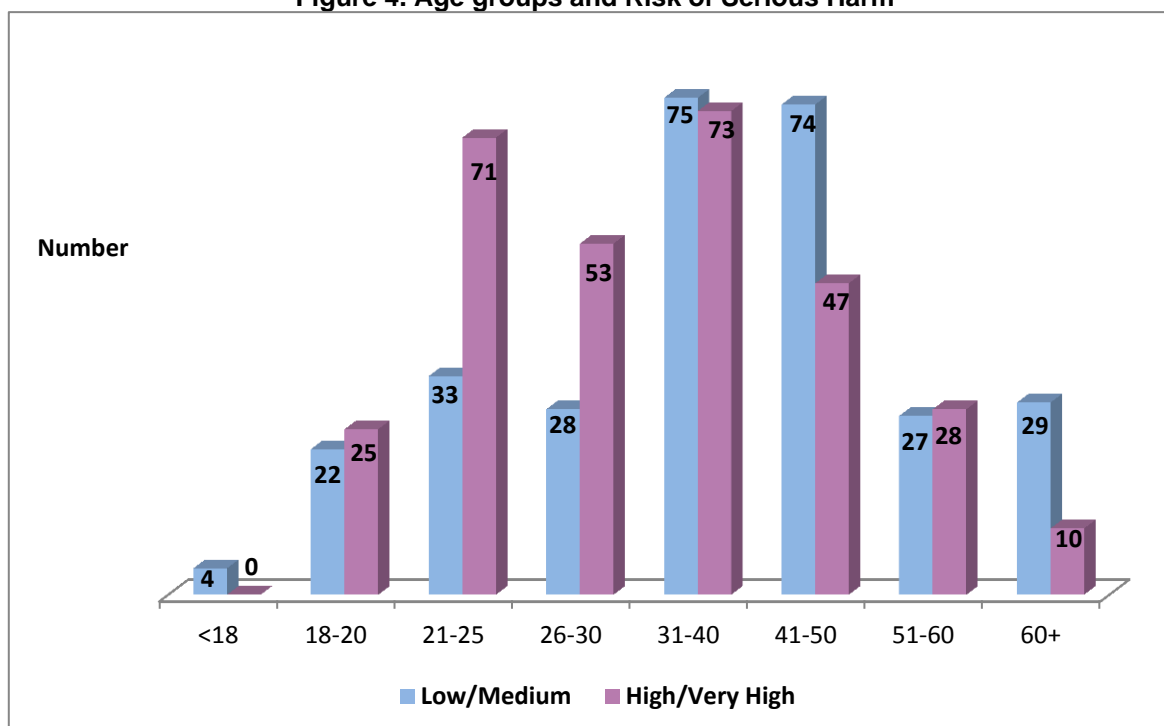


AGE

Between the ages of 21-30 a greater proportion of assessments were considered high and very high risk of serious harm than for other age categories. The mean age of those considered high/very high risk of serious harm is 34 years (SD=12).

Between the ages of 41-50 and 60+, a greater proportion of assessments were considered low and medium risk of serious harm than for other age categories. The mean age of those considered low/medium risk of serious harm is 39 years (SD=14).

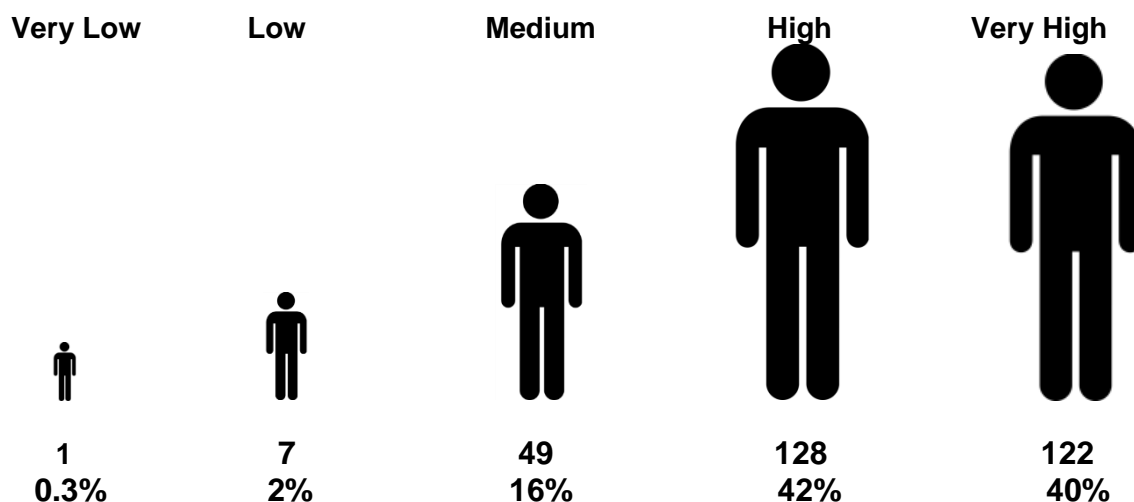
Figure 4. Age groups and Risk of Serious Harm



