

APPENDIX 1. DATABASES

WorkSafeBC files - The WSBC's claims database included a claim file, employer file, average earnings decision file, firm level data file, and return-to-work file.

The claim file was used to obtain information on injury (date, International Classification of Diseases, ninth revision (ICD-9) codes, body part type, and nature of injury), claim registration dates, and on demographic, wage, occupation, industry and employer variables.

The average earnings decision file was used to obtain information on the worker's pre-injury annual earnings and shift schedule.

The return-to-work file includes calendar data with detailed information on return to work events and outcomes (40).

The following files were obtained from the Ministry of Health:

Medical Registry file – This data includes all individuals who received and/or were registered to receive services in BC. We used this file to exclude workers who were not registered to MSP one year before and one year after injury, and therefore would have incomplete billing records for medical services for our study period (19).

Medical Services Plan (MSP) file – contains billing records for medical services by fee-for-service practitioners for individuals covered by MSP (20).

Hospital discharge abstract file – contains data on hospital discharges, transfers and deaths of in-patients, and day surgery patients from acute care hospitals in BC (21).

PharmaNet file – includes data on dispensed medications and medical supplies.

We used the MSP, Hospital discharge abstract data and PharmaNet data to exclude pregnant workers, estimate the healthcare utilization in the year before and after claim and the pre-claim comorbidities of the injured workers (22).

Pregnancy: Workers were excluded if they had a pregnancy in the year before claim, with either and MSP or a hospital related pregnancy diagnosis or procedure code

Healthcare utilization: We measured healthcare utilization one year before injury, 30 days after injury, and one year after injury. We measured General Practitioner visits, Specialist visits, Diagnostic Procedure visits, Therapeutic procedures, other services, and Hospitalizations.

Comorbidities: Comorbidities were included if they comorbidity was the first diagnosis in a year before injury, or a second diagnosis or medication use in year before or year after diagnosis in year before injury. Based on the BC Chronic Disease and Selected Procedure Case Definitions (<https://www2.gov.bc.ca/assets/gov/health/conducting-health-research/data-access/chronic-disease-registries-case-definitions.pdf>), we included the following diseases (with ICD-9 and ICD-10 codes in the comorbidity measure:

	ICD9	ICD10
Ischemic Heart Disease	410, 411, 412, 413, 414, 428	I21, I20, I50, I22, I23, I24, I25
Chronic Respiratory Disease	491, 492, 493, 496	J45, J41, J42, J43, J44
Mental Disorders	296, 300, 311	F30, F31, F32, F33, F34, F38, F39, F40, F41, F42, F43, F44, F45, F48, F68
Diabetes	250	E10, E11, E13, E14
Arthritis	714, 715	M15, M16, M17, M18, M19
Cancer (Malignant neoplasms)	140-209	C
Chronic Bowel Disease	555, 556	K50, K51
Migraine	346	G43
Stroke		I60, I61, I64, H341

Appendix 2. Remaining descriptive statistics of workers with an accepted MSD lost time claim between 2010 and 2015, by GRTW status, in the Canadian jurisdiction of British Columbia

