

The impact of national guidelines covering moving and handling of people on injury rates and related costs ¹ by Mark Lidegaard, MSc, ² Kirsten B Olsen, PhD, Stephen J Legg, PhD, Jeroen Douwes, PhD

1. *Supplementary tables and figures*

2. *Correspondence to: Mark Lidegaard, National Research Centre for the Working Environment, .Lersø Parkallé 105, 2100 Copenhagen Ø, Denmark. [E-mail: mli@nrcwe.dk]*

Table S1a Adjustment factors for included ANZSIC codes.

Industry	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Labour Supply Services	1.20	1.14	1.11	1.23	1.11	1.14	1.09	1.09	1.04	1.04	1.05	1.04	1.10
Hospitals (except psychiatric hospitals)	8.73	8.34	9.94	7.51	7.81	7.28	7.36	8.71	8.89	9.19	7.33	7.20	8.09
General practice medical services	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Specialist medical services	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Pathology and diagnostic imaging services	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Physiotherapy services	1.00	1.00	1.00	1.04	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01
Chiropractic and osteopathic services	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Other allied health services	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.00
Ambulance services	1.17	1.05	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.02
Other healthcare services	1.16	1.14	1.11	1.11	1.17	1.14	1.13	1.05	1.02	1.02	1.01	1.01	1.07
Aged care residential services	1.17	1.17	1.19	1.10	1.11	1.11	1.09	1.23	1.28	1.28	1.30	1.29	1.19
Other residential care services	2.80	3.44	3.15	3.30	3.10	2.96	2.60	2.50	2.42	2.52	2.94	2.47	2.79
Child Care Services	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Other Social Assistance Services	1.08	1.05	1.01	1.02	1.17	1.34	1.28	1.33	1.31	1.37	1.54	1.48	1.26

Table S1b Adjustment factors for selected incident causes.

Industry	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Lifting/Carrying/Strain	1.37	1.37	1.32	1.31	1.33	1.32	1.29	1.49	1.62	1.66	1.60	1.54	1.44
Loss Balance/Personal Control	1.67	1.84	2.51	2.93	2.35	2.24	2.64	2.48	2.50	2.42	1.91	1.98	2.20
Loss of Hold	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Misjudgement of Support	1.73	1.57	1.54	1.63	1.69	1.43	1.26	1.44	1.63	1.60	1.71	2.58	1.59
Other or Unclear Cause	41.42	33.17	20.23	22.30	25.25	25.42	12.09	11.60	8.09	33.97	34.11	37.35	19.91
Pushed or Pulled	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Slipping, Skidding on Foot	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Something Giving way Underfoot	6.50	1.67	2.80	2.83	1.82	2.25	2.33	3.33	2.54	2.42	5.20	1.78	2.54
Struck by Person/Animal	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Tripping or Stumbling	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Twisting Movement	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Undefined Cause	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table S2a Claims numbers, claims rate (per 1000 employees), and average claims cost (NZ\$) stratified by industries from 2005 to 2012.

