**Supplementary data**

**Table S1 Logistic regression analysis of all the correlations of hearing loss in males**

(n=2386)

| Variables                      | Young Group (20-39) (n=699) | Mid-aged Group (40-59) (n=1053) | Older Group (60-80) (n=634) |
|--------------------------------|-----------------------------|---------------------------------|-----------------------------|
|                                | OR  | P Value | OR  | P Value | OR  | P Value |
| **Speech Frequency Hearing Loss** |     |         |     |         |     |         |
| Smoking Status                 |     |         |     |         |     |         |
| Never smokers                  | Ref | 0.271   | Ref | 0.001   | Ref | 0.032   |
| Passive smokers                | 1.42| 0.237   | 0.93| 0.728   | 1.40| 0.306   |
| Current smokers                | 1.61| 0.136   | 1.65| 0.004   | 1.29| 0.309   |
| Past smokers                   | 3.27| 0.117   | 1.88| 0.019   | 2.58| 0.003   |
| **Drinking**                   |     |         |     |         |     |         |
| Never drinker                  | Ref | 0.038   | Ref | 0.386   | Ref | 0.891   |
| Former drinker                 | 0.19| 0.261   | 1.76| 0.306   | 0.85| 0.740   |
| Current drinker                | 0.40| 0.019   | 1.16| 0.306   | 1.07| 0.779   |
| **Workplace Noise**            |     |         |     |         |     |         |
| No or very little              | Ref | 0.008   | Ref | 0.018   | Ref | 0.214   |
| At least once a week           | 2.24| 0.002   | 1.01| 0.971   | 0.86| 0.510   |
| At least once a day            | 1.75| 0.131   | 1.71| 0.006   | 1.72| 0.133   |
| **Hypertension**               |     |         |     |         |     |         |
| No                             | Ref |         | Ref |         | Ref |         |
| Yes                            | 5.43| 0.002   | 2.01| <0.001  | 1.83| 0.005   |
| **Diabetes**                   |     |         |     |         |     |         |
| No                             | Ref |         | Ref |         | Ref |         |
| Yes                            | 23.48| 0.023  | 2.43| 0.017   | 1.09| 0.803   |
| **Hyperlipidemia**             |     |         |     |         |     |         |
| No                             | Ref |         | Ref |         | Ref |         |
| Yes                            | 1.08| 0.926   | 1.56| 0.111   | 0.43| 0.048   |
| **High Frequency Hearing Loss**|     |         |     |         |     |         |
| Smoking Status                 |     |         |     |         |     |         |
| Never smokers                  | Ref | 0.246   | Ref | <0.001  | Ref | 0.378   |
| Passive smokers                | 1.09| 0.726   | 1.25| 0.255   | 1.36| 0.529   |
| Current smokers                | 1.55| 0.083   | 2.01| <0.001  | 1.01| 0.974   |
| Past smokers                   | 2.35| 0.242   | 2.64| 0.001   | 2.19| 0.109   |
| **Workplace noise**            |     |         |     |         |     |         |
| No or very little              | Ref | 0.003   | Ref | 0.055   | Ref | 0.010   |
| At least once a week           | 2.08| 0.001   | 0.83| 0.241   | 0.41| 0.004   |
| At least once a day            | 1.48| 0.203   | 1.46| 0.075   | 1.28| 0.664   |
### Hypertension

| No  | Ref | Ref  | Ref  | Ref  |
|-----|-----|------|------|------|
| Yes | 5.59| <0.001| 2.42| <0.001| 1.52| 0.193|

Note: Boldface indicates statistical significance (p < 0.05).
Notes:

The sample size was calculated using the following calculation formula:

\[ n = \left( \frac{Z_{1-\alpha/2}}{\delta} \right)^2 \times p \times (1 - p) \]