



Occupational Disease Surveillance Report
2000-2013

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DISCLAIMER

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Occupational disease surveillance

Key findings:

- During 2000-2013, there were 328,326 occupational disease/condition diagnoses involving 153,984 patients
- Asthma, depression and anxiety accounted for 63% of all diagnosed occupationally related diseases/conditions
- Females comprised the majority (%) of the diagnoses of chronic fatigue, asthma, depression anxiety and dermatitis
- Male comprised the majority (%) of the diagnoses of noise-induced hearing loss, leptospirosis, decompression sickness, crushing injury of wrist and hand, mesothelioma, bladder cancer, burn and corrosion of wrist and hand, eye injury and leukaemia

CPHR extracts data from the Ministry of Health's National Minimum Dataset (NMDS) on discharges from publicly-funded hospitals ('hospital events' or 'hospitalisations') to monitor the prevalence of the occupationally related diseases/conditions included in the "Occupational Health Action Plan to 2013" (OHA) and the "Serious Harm factsheet" (SHF) published by WorkSafe New Zealand¹ (appendix 1) (Department of Labour, 2011a, 2011b).

Based on these data (appendix 2) for 2000 to 2013 for those aged 15-64 years (*Table 1-5*):

- There were 328,326 occupationally related disease/condition diagnoses (*Table 1*) involving 153,984 (*Table 3*) patients (i.e. a patient may have multiple hospital visits and be diagnosed with multiple occupationally related diseases/conditions)
- 56% patients with occupationally related diseases/conditions were female (*Table 3*)
- 24% of the occupationally related disease/condition diagnoses were for asthma, 22% for depression and 19% for anxiety (*Table 2*)
- Females comprised 73% of diagnoses for chronic fatigue, 68% for asthma, 64% for depression, 64% for anxiety and 56% for dermatitis (*Table 2*)
- Males comprised 96% of diagnoses for noise-induced hearing loss, 89% for leptospirosis, 86% for decompression sickness, 85% for crushing injury of wrist and hand, 80% for mesothelioma, 75% for bladder cancer, 74% for burn and corrosion of wrist and hand, 68% for eye injury (68%) and 59% for leukaemia (*Table 2*)
- There was little difference between females and males in the diagnoses of toxic effect of other and unspecified substance (49% vs 51%) and lung cancer (52% vs 48%) (*Table 2*)
- Maori comprised 19% of all the occupationally related disease/condition diagnoses, and 30% of asthma, 27% of lung cancer and 24% of burn and corrosion of wrist and hand diagnoses (*Table 2*)
- Pacific people comprised to 7% of all the occupationally related disease/condition diagnoses, and 13% of asthma, 10% of dermatitis, 9% of crushing injury of wrist and hand diagnoses (*Table 2*)

¹ Formerly Department of Labour

Table 1: Number of occupationally related disease/condition diagnosis, sex and ethnicity, 2000-2013

Occupationally Related Disease/Condition	Sex			Ethnicity				Total
	Female	Male	Unknown	Maori	Pacific	Other	Unknown	
Asthma	53081	25481	0	23340	10091	44306	825	78562
Depression	46882	25832	0	9271	1968	60467	1008	72714
Anxiety	40138	22206	1	8884	1949	50678	834	62345
Lung Cancer	16014	14739	0	8368	1566	20351	468	30753
Leukaemia	11698	16853	0	3508	2082	22408	553	28551
Dermatitis	13388	10462	0	5066	2405	16047	332	23850
Eye injury	4536	9548	0	2829	1028	9933	294	14084
Bladder Cancer	1673	4950	0	590	109	5845	79	6623
Burn and corrosion of wrist and hand	1421	4143	0	1314	334	3816	100	5564
Mesothelioma	291	1189	0	156	19	1275	30	1480
Crushing injury of wrist and hand	142	797	0	172	86	664	17	939
Leptospirosis	95	747	0	183	16	615	28	842
Toxic effect of other and unspecified substance	407	422	0	164	53	597	15	829
Chronic fatigue (post viral fatigue syndrome)	475	177	0	18	3	620	11	652
Decompression sickness	69	416	0	74	0	383	28	485
Noise-induced hearing loss	2	51	0	6	0	45	2	53
Total	190312	138013	1	63943	21709	238050	4624	328326