Subsector	2005	2006	2007	2008	2009	2010	2011	2012
Claim numbers (Claims rate)								
Claims costs								
Labour Supply Services	128 (4.9) 3753	109 (3.9) 5182	107 (3.3) 6073	120 (3.5) 4200	102 (3.5) 2914	101 (3.6) 4799	89 (2.8) 5098	87 (2.6) 995
Hospitals (except psychiatric hospitals)	1083 (16.7) 2306	1034 (15.6) 4119	1113 (16.7) 1735	1209 (17.5) 1898	1187 (16.5) 3397	1034 (14.1) 4026	1060 (14.3) 1152	1028 (13.7) 3620
General practice medical services	25 (2.5) 176	22 (2.1) 827	25 (2.4) 776	33 (3.1) 12 839	34 (3.1) 368	24 (2.2) 854	22 (2.0) 286	16 (1.4) 450
Specialist medical services	7 (2.98) 100	12 (5.0) 225	10 (3.9) 850	8 (2.9) 1525	7 (2.3) 9857	6 (2.0) 383	7 (2.2) 914	10 (3.1) 220
Pathology and diagnostic imaging services	4 (0.9) 30 375	9 (2.2) 19878	15 (3.6) 413	11 (2.7) 2782	13 (3.3) 777	9 (2.0) 5100	14 (3.3) 429	23 (5.4) 948
Physiotherapy services	13 (9.6) 500	7 (4.8) 329	9 (5.6) 578	18 (9.8) 1929	8 (4.2) 375	13 (7.0) 385	6 (3.6) 2983	10 (5.9) 340
Chiropractic and osteopathic services	4 (7.1) 1025	3 (5.5) 133	2 (3.3) 2650	5 (7.9) 280	9 (14.1) 856	7 (10.8) 543	2 (3.2) 300	3 (4.6) 133
Other allied health services	35 (1.8) 1174	32 (1.6) 603	30 (1.5) 520	23 (1.1) 3444	39 (1.7) 974	37 (1.4) 1476	40 (1.9) 1240	46 (2.2) 1400
Ambulance services	123 (61.5) 3670	108 (50.0) 1178	89 (40.5) 3747	91 (40.4) 4340	106 (44.9) 1937	119 (50.6) 1798	130 (52.0) 3339	153 (62.5) 2724
Other healthcare services	15 (5.2) 592	13 (4.1) 227	8 (2.2) 300	6 (1.4) 240	35 (8.3) 2180	18 (4.4) 313	37 (9.2) 3,064	51 (11.0) 1690
Aged care residential services	1279 (41.0) 2948	1329 (43.2) 2591	1351 (42.6) 3068	1293 (40.9) 3734	1095 (33.8) 1804	1119 (36.9) 1539	1190 (35.2) 971	1152 (32.9) 1401
Other residential care services	308 (25.5) 3145	309 (25.8) 3618	217 (17.6) 9655	344 (27.3) 1256	282 (21.1) 1880	293 (20.9) 3707	335 (24.6) 1400	316 (22.1) 1608
Child Care Services	2 (0.3) 7,950	4 (0.5) 125	2 (0.2) 250	8 (1.0) 1125	3 (0.3) 100	2 (0.2) 150	8 (0.8) 1288	5 (0.5) 160
Other Social Assistance Services	196 (11.3) 2987	193 (9.8) 7935	186 (10.8) 2476	176 (9.7) 5407	265 (13.7) 3564	296 (14.8) 2535	277 (13.9) 1499	284 (14.4) 2317
All industries	3223 (15.9) 2780	3184 (15.2) 3539	3164 (14.7) 3058	3344 (15.1) 2990	3186 (14.1) 2575	3078 (13.4) 2780	3218 (13.8) 1355	3183 (13.4) 2259

Table S2b Claims numbers, claims rate (per 1000 employees), and average claims cost (NZ\$) stratified by industries from 2013 to 2016.

Subsector	2013	2014	2015	2016
	Claim numbers (Claims rate)			
	Claims costs			
Labour Supply Services	104 (3.3)	116 (3.7)	115(3.5)	168 (4.8)
	1526	1969	879	1930
Hospitals (except psychiatric hospitals)	1102 (14.5)	1039 (13.5)	1071 (13.3)	1174 (14.4)
	1717	743	2858	1542
General practice medical services	26 (2.3)	31 (2.7)	45 (3.8)	31 (2.5)
	950	1526	1082	1184
Specialist medical services	9 (2.8)	15 (4.6)	8 (2.4)	10 (2.9)
	300	320	763	340
Pathology and diagnostic imaging services	17 (4.0)	15 (3.5)	16 (4.0)	18 (4.2)
	14 882	813	950	372
Physiotherapy services	16 (9.4)	12 (6.7)	14 (7.2)	10 (4.6)
	1288	492	1986	530
Chiropractic and osteopathic services	5 (7.6)	5 (7.3)	8 (11.4)	8 (11.1)
	320	220	225	2175
Other allied health services	48 (2.2)	48 (1.9)	57 (2.4)	60 (2.5)
	985	367	1072	915
Ambulance services	125 (49.0)	141 (54.2)	156 (53.8)	151 (49.5)
	2614	6162	4710	3218
Other healthcare services	44 (9.3)	45 (8.3)	50 (9.0)	30 (5.2)
	926	1346	832	1080
Aged care residential services	1232 (34.8)	1157 (32.6)	1263 (35.8)	1247 (34.5)
	1870	2065	2055	1471
Other residential care services	331 (23.7)	318 (22.5)	276 (17.6)	358 (23.9)
	1064	1962	1702	1952
Child Care Services	2 (0.2)	2 (0.2)	7 (0.5)	3 (0.2)
	5000	350	471	700
Other Social Assistance Services	280 (14.6)	334 (18.9)	326 (18.7)	332 (19.2)
	1526	1987	1940	1033
All industries	3341 (14.1)	3277 (13.5)	3413 (13.7)	3601 (14.1)
	1754	1738	2286	1571

Table S3 Claims numbers stratified by claims causes from 2005 to 2016.

