

# **STATIC-99R & STATIC-2002R**

## **Evaluators' WORKBOOK**

**Amy Phenix, Leslie Helmus, & R. Karl Hanson**

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**This version updates and replaces the November 3, 2009 *Static-99R & Static-2002R Evaluators' Workbook* and the November 1, 2009 *Static-99R Evaluators' Workbook*. Changes have been made to the percentile and relative risk tables. The absolute recidivism rate estimates remain unchanged from the 2009 versions. The July 26, 2012 version is the same as the January 9, 2012 version with the exception of updated references and one correction to the note for the Static-99R Relative Risk Ratios table.**

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## Estimated Percentiles for Canadian Sex Offenders

Static-99R Score	Percentile Rank defined as mid-point average		Observed Percentages		
	Percentile	95% CI	Below	Same	Higher
-3	1.3	0 – 2.9	0	2.7	97.3
-2	4.2	2.4 – 6.1	2.7	3.0	94.3
-1	9.7	5.7 – 13.9	5.7	7.9	86.4
0	18.7	13.4 – 24.1	13.6	10.3	76.1
1	31.7	23.8 – 39.7	23.9	15.7	60.4
2	48.3	39.5 – 57.1	39.6	17.5	42.9
3	65.7	57.0 – 74.3	57.1	17.2	25.7
4	79.6	74.0 – 85.1	74.3	10.7	15.0
5	88.7	84.6 – 92.5	85.0	7.4	7.6
6	94.2	91.9 – 96.2	92.4	3.6	4.0
7	97.2	95.6 – 98.6	96.0	2.5	1.5
8	99.1	98.2 – 99.8	98.5	1.2	0.3
9	99.9	99.5 – 100.0	99.7	0.28	0.02
10+	99.99	99.8 – 100.0	99.98	0.02	0

Static-2002R Score	Percentile Rank defined as mid-point average		Observed Percentages		
	Percentile	95% CI	Below	Same	Higher
-2	1.4	0 – 3.0	0	2.8	97.2
-1	4.2	2.6 – 6.1	2.8	2.9	94.3
0	9.0	5.5 – 12.8	5.7	6.7	87.6
1	17.3	12.3 – 22.5	12.4	9.7	77.9
2	30.1	22.2 – 38.3	22.1	16.0	61.9
3	47.1	38.1 – 56.1	38.1	17.9	44.0
4	63.7	55.9 – 71.4	56.0	15.3	28.7
5	78.0	71.1 – 84.7	71.3	13.5	15.2
6	88.3	84.3 – 92.1	84.8	7.1	8.1
7	93.3	91.3 – 95.1	91.9	2.8	5.3
8	95.9	94.2 – 97.4	94.7	2.5	2.8
9	98.3	96.9 – 99.5	97.2	2.3	0.5
10	99.7	99.3 – 100.0	99.5	0.4	0.1
11	99.97	99.8 – 100.0	99.9	0.09	0.01
12+	99.99	99.8 – 100.0	99.99	0.01	0

Source: Hanson, Lloyd, Helmus & Thornton (2012)

## Relative Risk Ratios

Static-99R Score	Frequency ( <i>n</i> )	Relative Risk Ratio
-3	73	0.19
-2	105	0.26
-1	384	0.37
0	473	0.52
1	565	0.72
2	599	1.00
3	598	1.39
4	491	1.94
5	333	2.70
6	209	3.77
7	120	5.25
8+	87	7.32

Note: Risk ratios were calculated from hazard ratios based on Cox regression coefficients derived from entering the continuous (i.e., unclumped) Static-99R scores ( $\beta = 0.332$ ; SE = .022), with sample as strata ( $k = 8$ ,  $n = 4,037$ ). Due to small sample size, risk ratios are not presented for Static-99R scores greater than 8. The analyses were based on routine (i.e., relatively unselected) correctional samples.

Static-2002R Score	Frequency ( <i>n</i> )	Relative Risk Ratio
-2	30	0.20
-1	36	0.28
0	102	0.38
1	135	0.52
2	192	0.72
3	221	1.00
4	220	1.38
5	195	1.90
6	137	2.63
7	88	3.62
8	45	5.00
9+	51	6.90

Note: Risk ratios were calculated from hazard ratios based on Cox regression coefficients derived from entering the continuous (i.e., unclumped) Static-2002R scores ( $\beta = 0.322$ ; SE = .038), with sample as strata ( $k = 3$ ,  $n = 1,452$ ). Due to small sample size, risk ratios are not presented for Static-2002R scores greater than 9. The analyses were based on routine (i.e., relatively unselected) correctional samples.

Source: Babchishin (2011); Hanson, Babchishin, Helmus, & Thornton (2011)

**STATIC-99R ROUTINE SAMPLE**  
**Estimated 5-year sexual recidivism rates**

Logistic Regression Estimates			
Score	Predicted Recidivism Rate	95% C.I.	
-3	1.2	0.7	2.0
-2	1.6	1.0	2.6
-1	2.1	1.3	3.4
0	2.8	1.8	4.4
1	3.8	2.5	5.8
2	5.0	3.4	7.4
3	6.6	4.6	9.6
4	8.7	6.1	12.2
5	11.4	8.2	15.6
6	14.7	10.8	19.7
7	18.8	14.0	24.7
8	23.7	18.0	30.6
9	29.5	22.8	37.2
10	--	--	--
11	--	--	--

**STATIC-99R NON-ROUTINE SAMPLE**  
**Estimated 5-year and 10-year sexual recidivism rates**

Logistic Regression Estimates						
Score	5-Year Sexual Recidivism Rates			10-Year Sexual Recidivism Rates		
	Predicted Recidivism Rate	95% C. I.		Predicted Recidivism Rate	95% C. I.	
-3	2.2	1.4	3.6	4.2	2.8	6.3
-2	3.0	1.9	4.6	5.5	3.8	7.7
-1	4.0	2.6	6.0	7.0	5.2	9.5
0	5.3	3.6	7.7	9.0	7.0	11.6
1	7.0	4.9	9.8	11.5	9.3	14.1
2	9.1	6.6	12.5	14.6	12.2	17.3
3	11.9	8.8	15.9	18.3	15.6	21.2
4	15.4	11.7	20.0	22.6	19.4	26.2
5	19.6	15.2	24.9	27.7	23.7	32.2
6	24.7	19.6	30.7	33.4	28.2	39.2
7	30.6	24.6	37.2	39.7	33.0	46.8
8	37.2	30.5	44.4	46.3	38.1	54.8
9	44.3	36.9	52.0	53.1	43.4	62.6
10	51.6	43.6	59.6	59.7	48.7	69.8
11	--	--	--	--	--	--

**STATIC-99R PRESELECTED FOR TREATMENT NEED**  
**Estimated 5-year and 10-year sexual recidivism rates**

Logistic Regression Estimates						
Score	5-Year Sexual Recidivism Rates			10-Year Sexual Recidivism Rates		
	Predicted Recidivism Rate	95% C. I.		Predicted Recidivism Rate	95% C. I.	
-3	1.7	1.3	2.3	3.2	2.2	4.7
-2	2.3	1.8	3.0	4.2	3.1	5.7
-1	3.1	2.5	3.9	5.4	4.2	7.0
0	4.1	3.4	5.0	7.0	5.7	8.6
1	5.5	4.6	6.5	9.0	7.6	10.6
2	7.2	6.2	8.4	11.5	9.9	13.2
3	9.5	8.2	10.8	14.5	12.7	16.6
4	12.3	10.8	14.0	18.2	15.8	20.9
5	15.9	13.8	18.1	22.6	19.2	26.4
6	20.2	17.5	23.3	27.6	22.9	32.9
7	25.4	21.8	29.4	33.3	27.0	40.3
8	31.4	26.7	36.6	39.6	31.5	48.3
9	38.1	32.1	44.4	--	--	--
10	--	--	--	--	--	--
11	--	--	--	--	--	--

**STATIC-99R HIGH RISK/NEED GROUP**  
**Estimated 5-year and 10-year sexual recidivism rates**

Logistic Regression Estimates						
Score	5-Year Sexual Recidivism Rates			10-Year Sexual Recidivism Rates		
	Predicted Recidivism Rate	95% C. I.		Predicted Recidivism Rate	95% C. I.	
-3	--	--	--	--	--	--
-2	--	--	--	--	--	--
-1	5.4	4.2	7.0	9.8	7.4	12.9
0	7.2	5.7	8.9	12.5	9.9	15.6
1	9.4	7.7	11.4	15.7	13.0	18.9
2	12.2	10.3	14.5	19.7	16.8	22.9
3	15.8	13.5	18.3	24.3	21.2	27.7
4	20.1	17.4	23.1	29.6	25.9	33.6
5	25.2	22.0	28.8	35.5	30.9	40.5
6	31.2	27.2	35.5	41.9	36.0	48.0
7	37.9	33.1	42.9	48.6	41.4	55.9
8	45.0	39.3	50.8	55.3	46.8	63.6
9	52.4	45.9	58.8	61.9	52.2	70.7
10	59.7	52.6	66.4	68.0	57.6	77.0
11	--	--	--	--	--	--