RISK/NEED LEVEL

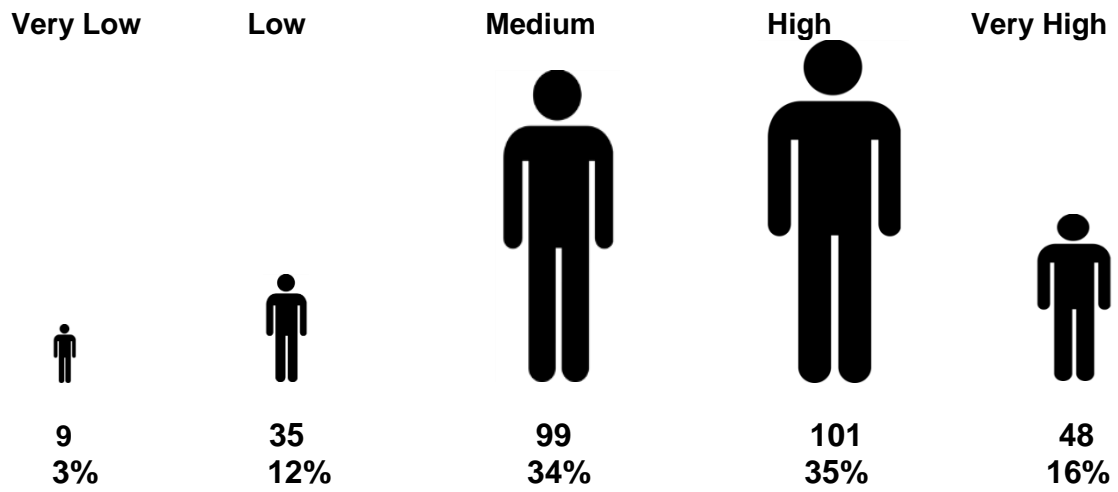
The assessments within the high/very high risk of serious harm categorisation have higher levels of risk/need factors identified in section 1 of the LS/CMI and a higher concentration of the higher risk/need levels (figure 4.)

Figure 5. Risk/need levels and high/very Risk of Serious Harm - 307 assessments



The assessments within the low/medium risk of serious harm categorisation have a lower concentration of the higher risk / needs levels.

Figure 6. Risk/need levels and low/medium Risk of Serious Harm - 292 assessments



Distribution of Risk / Need Factors

The mean scores on LS/CMI risk/need domains and overall risk/needs levels are presented in table 2:

Table 2. Mean scores for risk / needs factors

Risk / Need Factors	Risk/ Need Scoring Range	Risk of Serious Harm level	Mean Score	Std. Deviation
Criminal History Score	0 - 8	High-very high	5.09	2.03
		Low-medium	4.23	2.27
Education Employment Score	0 - 9	High-very high	6.43	2.29
		Low-medium	5.27	2.61
Family Marital Score	0 - 4	High-very high	2.09	1.29
		Low-medium	1.46	1.21
Leisure Recreation Score	0 - 2	High-very high	1.64	0.68
		Low-medium	1.36	0.79
Companions Score	0 - 4	High-very high	2.68	1.49
		Low-medium	1.77	1.57
Alcohol Drug Problem Score	0 - 8	High-very high	3.71	2.62
		Low-medium	2.17	2.28
Procriminal Attitude Orientation Score	0 - 4	High-very high	2.05	1.48
		Low-medium	1.29	1.35
Antisocial Pattern Score	0 - 4	High-very high	2.36	1.27
		Low-medium	1.55	1.24
Total LS/CMI Score		High-very high	26.07	8.68
		Low-medium	19.12	8.96

The mean scores for each of the two risk of serious harm categorisations show higher scores for assessments within the high / very high categorisation compared with the low/medium.

Examining correlations can indicate the strength of possible relationships between the risk/needs domains and risk level.¹

¹ Andrews et al (2011) and Hemphill (2003) provide guidelines for the interpretation of the magnitude of a correlation, acknowledging that the values set by Cohen (1998) occur infrequently in psychological research.