WORKERS (FIRST CLAIM 2010-2015)	FULL DISABILITY FOR 30 DAYS UNMATCHED COHORT			FULL DISABILITY FOR 30 DAYS MATCHED COHORT		
	Total workers		Workers with GRTW	Total workers		Workers with GRTW
	N= 37,356		N= 17,468 (46,8%)	N = 24,988		N= 12,494 (50,0%)
	N	(Column %)	(Row %)	N	(Column %)	(Row %)
Injury and socio-demographic characteristics						
Musculoskeletal disorder						
Upper Extremity Sprains & Strains	6 515	17.4	50.5	4423	17.7	52.1
Lower Extremity Sprains & Strains	5 240	14.0	44.4	3504	14.0	47.6
Back ^a Sprains & Strains	12 546	33.6	46.7	8360	33.5	48.0
Upper Extremity Fractures	3 798	10.3	45.3	2521	10.1	52.2
Lower Extremity Fractures	3 027	8.1	48.0	1996	7.9	55.1
Torso ^b Fractures	1 437	3.9	39.6	929	3.7	49.5
Dislocation	951	2.6	42.6	624	2.5	48.9
Dorsopathies	1 821	4.9	47.1	1223	4.9	51.7
Rheumatism (excluding the back)	2 021	5.4	48.9	1408	5.6	49.6
Prior claims in last 10 years						
No	15 363	41.1	44.9	10214	40.9	48.4
Yes	21 933	59.9	42.6	14774	59.1	51.1
Healthcare utilization characteristics						
Comorbidities						
Yes	28 995	77.6	46.6	19405	77.7	50.3
No	8 361	22.4	47.4	5583	22.3	48.9
Opioid use 30 days post claim						
No	21 889	58.6	46.5	14710	58.9	48.3
Yes	15 467	41.4	47.1	10278	41.1	52.4
NSAIDS use 30 days post claim						
No	23 175	62.0	45.6	15536	62.2	49.0
Yes	14 181	37.9	48.6	9452	37.8	51.7
SMR use 30 days post claim						
No	30 759	82.3	46.4	20573	82.3	50.0
Yes	6 597	17.7	48.2	4415	17.7	50.0
Days supply for opioids 30 days post claim						
0	21 889	58.6	46.5	14 710	58.9	48.3
1-14 days	9 992	26.8	48.4	6 666	26.7	53.3
=> 15	5 475	14.7	44.9	3 612	14.4	50.7
Days supply for NSAIDS 30 days post claim						
0	23 175	62.0	45.6	15 536	62.2	49.0
1-14 days	5 107	13.7	46.9	3 351	13.4	50.6
=> 15	9 074	24.3	49.6	6 101	24.4	52.2
Days supply for SMR 30 days post claim						
0	30 759	82.3	46.4	20 573	82.3	50.0
1-14 days	2 992	8.0	45.2	2 021	8.1	47.1

=> 15	3 605	9.7	50.7	2 394	9.6	52.4
GP visits 30 days post claim						
0	36 129	96.7	46.8	24 191	96.8	50.0
1	1 122	3.0	46.2	731	2.9	49.5
2	86	0.2	43.0	50	0.2	46.0
>2	19	0.1	57.9	16	0.1	62.5
Specialist visits 30 days post claim						
0	30 075	80.5	46.4	20 092	80.4	49.3
1	4 462	11.9	48.1	2987	11.9	52.1
2	1 736	4.7	49.9	1160	4.6	55.8
>2	1 083	2.9	45.5	749	3.0	52.3
Diagnostic procedures 30 days post claim						
0	20 498	54.9	46.5	13 734	54.9	49.4
1	11 958	32.0	46.7	8 009	32.1	50.2
2	3 548	9.5	47.9	2 325	9.3	52.6
>2	1 352	3.6	47.9	920	3.7	51.3
Therapeutic procedures 30 days post claim						
0	30 552	81.8	46.5	20 419	81.7	49.1
1	4 238	11.3	47.8	2 875	11.5	52.8
2	1 544	4.1	50.1	1 001	4.0	57.1
>2	1 022	2.7	45.8	693	2.8	55.4
Other services 30 days post claim						
0	1 797	4.8	42.1	1 175	4.7	47.6
1	3 177	8.5	39.2	2 060	8.2	44.1
2	6 612	17.7	42.0	4 388	17.6	46.5
>2	25 770	68.9	49.2	17 365	69.5	51.7

^aBack, head, neck, spine and torso; ^bTorso, back, neck, spine and head; ^cBusiness, finance and administration; ^dNatural and applied sciences, related occupations; ^eSocial science, education, government, service and religion; ^fRecreation, arts, culture and sport;

Appendix 3. Likelihood of being offered GRTW for workers with an accepted MSD lost time claim between 2010 and 2015 in British Columbia

