Appendix 6: Descriptive analysis as per chapter 6.

Appendix 6.1 Descriptive statistics for key training load variables.

	ID	Weekly Volume					4week_rolling_km				
		Max	Min	Mean	St. Dev	Variance	Max	Min	Mean	St. Dev	Variance
1	NCD1	52.0	9.0	32.4	8.8	76.7	183.1	0.0	123.8	37.0	1368.4
2	NCD10	24.0	0.0	16.1	5.0	25.0	79.2	0.0	55.8	22.0	486.0
3	NCD11	23.5	0.0	12.5	4.7	22.6	76.5	0.0	46.4	16.2	262.5
4	NCD12	44.0	0.0	29.4	9.3	87.1	162.7	0.0	110.3	38.2	1459.5
5	NCD13	23.0	0.0	11.7	4.9	24.4	73.5	0.0	44.3	16.0	255.5
6	NCD2	55.2	13.0	34.7	9.9	97.7	183.4	0.0	118.7	55.1	3039.0
7	NCD3	47.0	0.0	26.4	10.0	100.7	160.4	0.0	89.1	47.0	2209.3
8	NCD4	56.0	0.0	35.2	11.8	139.9	188.5	0.0	120.0	57.2	3274.5
9	NCD5	52.0	13.5	33.1	9.7	94.8	188.5	0.0	111.1	53.3	2843.1
10	NCD6	60.3	0.0	35.8	10.6	113.2	210.3	0.0	135.6	44.2	1950.8
11	NCD7	55.2	0.0	33.2	12.7	160.3	188.5	0.0	120.5	51.4	2639.6
12	NCD8	41.5	0.0	26.1	9.8	95.6	149.3	0.0	70.1	55.6	3094.7
13	NCD9	52.0	10.5	33.9	12.6	157.6	187.7	0.0	46.4	69.4	4816.8
14	NCL1	55.0	0.0	37.2	10.1	102.3	205.0	0.0	138.7	46.1	2122.4
15	NCL10	60.0	0.0	37.6	15.4	236.4	217.0	0.0	129.0	61.6	3795.1
16	NCL13	53.0	15.6	35.7	10.0	100.3	191.5	0.0	68.9	72.6	5269.0
17	NCL14	60.0	3.0	39.1	12.6	157.5	217.0	0.0	152.0	43.5	1889.7
18	NCL15	53.5	0.0	34.2	14.2	201.6	191.6	0.0	127.2	47.9	2298.3
19	NCL16	53.0	0.0	38.5	13.6	185.8	198.7	0.0	142.2	55.2	3050.9
20	NCL17	52.5	0.0	36.9	13.2	173.7	197.6	0.0	140.2	46.2	2137.1
21	NCL18	59.0	0.0	40.0	11.1	122.7	206.6	0.0	148.7	49.5	2446.0
22	NCL19	52.5	0.0	32.8	11.8	139.7	188.0	0.0	122.8	45.4	2061.0
23	NCL2	60.0	0.0	37.9	11.4	129.5	211.0	0.0	121.9	65.9	4342.5
24	NCL20	51.0	0.0	35.3	11.4	130.1	194.5	0.0	94.0	71.2	5065.2
25	NCL21	45.6	0.0	31.6	10.4	107.8	174.9	0.0	116.2	45.1	2036.7
26	NCL3	45.1	0.0	27.0	10.7	114.2	170.1	0.0	95.8	41.1	1691.7
27	NCL4	58.0	10.5	39.2	10.7	114.9	203.6	0.0	135.7	55.3	3060.1
28	NCL5	63.2	15.0	42.4	9.9	98.5	209.1	0.0	154.9	50.0	2500.3
29	NCL6	55.0	0.0	37.1	10.8	116.6	205.0	0.0	143.6	39.6	1572.0
30	NCL7	60.0	0.0	37.4	12.6	159.6	215.0	4.5	146.3	43.7	1908.8
31	NCL8	47.0	0.0	31.2	10.3	106.3	170.0	0.0	85.4	60.0	3603.1
32	NCL9	58.0	8.4	36.7	10.6	111.6	203.0	0.0	122.9	54.7	2997.2

