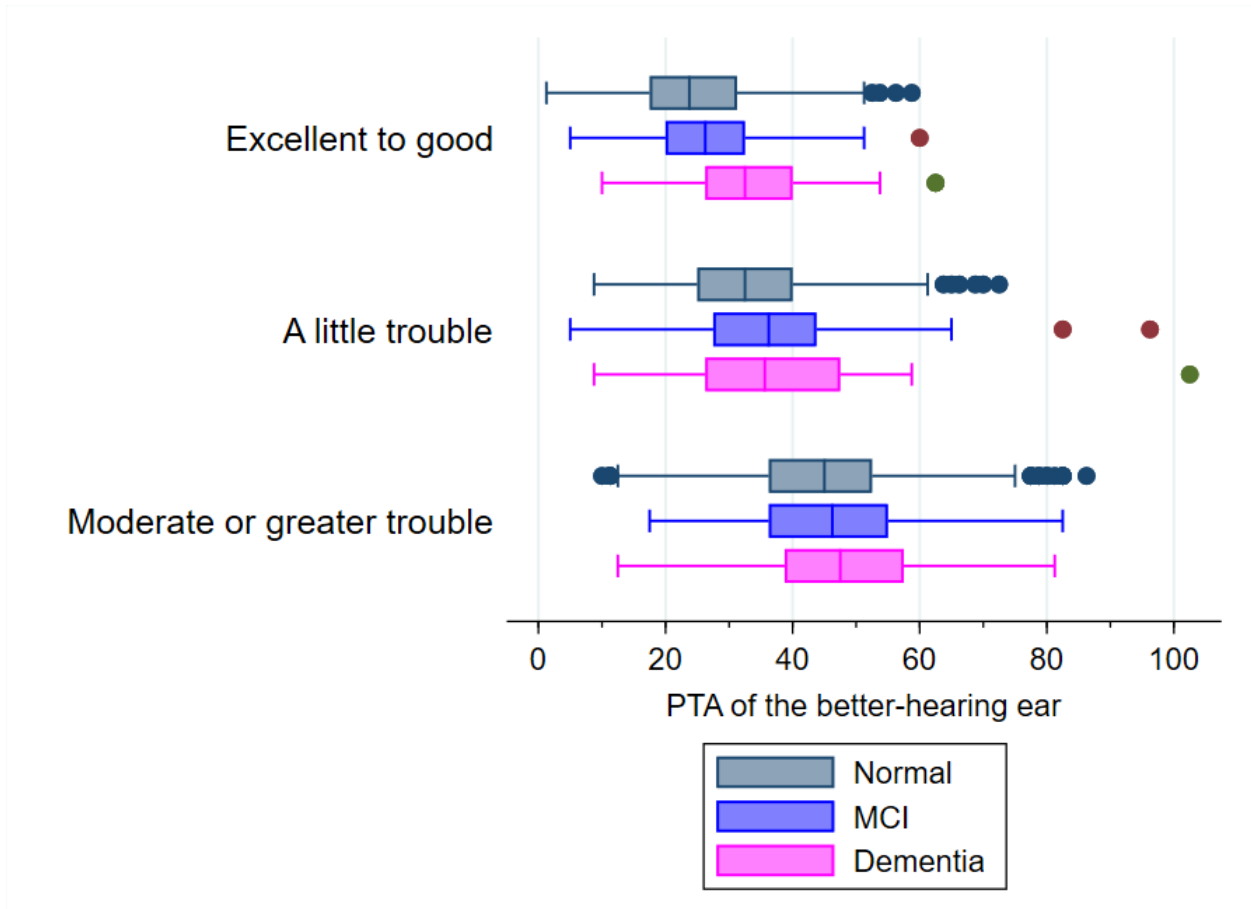


**Supplemental Table S1.** Self-rated hearing vs objective PTAs stratified by cognition

COGNITIVELY NORMAL				
Self-rated hearing status	Audiometric hearing loss			Total (n=2525)
	None	Mild	Moderate or greater	
Excellent to good	76.7 (686)	47.8 (477)	7.3 (46)	100.0 (1209)
A little trouble	17.4 (156)	30.8 (307)	21.5 (136)	100.0 (599)
Moderate or greater	5.9 (53)	21.4 (214)	71.2 (450)	100.0 (717)
MILD COGNITIVE IMPAIRMENT				
Self-rated hearing status	Audiometric hearing loss			Total (n=608)
	None	Mild	Moderate or greater	
Excellent to good	76.4 (133)	51.6 (126)	14.2 (27)	100.0 (286)
A little trouble	15.5 (27)	28.3 (69)	24.7 (47)	100.0 (143)
Moderate or greater	8.1 (14)	20.1 (49)	61.1 (116)	100.0 (179)
DEMENTIA				
Self-rated hearing status	Audiometric hearing loss			Total (n=193)
	None	Mild	Moderate or greater	
Excellent to good	60.0 (21)	53.7 (44)	26.3 (20)	100.0 (85)
A little trouble	28.6 (10)	24.4 (20)	21.1 (16)	100.0 (46)
Moderate or greater	11.4 (4)	22.0 (18)	52.6 (40)	100.0 (62)

**Supplemental Figure S1.** Audiometric hearing for self-rated hearing by cognition level



**Supplemental Table S2.** Demographic and hearing-related characteristics of participants with cognitive impairment, audiometric testing, and proxy-rated hearing (n = 520)

Characteristics, n (%)	Cognitive Status			p-value <sup>2</sup>
	MCI (n = 427)	Dementia (n = 93)	All (n = 520)	
Age at visit 6, years				