**STATIC-2002R ROUTINE SAMPLE**  
**Estimated 5-year sexual recidivism rates**

Logistic Regression Estimates			
Score	Predicted Recidivism Rate	95% C. I.	
-2	0.7	0.2	2.6
-1	1.0	0.3	3.3
0	1.2	0.4	4.0
1	1.6	0.5	5.0
2	2.1	0.7	6.2
3	2.8	1.0	7.6
4	3.6	1.3	9.4
5	4.6	1.8	11.7
6	6.0	2.4	14.4
7	7.7	3.1	17.7
8	9.8	4.1	21.7
9	12.5	5.4	26.4
10	-	-	-
11	-	-	-
12	-	-	-
13	-	-	-

**STATIC-2002R NON-ROUTINE SAMPLE**  
**Estimated 5-year and 10-year sexual recidivism rates**

Logistic Regression Estimates

Score	5-Year Sexual Recidivism Rates			10-Year Sexual Recidivism Rates		
	Predicted Recidivism Rate	95% C. I.		Predicted Recidivism Rate	95% C. I.	
-2	-	-	-	-	-	-
-1	-	-	-	-	-	-
0	4.8	3.3	7.0	8.6	6.1	11.9
1	6.2	4.5	8.6	10.8	8.0	14.4
2	8.0	6.0	10.7	13.5	10.3	17.5
3	10.3	7.8	13.4	16.8	12.8	21.6
4	13.0	10.0	16.8	20.6	15.6	26.7
5	16.4	12.5	21.3	25.1	18.6	32.9
6	20.5	15.3	26.9	30.2	21.8	40.2
7	25.2	18.4	33.6	35.8	25.2	48.0
8	30.7	21.9	41.2	41.8	28.8	56.2
9	36.7	25.7	49.3	48.1	32.6	64.0
10	43.2	29.8	57.6	54.5	36.6	71.3
11	49.9	34.3	65.6	60.7	40.8	77.6
12	-	-	-	-	-	-
13	-	-	-	-	-	-

**STATIC-2002R HIGH RISK/NEED GROUP**  
**Estimated 5-year and 10-year sexual recidivism rates**

Logistic Regression Estimates

Score	5-Year Sexual Recidivism Rates			10-Year Sexual Recidivism Rates		
	Predicted Recidivism Rate	95% C. I.		Predicted Recidivism Rate	95% C. I.	
-2	-	-	-	-	-	-
-1	-	-	-	-	-	-
0	5.9	4.6	7.5	10.0	8.2	12.1
1	7.6	6.2	9.2	12.5	10.6	14.7
2	9.7	8.1	11.5	15.6	13.2	18.2
3	12.3	10.3	14.7	19.2	15.9	23.0
4	15.5	12.7	18.9	23.5	18.7	29.1
5	19.4	15.3	24.3	28.4	21.6	36.2
6	24.0	18.3	30.9	33.8	24.8	44.2
7	29.3	21.6	38.4	39.7	28.2	52.5
8	35.2	25.2	46.7	46.0	31.8	60.8
9	41.6	29.1	55.2	52.3	35.7	68.5
10	48.3	33.4	63.4	58.6	39.7	75.3
11	55.0	37.9	71.0	64.6	43.8	81.0
12	-	-	-	-	-	-
13	-	-	-	-	-	-

## **Samples Used To Construct Percentile Ranks for Static-99/R and Static-2002/R**

Ideally the percentiles calculated in the Evaluator Workbook would consider all Canadian adults convicted of a sexual offense as the reference category. An unbiased sample of all Canadian sexual offenders was not available; however, we were able to identify four relatively unbiased samples of sexual offenders released between 1990 and 2005 from the three major divisions of the Canadian criminal justice system: a) community, b) provincial prison (sentences of less than 2 years that are administered by the provinces), and c) federal prison (sentences of 2 years or more that are administered federally by the Correctional Service of Canada). We then used standard survey sampling statistics (Kalton, 1983) to estimate a representative normative (Canadian) sample from these multiple independent samples (see Hanson et al., 2012).

### **Canadian Samples**

1) *Dynamic Supervision Project* (Hanson, Harris, Scott, & Helmus, 2007). This prospective study followed sex offenders on community supervision between 2001-2005 in all Canadian provinces and territories, and two U.S. states. For the current study, only Canadian offenders were considered. Participating probation officers ( $n = 137$ ) were requested to submit demographic, offense history, and risk assessment information (Static-99, STABLE-2007, ACUTE-2007) on sex offenders consecutively entering their caseload. File review indicated that the cases were not always consecutive; however, the sample can be considered representative of the diverse group of sex offenders on community supervision.

Static-99 scores were coded prospectively by the probation officers. Static-2002 scores were coded by graduate students based on information from Static-99 scores and Canadian Police Information Centre (CPIC) records maintained by the Royal Canadian Mounted Police (RCMP). Static-99R and Static-2002R were created by retrospectively reweighting the age variables of these measures.

Of the 595 offenders with the necessary data for the current analyses, 38 were supervised following a federal sentence ( $n = 38$ , 6.4%), 254 following a provincial sentence (42.7%), and 303 received solely a non-custodial sentence (e.g., probation, conditional sentence order, or in rare cases, a peace bond; 50.9%). Twenty-four offenders (4.0%) had a non-sexual violent index offense.

Interrater reliability for Static-99 was examined through file review of 88 cases coded by probation officers participating in the DSP project ( $ICC = .91$ ). An exceptionally high interrater reliability for Static-2002 coding ( $ICC = .98$ ,  $n = 25$  cases) was observed. Coding was based upon probation officers' obtained Static-99 scores and conviction information rather than interpretation of victim information or offense circumstances. Consequently, reliability for Static-2002 scores in this study should not be considered representative or typical.

2) Canadian federal offenders: B.C. (Boer, 2003). Archival data from the Offender Management System (OMS) maintained by Correctional Service Canada (CSC) were used to identify all federal male offenders serving a sentence for a sexual offense in British Columbia whose Warrant Expiry Date (WED; the end of their sentence) was between January 1990 and May 1994. Many offenders are granted conditional release before their WED; thus, offenders in this sample were released as early as 1986 ( $n = 296$ ). Interrater reliability was unavailable for this sample.

3) Canadian federal offenders: 1995 WED (Haag, 2005). OMS records were used to identify all federal sex offenders with a WED in 1995. Offenders were released as early as 1987 ( $n = 663$ ). Interrater reliability for Static-99 and Static-2002 scores was high ( $r = .92$  and  $.84$ , respectively;  $n = 66$  cases) when assessed by the lead researcher (Haag) and another psychologist.

4) Canadian federal offenders: Quebec (Bigras, 2007). This study included 94% of all sex offenders receiving a federal sentence in Quebec between 1995-2000 (6% refused participation in the research or were unable to provide consent). Static-99 and Static-2002 scores were coded from file data and offender interviews ( $n = 457$ ). Interrater reliability was unavailable for this sample.

Table 1

*Characteristics of Canadian Samples*

Sample	<i>N</i>	Age <i>M (SD)</i>	Offender Type: % Rapists/ % Child Molesters	Static-99 <i>M (SD)</i>	Static-99R <i>M (SD)</i>	Static-2002 <i>M (SD)</i>	Static-2002R <i>M (SD)</i>
Dynamic Supervision Project	595	42 (14)	36/54	2.6 (1.9)	2.1 (2.3)	3.8 (2.2)	3.2 (2.4)
Federal: B.C.	296	41 (12)	40/55	3.2 (2.3)	2.8 (2.8)	4.5 (2.5)	3.9 (2.7)
Federal: 1995 WED	663	41 (12)	46/52	2.8 (2.0)	2.5 (2.6)	4.6 (2.4)	4.1 (2.6)
Federal: Quebec	457	43 (12)	38/46	2.7 (2.0)	2.1 (2.4)	4.1 (2.3)	3.5 (2.5)
Total	2,011	42 (13)	40/52	2.8 (2.0)	2.3 (2.5)	4.2 (2.3)	3.7 (2.5)

*Note.* Age refers to age at release.

## Samples Used To Construct Risk Ratios for Static-99R and Static-2002R

A risk ratio is a global term to describe a ratio to compare recidivism among two groups (e.g., scores of 7 compared to the median score of 2 on Static-99R or a score of 7 compared to the median score of 3 on Static-2002R). There are different ways to calculate risk ratios such as rate ratios, odds ratios, or hazard ratios. In these datasets, hazard ratios were used to define risk ratios (see Babchishin, 2011).

The 8 samples ( $n = 4,037$ ) used in the current study were selected from a larger group of studies used for the re-norming of Static-99 (Helmus, 2009). Of the 29 datasets available, 23 had the necessary information for calculating Static-99R risk ratios for sexual recidivism; however, only eight approximated routine samples that had not been preselected on risk-relevant characteristics or the need for treatment. These 8 samples were selected as most representative of the complete population of sexual offenders in their respective jurisdictions. Of these, 3 samples also had Static-2002R scores (Bigras [2007], Boer [2003], and Hanson et al. [2007]).