Cause category	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Number of MHP related injury claims													
Lifting/ Carrying/ Strain	2006	1961	1866	1985	1769	1713	1731	1870	2130	2158	2120	2239	23 662
Loss Balance/ Personal Control	281	248	173	126	148	184	151	196	190	237	261	208	2448
Loss of Hold	2	3	3	3	5	1	3	0	1	0	1	1	23
Misjudgement of Support	31	31	32	33	49	66	76	58	36	64	49	44	576
Other or Unclear Cause	290	531	425	513	454	458	375	429	396	170	375	187	4799
Pushed or Pulled	30	53	43	101	99	105	108	90	131	144	143	150	1197
Slipping, Skidding on Foot	43	25	31	47	27	28	44	47	37	42	35	31	437
Something Giving way Underfoot	0	0	0	0	0	0	0	0	0	2	5	2	8
Struck by Person/Animal	129	119	97	104	104	92	154	124	95	90	76	102	1286
Tripping or Stumbling	15	7	11	6	14	7	21	12	15	11	13	10	142
Twisting Movement	21	104	145	130	148	168	158	142	142	139	178	168	1643
Undefined Cause	1	0	2	1	2	1	0	2	1	1	2	1	14
All causes	2850	3082	2828	3049	2820	2822	2821	2969	3174	3058	3259	3142	36 234