	ID	Weekly Total au					4week rolling total au				
		Max	Min	Mean	St. Dev	Variance	Max	Min	Mean	St. Dev	Variance
1	NCD1	7285.0	1260.0	4099.0	1398.8	1956632.9	15967.0	0.0	11851.7	3154.8	9952945.1
2	NCD10	5045.0	0.0	2469.5	1131.9	1281260.3	13735.0	0.0	8533.9	3626.9	13154450.3
3	NCD11	5170.0	0.0	2739.8	1306.7	1707360.0	18400.0	0.0	10266.0	4055.0	16443402.1
4	NCD12	6830.0	0.0	4045.0	1562.1	2440272.2	24275.0	0.0	15159.7	5043.8	25440045.1
5	NCD13	6775.0	525.0	2898.7	1519.2	2308027.1	20155.0	0.0	10939.6	4403.0	19386690.2
6	NCD2	8150.0	950.0	4422.0	1643.8	2701969.2	23055.0	0.0	15051.9	6533.6	42688514.4
7	NCD3	12280.0	0.0	3834.9	2073.3	4298625.3	29980.0	0.0	12896.1	7448.8	55484390.8
8	NCD4	7290.0	0.0	4360.3	1641.6	2694690.9	25175.0	0.0	14857.1	6817.2	46474544.8
9	NCD5	7770.0	1450.0	4240.0	1559.0	2430411.5	22560.0	0.0	14155.5	6727.7	45262335.8
10	NCD6	9585.0	0.0	4662.1	1730.6	2994892.6	27855.0	0.0	17581.5	5284.8	27929268.3
11	NCD7	9910.0	0.0	4365.2	2028.2	4113592.4	26855.0	0.0	15818.4	6718.4	45136801.9
12	NCD8	7900.0	0.0	3710.0	1990.5	3962163.6	25575.0	0.0	9938.8	8185.0	66994886.0
13	NCD9	8305.0	930.0	4541.7	1984.9	3939679.4	26490.0	0.0	6167.0	9303.8	86560332.2
14	NCL1	8240.0	670.0	3863.7	1428.7	2041290.2	22305.0	0.0	14339.8	5098.2	25991282.7
15	NCL10	6450.0	0.0	4130.7	1420.2	2016894.6	22925.0	0.0	14114.4	6550.6	42911004.9
16	NCL13	6020.0	1180.0	3521.0	1107.0	1225432.6	19725.0	0.0	6730.0	7238.6	52397835.1
17	NCL14	7008.0	260.0	4146.6	1462.6	2139288.6	24616.0	0.0	16078.8	5015.2	25152598.1
18	NCL15	6810.0	0.0	3334.0	1772.9	3143154.5	21378.0	0.0	12602.9	5473.2	29955555.8
19	NCL16	6700.0	0.0	3966.1	1810.9	3279330.8	21666.0	0.0	14734.1	6078.6	36949952.7
20	NCL17	6260.0	0.0	3765.0	1566.7	2454569.5	22954.0	0.0	14320.7	5227.2	27323181.1
21	NCL18	6566.0	0.0	4299.9	1446.1	2091308.6	23406.0	0.0	16020.2	5767.8	33267922.8
22	NCL19	5855.0	240.0	3102.4	1217.8	1483020.7	18427.0	0.0	11653.4	4306.1	18542766.3
23	NCL2	6590.0	0.0	3667.1	1329.3	1766970.6	22253.0	0.0	11696.5	6578.1	43271365.4
24	NCL20	5670.0	0.0	3517.4	1407.5	1981061.7	18720.0	0.0	9331.3	7284.0	53056680.0
25	NCL21	5385.0	0.0	3348.1	1343.3	1804463.6	19384.0	0.0	12426.0	5139.3	26412589.0
26	NCL3	5230.0	0.0	2468.3	1169.2	1366941.0	18625.0	0.0	8761.8	4263.6	18178687.7
27	NCL4	7125.0	1170.0	4100.9	1254.3	1573240.3	23105.0	0.0	14156.1	5724.4	32768568.3
28	NCL5	8645.0	900.0	4580.3	1370.0	1876891.0	25925.0	0.0	16824.3	5899.9	34808986.7
29	NCL6	6895.0	486.0	4133.7	1183.7	1401163.9	23235.0	0.0	15965.6	4204.8	17680540.9
30	NCL7	7014.0	0.0	3856.8	1546.2	2390871.8	24110.0	1075.0	15027.6	4790.9	22953146.2
31	NCL8	7080.0	180.0	3765.0	1553.1	2412221.7	22675.0	0.0	10277.2	7542.4	56887496.8
32	NCL9	5520.0	1070.0	3318.3	1072.2	1149676.9	19570.0	0.0	11002.9	5145.8	26479541.6