1. **Bartosh, Garby, Lewis, & Gray (2003)**. The study examined sex offenders released from the Arizona Department of Corrections and subject to registration and notification.
2. **Bigras (2007)**. The sample included 94% of all sexual offenders receiving a federal sentence (two or more years) in Quebec between 1995 and 2000 (6% refused participation in the research or were unable to provide consent).
3. **Boer (2003)**. The study examined all male federal offenders serving a federal sentence for a sexual offense in British Columbia whose Warrant Expiry Date (WED; the end of their sentence) was between January 1990 and May 1994. Many offenders are granted conditional release prior to their WED; thus, offenders in this sample were released as early as 1976.
4. **Craissati, Bierer, & South (2008)**. The study examined all contact sex offenders on probation in two boroughs in South East London during the study period.
5. **Eher, Rettenberger, Schilling, & Pfafflin (2009)**. The study examined sex offenders released from prison in Austria. The sample size in this dataset was approximately twice the size of the sample in an earlier report of this project (Eher, Rettenberger, Schilling, & Pfafflin, 2008).
6. **Epperson (2003)**. The study examined sex offenders in North Dakota who were either incarcerated or on probation.

7. **Hanson, Harris, Scott, & Helmus (2007)**. This prospective study followed offenders on community supervision between 2001-2005 in Canada, Alaska, and Iowa, although only Canadian offenders were used in the current study.
8. **Långström (2004)**. The study examined sex offenders released from prison in Sweden.



Table 3

*Descriptive Information for Static-99R samples*

Study	Cox Regression N	N <sub>5-year</sub> (Logistic Regression)	Static-99R M (SD)	Country	Recidivism Criteria	Type of Sample	Mostly Treated	Release Period	Md Year Release
Bartosh et al. (2003)	186	90	3.3 (2.9)	U.S.	Charges	Routine correctional	-	1996	1996
Bigras (2007)	480	206	2.1 (2.4)	Canada	Charges	Routine CSC	Mixed	1995-2004	1999
Boer (2003)	299	299	2.8 (2.8)	Canada	Conviction	Routine CSC	-	1976-1994	1990
Craissati et al. (2008)	209	200	2.2 (2.3)	U.K.	Conviction	Routine community supervision	Mixed	1992-2005	1998
Eher et al. (2008)	706	151	2.3 (2.3)	Austria	Conviction	Routine European prison	-	2000-2005	2003
Epperson (2003)	177	150	2.5 (2.6)	U.S.	Charges	Routine correctional	-	1989-1998	1995
Hanson et al. (2007)	702	-	2.4 (2.4)	Canada	Charges	Routine community supervision	-	2001-2005	2002
Långström (2004)	1,278	1,278	2.0 (2.4)	Sweden	Conviction	Routine European prison	No	1993-1997	1995
Total	4,037	2,374	2.3 (2.5)	-	-	-	-	1976-2005	1997

*Note.* CSC = Correctional Service Canada (administers all sentences of at least two years). Average Static-99R computed using sample size from cox regression. Sample includes all cases available for cox regression with sample as strata; three cases were deleted because the total follow-up time was less than the time to first observed recidivism event. Thirty-one cases from Hanson et al. (2007) were excluded from all 5-year analyses because there were no sexual recidivists in that group.

Table 4

*Descriptive Information for Static-2002R samples*

Study	<i>Cox Regression N</i>	<i>N<sub>5-year</sub> (Logistic Regression)</i>	Static-02R M (SD)	Country	Recidivism Criteria	Type of Sample	Mostly Treated	Release Period	Mdn Year Release
Bigras (2007)	454	196	3.5 (2.5)	Canada	Charges	Routine CSC	Mixed	1995-2004	1999
Boer (2003)	296	296	3.9 (2.7)	Canada	Conviction	Routine CSC	-	1976-1994	1990
Hanson et al. (2007)	702	-	3.5 (2.5)	Canada	Charges	Routine community supervision	-	2001-2005	2002
Total	1,452	492	3.6 (2.5)	-	-	-	-	1976-2005	1997

*Note.* CSC = Correctional Service Canada (administers all sentences of at least two years). Average Static-2002R computed using sample size from cox regression. Sample includes all cases available for cox regression with sample as strata; three cases were deleted because the total follow-up time was less than the time to first observed recidivism event. Thirty-one cases from Hanson et al. (2007) were excluded from all 5-year analyses because there were no sexual recidivists in that group.

## **Static-99R Summary List of Samples for Recidivism Tables**

**(with fixed 5-year follow-up data,  $k = 23$ ,  $n = 5,760$ ; with 10-year follow-up data,  $k = 11$ ,  $n = 1,642$ )**

### **Routine Corrections**

**(with 5-year data,  $k = 8$ ,  $n = 2,406$ )**

Bartosh et al. (2003)  
Bigras (2007)  
Boer (2003)  
Craissati et al. (2008)  
Eher et al. (2008)  
Epperson (2003)  
Hanson et al. (2007)  
Langstrom (2004)

### **Non-Routine**

**(with 5-year data,  $k = 15$ ,  $n = 3,354$ ; with 10-year data,  $k = 11$ ,  $n = 1,642$ )**

Allan et al. (2007)  
Bengtson (2008)  
Bonta & Yessine (2005)  
Brouillette-Alarie & Proulx (2008)  
Cortoni & Nunes (2007)  
Haag (2005)  
Harkins & Beech (2007)  
Hill et al. (2008)  
Johansen (2007)  
Knight & Thornton (2007)  
Nicholaichuk (2001)  
Saum (2007)  
Swinburne Romine et al. (2008)  
Ternowski (2004)  
Wilson et al. (2007A & B)

### **Preselected Treatment Need**

**with 5-year data,  $k = 6$ ,  $n = 1,782$ ; with 10-year data,  $k = 5$ ,  $n = 866$ )**

Allan et al. (2007)  
Brouillette-Alarie & Proulx (2008)  
Harkins & Beech (2007)  
Johansen (2007)  
Swinburne Romine et al. (2008)  
Ternowski (2004)

### **Preselected High-Risk/Need**

**(with 5-year data,  $k = 6$ ,  $n = 1,313$ ; with 10-year data,  $k = 5$ ,  $n = 722$ )**

Bengtson (2008)  
Bonta & Yessine (2005)  
Haag (2005)  
Knight & Thornton (2007)  
Nicholaichuk (2001)  
Wilson et al. (2007A & B)

## Static-99R Sample Descriptions for Recidivism Tables

### Routine Corrections

*Bartosh, Garby, Lewis, & Gray, 2003.* The study sample consists of sex offenders released from the Arizona Department of Corrections and subject to registration and notification. The Static-99 was scored from file information and recidivism was coded from FBI records. Interrater reliability was reported ( $r = .90$ ), although the number of cases coded by multiple raters is unknown.

*Bigras, 2007.* The original sample contained 94% of all sexual offenders receiving a federal sentence (two or more years) in Quebec between 1995 and 2000 (6% refused participation in the research or were unable to provide consent). Assessment information was extracted from file data and interviews with offenders. Recidivism data was collected using CPIC records.

*Boer, 2003.* The study sample consists of all male federal offenders serving a sentence for a sexual offense in British Columbia whose Warrant Expiry Date (WED; the end of their sentence) was between January 1990 and May 1994. Many offenders are granted conditional release prior to their WED; thus, offenders in this sample were released as early as 1976. Recidivism information was collected using CPIC records. Category B sexual offenses (see A. J. R. Harris et al., 2003) were excluded from the definition of sexual recidivism.

*Craissati, Bierer, & South, 2008.* The study sample consists of all contact sex offenders on probation in two boroughs in South East London during the study period. The Static-99 was coded from file information and recidivism data was collected from four sources: the Police National Computer, the Violent and Sex Offenders Register, the Multiple Criminal Remote Access, and the EApps database.

*Eher, Rettenberger, Schilling, & Pfafflin, 2009.* The study sample consists of sex offenders released from prison in Austria (see Eher, Rettenberger, Schilling, & Pfafflin, 2008). Interrater reliability was assessed by having four raters code 27 cases ( $ICC = .90$ ). Recidivism information was collected from the Federal Department of the Interior.

*Epperson, 2003.* The study sample consists of sex offenders in North Dakota who were either incarcerated or on probation. Recidivism information was collected from North Dakota state records.

*Hanson, Harris, Scott, & Helmus, 2007.* This prospective study followed offenders on community supervision between 2001-2005 in Canada, Alaska, and Iowa, although only Canadian offenders were used in the current study. Static-99 was coded by community supervision officers and sent to the project staff, and interrater reliability was examined through file review of 88 cases coded by the officers ( $ICC = .91$ ). Recidivism information was collected from CPIC records,

supervising officers, provincial records, and informal police contacts (additionally, one recidivist was identified in a newspaper article).

*Långström, 2004.* The study sample consists of sex offenders released from prison in Sweden. The Static-99 was coded from file information and recidivism was coded from the National Council for Crime Prevention.

## **Non-Routine**

### **Selected as Needing Treatment**

*Allan, Grace, Rutherford, & Hudson, 2007.* The study sample consists of child molesters who completed the prison-based Kia Marama sex offender treatment program in Christchurch, New Zealand. Recidivism information was collected from the New Zealand Department of Corrections.

*Brouillette-Alarie & Proulx, 2008.* The study sample consists of offenders treated or assessed at a maximum security psychiatric facility in Quebec. A sample from this facility was used in the original development samples of Static-99, but any overlapping cases were removed in the present study. Recidivism information was collected from CPIC records and Montreal courthouse records.