Workers (first claim 2010-2015)		
<u>Injury and socio-demographic characteristics</u>		
	OR	95% CI
Musculoskeletal disorder		
Upper Extremity Sprains & Strains	Ref	
Lower Extremity Sprains & Strains	0.89	0.82-0.96
Back ^a Sprains & Strains	0.85	0.80-0.91
Upper Extremity Fractures	0.88	0.80-0.97
Lower Extremity Fractures	1.01	0.92-1.12
Torso ^b Fractures	0.84	0.74-0.96
Dislocation	0.90	0.77-1.04
Dorsopathies	0.95	0.85-1.06
Rheumatism (excluding the back)	0.96	0.86-1.07
Gender		
Man	Ref	
Woman	0.65	0.61-0.69
Age (in years)		
15-24	Ref	
25-34	1.35	1.23-1.49
35-44	1.44	1.31-1.59
45-54	1.44	1.32-1.59
55-64	1.47	1.33-1.62
Annual wage (CAD\$)		
<\$20,000	Ref	
\$20,000-\$39,999	1.37	1.26-1.48
\$40,000-\$59,999	1.76	1.61-1.92
>\$59,999	1.72	1.56-1.89
Prior claims in last 10 years		
No	Ref	
Yes	1.10	1.05-1.15
<u>Healthcare utilization characteristics</u>		
Heart disease comorbidity		
No	Ref	
Yes	0.88	0.73-1.07
Chronic respiratory comorbidity		
No	Ref	
Yes	0.97	0.86-1.10
Mental health comorbidity		
No	Ref	
Yes	0.89	0.84-0.95
Diabetes comorbidity		
No	Ref	
Yes	1.03	0.93-1.13
Arthritis comorbidity		
No	Ref	
Yes	0.91	0.79-1.05
Opioid use year pre claim		

No	Ref	
Yes	0.69	0.63-0.75
Opioid use 30 days post claim		
No	Ref	
Yes	1.08	1.01-1.16
NSAIDS use year pre claim		
No	Ref	
Yes	0.99	0.88-1.09
NSAIDS use 30 days post claim		
No	Ref	
Yes	1.1	1.04-1.17
SMR use year pre claim		
No	Ref	
Yes	0.98	0.88-1.09
SMR use 30 days post claim		
No	Ref	
Yes	1.13	1.04-1.22
Days supply for opioids pre claim		
0	Ref	
1-14 days	1.33	1.20-1.47
=> 15	omitted	
Days supply for opioids 30 days post claim		
0	Ref	
1-14 days	1.04	0.97-1.12
=> 15	omitted	
Days supply for NSAIDS pre claim		
0	Ref	
1-14 days	1	0.90-1.10
=> 15	omitted	
Days supply for NSAIDS 30 days post claim		
0	Ref	
1-14 days	0.97	0.90-1.04
=> 15	omitted	
GP visits year pre claim		
0	Ref	
1	1	0.94-1.08
2	0.99	0.85-1.16
>2	0.99	0.77-1.29
GP visits 30 days AFTER claim		
0	Ref	
1	0.93	0.81-1.05
2	0.87	0.55-1.38
>2	1.43	0.55-3.72
Specialist visits year BEFORE claim		
0	Ref	
1	1.05	0.98-1.12
2	1.05	0.96-1.14
>2	0.99	0.92-1.09
Specialist visits 30 days AFTER claim		
0	Ref	
1	1.05	0.97-1.12
2	1.13	1.01-1.27

