

Occupation and the risk of hearing impairment – results from the Nord-Trøndelag study on hearing loss ¹

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1 Full tables 3 and 4

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Table 3. Predicted age-adjusted hearing threshold elevation (in dB) and adjusted prevalence ratio of PTS_{0.5-1-2-4} ≥35 dB among men ^a. Occupational groups were sorted by mean PTS₃₋₄₋₆. All groups with >39 subjects are shown. (PTS₃₋₄₋₆ = binaural pure-tone average for frequencies of 3000, 4000, and 6000 Hz; PTS_{0.5-1-2-4} = pure-tone average of the better ear for frequencies of 500, 1000, 2000, and 4000 Hz; 95% CI = 95% confidence interval)

Nordic Classification of Occupational Codes		PTS ₃₋₄₋₆		PTS _{0.5-1-2-4}		Prevalence ratio		Sample size (N=23 374)
		Mean	95% CI	Mean	95% CI	Mean	95% CI	
77	Wood work	11.2	6.7–15.7	7.3	4.4–10.2	1.7	1.4–2.3	46
501	Miners (in underground mines, quarrymen, shot firers)	10.9	8.4–13.3	5.7	4.1–7.3	1.8	1.4–2.4	171
765	Linemen & cable jointers	9.5	6.2–12.8	3.5	1.4–5.7	1.4	0.9–2.2	87
774	Construction carpenters & workers	9.2	7.9–10.5	5.6	4.7–6.4	1.6	1.3–2.1	911
612	Able & ordinary seamen	9.2	4.8–13.5	5.8	2.9–8.6	1.6	0.9–3.0	49
751	Workshop mechanics	8.5	6.2–10.9	4.3	2.8–5.9	1.1	0.7–1.8	183
753	Machine & motor repairmen	8.5	4.8–12.2	4.0	1.6–6.4	1.4	0.7–3.1	68
A30	Military (senior officers)	8.2	4.1–12.2	3.8	1.2–6.4	1.5	0.9–2.5	58
876	Oilers & greasers etc	8.1	4.0–12.1	3.6	1.0–6.2	1.1	0.5–2.6	57
871	Stationary engine operators	7.9	3.1–12.7	2.5	-0.6–5.6	1.1	0.5–2.1	40
791	Masons, bricklayers & plasterers	7.3	4.2–10.4	3.4	1.4–5.4	1.1	0.7–1.8	101
755	Plumbers & pipe fitters	7.3	5.2–9.3	4.2	2.9–5.5	1.8	1.2–2.7	256
757	Metal plate & steel structural workers	7.2	4.8–9.7	4.6	3.0–6.2	1.8	1.2–2.7	174
75	Iron and metalware work	7.1	4.1–10.1	3.1	1.1–5.0	1.6	1.1–2.3	106
759	Others in 75 Iron & metalware work	7.1	3.0–11.2	6.0	3.3–8.6	1.0	0.4–2.6	56
754	Sheet-metal workers	6.9	4.5–9.3	3.7	2.2–5.3	1.1	0.6–1.9	177
441	Forestry workers & loggers	6.9	4.9–8.9	4.1	2.8–5.4	1.3	0.9–1.8	276
836	Papermakers	6.8	3.9–9.6	3.2	1.4–5.0	1.5	1.0–2.3	124
872	Crane & hoist operators etc.	6.5	2.3–10.7	4.1	1.4–6.8	1.5	0.8–3.1	53
772	Sawmill & planing mill workers	6.4	4.5–8.4	4.2	2.9–5.5	1.4	1.0–1.9	282
874	Operators of earth-moving & other construction machinery	6.4	4.7–8.2	3.3	2.2–4.5	1.2	0.8–1.7	383
826	Butchers, sausage makers etc	6.2	3.6–8.7	3.3	1.6–4.9	1.2	0.7–2.0	157