*Harkins & Beech, 2007.* This sample included offenders from three other studies in the United Kingdom. The first sample consisted of offenders from the mid to late 1990s in Her Majesty's Prison Service's Sex Offender Treatment Programme. The second sample was drawn from a community treatment program in the early 1990s, and the third sample included offenders who underwent community treatment in the late 1990s in West Midlands. The intensity of the treatment varied and treatment dropouts were retained in the sample. Recidivism data was collected from the Home Office offenders Index and Police National Computer.

*Johansen, 2007.* The study sample consists of participants from a prison-based sex offender treatment program in Washington State. Static-99 was coded from file information and recidivism was coded from the Office of the Administrators of the Courts and the Department of Corrections Offender Based Tracking System.

*Swinburne Romine, Dwyer, Mathiowetz, & Thomas, 2008.* The study sample consists of offenders assessed or treated at an outpatient treatment program at the University of Minnesota. Recidivism information was coded from the Bureau of Criminal Apprehension records.

*Ternowski, 2004.* The study sample consists of sex offenders referred to the Stave Lake Correctional Centre Program, located in a provincial institution in B.C. Recidivism information was coded from provincial correctional records maintained by the Minister of the Attorney General of British Columbia.

## Selected as High Risk/Needs

*Bengtson, 2008.* The study sample consists of sex offenders who received a pre-trial forensic psychiatric evaluation in Denmark. Such evaluations were typically conducted for offenders suspected of mental disorder or mental retardation, offenders deemed high risk by the courts, those accused of serious offenses, and those for whom an indefinite sentence was being considered. The Static-99 was coded from file information and criminal records. Recidivism information was obtained from the Danish Central Crime Register, and interrater reliability was assessed by having two raters code 20 cases ( $ICC = .94$ ).

*Bonta & Yessine, 2005.* The original sample consisted of three subgroups of Canadian offenders: 1) offenders flagged as potential Dangerous Offenders (subject to indeterminate sentence) by the National Flagging System, 2) offenders designated as Dangerous Offenders, and 3) offenders who committed a violent reoffense after being detained until their Warrant Expiry Date. Only offenders in the first group (flagged offenders), however, had Static-99 scores available. For these offenders, Static-99 was coded from file information and recidivism was coded from CPIC records and Offender Management System (OMS) records from the Correctional Service of Canada (CSC). The definition of sexual recidivism excluded prostitution offenses, indecent phone calls, and possession of child pornography. Given the low frequency of these offenses, it is expected that this restricted definition would have minimal impact on the results.

In some cases the offender's "current" offense (i.e., the offense that precipitated the flag) was non-sexual but there was a prior sexual offense on record. Their most recent sex offense was used as the index sex offense for Static-99 scoring purposes (as per the coding rules), but these cases are somewhat unique because the offenders spent time in the community after their index sex offense but before the recidivism follow-up period began. To retain a sample of offenders who were serving a sentence for a sexual offense or who had a recent sex offense on file, offenders with more than two years between their index sex offense and the current offense for which they were flagged were deleted ( $n = 22$ ).

*Haag, 2005.* The original study sample included all male Canadian federal sex offenders whose Warrant Expiry Date was in 1995, although 75% of offenders were released prior to their WED. Follow-up information was collected for 7 years after the WED. Because recidivism information was not recorded for the time period after release but before the WED, offenders who were released more than 30 days in advance of their WED were deleted, effectively reducing the sample to offenders who were detained until Warrant Expiry. Under Canadian legislation, offenders are to be automatically released after serving two thirds of their sentence. In some cases, however, CSC will make an application to have the offender detained until Warrant Expiry if the parole board is satisfied that if released, the offender poses a significant risk of committing a serious offense before their sentence expires. Recidivism information was collected from CPIC records. Interrater reliability was assessed by

having 66 cases from the original sample coded by the main researcher and a CSC psychologist ( $r = .92$ ).

*Knight & Thornton, 2007.* This study followed offenders who were either assessed or treated at the Massachusetts Treatment Center (MTC; a treatment center for sexually dangerous persons) between 1959 and 1984. Static-99 was retrospectively coded from file data by raters who were blind to recidivism status. Recidivism information was obtained from four sources: Massachusetts Board of Probation records, Massachusetts Parole Board records, MTC Authorized Absence Program records, and FBI records. Interrater reliability was evaluated by having 232 Static-99 cases coded by two raters ( $r = .87$ ). In the original dataset, total scores were averaged across raters as opposed to generating a consensus rating. For this project, a consensus score was identified wherever possible. For example, given inconsistent coding concerning age at release, the offender's birth date and release date were used to obtain the correct score. Also, if one rater's score did not make sense given other information in the dataset, then the other rater's score was used. When consensus ratings could not be generated, the rating was determined by flipping a coin.

*Nicholaichuk, 2001.* The study sample consists of sex offenders treated at the Clearwater sex offender treatment program, located in a federal maximum-security forensic mental health facility in Saskatchewan. Recidivism information was coded from CPIC records.

*Wilson and colleagues (2007a & b).* The study sample consists of Canadian offenders combined from two previous studies: Wilson, Cortoni, and Vermani (2007a), and Wilson, Picheca, and Prinzo (2007b). Both studies consist of high-risk sex offenders who were detained in prison until their Warrant Expiry Date (the end of their sentence). In both studies, half of the offenders participated in Circles of Support and Accountability, while another (matched) group of sex offenders did not. Although the two studies had separate samples, they were combined into one dataset because both samples were selected in the same way and the basic descriptive information was the same for both studies.

### **Non-Routine - Other**

*Cortoni & Nunes, 2007.* The study sample consists of Canadian federal offenders who received the low or moderate intensity National Sexual Offender Treatment Program (implemented in 2000). The original study also used a comparison group of federal offenders under community supervision in 1991, but these offenders were excluded from the present study due to insufficient follow-up information for logistic regression analyses. Recidivism information was collected from CPIC records. This sample was not included as Preselected for Treatment because offenders are screened into CSC's low risk sex offender program because they have few or no criminogenic needs.

*Hill, Haberman, Klusmann, Berner, & Briken, 2008.* The study sample consists of offenders who committed a sexual homicide. Static-99 was coded from file information and recidivism was coded from German federal criminal records.

*Saum, 2007.* The study sample consists of sex offenders treated by North Dakota's Department of Human Services. Static-99 was scored from file information and recidivism was coded from records maintained by the North Dakota Department of Corrections. Interrater reliability was assessed by having two raters code 20 cases ( $ICC = .95$ ). This sample was not included as Preselected for Treatment because it was a statistical outlier.



## **Static-2002R Summary List of Samples for Recidivism Tables**

**(with 5-year data,  $k = 7$ ,  $n = 1,647$ ; with 10-year data,  $k = 3$ ,  $n = 767$ )**

### **Routine**

**(with 5-year data,  $k = 3$ ,  $n = 526$ )**

Bigras (2007)

Boer (2003)

Hanson et al. (2007)

### **Non-Routine (skewed toward high risk need group)**

**(with 5-year data,  $k = 4$ ,  $n = 1,121$ ; with 10-year data,  $k = 3$ ,  $n = 767$ )**

Bengston (2008)

Haag (2005)

Harkins & Beech (2007)

Knight & Thornton (2007)

### **Preselected Treatment Need**

Harkins & Beech (2007) (recidivism data not used due to small number of samples)

### **Preselected High-risk/Need**

**(with 5-year data,  $k = 3$ ,  $n = 931$ ; with 10-year data,  $k = 2$ ,  $n = 642$ )**

Bengston (2008)

Haag (2005)

Knight & Thornton (2007)

## Static-2002R Sample Descriptions for Recidivism Tables

### Routine

*Bigras, 2007.* The original sample contained 94% of all sexual offenders receiving a federal sentence (two or more years) in Quebec between 1995 and 2000 (6% refused participation in the research or were unable to provide consent). Assessment information was extracted from file data and interviews with offenders. Recidivism data was collected using CPIC records.

*Boer, 2003.* The study sample consists of all male federal offenders serving a sentence for a sexual offense in British Columbia whose Warrant Expiry Date (WED; the end of their sentence) was between January 1990 and May 1994. Many offenders are granted conditional release prior to their WED; thus, offenders in this sample were released as early as 1976. Recidivism information was collected using CPIC records. Category B sexual offenses (see A. J. R. Harris et al., 2003) were excluded from the definition of sexual recidivism.

*Hanson, Harris, Scott, & Helmus, 2007.* This prospective study followed offenders on community supervision between 2001-2005 in Canada, Alaska, and Iowa, although only Canadian offenders were used in the current study. Static-99 was coded by community supervision officers and sent to the project staff, and interrater reliability was examined through file review of 88 cases coded by the officers ( $ICC = .91$ ). Recidivism information was collected from CPIC records, supervising officers, provincial records, and informal police contacts (additionally, one recidivist was identified in a newspaper article).

### Non-Routine

#### Preselected as Needing Treatment

*Harkins & Beech, 2007.* This sample included offenders from three other studies in the United Kingdom. The first sample consisted of offenders from the mid to late 1990s in Her Majesty's Prison Service's Sex Offender Treatment Programme. The second sample was drawn from a community treatment program in the early 1990s, and the third sample included offenders who underwent community treatment in the late 1990s in West Midlands. The intensity of the treatment varied and treatment dropouts were retained in the sample. Recidivism data was collected from the Home Office offenders Index and Police National Computer.