Table 2: Percentage of occupationally related disease/condition diagnosis, sex and ethnicity 2000-2013

Occupationally Related Disease/Condition	Sex			Ethnicity				Total
	Female	Male	Unknown	Maori	Pacific	Other	Unknown	
Asthma	67.57	32.43	0	29.71	12.84	56.4	1.05	23.93
Depression	64.47	35.53	0	12.75	2.71	83.16	1.39	22.15
Anxiety	64.38	35.62	0	14.25	3.13	81.29	1.34	18.99
Lung Cancer	52.07	47.93	0	27.21	5.09	66.18	1.52	9.37
Leukaemia	40.97	59.03	0	12.29	7.29	78.48	1.94	8.7
Dermatitis	56.13	43.87	0	21.24	10.08	67.28	1.39	7.26
Eye injury	32.21	67.79	0	20.09	7.3	70.53	2.09	4.29
Bladder Cancer	25.26	74.74	0	8.91	1.65	88.25	1.19	2.02
Burn and corrosion of wrist and hand	25.54	74.46	0	23.62	6	68.58	1.8	1.69
Mesothelioma	19.66	80.34	0	10.54	1.28	86.15	2.03	0.45
Crushing injury of wrist and hand	15.12	84.88	0	18.32	9.16	70.71	1.81	0.29
Leptospirosis	11.28	88.72	0	21.73	1.9	73.04	3.33	0.26
Toxic effect of other and unspecified substance	49.1	50.9	0	19.78	6.39	72.01	1.81	0.25
Chronic fatigue (post viral fatigue syndrome)	72.85	27.15	0	2.76	0.46	95.09	1.69	0.2
Decompression sickness	14.23	85.77	0	15.26	0	78.97	5.77	0.15
Noise-induced hearing loss	3.77	96.23	0	11.32	0	84.91	3.77	0.02
Total	57.96	42.04	0	19.48	6.61	72.5	1.41	100

Table 3: Number of patients, by sex and ethnicity, 2000-2013

	Sex			Ethnicity				Total
	Female	Male	Unknown	Maori	Pacific	other	Unknown	
Frequency	86138	67845	1	29599	10712	110838	2835	153984
Percent	55.94	44.06	0	19.22	6.96	71.98	1.84	100

Table 4: Number of patients by disease/condition, sex and ethnicity, 2000-2013

Occupationally Related Disease/Condition	Sex			Ethnicity				Total
	Female	Male	Unknown	Maori	Pacific	Other	Unknown	
Asthma	28732	14783	0	11196	4756	26900	663	43515
Anxiety	24831	15853	1	6002	1536	32541	606	40685
Depression	23580	15570	0	5878	1389	31187	696	39150
Dermatitis	11692	8586	0	4131	1946	13899	302	20278
Eye injury	4326	9099	0	2678	993	9470	284	13425
Lung Cancer	4244	4154	0	2147	435	5613	203	8398
Burn and corrosion of wrist and hand	1191	3384	0	1042	307	3138	88	4575
Leukaemia	1255	1857	0	437	212	2349	114	3112
Bladder Cancer	500	1361	0	152	40	1623	46	1861
Crushing injury of wrist and hand	139	761	0	162	81	641	16	900
Leptospirosis	90	690	0	163	13	576	28	780
Toxic effect of other and unspecified substance	373	398	0	156	48	552	15	771
Chronic fatigue (post viral fatigue syndrome)	396	145	0	18	3	512	8	541
Decompression sickness	60	321	0	55	0	298	28	381
Mesothelioma	63	274	0	17	5	304	11	337
Noise-induced hearing loss	2	46	0	6	0	40	2	48
Total	101474	77282	1	34240	11764	129643	3110	178757

Table 5: Percentage of patient by disease/condition, sex and ethnicity, 2000-2013

