Supplementary material：More than two pages of tables in the article and

a plethora of other tables

Appendix

Table 1 Prevalence of NIHL among workers in the transportation industry

| Author | Type of transportation | Population | | | | Noise level | NIHL (%) | | |
		N	Age (years)	Exposure duration (years)	Male (%)	(max) [dB(A)]	HFNIHL	SFNIHL	NID
Hu[48]	Air	1498	29.7	-	73.0	-	6.1	4	-
Rong[49]	Railway	2045	39.9±6.8	18.0±11.0	100.0	97.1	13.1	-	5.9
Ge[50]	Ship	1000	20.0-60.0	-	100.0	-	15.6	-	-
Xu[51]	Ship	53	17.0-42.0	-	100.0	-	60.4	-	-
Peng[52]	Railway	1214	23.0-58.0	17.7±10.0	100.0	-	10.3	5.8	-
Total	-	5810	17.0-60.0	17.9±10.6	93.0	97.1	11.6	5.6	5.9

dB(A), A-weighted decibels; NIHL, noise-induced hearing loss; HFNIHL, high-frequency noise-induced hearing

loss; SFNIHL, speech-frequency noise-induced hearing loss; NID, noise-induced deafness.

Table 2 Prevalence of NIHL among workers in the mining industry

Author	Type of mining	Population				Noise level	NIHL (%)		
		N	Age (years)	Exposure duration (years)	Male (%)	(max) [dB(A)]	HFNIHL	SFNIHL	NID
Zhang[53]	Mining	389	24-53	-	100.0	-	73.5	13.1	-
Yuan[54]	Oil field	211	31.8±8.4	10.6±6.8	100.0	94.0	24.6	5.2	-
Zhao[55]	Coal mining	1137	29.6±2.4	9.2±0.8	100.0	117.0	80.8	-	10.1
Zhang[56]	Mining	508	46.4±8.5	4.1±4.0	-	107.5	40.3	3.1	10.6
Total	-	2245	34.4±9.3	8.0±4.0	100.0	106.2±11.6	65.1	7.0	10.3

dB(A), A-weighted decibels; NIHL, noise-induced hearing loss; HFNIHL, high-frequency noise-induced hearing

loss; SFNIHL, speech-frequency noise-induced hearing loss; NID, noise-induced deafness.

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

BMJ Open

Table 3 Prevalence of noise exposure and NIHL among manufacturing workers

Author	Type of factory	Population				Noise level (max or mean) [dB(A)]	NIHL (%)		
		N	Age (years)	Exposure duration (years)	Male (%)		HFNIHL	SFNIHL	NID
Chen[57]	Sports equipment	247	34.0±6.5	-	89.9	-	17.0	-	4.9
Gao[58]	Rolling mills	629	40.0±7.0	1-41	83.5	118.0	25.6	-	4.3
Gao[59]	-	1023	17-55	5.1	74.2	95.8	11.3	4.8	-
Gao[60]	Toys	720	31.8±3.7	-	56.4	-	10.4	-	-
Jiao[61]	-	520	21-58	15.2	60.8	101.5	-	-	12.8
Li[62]	Aviation	1197	-	10.2±7.9	-	102.5	43.5	-	-
Lin[63]	-	386	26.6±6.3	3.4±2.3	79.5	89.9	74.1	50.5	-
Liu[64]	Oxygen mills	333	20-59	14.0	68.5	103.0	11.1	3.0	-
Lv[65]	Airport	290	33.4±10.3	14.5±11.2	-	98.8	48.6	6.6	-
Wang[66]	-	512	-	-	-	91.6	81.3	21.3	-
Wang[67]	Textile	1001	38.1±3.0	16.5±4.5	18.7	-	65.1	3.0	-
Yan[68]	Tank	406	18-32	-	100.0	-	34.5	23.2	-
Yan[69]	-	528	-	-	-	115.0	83.7	23.0	-
Guo[70]	Textile	60	25.8±8.4	3.6±3.1	16.7	100.5	28.3	-	-
Nie[71]	Shipbuilding	3260	40.4±8.8	7.7±3.8	90.2	112.1	11.8	3.4	-
Wang[72]	Textile	1156	30.7±5.6	11.9±5.3	-	93.7	33.3	17.3	-
Zhang[73]	Textile	481	18-58	1-33	25.4	98.4	11.9	-	-
Ni[74]	Textile	618	35.8±6.1	10.6±7.6	-	113.5	23.6	0.8	-
Xie[75]	Steel	98	37.0	-	84.7	134.5	61.2	17.3	-
Chen[76]	Automotive	6557	27.0	3.5	96.4	119.1	28.8	-	-
Ning[77]	Manufacturing	1439	20-55	1-5	77.5	100.0	33.6	5.4	-
Xu[78]	Forging	272	33.7	4.2	-	129	26.1	-	-
Liu[79]	Manufacturing	3432	32.7±7.4	3.8±2.5	81.2	92.1±4.9	37.1	3.9	-
Peng[80]	Automotive	706	35.5±7.6	11.1±7.8	65.7	99.3	59.8	9.1	-
Huang[81]	Electronics	172	28.3	4.3	66.3	100.0	36.0	15.1	-
Li[82]	Steel pipes	106	29.8±2.4	7.6	-	89.6±9.7	28.3	-	-
Chen[83]	Tires	953	37.9±8.6	11.8±7.1	90.3	91.2	10.5	-	-