#### Preselected as High Risk/Need

*Bengtson, 2008.* The study sample consists of sex offenders who received a pre-trial forensic psychiatric evaluation in Denmark. Such evaluations were typically conducted for offenders suspected of mental disorder or mental retardation, offenders deemed high risk by the courts, those accused of serious offenses, and

those for whom an indefinite sentence was being considered. The Static-99 was coded from file information and criminal records. Recidivism information was obtained from the Danish Central Crime Register, and interrater reliability was assessed by having two raters code 20 cases ( $ICC = .94$ ).

*Haag, 2005.* The original study sample included all male Canadian federal sex offenders whose Warrant Expiry Date was in 1995, although 75% of offenders were released prior to their WED. Follow-up information was collected for 7 years after the WED. Because recidivism information was not recorded for the time period after release but before the WED, offenders who were released more than 30 days in advance of their WED were deleted, effectively reducing the sample to offenders who were detained until Warrant Expiry. Under Canadian legislation, offenders are to be automatically released after serving two thirds of their sentence. In some cases, however, CSC will make an application to have the offender detained until Warrant Expiry if the parole board is satisfied that if released, the offender poses a significant risk of committing a serious offense before their sentence expires. Recidivism information was collected from CPIC records. Interrater reliability was assessed by having 66 cases from the original sample coded by the main researcher and a CSC psychologist ( $r = .92$ ).

*Knight & Thornton, 2007.* This study followed offenders who were either assessed or treated at the Massachusetts Treatment Center (MTC; a treatment center for sexually dangerous persons) between 1959 and 1984. Static-99 was retrospectively coded from file data by raters who were blind to recidivism status. Recidivism information was obtained from four sources: Massachusetts Board of Probation records, Massachusetts Parole Board records, MTC Authorized Absence Program records, and FBI records. Interrater reliability was evaluated by having 232 Static-99 cases coded by two raters ( $r = .87$ ). In the original dataset, total scores were averaged across raters as opposed to generating a consensus rating. For this project, a consensus score was identified wherever possible. For example, given inconsistent coding concerning age at release, the offender's birth date and release date were used to obtain the correct score. Also, if one rater's score did not make sense given other information in the dataset, then the other rater's score was used. When consensus ratings could not be generated, the rating was determined by flipping a coin.

## PERCENTILES TEMPLATE FOR REPORT WRITING

The following is suggested wording for including percentile rank information in applied reports. This is only a suggestion, and evaluators should choose the format that best suits their context and communication needs.

Compared to other adult male sex offenders, Mr. X's score (6 on Static-99R) places him in the 94<sup>th</sup> percentile. Taking into account that about 4% of sex offenders shared the same score as Mr. X, this percentile means that roughly 92% of offenders scored lower than Mr. X, and that 4% scored higher. These percentiles are from 2,011 cases from 4 samples of Canadian sex offenders, which were re-weighted to approximate the distribution of all convicted sex offenders in Canada. These percentiles appear highly stable in international comparisons with large, relatively representative samples in Sweden and California.

## RISK RATIO TEMPLATES FOR REPORT WRITING

The following is suggested wording for including risk ratio information in applied reports. This is only a suggestion, and evaluators should choose the format that best suits their context and communication needs.

### Static-99R

The sexual recidivism rate of sex offenders with the same score as Mr. X (score of 5 on Static-99R) would be expected to be approximately 2.7 times higher than the recidivism rate of the typical sexual offender (defined as a median score of 2). These hazard ratios are from 4,037 cases from 8 routine (i.e., relatively unselected) correctional samples of sex offenders from Austria, Canada, Sweden, and the United States. These hazard ratios appear stable in the relatively unselected samples of sexual offenders from which they were based.

### Static-2002R

The sexual recidivism rate of sex offenders with the same score as Mr. X (score of 4 on Static-2002R) would be expected to be approximately 1.38 times higher than the recidivism rate of the typical sexual offender (defined as a median score of 3). These hazard ratios are from 1,452 cases from 3 routine (i.e., relatively unselected) correctional samples of sex offenders from Canada. These hazard ratios appear stable in the relatively unselected samples of sexual offenders from which they were based.

## Reporting Static-99R scores with 2009 recidivism norms (routine samples):

A template for cases in which the norms for routine samples apply.

**Note:** This template is provided as an example only. Evaluators are free to use this template, or to revise the wording as they see fit. Further information concerning the research upon which this template is based can be found at [www.static99.org](http://www.static99.org).

Mr. XXX was scored on Static-99R, which is an actuarial measure of relative risk for sexual offense recidivism. Given that Static-99R was found to fully incorporate the relationship between age at release and sexual recidivism, whereas the original Static-99 scale did not (Helmus, Thornton, Hanson, & Babchishin, 2012)<sup>1</sup>, the developers of Static-99 recommend that the revised version of the scale (Static-99R) replace Static-99 in all contexts where it is used. Static-99R has shown moderate accuracy in ranking offenders according to their relative risk for sexual recidivism. Furthermore, its accuracy in assessing relative risk has been consistent across a wide variety of samples, countries, and unique settings (Helmus, 2009)<sup>2</sup>. As the table below illustrates, Mr. XXX received a total score of XXX which places him in the Low, Moderate-Low, Moderate-High, or High Risk Category for being charged or convicted of another sexual offence.

### Static-99R Score Summary

	Risk Factor	Yes = 1, No = 0	Scores
1	Age at Release? (Score range is -3 to 1)		
2	Ever lived with (no two year relationship)?		
3	Index non-sexual violence, any conviction?		
4	Prior non-sexual violence, any convictions?		
5	Prior sex offenses? (Score range is 0-3)		
6	Prior sentencing dates (excluding index)?		
7	Convictions for non-contact sex offenses?		
8	Any unrelated victims?		
9	Any stranger victims?		
10	Any male victims?		
TOTAL SCORE = _____			
RISK CATEGORY= _____			

<sup>1</sup> Helmus, L., Thornton, D., Hanson, R.K., & Babchishin, K.M. (2012). Improving the predictive accuracy of Static-99 and Static-2002 with older sex offenders: Revised age weights. *Sexual Abuse: A Journal of Research and Treatment*, 24(1), 64-101. doi:10.1177/1079063211409951

<sup>2</sup> Helmus, L. (2009). *Re-norming Static-99 recidivism estimates: Exploring base rate variability across sex offender samples*. Unpublished master's thesis, Carleton University, Ottawa, Ontario, Canada.

Percentile data are from 2,011 cases from 4 samples of Canadian sex offenders, which were reweighted to approximate the distribution of all convicted sex offenders in Canada. These percentiles appear highly stable in international comparisons with large, relatively representative samples in Sweden and California (Hanson, Lloyd, Helmus, & Thornton, 2012).<sup>3</sup> Given ties (i.e., several offenders receiving the same score), there are several different ways of reporting percentiles, including the percentage scoring below, the percentage above, and a midpoint average of these values. Percentile rankings are useful in situations where the allocation of limited resources must be made, such as for treatment, community supervision, etc. Absolute degrees of recidivism risk cannot be directly inferred from the percentile rankings.

Compared to other adult male sex offenders, Mr. XXX's score is in the XX<sup>th</sup> percentile (defined as a midpoint average). Taking into account that about XX% of sex offenders shared the same score as Mr. XXXX, the percentile means that roughly XX% of offenders scored lower than Mr. XXXX, and XX% scored higher.

Relative risk ratios refer to the ratio of two recidivism rates. Research has found the relative risk associated with different Static-99R scores to be consistent even when the overall base rate of recidivism varies across samples. Risk ratios for Static-99R scores were based on 8 samples of sexual offenders from Canada, the United States, the United Kingdom, Austria, and Sweden ( $n = 4,037$ ). The analyses were based on routine (i.e., relatively unselected) correctional samples. The recidivism rate for sex offenders with the same score as Mr. XXXX would be expected to be approximately (half/two thirds) of (**FOR SCORES LOWER THAN 2**), the same as (**FOR SCORES OF 2**), X.X times higher than (**FOR SCORES GREATER THAN 2**) the recidivism rate of the typical sexual offender (defined as median score of 2).

There have been a large number of studies examining the absolute sexual recidivism rates associated with Static-99 scores. Helmus (2009) combined 28 Static-99 replication studies and was able to calculate Static-99R scores for 23 of these samples. The samples ( $n = 8,139$ ) were drawn from Canada, the United States, United Kingdom, western Europe and New Zealand. Recidivism was defined as charges in about half of these studies and as convictions in the other half.

Although the relative risk was consistent across studies, the observed recidivism base rates varied considerably across samples based on factors not measured by Static-99R. Samples that were preselected to be high-risk/high needs (6 samples) show the highest recidivism rates, samples preselected based on treatment need (6 samples) had intermediate recidivism rates, and routine (i.e., unselected) correctional samples had recidivism rates substantially lower than the preselected groups (and

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<sup>3</sup> Hanson, R. K., Lloyd, C. D., Helmus, L., & Thornton, D. (2012). Developing non-arbitrary metrics for risk communication: Percentile ranks for the Static-99/R and Static-2002/R sexual offender risk tools. *International Journal of Forensic Mental Health, 11*(1), 9-23. doi:10.1080/14999013.2012.667511

also lower than the recidivism rates in the original development samples for Static-99).