>2	1.02	0.88-1.17
Diagnostic procedures year BEFORE claim		
0	Ref	
1	1.07	1.00-1.14
2	1.04	0.96-1.11
>2	1.07	1.00-1.14
Diagnostic procedures 30 days AFTER claim		
0	Ref	
1	1	0.96-1.06
2	1.03	0.96-1.11
>2	1.02	0.89-1.12
Therapeutic procedures year BEFORE claim		
0	Ref	
1	1.01	0.96-1.08
2	1.07	0.96-1.17
>2	0.98	0.88-1.10
Therapeutic procedures 30 days AFTER claim		
0	Ref	
1	1.08	1.00-1.17
2	1.27	1.13-1.44
>2	1.22	1.05-1.42
Other services year BEFORE claim		
0	Ref	
1	0.97	0.91-1.04
2	0.87	0.55-1.38
>2	1.44	0.55-3.72
Other services 30 days AFTER claim		
0	Ref	
1	1.05	0.97-1.13
2	1.13	1.01-1.27
>2	1.02	0.88-1.17
Hospitalizations year BEFORE claim (max 25)		
0	Ref	
1	0.99	0.90-1.08
2	1.06	0.86-1.32
>2	1.33	0.91-1.94
Hospitalizations 30 days AFTER claim (max 27)		
0	Ref	
1	0.96	0.90-1.02
2	1.02	0.90-1.15
>2	0.8	0.64-1.00
<u>Workplace characteristics</u>		
Occupation^a		
Trades, transport and equipment operations ^g	Ref	
Business, finance and administration ^e	0.26	1.11-1.44
Natural and applied sciences ^d	1.07	0.91-1.27
Health	1.09	0.97-1.21
Education, law, and social services ^e	0.81	0.71-0.92
Art, Culture, recreation and sports ^f	0.66	0.53-0.82
Sales, service	1.22	1.12-1.32
Management	1.39	1.19-1.61

Natural resources, agriculture	0.9	0.79-1.03
Manufacturing and utilities ^h	1.11	1.00-1.23
Industry^a		
Primary resources	0.54	0.47-0.62
Manufacturing	1.35	1.22-1.49
Construction	0.88	0.81-0.95
Transportation ^l	0.74	0.68-0.81
Trade	1.55	1.43-1.68
Public sector	1.14	1.00-1.28
Service sector	Ref	
Firm size (FTE)		
<20	Ref	
21-100	1.35	1.27-1.43
101-500	1.88	1.76-2.00
501-1000	1.94	1.74-2.16
>1000	2.04	1.89-2.20
Claim year		
2010	Ref	
2011	0.99	0.92-1.07
2012	1.18	1.10-1.27
2013	1.28	1.18-1.37
2014	1.49	1.38-1.61
2015	1.67	1.54-1.80
Occupation^a		
Trades, transport and equipment operations ^g	Ref	
Business, finance and administration ^c	0.26	1.11-1.44
Natural and applied sciences ^d	1.07	0.91-1.27
Health	1.09	0.97-1.21
Education, law, and social services ^e	0.81	0.71-0.92
Art, Culture, recreation and sports ^f	0.66	0.53-0.82

^aBack, head, neck, spine and torso; ^bTorso, back, neck, spine and head; ^cBusiness, finance and administration; ^dNatural and applied sciences, related occupations; ^eSocial science, education, government, service and religion; ^fRecreation, arts, culture and sport; ^gTrades, transport, equipment operators and related occupations; ^hManufacturing, processing and utilities; ^lTransportation and warehousing

APPENDIX 4. Adjusted quantile regression for differences in time-loss days until full sustainable RTW 1 year after the first time-loss day, BY MSD^a. The regression coefficients represent the difference in days relative to the number of days for the workers without GRTW by 10 percentiles of the distribution.