	ID	ACWR				
		Max	Min	Mean	St. Dev	Variance
1	NCD1	1.2	0.9	1.0	0.1	0.0
2	NCD10	1.3	0.4	1.0	0.2	0.0
3	NCD11	3.0	0.9	1.4	0.5	0.3
4	NCD12	3.0	0.5	1.3	0.5	0.3
5	NCD13	3.1	0.9	1.4	0.5	0.3
6	NCD2	1.3	0.9	1.1	0.1	0.0
7	NCD3	2.9	0.3	1.3	0.4	0.2
8	NCD4	1.3	0.8	1.1	0.1	0.0
9	NCD5	2.6	0.9	1.4	0.5	0.2
10	NCD6	3.0	0.8	1.2	0.4	0.2
11	NCD7	3.0	0.8	1.4	0.5	0.2
12	NCD8	1.5	0.6	1.1	0.2	0.0
13	NCD9	1.4	1.0	1.2	0.1	0.0
14	NCL1	1.6	0.8	1.1	0.2	0.0
15	NCL10	1.5	0.6	1.2	0.2	0.0
16	NCL13	1.5	0.5	1.2	0.3	0.1
17	NCL14	1.3	0.6	1.0	0.2	0.0
18	NCL15	3.2	0.8	1.5	0.5	0.3
19	NCL16	2.9	0.8	1.4	0.5	0.2
20	NCL17	2.8	0.8	1.4	0.5	0.2
21	NCL18	2.8	0.9	1.4	0.5	0.2
22	NCL19	1.7	0.9	1.2	0.2	0.1
23	NCL2	2.7	0.7	1.2	0.4	0.2
24	NCL20	2.8	1.1	1.5	0.5	0.2
25	NCL21	2.8	0.9	1.4	0.5	0.2
26	NCL3	2.8	0.6	1.2	0.4	0.1
27	NCL4	2.8	0.9	1.4	0.4	0.2
28	NCL5	1.9	0.5	1.2	0.3	0.1
29	NCL6	1.4	0.8	1.1	0.1	0.0
30	NCL7	1.7	0.8	1.1	0.2	0.1
31	NCL8	2.6	0.1	1.3	0.4	0.2
32	NCL9	1.4	0.5	1.1	0.2	0.0

Appendix 6.2. Descriptive summary of the key TL variables where non-time loss illness was or was not present.

Variable	Non-time loss illness 1=Yes, 0 = No	Max	Min	Mean	Stdev	Variance
Volume (km)	1	45.50	19.00	34.50	13.13	172.38
	0	63.20	0.00	33.54	12.88	165.99
4 week rolling volume (km)	1	144.50	77.10	107.76	24.26	588.58
	0	217.00	0.00	116.91	58.07	3371.82
Total Weekly Load (AU)	1	6530.00	3080.00	4590.00	1417.23	2008550.00
	0	12280.00	0.00	3836.32	1616.87	2614258.47
4 week rolling load (AU)	1	19120.00	8540.00	13790.40	4153.58	17252203.30
	0	29980.00	0.00	13264.76	6472.15	41888770.26
ACWR (AU)	1	1.26	0.83	1.08	0.17	0.03
	0	3.16	0.14	1.23	0.39	0.15

Appendix 6.3. Descriptive summary of the key TL variables where time loss illness was or was not present.

Variable	Time loss illness 1=Yes, 0 = No	Max	Min	Mean	Stdev	Variance
Volume (km)	1	52.50	0.00	32.85	11.79	139.00
	0	63.20	0.00	33.56	12.91	166.72
4 week rolling volume (km)	1	195.10	0.00	131.80	44.64	1992.69
	0	217.00	0.00	116.53	58.26	3394.14
Total Weekly Load (AU)	1	8645.00	0.00	3540.67	1655.98	2742268.31
	0	12280.00	0.00	3846.48	1615.09	2608526.57
4 week rolling load (AU)	1	25575.00	0.00	14772.00	5041.59	25417658.80
	0	29980.00	0.00	13229.24	6494.60	42179767.38
ACWR (AU)	1	2.35	0.93	1.35	0.30	0.09
	0	3.16	0.14	1.23	0.39	0.15

Appendix 6.4. Descriptive summary of the key TL variables where non-time loss injury was or was not present.

