

Long-term Direct and Indirect Economic Burden Associated with Osteoporotic Fracture in US Postmenopausal Women

Osteoporosis International

Oth Tran, Stuart Silverman, Xiaoqing Xu, Machaon Bonafede, Kathleen M. Fox, Michele McDermott, and Shrvanthi R. Gandra

Corresponding Author: Oth Tran, IBM Watson Health., 75 Binney St, Cambridge, MA 02142, otran@us.ibm.com

Supplementary Table 3: Indirect costs from work absence and short-term disability (STD) among patients with hip, vertebral and non-hip non-vertebral (NHNV) fractures and their matched controls for years 1-5 post-index. *p<0.05 **p<0.001 Note: Data was not reported on cohorts smaller than 30 matched pairs (greyed boxes).

	Hip Fracture	Controls	Vertebral Fracture	Controls	NHNV Fracture	Controls
Year 1 Post Index						
Patients with absence eligibility (N)	N = 35	N = 35	N = 145	N = 145	N = 782	N = 782
Patients with any workplace absence (N, %)	29 (82.9)	31 (88.6)	128 (88.3)	130 (89.7)	694 (88.7)	678 (86.7)
Days lost due to workplace absence (Mean, SD)	52.8 (44.5)	32.5 (21.6)*	45.2 (40.4)	31.9 (21.9)**	41.7 (32.8)	29.8 (19.3)**
Indirect costs associated with workplace absence (Mean, SD)	\$11,176 (\$9,635)	\$6,871 (\$4,697)*	\$9,548 (\$8,471)	\$6,814 (\$5,038)**	\$8,790 (\$7,003)	\$6,279 (\$4,205)**
Patients with STD eligibility (N)	N = 219	N = 219	N = 981	N = 981	N = 4771	N = 4771
Patients with any STD (N, %)	139 (63.5)	14 (6.4)**	365 (37.2)	89 (9.1)**	1876 (39.3)	413 (8.7)
Days lost due to STD (Mean, SD)	46.3 (50.1)	3.2 (15.5)**	25.3 (45.7)	4.4 (20.6)**	22.6 (38.4)	3.7 (17.6)
Indirect costs associated with STD (Mean, SD)	\$6,693 (\$7,209)	\$485 (\$2,392)**	\$3,737 (\$6,891)	\$645 (\$3,084)**	\$3,312 (\$5,684)	\$539 (\$2,614)**
Year 2 Post Index						
Patients with absence eligibility (N)	N < 30	N < 30	N = 103	N = 103	N = 579	N = 579
Patients with any workplace absence (N, %)			89 (86.4)	94 (91.3)	513 (88.6)	511 (88.3)
Days lost due to workplace absence (Mean, SD)			33.4 (26.0)	32.5 (18.4)	31.6 (20.5)	30.4 (18.5)
Indirect costs associated with workplace absence (Mean, SD)			\$7,059 (\$5,530)	\$6,933 (\$4,225)	\$6,642 (\$4,406)	\$6,399 (\$4,006)
Patients with STD eligibility (N)	N = 132	N = 132	N = 599	N = 599	N = 3196	N = 3196
Patients with any STD (N, %)	27 (20.5)	15 (11.4)*	84 (14.0)	51 (8.5)*	331 (10.4)	267 (8.4)*
Days lost due to STD (Mean, SD)	10.2 (30.0)	4.6 (17.0)	7.1 (23.8)	4.2 (19.5)*	4.8 (20.0)	3.6 (18.2)*