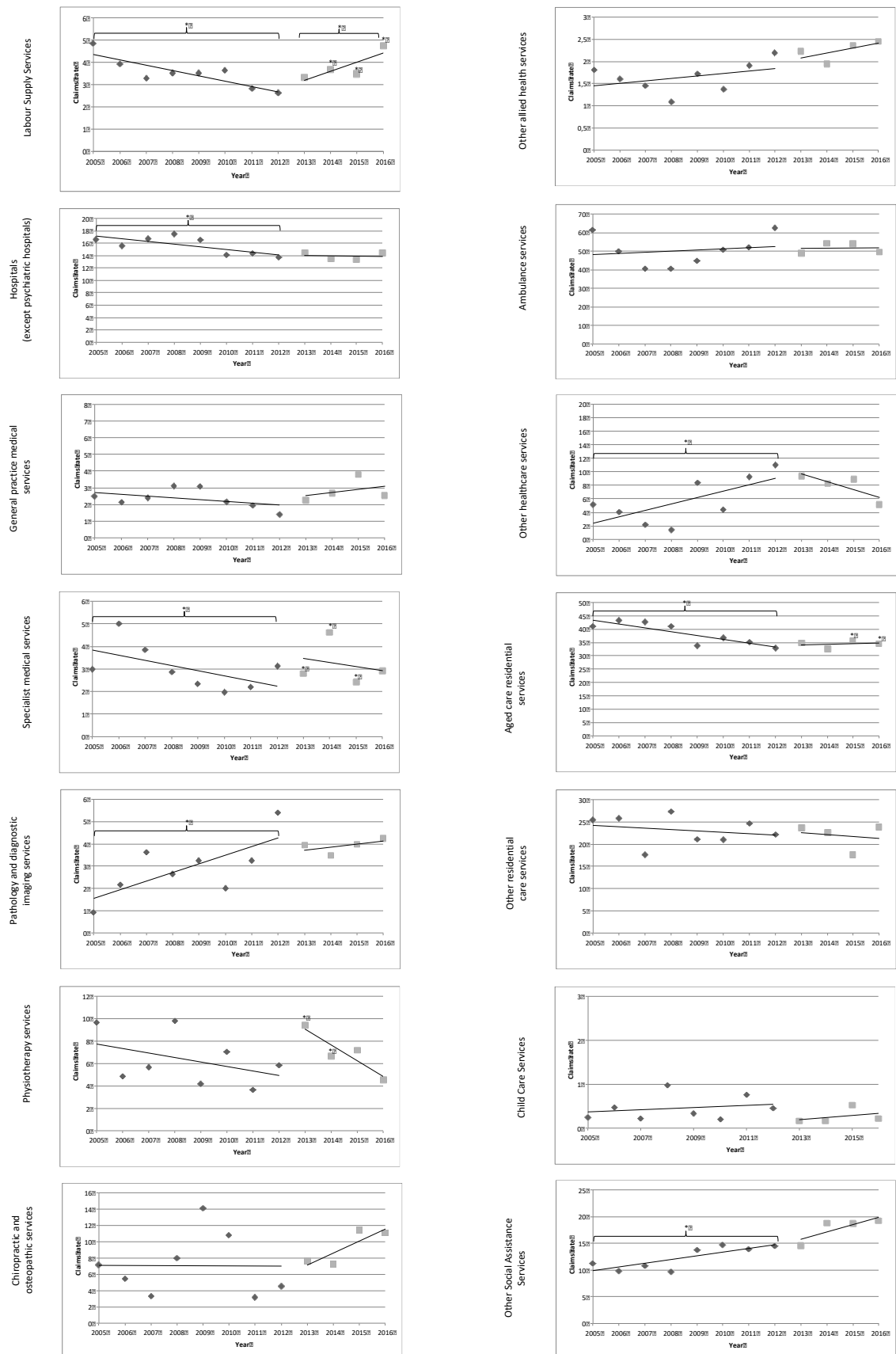


Figure S1 MHP related claims rates per subsector before and after the introduction of the MHPG. ♦ indicates yearly rates before (2005-2012) and ■ after (2013-2016) the introduction of the MHPG.