Average age (SD) <sup>1</sup>	80.3 (4.6)	81.9 (5.1)	80.6 (4.7)	<b>0.003</b>
70-74	11.9 (51)	6.5 (6)	11.0 (57)	<b>0.02</b>
75-79	42.2 (180)	32.3 (30)	40.4 (210)	
≥ 80	45.9 (196)	61.3 (57)	48.7 (253)	
Female	56.4 (241)	55.9 (52)	56.4 (93)	0.93
Black, %	18.3 (78)	30.1 (28)	20.4 (106)	<b>0.01</b>
Education				
Less than high school	10.3 (44)	21.5 (20)	12.3 (64)	<b>0.001</b>
High school, GED, or vocational school	35.8 (153)	41.9 (39)	36.9 (192)	
At least some college	53.9 (230)	36.6 (34)	50.8 (264)	
Income at visit 1				
< 25,000	21.6 (92)	32.3 (30)	23.5 (122)	0.13
25,000 – 49,999	42.4 (181)	33.3 (31)	40.8 (212)	
≥ 50,000	36.1 (154)	34.4 (32)	35.8 (186)	
Degree of hearing loss by PTA				
PTA in better hearing ear in dB HL, (SD) <sup>1</sup>	34.8 (14.2)	35.5 (13.8)	34.9 (14.1)	0.64
Any hearing loss	71.2 (304)	76.3 (71)	72.1 (375)	0.32
No hearing loss	28.8 (123)	23.7 (22)	27.9 (145)	0.58
Mild hearing loss	39.8 (170)	44.1 (41)	40.6 (211)	
Moderate or greater hearing loss	31.4 (134)	32.3 (30)	31.5 (164)	
Proxy-rated hearing loss	32.1 (137)	50.5 (47)	35.4 (184)	<b>0.001</b>
Current hearing aid user	21.3 (91)	20.4 (19)	21.2 (110)	0.85

Significant p-values are designated in bold. Abbreviations: MCI = mild cognitive impairment; PTA = pure tone average, dB HL = decibels in hearing level

<sup>1</sup> Represented as a continuous variable with the standard deviation in parenthesis.

<sup>2</sup> A one-way ANOVA was used for continuous data, while the  $\chi^2$  test was used for categorical data.