793	Cement finishers, excavators etc	6.1	4.6–7.7	4.0	2.9–5.0	1.5	1.1–1.9	509
752	Fitter-machinists	6.1	4.7–7.5	3.6	2.7–4.5	1.7	1.3–2.3	695
834	Mechanical pulp workers	6.0	1.9–10.0	4.3	1.7–6.9	1.7	1.2–2.4	57
A20	Non-commissioned officers & subalterns	5.9	3.4–8.4	3.3	1.7–4.9	1.9	1.4–2.7	164
777	Wood working machine setters & operators	5.8	3.3–8.3	4.9	3.3–6.6	1.6	1.2–2.2	159
0X6	Personnel specialists	5.5	1.2–9.8	2.7	-0.1–5.5	1.5	0.7–3.2	50
821	Millers	5.5	1.2–9.8	3.4	0.6–6.2	1.2	0.7–2.1	51
X	Occupation not reported	5.3	4.2–6.4	3.7	3.0–4.5	1.7	1.3–2.1	3216
401	General farmers, livestock farmers - working on own behalf	5.3	4.3–6.3	3.1	2.4–3.7	1.4	1.1–1.8	2763
644	Lorry & van drivers	5.2	3.8–6.6	3.4	2.6–4.3	1.4	1.1–1.9	782
875	Material-handling-equipment operators	5.1	1.9–8.3	2.8	0.8–4.9	1.3	0.8–2.3	96
851	Concrete product makers etc	5.1	1.6–8.5	3.4	1.1–5.6	1.8	1.2–2.7	80
931	Janitors, vergers etc	5.0	3.2–6.9	3.0	1.8–4.2	1.2	0.9–1.7	333
302	Working proprietors, retail trade	5.0	2.2–7.7	2.5	0.7–4.3	1.0	0.6–1.5	131
881	Longshoremen & vehicle loaders	5.0	1.1–8.8	3.4	0.9–5.9	1.9	1.3–2.7	64
412	Livestock workers (general)	4.3	2.7–6.0	2.4	1.3–3.5	1.2	0.8–1.7	436
A10	Military (corporals & privates)	4.3	2.1–6.5	2.3	0.9–3.7	0.0	..	247
827	Dairy workers	4.2	1.4–7.0	2.1	0.3–3.9	1.2	0.8–2.0	125
404	Managers & supervisors - farms	4.2	0.8–7.5	3.9	1.7–6.1	1.9	1.3–2.9	84
76	Electrical work	4.1	-0.3–8.5	2.9	0.1–5.7	1.3	0.7–2.3	48
909	Others in 90 (public safety & protection work)	4.1	-0.5–8.6	2.5	-0.4–5.5	1.3	0.7–2.4	44
912	Cooks	4.0	-0.2–8.1	3.8	1.1–6.5	1.6	0.4–5.6	55
297	Real estate managers, store-room keepers etc.	3.8	-0.1–7.6	0.2	-2.3–2.6	1.0	0.5–1.9	64
853	Plastic product makers	3.8	1.3–6.3	2.7	1.1–4.3	1.1	0.7–1.8	163
764	Installers, fitters & repairmen (radio, TV, phone, telegraph)	3.7	0.9–6.5	2.1	0.3–4.0	1.3	0.7–2.2	123
882	Warehouse workers	3.7	1.7–5.6	2.1	0.9–3.4	1.4	1.0–1.9	290
331	Salesmen operating from an office	3.4	1.1–5.8	3.2	1.6–4.7	1.6	1.1–2.5	182
7	Manufacturing & construction work	3.4	0.1–6.8	3.4	1.2–5.5	1.5	1.0–2.3	86
411	Farm helpers - general	3.3	1.7–5.0	2.5	1.5–3.6	1.4	1.1–1.9	429
903	Policemen & detectives	3.3	0.5–6.1	0.7	-1.1–2.5	1.4	0.9–2.2	126
761	Electricians & electrical fitters	3.3	1.6–5.0	1.8	0.7–2.9	1.1	0.7–1.6	410
699	Others in 69 (other transport and communication work)	3.0	-1.8–7.8	2.1	-1.0–5.2	1.4	0.9–2.1	40
299	Others in 29 (other clerical work)	3.0	0.4–5.6	2.7	1.0–4.3	1.4	0.9–2.2	149

(continued)

Table 3. Continued.