In applying the recidivism norms it is ideal to use local norms that are applicable to the group of offenders to which this offender most closely resembles. Given that these norms are not often available, the routine sample will usually reflect the most appropriate recidivism rates as they are representative of typical sex offenders in correctional systems. A description of the routine correctional samples follows:

#### Routine Correctional Samples

This group consisted of eight samples of sex offenders from Canada, the United States, England, Austria and Sweden. These samples were relatively random (i.e., unselected) samples from a correctional system (as opposed to samples from specific institutions or subject to specific measures). In other words, they can be considered roughly representative of all adjudicated sex offenders. Some offenders in these samples would have been subsequently screened for treatment or other special measures (e.g., psychiatric admission or exceptional measures related to dangerousness), but these samples represent the full population of all offenders prior to any preselection processes. The recidivism norms for the unselected samples are the closest available to a hypothetical average of all sex offenders.

Mr. XXXX scored a XX on the Static-99R. Offenders from routine correctional samples with the same score as Mr. XXXX have been found to sexually reoffend at a rate of XXXX percent in five years.



## Reporting Static-99R scores with 2009 recidivism norms (non-routine samples):

A template for cases in which the norms for routine samples do not apply.

**Note:** This template is provided as an example only. Evaluators are free to use this template, or to revise the wording as they see fit. Further information concerning the research upon which this template is based can be found at [www.static99.org](http://www.static99.org).

Mr. XXX was scored on Static-99R, which is an actuarial measure of relative risk for sexual offense recidivism. Given that Static-99R was found to fully incorporate the relationship between age at release and sexual recidivism, whereas the original Static-99 scale did not (Helmus, Thornton, Hanson, & Babchishin, 2012)<sup>1</sup>, the developers of Static-99 recommend that the revised version of the scale (Static-99R) replace Static-99 in all contexts where it is used. Static-99R has shown moderate accuracy in ranking offenders according to their relative risk for sexual recidivism. Furthermore, its accuracy in assessing relative risk has been consistent across a wide variety of samples, countries, and unique settings (Helmus, 2009)<sup>2</sup>. As the table below illustrates, Mr. XXX received a total score of XXX which places him in the Low, Moderate-Low, Moderate-High, or High Risk Category for being charged or convicted of another sexual offence.

### Static-99R Score Summary

	Risk Factor	Yes = 1, No = 0	Scores
1	Age at Release? (Score range is -3 to 1)		
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6	Prior sentencing dates (excluding index)?		
7	Convictions for non-contact sex offenses?		
8	Any unrelated victims?		
9	Any stranger victims?		
10	Any male victims?		
<b>TOTAL SCORE =</b> _____			
<b>RISK CATEGORY=</b> _____			

Percentile data are from 2,011 cases from 4 samples of Canadian sex offenders, which were reweighted to approximate the distribution of all convicted sex offenders in Canada.

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These percentiles appear highly stable in international comparisons with large, relatively representative samples in Sweden and California (Hanson, Lloyd, Helmus, & Thornton, 2012).<sup>3</sup> Given ties (i.e., several offenders receiving the same score), there are several different ways of reporting percentiles, including the percentage scoring below, the percentage above, and a midpoint average of these values. Percentile rankings are thought to be most useful in situations where the allocation of limited resources must be made, such as for treatment, community supervision, etc. Absolute degrees of recidivism risk cannot be directly inferred from these relative rankings. The appropriateness of applying these percentiles to sexual offenders in jurisdictions other than those listed above is not known.

Compared to other adult male sex offenders, Mr. XXX's score is in the XX<sup>th</sup> percentile (defined as a midpoint average). Taking into account that about XX% of sex offenders shared the same score as Mr. XXXX, the percentile means that roughly XX% of offenders scored lower than Mr. XXXX, and XX% scored higher.

Relative risk ratios refer to the ratio of two recidivism rates. Research has found the relative risk associated with different Static-99R scores to be consistent even when the overall base rate of recidivism varies across samples. Risk ratios for Static-99R scores were based on 8 samples of sexual offenders from Canada, the United States, the United Kingdom, Austria, and Sweden ( $n = 4,037$ ). The analyses were based on routine (i.e., relatively unselected) correctional samples. The recidivism rate for sex offenders with the same score as Mr. XXXX would be expected to be approximately (half/two thirds) of (FOR SCORES LOWER THAN 2), the same as (FOR SCORES OF 2), X.X times higher than (FOR SCORES GREATER THAN 2) the recidivism rate of the typical sexual offender (defined as median score of 2).

There have been a large number of studies examining the absolute sexual recidivism rates associated with Static-99 scores. Helmus (2009) combined 28 Static-99 replication studies and was able to calculate Static-99R scores for 23 of these samples. The samples ( $n = 8,139$ ) were drawn from Canada, the United States, United Kingdom, western Europe and New Zealand. Recidivism was defined as charges in about half of these studies and as convictions in the other half.

Although the relative risk was consistent across studies, the observed recidivism base rates varied considerably across samples based on factors not measured by Static-99R. Samples that were preselected to be high-risk/high needs (6 samples) show the highest recidivism rates, samples preselected based on treatment need (6 samples) had intermediate recidivism rates, and routine (i.e., unselected) correctional samples had recidivism rates substantially lower than the preselected groups (and also lower than the recidivism rates in the original development samples for Static-99).

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<sup>3</sup> Hanson, R. K., Lloyd, C. D., Helmus, L., & Thornton, D. (2012). Developing non-arbitrary metrics for risk communication: Percentile ranks for the Static-99/R and Static-2002/R sexual offender risk tools. *International Journal of Forensic Mental Health*, 11(1), 9-23. doi:10.1080/14999013.2012.667511

Consequently, in order to evaluate Mr. XXXX we need to consider the extent to which he resembles the typical member of the routine samples, or if he is more representative of the samples preselected for treatment or the high-risk/high needs samples.

The best method of determining which sample type is the most appropriate match to an individual is not fully known. The position of the test developers is that the variability across samples can best be explained by differences in the density of individual risk factors not already included in the scale. Consequently, determining the appropriate sample type reference group should be based on consideration of psychologically meaningful risk factors (e.g., a dynamic risk assessment scale). As a general guideline, the routine norms should be used for offenders low on external psychologically meaningful risk factors. The preselected for treatment norms should be used for offenders with moderate needs on external risk factors. The preselected high risk/needs norms should be reserved for offenders with pronounced external psychologically meaningful risk factors (e.g., reserved for no more than the top 10-20% highest risk).

In the absence of information about external psychologically meaningful risk factors, evaluators can also consider the features of the three samples, which are described in further detail below.

#### Routine Correctional Samples

This group consisted of eight samples of sex offenders from Canada, the United States, England, Austria and Sweden. These samples were relatively random (i.e., unselected) samples from a correctional system (as opposed to samples from specific institutions or subject to specific measures). In other words, they can be considered roughly representative of all adjudicated sex offenders. Some offenders in these samples would have been subsequently screened for treatment or other special measures (e.g., psychiatric admission or exceptional measures related to dangerousness), but these samples represent the full population of all offenders prior to any preselection processes. The recidivism norms for the unselected samples are the closest available to a hypothetical average of all sex offenders.

#### Preselected for Treatment Needs Samples

This group consisted of six samples of offenders referred for sex offender specific treatment during their current incarceration. If an offender is selected for treatment but does not receive it due to bed shortages, he would still be considered preselected for treatment. It is the selection that defines this sample, not the participation in treatment. This includes referral for community sex offender treatment programs for any type of conditional release during the current incarceration or for non-custodial sentences. The quality of the treatment program, jurisdiction of the program, program structure (length or content), and the quality of the offender's participation in and completion of the program is not a consideration in the definition of this group. These factors would be taken into account by an evaluator outside of the Static-99R assessment. This sample is defined by the presence of treatment needs. Samples were categorized in this group if the treatment program was specific to sex offenders and offenders were referred for treatment during their current incarceration. Given the overlap in dynamic risk factors between sex offenders and general offenders, it is plausible that offenders referred to other (i.e., non-

sex-offender-specific) treatment programs may be similar to this group. Additionally, offenders referred for treatment during previous incarcerations could also plausibly fit in this group given that at some point they were identified as having treatment needs warranting intervention and that they subsequently reoffended.

#### Preselected for High-Risk/High-Needs Sample

This would include a small minority of offenders selected from routine correctional populations on the basis of risk and need factors external to Static-99R. Offenders in this group were referred for services at forensic psychiatric facilities, such as offenders referred as Mentally Disorder Sex Offenders, Sexually Violent Predators/Sexually Dangerous Persons, Not Guilty by Reason of Insanity, or for treatment of a mental disorder (sexual or otherwise). It would also include offenders referred to intensive treatment programs reserved for the highest risk offenders (not moderate intensity treatment programs, or treatment programs offered to the majority of sex offenders). Offenders identified as high risk through a quasi-judicial or administrative process examining a range of risk relevant characteristics such as sentence extensions for dangerousness (e.g., preventative or indefinite detention, treatment orders, denial of statutory release) would also be in this group.

#### Non-Routine Correctional Sample

The non-routine group includes all samples of offenders preselected in some way. It therefore combines samples preselected based on treatment need, as well as those preselected as high risk/high need, and also includes a small number of offenders preselected in different ways that fit neither category (e.g., preselected based on offence severity). In some cases there may have been some measure of preselection and the offender would be most similar to either the preselection for treatment or pre-selection for high-risk/ high-needs samples. If the amount of preselection is unknown and there is no strong evidence to differentiate between preselected for treatment and pre-selected for high-risk/high-needs, then the non-routine sample norms are an option to consider.