Author	Type of factory	Population				Noise level (max or mean) [dB(A)]	NIHL (%)		
		N	Age (years)	Exposure duration (years)	Male (%)		HFNIHL	SFNIHL	NID
Bao[84]	Automotive	3411	22.4±3.0	4.3±3.0	100.0	86.9	15.7	-	-
You[85]	Textile	1000	33.1±8.0	11.1±8.2	0.0	90.8±7.6	42.6	-	-
Chen[86]	Bottled drinks	154	29.9±5.5	5.3±3.7	-	89.6	20.8	-	3.3
Zhang[87]	Metal processing	965	27.4±6.5	5.6±2.3	90.6	88.2±3.5	27.5	-	-
Zhou[88]	Welding	924	32.4±7.5	10.0±6.5	94.5	100.7	48.3	11.6	-
Wang[89]	Steel rolling	120	25-55	2-39	-	99.3	75.8	15.0	-
Qian[90]	Welding	980	32.0±7.0	9.6±6.3	91.8	84.1±12.7	33.7	-	-
Total	-	34,656	32.6±8.9	7.9±6.3	81.6	96.2±5.1	30.9	8.5	7.1

dB(A), A-weighted decibels; NIHL, noise-induced hearing loss; HFNIHL, high-frequency noise-induced hearing loss; SFNIHL, speech-frequency noise-induced hearing loss; NID, noise-induced deafness.

Table 4 Meta-analysis of cross-sectional studies with references to NIHL among manufacturing workers

Author	Group	Type of factory	Population				Noise level (max or mean) [dB(A)]	NIHL (%)			HFNIHL prevalence	
			N	Age (years)	Exposure duration (years)	Male (%)		HFNIHL	SFNIHL	NID	OR	95% CI
Luo[91]	Exposure	Petrochemicals	908	-	20.1±9.1	-	91.8	38.3	-	0.6	4.78	3.04-7.53
	Control		200	-	23.3±9.0	-	-	11.5	-	-		
Pan[92]	Exposure	Shipbuilding	1000	-	-	-	110.0	69.1	10.9	-	7.16	5.87-8.73
	Control		1000	-	-	-	-	23.8	1.3	-		
Yang[93]	Exposure	Furniture	345	31.6±7.4	15.3±12.2	75.7	-	32.2	-	0.9	3.95	2.21-7.07
	Control		140	43.4±8.2	20.2±10.1	71.4	-	10.7	-	-		
Yu[94]	Exposure	Cooking	116	-	-	-	90.0	15.5	9.5	-	4.59	1.50-14.05
	Control		104	-	-	-	-	3.8	4.8	-		
Zu[95]	Exposure	Metal processing	570	-	2.8±2.9	59.3	96.6	44.0	-	1.8	8.84	5.24-14.91
	Control		208	-	2.6±2.5	54.3	71.1	8.2	-	-		
Yuan[96]	Exposure	Forging	88	36.5±9.4	19.1±8.7	-	109.0	61.4	26.1	-	13.24	5.87-29.86
	Control		84	37.2±8.6	20.3±7.7	-	58.0	10.5	1.2	-		
Hu[97]	Exposure	Tubes	123	32.6±3.9	12.2±2.5	-	109.0	68.3	35.5	-	27.14	10.12-72.79
	Control		68	34.6±4.5	13.2±3.5	-	-	7.4	-	-		
Li[98]	Exposure	Manufacturing	4908	33.7±9.2	-	95.8	115.7	17.3	12.5	-	3.83	2.75-5.33
	Control		753	35.1±10.6	-	96.7	-	5.2	3.3	-		
Wang[99]	Exposure	Gem processing	381	39.4±9.1	10.7±5.1	43.8	102.3	15.8	3.4	-	5.42	1.29-22.79
	Control		60	45.4±10.5	13.4±11.1	35.0	-	3.3	1.7	-		
Ni[100]	Exposure	Boilers	105	42.9±8.5	17.6±11.9	91.4	123.8	58.1	8.6	-	2.05	1.19-3.53
	Control		109	41.8±6.0	18.7±10.3	89.0	82.0	40.4	1.8	-		