Nordic Classification of Occupational Codes		PTS ₃₋₄₋₆		PTS _{0.5-1-2-4}		Prevalence ratio		Sample size (N=23 374)
		Mean	95% CI	Mean	95% CI	Mean	95% CI	
671	Local postmasters, postal assistance	3.0	0.1–5.9	2.5	0.6–4.3	2.0	1.3–3.1	117
095	Editors & journalists etc.	2.5	-2.0–7.1	1.4	-1.5–4.4	0.5	0.1–1.9	44
643	Taxi drivers	2.5	-1.2–6.2	2.4	0.0–4.8	1.2	0.7–2.0	70
024	Silviculturists & forestry consultants	2.3	-1.6–6.2	-0.2	-2.7–2.4	0.9	0.5–1.9	61
681	Postmen	2.3	-1.3–5.8	0.9	-1.4–3.3	1.3	0.7–2.1	74
911	Housekeepers etc (not private or public service)	2.2	-2.1–6.5	2.0	-0.8–4.8	1.1	0.4–2.7	51
781	Building & furniture painters	2.1	-0.5–4.7	1.8	0.2–3.5	1.3	0.9–2.0	146
003	Other engineers, engineer technicians, industrial designers, draughtsman	2.1	0.4–3.7	1.5	0.5–2.6	1.3	0.9–1.9	459
641	Bus drivers	2.0	-0.7–4.8	1.4	-0.4–3.2	1.1	0.7–1.9	133
111	Directors, managers & working proprietors	2.0	0.4–3.6	1.1	0.0–2.1	0.9	0.6–1.3	469
432	Fish hatchers	1.6	-2.3–5.6	1.3	-1.2–3.8	0.7	0.2–2.8	61
769	Others in 76 Electrical work	1.5	-1.9–4.9	1.5	-0.7–3.7	1.0	0.4–2.6	82
333	Shop assistants	1.4	-0.3–3.2	1.5	0.4–2.7	1.0	0.6–1.6	373
332	Shop managers	1.4	-0.7–3.5	0.7	-0.7–2.1	1.1	0.7–1.7	236
311	Salesmen of insurance	1.0	-3.5–5.6	-0.1	-3.0–2.8	0.6	0.2–2.3	45
822	Bakers and pastry cooks	0.8	-2.7–4.3	1.0	-1.3–3.2	1.2	0.7–2.0	78
113	Administration secretaries	0.7	-3.4–4.7	-0.1	-2.8–2.5	0.8	0.4–1.6	57
201	Accountants & bookkeepers	0.6	-2.3–3.4	1.3	-0.6–3.1	1.1	0.7–1.7	119
663	Railway supervisors	0.5	-4.1–5.2	1.5	-1.5–4.5	1.5	0.9–2.4	43
002	Chief engineers	0.1	-2.5–2.6	0.5	-1.2–2.1	1.0	0.5–1.7	153
064	Teachers - primary & vocational schools	0.0	-1.5–1.5	0.0	-0.9–0.9	1.0	ref	644
292	Clerks - bank	-0.2	-4.0–3.5	-0.2	-2.6–2.2	0.8	0.2–3.0	67
106	Other administrators & exec officials - municipal administration	-0.4	-4.6–3.7	-2.1	-4.8–0.6	0.9	0.4–2.1	54
104	Other adm governmental servants - local state administration	-0.6	-4.0–2.9	-0.3	-2.5–2.0	0.7	0.4–1.5	80
0X1	Auditors	-0.8	-4.6–3.1	1.1	-1.3–3.6	1.1	0.6–2.1	64
0X2	Social workers	-0.8	-4.1–2.4	-0.4	-2.5–1.6	0.3	0.1–1.3	92
119	Others in 11 (administration of private enterprises and organizations)	-1.1	-5.0–2.8	0.0	-2.6–2.5	0.5	0.1–1.4	61
403	Gardeners, horticultural farmers & fruit growers (working on own behalf)	-1.1	-5.7–3.5	-1.0	-4.0–2.0	1.1	0.5–2.3	43
021	Veterinarians	-1.1	-5.9–3.7	-1.4	-4.5–1.7	0.8	0.2–2.5	40
031	Other physicians	-1.8	-6.1–2.6	-0.4	-3.3–2.4	1.1	0.4–2.8	49
023	Agronomists & horticulturists, agricultural consultants	-1.8	-5.5–1.9	-1.0	-3.4–1.4	1.1	0.7–2.0	69
060	Headmasters	-1.9	-4.3–0.6	-1.1	-2.6–0.5	0.9	0.6–1.4	169
063	Lecturers with final university degree - secondary schools	-2.0	-4.2–0.2	-0.9	-2.4–0.5	0.6	0.3–1.2	218
103	Leading administrators & exec officials - local state adm	-2.5	-6.5–1.6	-2.0	-4.6–0.7	1.1	0.6–1.9	57
105	Senior administrators & exec officials - municipal adm	-2.7	-5.8–0.4	-1.5	-3.6–0.5	0.7	0.4–1.3	99
0X9	Others in 0X [other work in major group 0 (technical, physical science, humanistic and artistic work)]	-3.1	-7.6–1.3	-1.2	-4.1–1.6	.	..	48

^a In relation to the reference occupation group 064, "Teachers – primary and vocational schools."