< 0.09 nil practical significance
 0.10 to 0.19 - mild correlation
 0.20 to 0.29 - moderate correlation
 0.30 to 1.00 - large correlation

Table 3. Correlations between risk / needs domains and risk of serious harm

Risk / Need Domain	Correlation <i>r</i>
Criminal History Score	0.20**
Education Employment Score	0.23**
Family Marital Score	0.24**
Leisure Recreation Score	0.18**
Companions Score	0.29**
Alcohol Drug Problem Score	0.30**
Procriminal Attitude Orientation Score	0.26**
Antisocial Pattern Score ²	0.31**
Total LS/CMI score	0.37**

**Correlation is significant at the 0.01 level (2-tailed).

There is a positive correlation between risk level and all of the section 1 risk/need domains, and in particular the LS/CMI score. The stronger correlations with the domains of companions, attitudes and antisocial pattern are consistent with the theory and research underpinning the LS/CMI. In the meta-analyses that underpin LS/CMI, these were the most highly correlated with criminal behavior, along with criminal history.

Given the strength of the correlation with alcohol/drugs, the specific items within this were examined further for the strength of their correlation. For the purposes of brevity in this report, only correlations from mild to large have been reported.

Table 4. Alcohol / Drug Problem items and risk of serious harm

Alcohol / Drug Problem	Correlation <i>r</i>
Alcohol problem ever	0.20**
Drug problem ever	0.16**
Current alcohol problem	0.28**
Current drug problem	0.20**

Table 4 demonstrates that the strongest correlation is with current alcohol problem. The possible relevance of this is discussed later in the conclusion.

Given the strength of the correlation with antisocial pattern, the specific items within this were examined further for the strength of their correlation. Table 5 demonstrates that the strongest correlation was with criminal attitudes and pattern of generalised trouble. This begins to provide an outline of the characteristics being identified by practitioners in relation to risk of serious harm.

Table 5. Antisocial Pattern items and risk of serious harm

Antisocial Pattern	Correlation <i>r</i>
Specialised assessment	0.14**
Early and diverse antisocial behaviour	0.20**
Criminal attitudes	0.25**
Pattern of generalised trouble	0.25**

**Correlation is significant at the 0.01 level (2-tailed).

It is also interesting that the sub component ‘Severe problem of adjustment in childhood’ had a moderate correlation with a higher risk of serious harm. (0.21^{**})

The subsequent sections of the LS/CMI allow for consideration of specific risk/need factors) associated with violent offending (section 2.1); history of perpetration of sexual or violent offending (sections 2.2 and 2.3); social, health and mental health issues (section 4); and responsivity issues (section 5). Table 6 examines the total number of each of those sections in relation to the risk of serious harm.

Table 6. Items selected from sections 2, 4 and 5 and risk of serious harm

Sections 2, 4 and 5	Correlation <i>r</i>
2.1: Personal problems with criminogenic potential	0.31 ^{**}
2.3: Number of types of violent offending	0.21 ^{**}
2.4: Number of other types of antisocial behaviours	0.15 ^{**}
4: Social, health and mental health	0.11 ^{**}
5: Responsivity considerations	0.17 ^{**}

^{**}Correlation is significant at the 0.01 level (2-tailed).

A greater number of specific risk/need factors identified in section 2.1 and 2.3 appear to be related to higher risk of serious harm categorisation, as to a lesser extent is the number of responsivity issues. It is interesting that the number of types of sexual offending (section 2.2) did not correlate with a higher risk of serious harm. (0.05 n/s)

Table 7. Section 2.1 Specific risk/need factors /personal problems with criminogenic potential and Risk of Serious Harm

Section 2.1	Correlation <i>r</i>
Problems of compliance	0.23 ^{**}
Problem solving deficits	0.23 ^{**}
Anger management deficits	0.27 ^{**}
Poor social skills	0.19 ^{**}
Outstanding charges	0.19 ^{**}
Racist, sexist, sectarian behaviour	0.15 ^{**}
Intimidating/controlling	0.13 ^{**}
Underachievement	0.13 ^{**}

^{**}Correlation is significant at the 0.01 level (2-tailed).

Table 7 suggests that issues of anger management, impulsivity and poor compliance are related to higher risk of serious harm.

Table 8. Section 2.3 History of violent offences and Risk of Serious Harm

Section 2.3	Correlation <i>r</i>
Assault on adult male (extrafamilial)	0.13 [*]
Assault on adult female (extrafamilial)	0.14 [*]
Assault on an authority figure	0.21 ^{**}
Knife use	0.10 [*]
Use of weapon (other than knife)	0.15 ^{**}

^{**}Correlation is significant at the 0.01 level (2-tailed).

