**Supplement 2.** Stratified analysis for the association between serum HDL-C levels and high-frequency hearing loss after excluding those study subjects who reported taking lipid lowering agents (N=9,257)

| Variable | No. of subjects | Quartile distribution of HDL-C | | | | P trend* | P interaction† |
|---|---|---|---|---|---|---|---|
| | | Q1 | Q2 | Q3 | Q4 | | |
| Age (y) | | | | | | | |
| 40–64 | 6,560 | 1 | 0.81 (0.59–1.13) | 0.85 (0.63–1.16) | 0.86 (0.62–1.20) | 0.628 | 0.606 |
| ≥65 | 2,697 | 1 | **0.74 (0.58–0.93)** | **0.67 (0.53–0.83)** | **0.72 (0.57–0.92)** | **0.003** | |
| Sex | | | | | | | 0.223 |
| Men | 4,095 | 1 | 0.84 (0.62–1.13) | 0.88 (0.66–1.17) | 0.75 (0.56–1.02) | 0.315 | |
| Women | 5,162 | 1 | **0.70 (0.54–0.91)** | **0.68 (0.53–0.88)** | 0.81 (0.64–1.04) | **0.016** | |
| Hypertension | | | | | | | 0.654 |
| No | 5,641 | 1 | **0.72 (0.57–0.92)** | **0.71 (0.56–0.91)** | **0.76 (0.60–0.95)** | **0.022** | |
| Yes | 3,616 | 1 | 0.85 (0.61–1.19) | 0.92 (0.66–1.27) | 0.83 (0.60–1.16) | 0.687 | |
| Diabetes | | | | | | | 0.899 |
| No | 7,996 | 1 | **0.78 (0.63–0.97)** | **0.78 (0.63–0.96)** | **0.80 (0.65–0.98)** | 0.076 | |
| Yes | 1,076 | 1 | 0.67 (0.37–1.21) | 0.76 (0.42–1.40) | 0.62 (0.30–1.29) | 0.473 | |
| Smoking | | | | | | | 0.275 |
| Never | 5,562 | 1 | **0.76 (0.58–0.99)** | **0.72 (0.57–0.93)** | 0.86 (0.67–1.09) | 0.060 | |
| Ever | 3,672 | 1 | 0.78 (0.56–1.08) | 0.83 (0.62–1.13) | **0.69 (0.51–0.95)** | 0.134 | |
| Alcohol | | | | | | | 0.966 |
| No | 4,643 | 1 | 0.77 (0.59–1.01) | **0.74 (0.57–0.96)** | 0.79 (0.60–1.05) | 0.112 | |
| Yes | 4,550 | 1 | 0.77 (0.57–1.02) | 0.80 (0.61–1.06) | 0.79 (0.61–1.03) | 0.273 | |
| Regular physical activity | | | | | | | 0.549 |
| No | 5,009 | 1 | **0.70 (0.54–0.91)** | **0.69 (0.53–0.91)** | **0.70 (0.53–0.91)** | **0.018** | |
| Yes | 4,222 | 1 | 0.86 (0.64–1.17) | 0.89 (0.65–1.20) | 0.91 (0.68–1.21) | 0.813 | |
| Noise exposure | | | | | | | 0.260 |
| No | 6,334 | 1 | **0.74 (0.58–0.95)** | 0.81 (0.64–1.02) | 0.86 (0.69–1.09) | 0.122 | |
| Yes | 2,923 | 1 | 0.80 (0.57–1.13) | **0.71 (0.51–0.99)** | **0.65 (0.47–0.91)** | 0.069 | |

Values are presented as OR (95% CI), unless otherwise stated. Statistically significant results are marked in bold. OR and 95% CI was estimated by multiple logistic regression analysis after adjusting for age, sex, hypertension, diabetes, smoking, alcohol consumption, education level, physical activity, household income, and noise exposure if applicable.

HDL-C, high-density lipoprotein cholesterol; OR, odds ratio; CI, confidence interval.

*P trend was obtained by linear regression model in which quartile levels of HDL-C were included as an ordinal variable. †P for interaction was obtained by putting an interaction term (quartile level of HDL-C×each stratifying variable) in the by multiple logistic regression model.