Table 4. Predicted age-adjusted hearing threshold elevation (in dB) and adjusted prevalence ratio of $PTS_{0.5-1-2-4} \geq 35$ dB among women ^a. Occupational groups were sorted by mean PTS_{3-4-6} . All groups with >39 subjects are shown. (PTS_{3-4-6} = binaural pure-tone average for frequencies of 3000, 4000, and 6000 Hz. $PTS_{0.5-1-2-4}$ = pure-tone average of the better ear for frequencies of 500, 1000, 2000, and 4000 Hz, 95% CI = 95% confidence interval).

Nordic Classification of Occupational Codes		PTS_{3-4-6}		$PTS_{0.5-1-2-4}$		Prevalence ratio		Sample size (N=26 907)
		Mean	95% CI	Mean	95% CI	Mean	95% CI	
822	Bakers & pastry cooks	5.7	2.1–9.3	4.1	1.4–6.8	1.1	0.6–1.8	45
04	Nursing care	3.8	1.6–6.1	2.0	0.3–3.7	0.9	0.6–1.4	120
003	Other engineers, engineer technicians, industrial designers	3.5	0.0–7.0	1.5	-1.1–4.2	1.6	0.2–11.5	48
681	Postmen	3.4	-0.3–7.2	1.2	-1.6–4.1	0.8	0.1–5.3	41
913	Kitchen assistants	3.3	2.0–4.6	2.4	1.4–3.4	1.1	0.8–1.5	404
41	Farm work & livestock work	3.3	0.1–6.5	1.5	-1.0–3.9	0.9	0.5–1.7	56
X	Occupation not reported	2.8	2.1–3.5	2.2	1.7–2.6	1.0	0.8–1.3	7946
932	Char workers & cleaners	2.7	1.9–3.5	1.9	1.3–2.5	1.0	0.8–1.3	1888
049	Others in 04 (nursing care)	2.5	1.1–3.9	2.0	1.0–3.1	1.3	0.9–1.8	355
915	Housekeepers (public service)	2.5	1.4–3.5	1.6	0.8–2.3	1.0	0.8–1.2	842
912	Cooks	2.5	0.8–4.1	1.7	0.5–3.0	0.9	0.7–1.3	247
921	Headwaiters, waiters	2.4	0.9–3.9	1.8	0.7–2.9	1.2	0.9–1.6	295
825	Canning & other preservation workers	2.4	-0.4–5.1	2.2	0.1–4.2	1.3	0.6–2.7	80
411	Farm helpers (general)	2.3	1.3–3.3	1.3	0.6–2.1	1.0	0.8–1.3	843
914	Housekeepers, maids (private service)	1.8	0.0–3.5	1.2	-0.1–2.5	0.9	0.6–1.4	212
716	Sewers & embroiderers (textile products, leather garments)	1.7	-0.8–4.2	0.8	-1.1–2.7	0.8	0.4–1.5	94
412	Livestock workers (general)	1.7	0.4–3.0	1.1	0.2–2.1	0.9	0.7–1.2	439
413	Nursery workers & gardeners	1.7	-0.7–4.1	1.5	-0.3–3.3	0.9	0.5–1.5	106
919	Others in 91 (public safety and protection work)	1.5	0.1–3.0	0.7	-0.4–1.8	0.6	0.2–1.5	310
922	Other waiting personnel	1.4	-0.7–3.6	1.1	-0.5–2.7	0.6	0.3–1.3	136
911	Housekeepers etc (not private or public service)	1.4	-0.8–3.6	1.3	-0.3–3.0	1.0	0.7–1.6	129
043	Practical nurses in psychiatric institutions	1.4	-1.6–4.4	-0.4	-2.7–1.8	0.5	0.1–3.0	67
047	Nursemaids in hospitals & other institutions	1.4	-0.9–3.6	1.0	-0.7–2.7	0.4	0.1–3.1	119
292	Clerks (bank)	1.3	-0.5–3.1	0.6	-0.7–1.9	0.6	0.1–2.2	202
203	Other cashiers	1.2	-0.7–3.1	0.5	-0.9–1.9	0.4	0.2–1.0	176
294	Clerks (public health insurance)	1.0	-2.0–3.9	1.0	-1.3–3.2	1.5	0.6–3.4	68