	UPPER SPRAINS		LOWER SPRAINS		LOWER FRACTURES		TORSO FRACTURES	
	Calendar days off work for workers without GRTW (95% CI) ^b	Coefficient (additional calendar days off work for workers with GRTW) (95% CI)	Calendar days off work for workers without GRTW (95% CI) ^b	Coefficient (additional calendar days off work for workers with GRTW) (95% CI)	Calendar days off work for workers without GRTW (95% CI) ^b	Coefficient (additional calendar days off work for workers with GRTW) (95% CI)	Calendar days off work for workers without GRTW (95% CI) ^b	Coefficient (additional calendar days off work for workers with GRTW) (95% CI)
10th	44.56 (42.65; 46.46)	23.92 (21.30; 26.54)	42.96 (40.91; 45.01)	22.05 (19.11; 24.99)	46.47 (43.52; 49.42)	31.4 (27.49; 35.31)	40.42 (36.37; 44.48)	28.95 (23.24; 34.65)
20th	59.02 (56.26; 61.79)	26.44 (22.64; 30.24)	55.87 (52.89; 58.85)	28.18 (23.9; 32.45)	57.88 (54.16; 61.60)	42.24 (36.56; 47.92)	48.67 (42.78; 54.56)	41.12 (32.84; 49.10)
30th	76.47 (72.72; 80.22)	31.22 (26.06; 36.38)	72.30 (68.25; 76.35)	33.94 (28.15; 39.74)	73.64 (67.83; 79.45)	51.48 (43.76; 59.19)	58.63 (50.63; 66.62)	56.94 (45.70; 68.18)
40th	100.15 (94.86; 105.44)	35.92 (28.65; 42.30)	96.01 (90.30; 101.71)	39.95 (31.78; 48.13)	94.15 (85.96; 102.34)	53.16 (42.29; 64.03)	69.87 (58.60; 81.14)	72.31 (56.46; 88.16)
50th	140.65 (132.53; 148.78)	36.46 (25.28; 47.63)	130.32 (121.56; 139.09)	42.59 (30.03; 55.15)	119.29 (106.70; 131.87)	57.17 (40.46; 73.88)	95.00 (77.68; 112.32)	83.33 (58.98; 107.69)
60th	205.33 (190.59; 220.08)	30.37 (10.08; 50.66)	190.59 (174.68; 206.50)	33.1 (10.3; 55.89)	158.50 (135.65; 181.35)	50.16 (19.83; 80.49)	156.77 (125.33; 188.21)	57.24 (13.02; 101.46)
70th	304.04 (284.24; 323.83)	10.97 (-16.27; 38.22)	293.66 (272.30; 315.02)	1.8 (-28.81; 32.40)	240.61 (209.93; 271.29)	34.7 (-6.01; 75.41)	279.83 (237.63; 622.04)	9.75 (-49.60; 69.10)
80th	348.79 (344.99; 352.59)	0 (-5.22; 5.22)	348.79 (344.69; 352.89)	0 (-5.87; 5.87)	348.79 (342.90; 354.67)	0 (-7.81; 7.81)	348.79 (340.69; 356.89)	0 (-11.39; 11.39)
90th	365.00 (365.00; 365.00)	0 (0; 0) ^c	365.00 (365.00; 365.00)	0 (0; 0) ^c	365.00 (365.00; 365.00)	0 (0; 0) ^c	365.00 (365.00; 365.00)	0 (0; 0) ^c

	DISLOCATION		DORSOPATHIES	
	Calendar days off work for workers without GRTW (95% CI) ^b	Coefficient (additional calendar days off work for workers with GRTW) (95% CI)	Calendar days off work for workers without GRTW (95% CI) ^b	Coefficient (additional calendar days off work for workers with GRTW) (95% CI)
10th	55.13 (50.23-60.02)	31.86 (24.90; 38.82)	47.39 (43.79; 50.98)	18.63 (13.66; 23.60)
20th	74.82 (67.71; 81.92)	42.98 (32.87; 53.09)	64.07 (58.85; 69.92)	18.89 (11.67; 26.11)
30th	98.31 (88.67; 107.95)	61.72 (48.00; 75.44)	80.80 (73.72; 87.89)	21.62 (11.82; 31.42)
40th	123.77 (110.18; 137.36)	80.15 (60.81; 99.49)	107.67 (97.68; 117.66)	16.96 (3.14; 30.77)
50th	159.22 (138.34; 180.11)	74.71 (44.98; 104.43)	159.07 (143.72; 174.41)	0.06 (-21.17; 21.29)
60th	199.24 (161.32; 237.16)	72.10 (18.14; 126.06)	250.39 (222.53; 278.25)	-38.83 (-77.38; -0.29)
70th	248.84 (197.94; 299.73)	67.52 (-4.9; 139.95)	314.67 (277.27; 352.07)	-18.94 (-70.67; 32.80)
80th	319.79 (310.02; 329.55)	29.00 (15.10; 42.90)	348.79 (341.61; 355.96)	0 (-9.92; 9.92)
90th	365.00 (365.00; 365.00)	0 (0; 0) ^c	365.00 (365.00; 365.00)	0 (0; 0) ^c

^a Adjusted for: MSD, age, wage, gender, occupation, prior claims, firm size, industry sector, claim year, use of opioids, NSAIDs and SMRs within 30 days post claim.