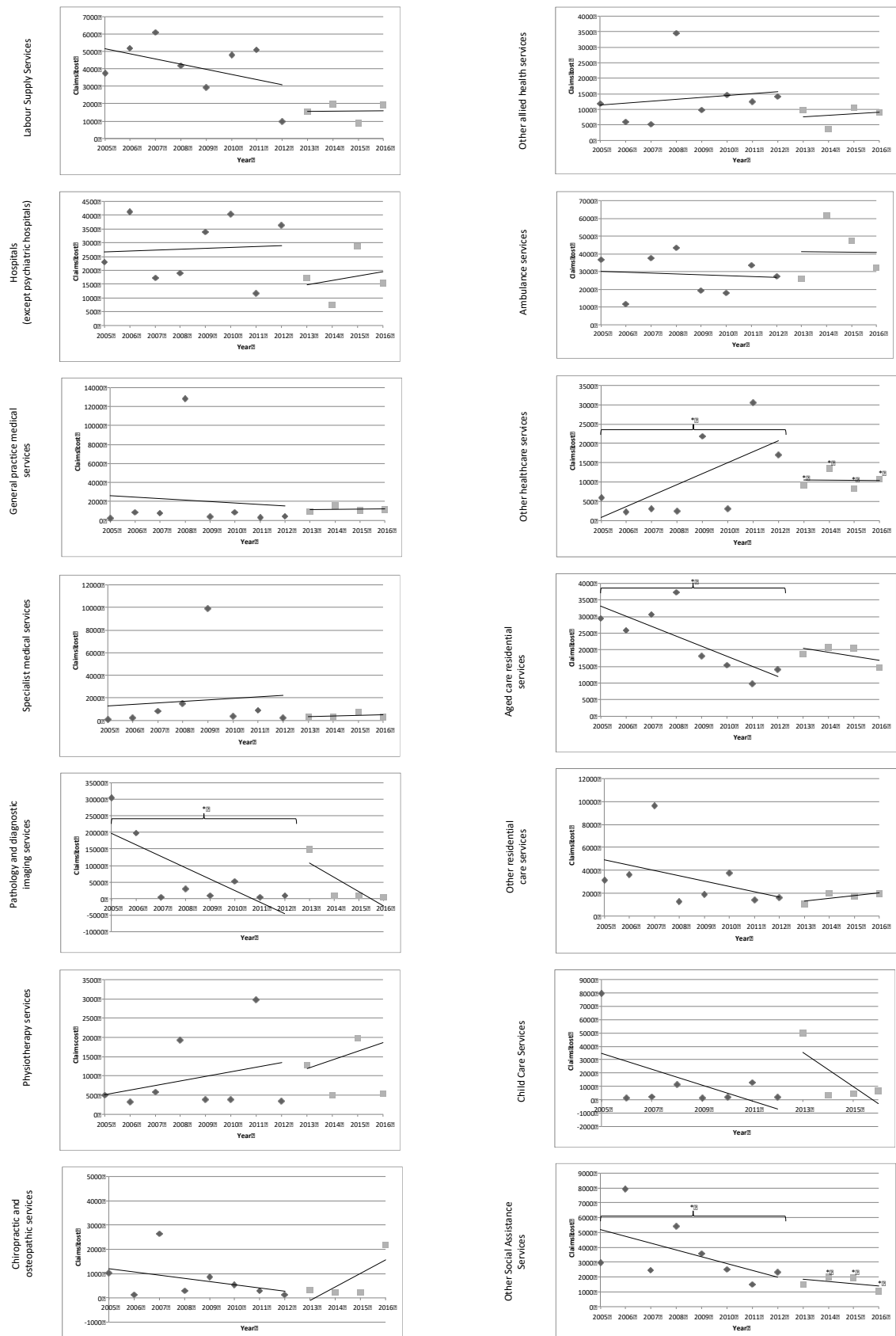


Figure S2 MHP related claims costs per subsector before and after the introduction of the MHPG. ♦ indicates yearly costs before (2005-2012) and ■ after (2013-2016) the introduction of the MHGP.

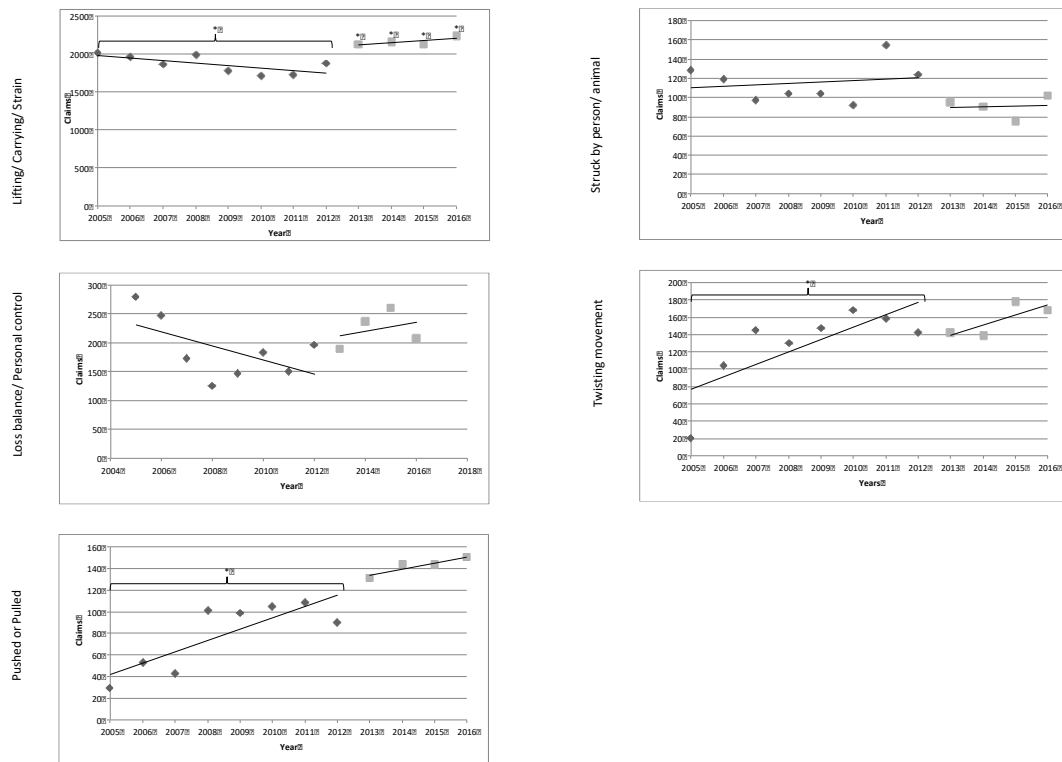


Figure S3 MHP related claims number stratified by the five causes contributing the most to MHP related injuries before and after the introduction of the MHGP. ♦ indicates yearly rates before (2005-2012) and ■ after (2013-2016) the introduction of the MHGP.