Variable	Non-time loss injury 1=Yes, 0 = No	Max	Min	Mean	Stdev	Variance
Volume (km)	1	53.00	0.00	32.35	12.54	157.34
	0	63.20	0.00	33.56	12.89	166.16
4 week rolling volume (km)	1	210.00	37.30	134.92	44.71	1999.14
	0	217.00	0.00	116.56	58.18	3385.40
Total Weekly Load (AU)	1	7210.00	0.00	3653.18	1494.75	2234276.87
	0	12280.00	0.00	3842.27	1619.16	2621669.46
4 week rolling load (AU)	1	22855.00	4515.00	14584.12	4203.80	17671899.81
	0	29980.00	0.00	13241.53	6499.82	42247672.78
ACWR (AU)	1	3.06	0.70	1.13	0.35	0.12
	0	3.16	0.14	1.23	0.39	0.15

Appendix 6.5. Descriptive summary of the key TL variables where time loss injury was or was not present.

Variable	Time loss injury 1=Yes, 0 = No	Max	Min	Mean	Stdev	Variance
Volume (km)	1	53.00	9.00	29.86	14.64	214.26
	0	63.20	0.00	33.57	12.86	165.48
4 week rolling volume (km)	1	211.00	0.00	103.36	64.13	4112.60
	0	217.00	0.00	117.01	57.96	3359.27
Total Weekly Load (AU)	1	5635.00	660.00	3535.47	1522.83	2319023.14
	0	12280.00	0.00	3841.02	1617.45	2616143.38
4 week rolling load (AU)	1	22253.00	0.00	12878.39	6739.69	45423383.08
	0	29980.00	0.00	13269.27	6466.33	41813377.46
ACWR (AU)	1	2.66	0.56	1.40	0.57	0.33
	0	3.16	0.14	1.23	0.38	0.15

Appendix 6.6. Exploratory Analyses using Spearman's Rank Correlation with the 0-day time lag.

Variables		Result	Findings
Illness	Weekly Pool Volume (km)	(r(df) = .22, p <.001)	There was a small, negative correlation between the two variables highlighting that when weekly volume increases, illness decreases.
Illness	Total Weekly Load (AU)	(r(df) = .22, p <.001)	There was a small, negative correlation between the two variables highlighting that when total load increases, illness decreases.
Illness	ACWR (AU)	(r(df) = .00, p = .920)	There was no correlation between the two variables.
Injury	Weekly Pool Volume (km)	(r(df) = .03, p = .281)	There was a negligible correlation between the two variables.
Injury	Total Weekly Load (AU)	(r(df) = .01, p = .824)	There was a negligible correlation between the two variables.
Injury	ACWR (AU)	(r(df) = .02, p = .417)	There was a negligible correlation between the two variables.
Time Loss Event	Weekly Pool Volume (km)	(r(df) = .25, p <.001)	There was a small correlation between the two variables highlighting that as weekly volume increases, time loss events increase.
Time Loss Event	Total Weekly Load (AU)	(r(df) = .26, p <.001)	There was a small correlation between the two variables highlighting that as total load increases, time loss events increase.
Time Loss Event	ACWR (AU)	(r(df) = .01, p = .852)	There was a negligible correlation between the two variables.

Appendix 6.7. Exploratory Analysis using Spearman's Rank Correlation with 7-day time lag.

Variables		Result	Findings
Illness	Weekly Pool Volume (km)	(r(df) = .17, p <.001)	There was a small, negative correlation between the two variables, highlighting when weekly volume increases, illness decreases.
Illness	Total Weekly Load (AU)	(r(df) = .10, p <.001)	There was a small, negative correlation between the two variables, highlighting that when total load increases, illness decreases.
Illness	ACWR (AU)	(r(df) = .07, p = .002)	There was a small, positive correlation between the two variables, highlighting that when ACWR increases, illness increases.
Injury	Weekly Pool Volume (km)	(r(df) = .04, p = .120)	There was a negligible correlation between the two variables.
Injury	Total Weekly Load (AU)	(r(df) = .02, p = .417)	There was a negligible correlation between the two variables.
Injury	ACWR (AU)	(r(df) = .02, p = .494)	There was a small, negative correlation between the two variables, highlighting when ACWR increases, injuries increase.
Time Loss Event	Weekly Pool Volume (km)	(r(df) = .22, p <.001)	There was a small, negative correlation between the two variables, highlighting when weekly pool volume increases, time loss events decrease.
Time Loss Event	Total Weekly Load (AU)	(r(df) = .20, p <.001)	There was a small, negative correlation between the two variables, highlighting when weekly total load increases, time loss events decrease.
Time Loss Event	ACWR (AU)	(r(df) = .07, p = .004)	There was a negligible correlation between the two variables.