^b Adjusted prediction of cumulative time-loss days when all other variables are set at the sample means.

^c Zero value caused by censoring of the data at 365 days.

APPENDIX 5. Adjusted quantile regression for differences in time-loss days until full sustainable RTW 1 year after the first time-loss day, by industry sector^a. The regression coefficients represent the difference in days relative to the number of days for the workers without GRTW by 10 percentiles of the distribution.

	PRIMARY RESOURCES		TRANSPORTATION		PUBLIC SECTOR	
	Calendar days off work for workers without GRTW (95% CI) ^b	Coefficient (additional calendar days off work for workers with GRTW) (95% CI)	Calendar days off work for workers without GRTW (95% CI) ^b	Coefficient (additional calendar days off work for workers with GRTW) (95% CI)	Calendar days off work for workers without GRTW (95% CI) ^b	Coefficient (additional calendar days off work for workers with GRTW) (95% CI)
10th	46.62 (41.89; 51.34)	25.51 (19.55; 31.48)	42.92 (40.37; 45.47)	23.07 (19.63; 26.52)	40.03 (35.53; 44.53)	24.82 (18.60; 31.05)
20th	61.76 (54.95; 68.57)	35.32 (26.73; 43.91)	53.46 (49.78; 57.13)	29.99 (25.02; 34.96)	50.31 (43.82; 56.79)	30.93 (21.96; 39.90)
30th	80.11 (70.80; 89.43)	44.31 (32.56; 56.07)	65.69 (60.66; 70.72)	36.74 (29.94; 43.54)	61.03 (52.16; 69.90)	40.19 (27.91; 52.46)
40th	108.80 (95.35; 122.25)	49.32 (32.35; 66.29)	85.10 (77.84; 92.36)	42.37 (32.56; 52.19)	72.77 (59.95; 85.58)	56.81 (39.09; 74.53)
50th	147.10 (126.42; 167.78)	69.49 (43.40; 95.57)	110.05 (98.88; 121.21)	45.16 (30.06; 60.25)	94.32 (74.63; 114.01)	80.13 (52.89; 74.53)
60th	220.76 (184.33; 257.20)	47.24 (1.28; 93.21)	146.67 (127.00; 166.33)	54.17 (27.58; 80.76)	126.64 (91.95; 161.33)	137.68 (89.67; 185.68)
70th	294.92 (239.34; 350.49)	11.25 (-58.86; 81.37)	213.00 (183.00; 242.99)	60.60 (20.00; 101.13)	160.97 (108.05; 213.88)	171.63 (98.42; 244.84)
80th	348.79 (341.70; 355.88)	0 (-8.95; 8.95)	348.79 (344.96; 352.62)	0 (-5.17; 5.17)	189.79 (183.04; 196.54)	159.00 (149.66; 168.34)
90th	365.00 (365.00; 365.00)	0 (0; 0) ^c	365.00 (365.00; 365.00)	0 (0; 0) ^c	365.00 (365.00; 365.00)	0 (0; 0) ^c

^a Adjusted for: MSD, age, wage, gender, occupation, prior claims, firm size, industry sector, claim year, use of opioids, NSAIDs and SMRs within 30 days post claim.

^b Adjusted prediction of cumulative time-loss days when all other variables are set at the sample means.

^c Zero value caused by censoring of the data at 365 days.

Appendix 6. Adjusted quantile regression for differences in time-loss days until full sustainable RTW 2 years after the first time-loss day^a. The regression coefficients represent the difference in days relative to the number of days for the workers without GRTW by 10 percentiles of the distribution.