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

BMJ Open

Author	Group	Type of factory	Population				Noise level (max or mean) [dB(A)]	NIHL (%)			HFNIHL prevalence	
			N	Age (years)	Exposure duration (years)	Male (%)		HFNIHL	SFNIHL	NID	OR	95% CI
Liu[101]	Exposure	Tobacco	1314	36.7±8.0	17.3±9.6	54.5	82.1	22.1	2.4	-	4.01	1.84-8.72
	Control		106	37.3±6.7	18.4±6.6	56.6	51.5	6.6	0.9	-		
Chang[102]	Exposure	Liquefied	37	46.7±7.6	12.7±7.4	-	79.1±5.1	56.8	-	-	48.56	6.01-392.64
	Control	petroleum gas	38	38.3±5.7	7.3±3.1	-	55.4±4.4	2.6	-	-		
Liu[103]	Exposure	Coal processing	360	43.5±6.4	-	68.1	-	30.8	12.8	-	1.21	0.88-1.66
	Control		378	42.8±6.9	-	65.9	-	27.0	7.4	-		
Zhang[104]	Exposure	Electronics	495	26.3±3.6	5.0±3.0	73.5	86.6±2.6	30.7	14.9	-	3.71	2.14-6.45
	Control		150	26.5±3.7	5.0±3.4	80.0	-	10.7	1.3	-		
Chen[105]	Exposure	Electronics	1012	44.5±6.8	21.5±8.3	74.0	86.9±12.9	14.3	-	-	2.26	1.36-3.76
	Control		261	43.7±8.7	-	75.9	61.3±3.4	6.9	-	-		
Li[106]	Exposure	Boilers	120	32.6±9.7	4.8±2.8	-	108.0	59.2	15.0	-	4.71	1.45-15.30
	Control		17	34.1±9.6	4.2±2.3	-	-	23.5	0.0	-		
Li[107]	Exposure	Manufacturing	170	34.1±10.0	10.5±6.2	-	98.5	24.7	-	-	3.23	1.62-6.42
	Control	in general	130	35.6±8.7	12.1±6.9	-	-	9.2	-	-		
Yang[108]	Exposure	Sheet metals	63	31.3±6.9	7.8±7.1	87.3	125.0	57.1	-	27.0	9.70	4.34-21.67
	Control	-	91	33.5±8.2	9.1±7.5	86.8	-	12.1	-	7.7		
Fu[109]	Exposure	Chemical	153	34.5	9.1	71.2	86.8	44.4	15.7	-	5.37	2.28-12.64
	Control	plants	54	29.5	6.8	55.6	-	13.0	1.9	-		
Liu[110]	Exposure	Mechanical	404	36.2	11.7	97.3	106.4	22.0	-	-	6.43	3.05-13.55
	Control	processing	190	37.2	10.8	67.9	-	4.2	-	-		
Li[111]	Exposure	Gem	890	23.9±3.9	2.7±2.1	96.4	89.2±2.8	34.3	-	-	3.65	2.24-5.95
	Control	processing	160	24.7±4.1	2.9±1.9	96.9	-	12.5	-	-		

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

BMJ Open

Author	Group	Type of factory	Population				Noise level (max or mean) [dB(A)]	NIHL (%)			HFNIHL prevalence	
			N	Age (years)	Exposure duration (years)	Male (%)		HFNIHL	SFNIHL	NID	OR	95% CI
Wu[112]	Exposure	Shoes	320	31.0	8.0	0.0	96.0	17.8	2.8	-	30.13	7.28-124.64
	Control		280	33.0	10.3	0.0	-	0.7	0.4	-		
Tang[113]	Exposure	Manufacturing	726	38.2±8.2	23.0±9.2	-	88.3±16.1	12.5	1.8	3.4	5.08	2.99-8.63
	Control		620	30.6±7.5	16.5±8.4	-	-	2.7	0.6	1.1		
Tang[114]	Exposure	Manufacturing	1200	22-55	9.3±7.1	100.0	85.6±1.9	57.5	-	-	30.86	22.20-42.90
	Control		1000	22-55	9.4±7.0	100.0	43.9±1.0	4.2	-	-		
Chen[115]	Exposure	Textile	294	22.8±5.3	7.2±5.2	0.0	98.0	23.5	3.4	-	7.05	3.73-13.35
	Control		288	23.5±6.2	-	0.0	-	4.2	0.7	-		
Xie[116]	Exposure	Paper industry	1717	31.2±4.8	9.5±4.7	99.4	104.0	22.6	12.3	-	3.13	2.17-4.50
	Control		410	35.8±6.9	10.2±5.8	98.5	73.4	8.5	4.6	-		
Lin[117]	Exposure	Machinery	500	28.8	-	56.0	104.5	19.8	2.6	-	5.63	3.45-9.19
	Control		500	27.2	-	57.6	-	4.2	0.0	-		
Total	Exposure	-	18,319	33.9±9.4	12.6±9.8	81.4	102.2±7.2	28.7	10.0	2.3	5.63	4.03-7.88
	Control		7399	34.9±10.1	12.0±9.1	73.4	63.5±3.8	9.9	2.1	2.0		

dB(A), A-weighted decibels; NIHL, noise-induced hearing loss; HFNIHL, high-frequency noise-induced hearing loss; SFNIHL, speech-frequency noise-induced hearing loss; NID, noise-induced deafness; OR, odds ratio; CI, confidence interval.