In applying the recidivism norms it is ideal to use local norms that are applicable to the group of offenders to which this offender most closely resembles. Given that these norms are not often available, the routine sample will usually reflect the most appropriate recidivism rates as they are representative of typical sex offenders in correctional systems. If an evaluator believes that the offender being assessed is not typical, then it may be appropriate to use the recidivism rates from samples pre-selected for treatment, high-risk/needs, or the non-routine norms. Using any of the non-routine or preselected norms, however, requires justification.

Mr. XXXX scored a XX on the Static-99R. Offenders with the same score as Mr. XXXX from the routine/preselected treatment need/preselected high risk and needs/non-routine samples have been found to sexually reoffend at a rate of XXXX percent in five years and XXXX percent in ten years.

The justification for using the recidivism rates from the preselected treatment need/preselected high risk and needs/non-routine samples is as follows:

## Reporting Static-2002R scores with 2009 recidivism norms (routine samples):

A template for cases in which the norms for routine samples apply.

**Note:** This template is provided as an example only. Evaluators are free to use this template, or to revise the wording as they see fit. Further information concerning the research upon which this template is based can be found at [www.static99.org](http://www.static99.org).

The Static-2002R is an instrument designed to assist in the prediction of sexual and violent recidivism for sex offenders. Given that Static-2002R was found to fully incorporate the relationship between age at release and sexual recidivism, whereas the original Static-2002 scale did not,<sup>1</sup> the developers of Static-2002 recommend that the revised version of the scale (Static-2002R) replace Static-2002 in all contexts where it is used.

Mr. XXXX scored a XX on the Static-2002R places him in the Low, Low-Moderate, Moderate, Moderate-High, or High Risk Category. The results of the Static-2002R are listed below:

### Static-2002R Score Summary

Category	Sub-Score*	Possible Range	
I. Age (1 item)	x	-2	2
II. Persistence of sexual offending (3 items)	x	0	3
III. Deviant sexual interests (3 items)	x	0	3
IV. Relationship to victim (2 items)	x	0	2
V. General criminality (5 items)	x	0	3
TOTAL SCORE =		x	-2 13

Hanson and Thornton<sup>2</sup> developed this risk assessment instrument based on follow-up studies from Canada, the United States, and the United Kingdom with a total sample size of 2,169 sexual offenders from 10 samples. Using seven replication samples (n = 2,605), Static-2002R demonstrated moderate to large accuracy in the prediction of sexual, violent, and general recidivism.<sup>3</sup> The Static-2002R consists of

<sup>1</sup> Helmus, L., Thornton, D., Hanson, R.K., & Babchishin, K.M. (2012). Improving the predictive accuracy of Static-99 and Static-2002 with older sex offenders: Revised age weights. *Sexual Abuse: A Journal of Research and Treatment*, 24(1), 64-101. doi:10.1177/1079063211409951

<sup>2</sup> Hanson, R. K., & Thornton, D. (2003). *Notes on the development of the Static-2002* (User Report No. 2003-01). Ottawa, ON: Solicitor General Canada.

<sup>3</sup> Hanson, R. K., Helmus, L., & Thornton, D. (2010). Predicting recidivism among sexual offenders: A multi-site study of Static-2002. *Law & Human Behavior*, 34, 198-211.

14 items and produces estimates of relative risk based upon the number of risk factors present in any one individual. The risk factors included in the risk assessment instrument are grouped into five domains: age, persistence of sex offending, deviant sexual interests, relationship to victims, and general criminality.

Percentile data are from 2,011 cases from 4 samples of Canadian sex offenders, which were reweighted to approximate the distribution of all convicted sex offenders in Canada. Percentiles from a similar scale (Static-99) appear highly stable in international comparisons with large, relatively representative samples in Sweden and California (Hanson, Lloyd, Helmus, & Thornton, 2012).<sup>4</sup> Given ties (i.e., several offenders receiving the same score), there are several different ways of reporting percentiles, including the percentage scoring below, the percentage above, and a midpoint average of these values. Percentile rankings are useful in situations where the allocation of limited resources must be made, such as for treatment, community supervision, etc. Absolute degrees of recidivism risk cannot be directly inferred from the percentile rankings.

Compared to other adult male sex offenders, Mr. XXX's score is in the XX<sup>th</sup> percentile (defined as a midpoint average). Taking into account that about XX% of sex offenders shared the same score as Mr. XXXX, the percentile means that roughly XX% of offenders scored lower than Mr. XXXX, and XX% scored higher.

Relative risk ratios refer to the ratio of two recidivism rates. Research has found the relative risk associated with different Static-2002R scores to be consistent even when the overall base rate of recidivism varies across samples. Risk ratios for Static-2002R scores were based on 3 samples of sexual offenders from Canada ( $n = 1,452$ ). The analyses were based on routine (i.e., relatively unselected) correctional samples. The recidivism rate for sex offenders with the same score as Mr. XXXX would be expected to be approximately (half/two thirds) of (FOR SCORES LOWER THAN 3), the same as (FOR SCORES OF 3), X.X times higher than (FOR SCORES GREATER THAN 3) the recidivism rate of the typical sexual offender (defined as median score of 3).

There have been a large number of studies examining the absolute sexual recidivism rates associated with Static-2002R scores. Hanson, Phenix, & Helmus (2009)<sup>5</sup> examined seven Static-2002R replication studies (total  $n = 2,605$ ), drawn from different countries including Canada, the United States, United Kingdom and Denmark. In these samples recidivism was defined as charges in about half of the cases and as convictions in the other half.

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<sup>4</sup> Hanson, R. K., Lloyd, C. D., Helmus, L., & Thornton, D. (2012). Developing non-arbitrary metrics for risk communication: Percentile ranks for the Static-99/R and Static-2002/R sexual offender risk tools. *International Journal of Forensic Mental Health*, 11(1), 9-23. doi:10.1080/14999013.2012.667511

<sup>5</sup> Hanson, R. K., Phenix, A., & Helmus, L. (2009, October). *Static-99(R) and Static-2002(R): How to Interpret and Report in Light of Recent Research*. Paper presented at the 28<sup>th</sup> annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Dallas, TX.



Although the relative risk was consistent across studies, the observed recidivism rates vary considerably across samples based on factors not measured by Static-2002R. Samples that were preselected to be high-risk/high needs (3 samples) show the highest recidivism rates, the sample preselected based on treatment need (1 sample) had intermediate recidivism rates, and routine correctional samples (3 samples) had recidivism rates substantially lower than the preselected groups. Recidivism tables were not produced for the sample preselected based on treatment need because it was the only sample in that category.

In applying the recidivism norms it is ideal to use local norms that are applicable to the group of offenders to which this offender most closely resembles. Given that these norms are not often available, the routine sample will usually reflect the most appropriate recidivism rates as they are representative of typical sex offenders in correctional systems. A description of the routine correctional samples follows:

#### Routine Correctional Samples

This group consisted of three samples of sex offenders from Canada. These samples were relatively random (i.e., unselected) samples from a correctional system (as opposed to samples from specific institutions or subject to specific measures). In other words, they can be considered roughly representative of all adjudicated sex offenders. Some offenders in these samples would have been subsequently screened for treatment or other special measures (e.g. psychiatric admission or exceptional measures related to dangerousness), but these samples represent the full population of all offenders prior to any pre-selection processes. The recidivism norms for the unselected samples are the closest available to a hypothetical average of all offenders.

Mr. XXXX scored a XX on the Static-2002R. Offenders from routine correctional samples with the same score as Mr. XXXX have been found to sexually reoffend at a rate of XXXX percent in five years.

## Reporting Static-2002R scores with 2009 recidivism norms (non-routine samples):

A template for cases in which the norms for routine samples do not apply.

**Note:** This template is provided as an example only. Evaluators are free to use this template, or to revise the wording as they see fit. Further information concerning the research upon which this template is based can be found at [www.static99.org](http://www.static99.org).

The Static-2002R is an instrument designed to assist in the prediction of sexual and violent recidivism for sex offenders. Given that Static-2002R was found to fully incorporate the relationship between age at release and sexual recidivism, whereas the original Static-2002 scale did not,<sup>1</sup> the developers of Static-2002 recommend that the revised version of the scale (Static-2002R) replace Static-2002 in all contexts where it is used.

Mr. XXXX scored a XX on the Static-2002R places him in the Low, Low-Moderate, Moderate, Moderate-High, or High Risk Category. The results of the Static-2002R are listed below:

### Static-2002R Score Summary

Category	Sub-Score*	Possible Range	
I. Age (1 item)	x	-2	2
II. Persistence of sexual offending (3 items)	x	0	3
III. Deviant sexual interests (3 items)	x	0	3
IV. Relationship to victim (2 items)	x	0	2
V. General criminality (5 items)	x	0	3
TOTAL SCORE =		x	-2 13

Hanson and Thornton<sup>2</sup> developed this risk assessment instrument based on follow-up studies from Canada, the United States, and the United Kingdom with a total sample size of 2,169 sexual offenders from 10 samples. Using seven replication samples (n = 2,605), Static-2002R demonstrated moderate to large accuracy in the prediction of sexual, violent, and general recidivism.<sup>3</sup> The Static-2002R consists of 14 items and produces estimates of relative risk based upon the number of risk factors

<sup>1</sup> Helmus, L., Thornton, D., Hanson, R.K., & Babchishin, K.M. (2012). Improving the predictive accuracy of Static-99 and Static-2002 with older sex offenders: Revised age weights. *Sexual Abuse: A Journal of Research and Treatment*, 24(1), 64-101. doi:10.1177/1079063211409951

<sup>2</sup> Hanson, R. K., & Thornton, D. (2003). *Notes on the development of the Static-2002* (User Report No. 2003-01). Ottawa, ON: Solicitor General Canada.