111	Directors, managers & working proprietors	1.0	-2.7–4.7	-0.2	-3.0–2.5	0.6	0.2–1.6	42
0X2	Social workers	1.0	-0.6–2.6	1.0	-0.2–2.2	0.6	0.3–1.4	263
951	Laundry & dry-cleaning workers	1.0	-1.7–3.7	0.4	-1.6–2.4	0.8	0.4–1.4	81
861	Packers-labelers & related workers	0.9	-1.4–3.2	1.3	-0.4–3.1	0.8	0.5–1.5	111
853	Plastic product makers	0.9	-1.5–3.3	0.6	-1.2–2.4	0.4	0.1–1.4	102
333	Shop assistants	0.9	0.1–1.7	0.8	0.2–1.4	0.9	0.7–1.1	2042
941	Barbers, hairdressers & beauticians	0.8	-1.0–2.7	0.4	-1.0–1.8	0.9	0.5–1.6	186
045	Other practical nurses	0.7	-0.2–1.7	0.5	-0.2–1.2	0.8	0.5–1.1	1063
401	General farmers, livestock farmers (working on own behalf)	0.6	-0.4–1.6	0.0	-0.7–0.8	1.0	0.7–1.2	905
673	Telephone switchboard operators (public service)	0.5	-3.0–4.0	-0.2	-2.9–2.4	0.9	0.5–1.5	47
302	Working proprietors, retail trade	0.4	-2.1–2.9	-0.5	-2.4–1.4	0.9	0.6–1.4	94
0X3	Librarians, archivists & scientific personnel in museums	0.4	-3.1–3.9	-0.5	-3.1–2.1	0.4	0.1–1.4	47
066	Teachers (nursery schools)	0.3	-1.6–2.3	0.5	-1.0–2.0	0.3	0.0–2.3	165
013	Laboratory assistants	0.3	-2.6–3.1	0.4	-1.8–2.5	0.6	0.2–1.8	73
299	Others in 29 (other clerical work)	0.2	-0.6–1.1	0.4	-0.3–1.0	0.8	0.6–1.0	1636
769	Others in 76 (electrical work)	0.2	-3.3–3.7	0.1	-2.5–2.8	1.5	0.5–4.7	48
041	Professional nurses	0.2	-0.9–1.2	0.0	-0.8–0.8	0.8	0.6–1.1	745
332	Shop managers	0.1	-2.5–2.7	-0.4	-2.4–1.5	0.4	0.2–1.2	89
064	Teachers - primary & vocational schools	0.0	-1.0–1.0	0.0	-0.8–0.8	1.0	ref	902
211	Secretaries & stenographers	-0.1	-2.1–1.9	0.1	-1.4–1.6	1.0	0.4–2.3	161
674	Telephone switchboard operators - private exchange	-0.1	-3.6–3.3	0.2	-2.4–2.9	1.3	1.1–1.7	48
671	Local postmasters, postal assistance	-0.1	-1.9–1.6	0.1	-1.3–1.4	0.9	0.5–1.6	203
063	Lecturers with final university degree - secondary schools	-0.3	-2.3–1.8	-0.3	-1.9–1.2	1.2	0.7–2.1	146
046	Dental assistance	-0.3	-2.8–2.3	-0.4	-2.3–1.5	0.6	0.2–2.2	93
104	Other administration governmental servants - local state adm.	-0.4	-3.6–2.8	0.3	-2.1–2.7	1.6	1.1–2.6	58
675	Telegraph dispatchers	-0.5	-3.6–2.6	-0.3	-2.6–2.0	0.7	0.3–1.7	62
052	Physio- & occupational therapists	-0.6	-2.7–1.5	-0.7	-2.4–0.9	0.3	0.1–1.3	134
916	Concierge - hotels	-0.9	-4.3–2.5	0.9	-1.7–3.4	0.8	0.2–2.5	51
201	Accountants & bookkeepers	-1.0	-3.2–1.3	-0.4	-2.1–1.3	0.7	0.3–2.1	121
059	Others in 05 (other professional health & medical work)	-2.4	-5.7–0.9	-0.4	-2.8–2.1	.	..	53
333	Shop assistants	0.9	0.1–1.7	0.8	0.2–1.4	0.9	0.7–1.1	2042

^a In relation to the reference occupation group 064, "Teachers – primary and vocational schools."