OUTCOME = FULL SUSTAINABLE RTW 2 YEARS AFTER INJURY (N=23,318)			OUTCOME = SUSTAINABLE GRTW AND FULL SUSTAINABLE RTW 2 YEARS AFTER INJURY (N=23,318)		
	Calendar days off work for workers without GRTW ^b	Coefficient – Additional calendar days off work for workers with GRTW (95%CI)		Calendar days off work for workers without GRTW	Coefficient – Additional calendar days off work for workers with GRTW (95%CI)
10th	46.21 (45.31; 47.11)	21.50 (20.22; 22.78)	10th	45.60 (44.80; 46.40)	9.07 (7.93; 10.20)
20th	62.75 (61.40; 64.09)	23.45 (21.54; 25.37)	20th	61.60 (60.30; 62.90)	10.47 (8.62; 12.32)
30th	83.42 (81.49; 85.35)	22.98 (20.24; 25.71)	30th	81.86; 80.06; 83.67)	7.71 (5.14; 10.27)
40th	112.67 (109.72; 115.62)	20.01 (15.83; 24.19)	40th	109.48 (107.09; 111.87)	1.59 (-1.81; 4.98)
50th	157.02 (151.95; 162.10)	11.60 (4.41; 18.80)	50th	150.70 (146.47; 154.92)	-11.59 (-17.58; -5.60)
60th	263.03 (249.60; 276.47)	-22.50 (-41.55; -3.45)	60th	244.52 (234.06; 254.98)	-62.26 (-77.10; -47.43)
70th	531.20 (511.82; 550.59)	-139.53 (-166.84; -111.87)	70th	615.06 (601.77; 628.36)	-374.73 (-393.58; -355.88)
80th	680.07 (675.46; 684.68)	0 (-6.54; 6.54)	80th	706.67 (697.65; 715.69)	-335 (-347.79; -322.20)
90th	730.00 (730.00; 730.00)	0 (0; 0) ^c	90th	730.00 (730.00; 730.00)	0 (0; 0) ^c

^a Adjusted for: MSD, age, wage, gender, occupation, prior claims, firm size, industry sector, claim year, use of opioids, NSAIDs and SMRs within 30 days post claim.

^b Adjusted prediction of cumulative time-loss days when all other variables are set at the sample means.

^c Zero value caused by censoring of the data at 365 days.

Appendix 7. Adjusted quantile regression for differences in time-loss days until full sustainable RTW 1 year after the first time-loss day, for cohort of workers for employers who offered GRTW at least once between 2010-2015 a. The regression coefficients represent the difference in days relative to the number of days for the workers without GRTW by 10 percentiles of the distribution.

OUTCOME = FULL SUSTAINABLE RTW 1 YEAR AFTER INJURY; for cohort of workers for employers who offered GRTW at least once between 2010-2015 (N=19,568)		
	Calendar days off work for workers without GRTW ^b	Coefficient (additional calendar days off work for workers with GRTW)
10th	43.89 (43.07; 44.71)	21.91 (20.74; 23.08)
20th	56.47 (55.25; 57.69)	25.46 (23.73; 27.19)
30th	71.92 (70.29; 73.55)	27.37 (25.06; 29.69)
40th	92.05 (89.72; 94.39)	27.46 (24.14; 31.78)
50th	121.35 (117.86; 124.85)	27.09 (22.12; 32.05)
60th	171.33 (165.24; 177.42)	21.88 (13.23; 30.53)
70th	262.48 (253.28; 271.68)	0.59 (-12.48; 13.66)
80th	345.43 (343.24; 347.63)	0 (-3.12; 3.12)
90th	365 (365.00; 365.00)	0 (0; 0) ^c