^{*}Correlation is significant at the 0.05 level (2-tailed).

Table 6 showed that there was a correlation between the number of violent offences and the assessed level of risk of serious harm, and table 8 shows the violence offence types with the greatest relationship.

Table 9. Section 4 Other client issues (Social, Health and Mental Health) and Risk of Serious Harm

Section 4	Correlation <i>r</i>
Financial problems	0.16**
Accommodation issues	0.17**
Cognitive impairment	0.16**
Self-harm	0.15**
Low self-esteem	0.11*
Victim family violence	0.18**

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Consistent with the findings presented in terms of early life experiences, (*Table 5 - pattern of generalised trouble*) there is a relationship between risk level and a history of family violence.

Table 10. Section 5 Responsivity and Risk of Serious Harm

Section 5	Correlation <i>r</i>
Motivation as a barrier	0.16**
Low intelligence	0.14*
Mental disorder	0.13*
Antisocial personality / Psychopathy	0.15**

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

These issues of personality are consistent with the previous analysis which indicated that specialised assessment (table 5) and motivation (table 7) correlated to risk of serious harm.

Conclusion

Where a risk of serious harm assessment has been undertaken, these analyses indicates some factors/issues that correlate to practitioners' decisions to assess as higher or lower risk of serious harm.

Those evaluated as higher risk of serious harm (307 assessments) may be characterised as having a generally higher level of criminogenic needs and in particular a higher level of specific risk/need factors associated with current use of alcohol; criminal attitude; pattern of generalised trouble and anger management. In addition this group is characterised by previous alcohol use; current drug problem; early and diverse antisocial behaviour; problems with compliance; problem solving deficits and violent offending, specifically assault on an authority figure.

Table 11. Items with a moderate to high correlation to Risk of Serious Harm

Items with a Moderate to High correlation	Correlation <i>r</i>
Risk / Need Domain	
Criminal History Score	0.20**
Education Employment Score	0.23**
Family Marital Score	0.24**
Companions Score	0.29**
Alcohol Drug Problem Score	0.30**
Procriminal Attitude Orientation Score	0.26**
Antisocial Pattern Score	0.31**
Total LS/CMI score	0.37**
Alcohol / Drug Problem	
Alcohol problem ever	0.20**
Current alcohol problem	0.28**
Current drug problem	0.20**
Antisocial Pattern	
Early and diverse antisocial behaviour	0.20**
Criminal attitudes	0.25**
Pattern of generalised trouble	0.25**
Section 2	
2.1: Personal problems with criminogenic potential	0.31**
Problems of compliance	0.23**
Problem solving deficits	0.23**
Anger management deficits	0.27**
2.3: Number of types of violent offending	0.21**
Assault on an authority figure	0.21**

**Correlation is significant at the 0.01 level (2-tailed).

This is an initial and cursory examination of data which lends itself to further analyses with the prospect of identifying the characteristics of cases that contribute to an evaluation by practitioners of higher risk of serious harm.³ It should be noted that this report reflects on practitioners' decision making and does not infer that those evaluated as higher risk of serious harm went on to commit such offences. The latter would be potential for future research.

³ *Developments within Version 5 of the LS/CMI system (due for release September/ October 2017) will result in the fuller Risk of Serious Harm assessment content being relocated from Section 9 into Section 7. In addition the current decision point at 9.3.3 will be removed and replaced with new considerations at the conclusion of the fuller Risk of Serious Harm assessment.*

References

Andrews, D.A., Guzzo, L., Raynor, P., Rowe, R.C., Rettinger, L.J., Brews, A. and Wormith, J.S. (2011) Are the Major Risk/Need Factors Predictive of Both Female and Male Reoffending? A Test With the Eight Domains of the Level of Service/Case Management Inventory. *International Journal of Offender Therapy and Comparative Criminology* February

Cohen, J. (1988) *Statistical power analysis for the behavioral sciences*. Second Edition. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Hemphill, J.F. (2003) Interpreting the Magnitudes of Correlation Coefficients Simon Fraser University. *American Psychologist* Vol. 58, No. 1, 78–80

Risk Management Authority (2014). LS/CMI in practice national report.

<http://www.rmascotland.gov.uk/quality-assurance/ls-cmi-aggregate-data-reports-2/national-practice/>

7 Thread Street
Paisley
PA1 1JR

0141 278 4478
info@rmascotland.gsi.gov.uk
www.rmascotland.gov.uk

Risk Management Authority