	Hip Fracture	Controls	Vertebral Fracture	Controls	NHNV Fracture	Controls
Indirect costs associated with STD (Mean, SD)	\$1,447 (\$4,163)	\$683 (\$2,549)	\$1,036 (\$3,539)	\$614 (\$2,895)*	\$706 (\$2,986)	\$548 (\$2,810)*
Year 3 Post Index						
Patients with absence eligibility (N)	N < 30	N < 30	N = 62	N = 62	N = 416	N = 416
Patients with any workplace absence (N, %)			52 (83.9)	56 (90.3)	370 (88.9)	369 (88.7)
Days lost due to workplace absence (Mean, SD)			33.7 (30.4)	32.5 (14.5)	32.7 (20.3)	29.9 (19.1)*
Indirect costs associated with workplace absence (Mean, SD)			\$7,014 (\$6,121)	\$6,851 (\$3,179)	\$6,902 (\$4,435)	\$6,299 (\$4,141)*
Patients with STD eligibility (N)	N = 68	N = 68	N = 334	N = 334	N = 1936	N = 1936
Patients with any STD (N, %)	7 (10.3)	6 (8.8)	52 (15.6)	24 (7.2)**	234 (12.1)	170 (8.8)*
Days lost due to STD (Mean, SD)	2.6 (9.6)	6.6 (26.2)	9.0 (29.2)	3.7 (19.7)*	5.8 (22.7)	4.5 (20.8)
Indirect costs associated with STD (Mean, SD)	\$356 (\$1,285)	\$1,018 (\$4,018)	\$1,311 (\$4,139)	\$517 (\$2,861)*	\$868 (\$3,485)	\$663 (\$3,121)
Year 4 Post Index						
Patients with absence eligibility (N)	N < 30	N < 30	N = 43	N = 43	N = 268	N = 268
Patients with any workplace absence (N, %)			37 (86.0)	41 (95.3)	243 (90.7)	244 (91.0)
Days lost due to workplace absence (Mean, SD)			32.1 (23.9)	31.4 (10.6)	32.7 (19.8)	32.3 (18.9)
Indirect costs associated with workplace absence (Mean, SD)			\$6,659 (\$4,801)	\$6,558 (\$2,324)	\$6,867 (\$4,250)	\$6,755 (\$4,106)
Patients with STD eligibility (N)	N < 30	N < 30	N = 195	N = 195	N = 1069	N = 1069
Patients with any STD (N, %)	6 (17.1)	5 (14.3)	34 (17.4)	7 (3.6)**	142 (13.3)	97 (9.1)*
Days lost due to STD (Mean, SD)	13.1 (39.3)	10.3 (32.6)	6.2 (18.5)	1.6 (12.9)*	5.5 (20.6)	4.5 (20.7)
Indirect costs associated with STD (Mean, SD)	\$1,853 (\$5,697)	\$1,569 (\$4,987)	\$882 (\$2,596)	\$236 (\$1,907)*	\$816 (\$3,104)	\$662 (\$3,092)
Year 5 Post Index						
Patients with absence eligibility (N)	N < 30	N < 30	N = 31	N = 31	N = 152	N = 152
Patients with any workplace absence (N, %)			28 (90.3)	30 (96.8)	134 (88.2)	138 (90.8)
Days lost due to workplace absence (Mean, SD)			37.0 (21.4)	35.9 (16.4)	32.9 (26.2)	32.0 (18.2)
Indirect costs associated with workplace absence (Mean, SD)			\$7,602 (\$4,378)	\$7,400 (\$3,428)	\$6,943 (\$5,807)	\$6,664 (\$3,746)

	Hip Fracture	Controls	Vertebral Fracture	Controls	NHNV Fracture	Controls
Patients with STD eligibility (N)	N < 30	N < 30	N = 92	N = 92	N = 560	N = 560
Patients with any STD (N, %)			23 (25.0)	13 (14.1)	79 (14.1)	71 (12.7)
Days lost due to STD (Mean, SD)			10.4 (26.2)	3.7 (10.9)*	8.2 (29.1)	5.6 (21.2)
Indirect costs associated with STD (Mean, SD)			\$1,543 (\$3,891)	\$555 (\$1,674)*	\$1,220 (\$4,446)	\$830 (\$3,170)