Occupationally Related Disease/Condition	Sex			Ethnicity				Total
	Female	Male	Unknown	Maori	Pacific	Other	Unknown	
Asthma	66.03	33.97	0	25.73	10.93	61.82	1.52	24.34
Anxiety	61.03	38.97	0	14.75	3.78	79.98	1.49	22.76
Depression	60.23	39.77	0	15.01	3.55	79.66	1.78	21.9
Dermatitis	57.66	42.34	0	20.37	9.6	68.54	1.49	11.34
Eye injury	32.22	67.78	0	19.95	7.4	70.54	2.12	7.51
Lung Cancer	50.54	49.46	0	25.57	5.18	66.84	2.42	4.7
Burn and corrosion of wrist and hand	26.03	73.97	0	22.78	6.71	68.59	1.92	2.56
Leukaemia	40.33	59.67	0	14.04	6.81	75.48	3.66	1.74
Bladder Cancer	26.87	73.13	0	8.17	2.15	87.21	2.47	1.04
Crushing injury of wrist and hand	15.44	84.56	0	18	9	71.22	1.78	0.5
Leptospirosis	11.54	88.46	0	20.9	1.67	73.85	3.59	0.44
Toxic effect of other and unspecified substance	48.38	51.62	0	20.23	6.23	71.6	1.95	0.43
Chronic fatigue (post viral fatigue syndrome)	73.2	26.8	0	3.33	0.55	94.64	1.48	0.3
Decompression sickness	15.75	84.25	0	14.44	0	78.22	7.35	0.21
Mesothelioma	18.69	81.31	0	5.04	1.48	90.21	3.26	0.19
Noise-induced hearing loss	4.17	95.83	0	12.5	0	83.33	4.17	0.03
Total	56.77	43.23	0	19.15	6.58	72.52	1.74	100

Appendix 1: Occupationally related diseases/conditions, ICD codes, and source document

	Diagnosis/injury	ICD code (10 th rev)	Source document
1	Leptospirosis	A27	OHA
2	Lung Cancer	C33-C34	OHA
3	Mesothelioma	C45	OHA
4	Leukaemia	C91-C95	OHA
5	Bladder cancer	C67	OHA
6	Anxiety	F40, F41, F42, F43 And F06.4 (organic)	OHA
7	Depression	F32, F33 And F06.3 (organic)	OHA
8	Chronic fatigue (post viral fatigue syndrome)	G93.3	SHF
9	Noise-induce hearing loss	H83.3	OHA
10	Asthma	J45-J46	OHA
11	Dermatitis	L20-L21, L23-L28, L30	OHA
12	Decompression sickness	T70.3	SHF
13	Toxic effect of other and unspecified substance (excl nicotine) e.g. cyanide, paint, dye	T65 excl T65.2	SHF
14	Eye injury (combination group)		SHF
	- Injury of eye and orbit	S05	
	- Foreign body on external eye	T15	
	- Burn/corrosion confined to eye/adnexa	T26-28	
15	Burn and corrosion of wrist and hand	T23	SHF
16	Crushing injury of wrist and hand	S67	SHF

Appendix 2: Hospitalisation with a disease/condition

The monitoring of occupationally related diseases/conditions reports on the number of hospitalisations with the diagnosed diseases/conditions included in appendix 1. Therefore, it includes patients who went to hospital with the diseases/conditions rather than patients who went to hospital because of the diseases/conditions.

For example, a patient visited the hospital because of dermatitis (principal diagnosis) on 6 July 2003. The same patient was also diagnosed with asthma and anxiety. As a result of this visit, this patient contributed to three occupationally related disease/condition diagnoses.

A patient who had multiple hospitalisations for occupationally related disease/condition during 2000-2013 was counted multiple times. This leads to the sum of individuals who visited hospital for each occupationally related disease/condition being great than the number of individuals who visited hospital with occupationally related diseases/conditions.

For example, suppose the same patient above visited the hospital again 2 years later, on 7 June 2005, with diagnoses of asthma (principle diagnosis) and anxiety. In these two visits, the dermatitis, anxiety and asthma are the diseases/conditions of interest. This particular patient was counted once in each of the dermatitis, anxiety and asthma diagnoses.

References

- Department of Labour. (2011a). *Occupational Health Action Plan to 2013*. Retrieved from <http://www.business.govt.nz/worksafe/about/who-we-work-with/action-agenda-action-plans/occupational-health-action-plan-to-2013/occupational-health-action-plan.pdf>
- Department of Labour. (2011b). *Serious Harm - Health and safety in the workplace*. Retrieved from <http://www.dol.govt.nz/hs/law/quickguide/pdfs/seriousharm.pdf>