Supplementary Table 3. Hazard ratios and 95% confidence intervals of incident stroke by quartiles of high-density lipoprotein cholesterol variability*

| Variable | Quartile 1 | Quartile 2 | Quartile 3 | Quartile 4 | Per-SD increase | \( \rho_{\text{trend}} \) |
|----------|------------|------------|------------|------------|----------------|------------------|
| Total stroke |            |            |            |            |                |                  |
| SD       | 1.00       | 1.10 (0.93–1.30) | 1.17 (0.99–1.39) | 1.21 (1.02–1.42) | 1.05 (0.99–1.12) | 0.012            |
| VIM      | 1.00       | 1.10 (0.93–1.30) | 1.17 (0.99–1.39) | 1.21 (1.02–1.42) | 1.07 (1.02–1.13) | 0.021            |
| ARV      | 1.00       | 0.85 (0.71–1.00) | 1.10 (0.93–1.29) | 1.08 (0.91–1.28) | 1.05 (0.99–1.11) | 0.092            |
| Ischemic stroke |            |            |            |            |                |                  |
| SD       | 1.00       | 1.14 (0.95–1.37) | 1.30 (1.08–1.56) | 1.26 (1.04–1.52) | 1.06 (1.00–1.13) | 0.008            |
| VIM      | 1.00       | 1.09 (0.90–1.31) | 1.18 (0.98–1.41) | 1.23 (1.03–1.47) | 1.09 (1.03–1.15) | 0.015            |
| ARV      | 1.00       | 0.90 (0.75–1.09) | 1.14 (0.95–1.36) | 1.12 (0.93–1.35) | 1.06 (1.00–1.12) | 0.063            |
| Hemorrhagic stroke |      |            |            |            |                |                  |
| SD       | 1.00       | 1.16 (0.75–1.79) | 0.89 (0.55–1.42) | 0.82 (0.50–1.35) | 0.93 (0.78–1.11) | 0.296            |
| VIM      | 1.00       | 1.25 (0.80–1.94) | 0.98 (0.61–1.56) | 0.91 (0.57–1.46) | 0.91 (0.77–1.08) | 0.487            |
| ARV      | 1.00       | 0.48 (0.30–0.79) | 0.75 (0.49–1.16) | 0.69 (0.44–1.10) | 0.89 (0.74–1.08) | 0.232            |

SD, standard deviation; VIM, variability independent of the mean; ARV, average real variability.

*Adjusted for sex, age, mean high-density lipoprotein cholesterol level, education, income, smoking status, drinking status, physical activity, diabetes, hypertension, body mass index, estimated glomerular filtration rate, and high-sensitivity C-reactive protein.

Supplementary Table 4. Hazard ratios and 95% confidence intervals of incident stroke by quartiles of low-density lipoprotein cholesterol variability*

| Variable | Quartile 1 | Quartile 2 | Quartile 3 | Quartile 4 | Per-SD increase | \( \rho_{\text{trend}} \) |
|----------|------------|------------|------------|------------|----------------|------------------|
| Total stroke |            |            |            |            |                |                  |
| SD       | 1.00       | 0.96 (0.80–1.14) | 0.98 (0.82–1.17) | 1.10 (0.93–1.30) | 1.04 (0.99–1.10) | 0.224            |
| VIM      | 1.00       | 1.00 (0.84–1.20) | 0.95 (0.79–1.14) | 1.12 (0.95–1.33) | 1.04 (0.99–1.10) | 0.223            |
| ARV      | 1.00       | 0.95 (0.79–1.13) | 1.01 (0.85–1.20) | 1.02 (0.86–1.21) | 1.02 (0.97–1.08) | 0.663            |
| Ischemic stroke |            |            |            |            |                |                  |
| SD       | 1.00       | 0.91 (0.75–1.10) | 0.91 (0.75–1.10) | 1.01 (0.84–1.21) | 1.02 (0.96–1.10) | 0.843            |
| VIM      | 1.00       | 0.96 (0.79–1.15) | 0.88 (0.73–1.07) | 1.03 (0.86–1.23) | 1.02 (0.96–1.08) | 0.866            |
| ARV      | 1.00       | 0.90 (0.74–1.09) | 0.95 (0.79–1.14) | 0.94 (0.78–1.12) | 1.00 (0.94–1.06) | 0.621            |
| Hemorrhagic stroke |      |            |            |            |                |                  |
| SD       | 1.00       | 1.62 (0.92–2.84) | 2.05 (1.19–3.53) | 2.31 (1.19–3.53) | 1.21 (1.06–1.37) | 0.001            |
| VIM      | 1.00       | 1.63 (0.93–2.87) | 2.02 (1.17–3.49) | 2.37 (1.39–4.01) | 1.21 (1.07–1.37) | 0.001            |
| ARV      | 1.00       | 1.46 (0.84–2.52) | 1.89 (1.12–3.18) | 1.98 (1.19–3.32) | 1.15 (1.01–1.37) | 0.006            |

SD, standard deviation; VIM, variability independent of the mean; ARV, average real variability.

*Adjusted for sex, age, mean low-density lipoprotein cholesterol level, education, income, smoking status, drinking status, physical activity, diabetes, hypertension, body mass index, estimated glomerular filtration rate, and high-sensitivity C-reactive protein.