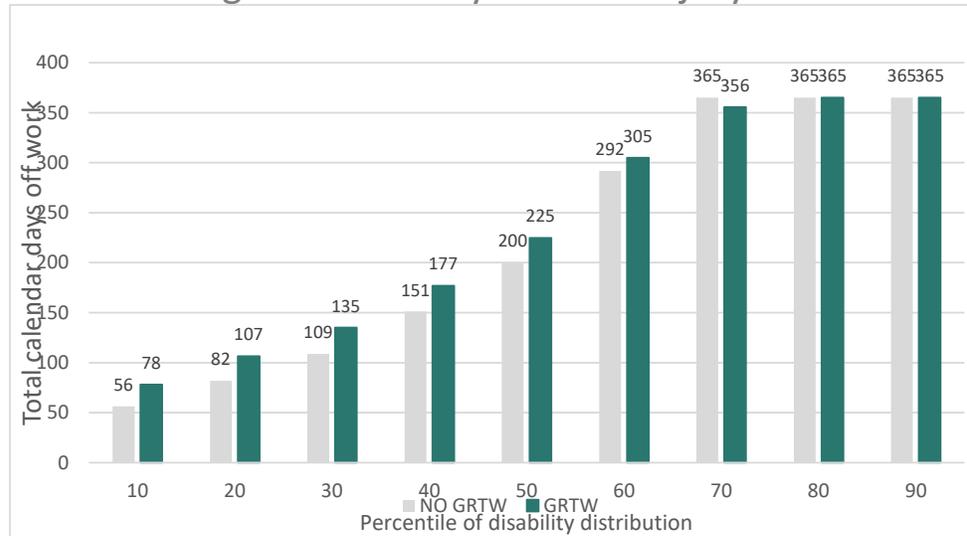
^a Adjusted for: MSD, age, wage, gender, occupation, prior claims, firm size, industry sector, claim year, use of opioids, NSAIDs and SMRs within 30 days post claim.

^b *Adjusted prediction of cumulative time-loss days when all other variables are set at the sample means.*

^c *Zero value caused by censoring of the data at 365 days.*

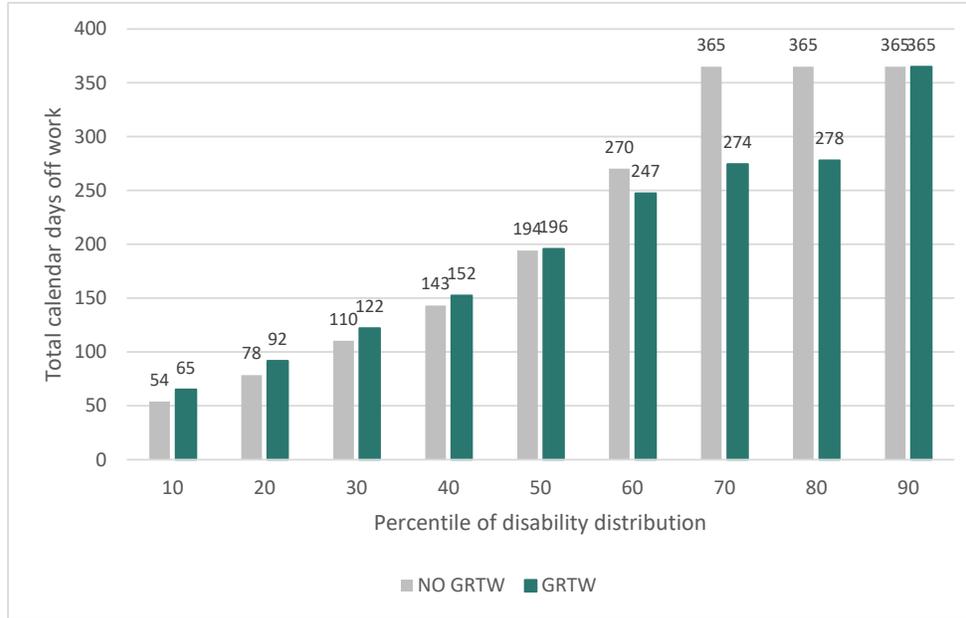
Appendix 8. A graphical representation of the results of the main analyses (quantile regression)

Quantile regression for 1 year after injury



Between the 10th and the 50th percentile of the disability distribution, workers with GRTW had on average 24 more work disability days until sustainable RTW compared to workers without GRTW. By the 70th percentile of the distribution, however, workers with GRTW had fewer disability days than workers without GRTW. There was no difference in time-loss days until sustainable RTW between workers with and without GRTW at the 80th and 90th percentile.

Return to work or stay in GRTW within 1 year after injury



Results for the effect of GRTW were stronger when sustainable GRTW was included in the outcome along with sustainable RTW. Between the 10th and 50th percentile of the distribution, workers with GRTW had on average 10 more disability days than workers without GRTW. However, workers with GRTW had fewer disability days at the 60th percentile 70th, and the 80th percentile. No differences in disability duration were found at the 90th percentile due to the censoring effect at 365 days.