<sup>3</sup> Hanson, R. K., Helmus, L., & Thornton, D. (2010). Predicting recidivism among sexual offenders: A multi-site study of Static-2002. *Law & Human Behavior*, 34, 198-211.



present in any one individual. The risk factors included in the risk assessment instrument are grouped into five domains: age, persistence of sex offending, deviant sexual interests, relationship to victims, and general criminality.

Percentile data are from 2,011 cases from 4 samples of Canadian sex offenders, which were reweighted to approximate the distribution of all convicted sex offenders in Canada. Percentiles from a similar scale (Static-99) appear highly stable in international comparisons with large, relatively representative samples in Sweden and California (Hanson, Lloyd, Helmus, & Thornton, 2012).<sup>4</sup> Given ties (i.e., several offenders receiving the same score), there are several different ways of reporting percentiles, including the percentage scoring below, the percentage above, and a midpoint average of these values. Percentile rankings are useful in situations where the allocation of limited resources must be made, such as for treatment, community supervision, etc. Absolute degrees of recidivism risk cannot be directly inferred from the percentile rankings.

Compared to other adult male sex offenders, Mr. XXX's score is in the XX<sup>th</sup> percentile (defined as a midpoint average). Taking into account that about XX% of sex offenders shared the same score as Mr. XXXX, the percentile means that roughly XX% of offenders scored lower than Mr. XXXX, and XX% scored higher.

Relative risk ratios refer to the ratio of two recidivism rates. Research has found the relative risk associated with different Static-2002R scores to be consistent even when the overall base rate of recidivism varies across samples. Risk ratios for Static-2002R scores were based on 3 samples of sexual offenders from Canada ( $n = 1,452$ ). The analyses were based on routine (i.e., relatively unselected) correctional samples. The recidivism rate for sex offenders with the same score as Mr. XXXX would be expected to be approximately (half/two thirds) of (**FOR SCORES LOWER THAN 3**), the same as (**FOR SCORES OF 3**), X.X times higher than (**FOR SCORES GREATER THAN 3**) the recidivism rate of the typical sexual offender (defined as median score of 3).

There have been a large number of studies examining the absolute sexual recidivism rates associated with Static-2002R scores. Hanson, Phenix, & Helmus (2009)<sup>5</sup> examined seven Static-2002R replication studies (total  $n = 2,605$ ), drawn from different countries including Canada, the United States, United Kingdom and Denmark. In these samples recidivism was defined as charges in about half of the cases and as convictions in the other half.

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<sup>4</sup> Hanson, R. K., Lloyd, C. D., Helmus, L., & Thornton, D. (2012). Developing non-arbitrary metrics for risk communication: Percentile ranks for the Static-99/R and Static-2002/R sexual offender risk tools. *International Journal of Forensic Mental Health*. 11(1), 9-23. doi:10.1080/14999013.2012.667511

<sup>5</sup> Hanson, R. K., Phenix, A., & Helmus, L. (2009, October). *Static-99(R) and Static-2002(R): How to Interpret and Report in Light of Recent Research*. Paper presented at the 28<sup>th</sup> annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Dallas, TX.

Although the relative risk was consistent across studies, the observed recidivism rates vary considerably across samples based on factors not measured by Static-2002R. Samples that were preselected to be high-risk/high needs (3 samples) show the highest recidivism rates, the sample preselected based on treatment need (1 sample) had intermediate recidivism rates, and routine correctional samples (3 samples) had recidivism rates substantially lower than the preselected groups. Recidivism tables were not produced for the sample preselected based on treatment need because it was the only sample in that category.

Consequently, in order to evaluate Mr. XXXX we need to consider the extent to which he resembles the typical member of the routine samples, or if he is more representative of the samples preselected for treatment or the high-risk/high needs samples.

The best method of determining which sample type is the most appropriate match to an individual is not fully known. The position of the test developers is that the variability across samples can best be explained by differences in the density of individual risk factors not already included in the scale. Consequently, determining the appropriate sample type reference group should be based on consideration of psychologically meaningful risk factors (e.g., a dynamic risk assessment scale). As a general guideline, the routine norms should be used for offenders low on external psychologically meaningful risk factors. The preselected high risk/needs norms should be reserved for offenders with pronounced external psychologically meaningful risk factors (e.g., reserved for no more than the top 10-20% highest risk).

In the absence of information about external psychologically meaningful risk factors, evaluators can also consider the features of the three samples, which are described in further detail below. Note that some of these definitions are based on research with a similar scale, Static-99R.<sup>6</sup>

### Routine Correctional Samples

This group consisted of three samples of sex offenders from Canada. These samples were relatively random (i.e., unselected) samples from a correctional system (as opposed to samples from specific institutions or subject to specific measures). In other words, they can be considered roughly representative of all adjudicated sex offenders. Some offenders in these samples would have been subsequently screened for treatment or other special measures (e.g. psychiatric admission or exceptional measures related to dangerousness), but these samples represent the full population of all offenders prior to any pre-selection processes. The recidivism norms for the unselected samples are the closest available to a hypothetical average of all offenders.

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<sup>6</sup> Helmus, L. (2009). *Re-norming Static-99 recidivism estimates: Exploring base rate variability across sex offender samples*. Unpublished master's thesis, Carleton University, Ottawa, Ontario, Canada.

### Preselected for Treatment Needs Samples

This sample of offenders was referred for sex offender specific treatment during their current incarceration. If an offender is selected for treatment but does not receive it due to bed shortages, he would still be considered preselected for treatment. It is the selection that defines this sample, not the participation in treatment. This includes referral for community sex offender treatment programs for any type of conditional release during the current incarceration or for non-custodial sentences. The quality of the treatment program, jurisdiction of the program, program structure (length or content), and the quality of the offender's participation in and completion of the program is not a consideration in the definition of this group. These factors would be taken into account by an evaluator outside of the Static-2002R assessment. This sample is defined by the presence of treatment needs. Samples were categorized in this group if the treatment program was specific to sex offenders and offenders were referred for treatment during their current incarceration. Given the overlap in dynamic risk factors between sex offenders and general offenders, it is plausible that offenders referred to other (i.e., non-sex-offender-specific) treatment programs may be similar to this group. Additionally, offenders referred for treatment during previous incarcerations would also plausibly fit in this group given that at some point they were identified as having treatment needs warranting intervention and that they subsequently reoffended. Applying recidivism norms from this group to offenders previously referred for treatment or referred for general treatment programs is therefore plausible, but would be based on inferences (as opposed to empirical data on Static-2002R recidivism rates)

### Preselected for High-Risk/High-Needs Sample

This would include a small minority of offenders selected from routine correctional populations on the basis of risk and need factors external to Static-2002R. They were referred for services at forensic psychiatric facilities such as offenders referred as Mentally Disorder Sex Offenders, Sexually Violent Predators/Sexually Dangerous Persons, Not Guilty by Reason of Insanity, or for treatment of a mental disorder (sexual or otherwise). It would include offenders referred to intensive treatment programs reserved for the highest risk offenders (not moderate intensity treatment programs, or treatment programs offered to the majority of sex offenders). This would also include offenders identified as high risk through a quasi-judicial or administrative process examining a range of risk relevant characteristics such as sentence extensions for dangerousness (e.g., preventative or indefinite detention, treatment orders, denial of statutory release).

### Non-Routine Correctional Sample

The non-routine group includes all samples of offenders preselected in some way (4 samples). It therefore combines samples preselected based on treatment need, as well as those preselected as high risk/high need. In some cases there may have been some measure of preselection and the offender would be most similar to either the preselection for treatment or pre-selection for high-risk/needs samples. If the

amount of preselection is unknown and there is no strong evidence to differentiate between preselected for treatment and preselected for high-risk/needs then the non-routine sample norms are an option to determine recidivism rates.

In applying the recidivism norms it is ideal to use local norms that are applicable to the group of offenders to which this offender most closely resembles. Given that these norms are not often available, the routine sample will usually reflect the most appropriate recidivism rates as they are representative of typical sex offenders in correctional systems. If an evaluator believes that the offender being assessed is not typical, then it may be appropriate to use the recidivism rates from samples pre-selected as high-risk/needs, or the non-routine norms. Using the non-routine or preselected norms, however, requires justification.

Mr. XXXX scored a XX on the Static-2002R. Offenders with the same score as Mr. XXXX from the routine/preselected high risk and needs/non-routine samples have been found to sexually reoffend at a rate of XXXX percent in five years and XXXX percent in ten years.

The justification for using the recidivism rates from the preselected high risk and needs/non-routine samples is as follows:

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