

**Supplemental Table S2.** Incidence and Risk of Study Outcomes in the Low HDL-C Group and the Quartile Groups of HDL-C According to Sex

| Variable                     | Number    | Event  | IR <sup>a</sup> | HR (95% CI)          |                      |                      |                      |
|------------------------------|-----------|--------|-----------------|----------------------|----------------------|----------------------|----------------------|
|                              |           |        |                 | Model 1 <sup>b</sup> | Model 2 <sup>c</sup> | Model 3 <sup>d</sup> | Model 4 <sup>e</sup> |
| <b>Myocardial infarction</b> |           |        |                 |                      |                      |                      |                      |
| Male                         |           |        |                 |                      |                      |                      |                      |
| Normal HDL-C                 | 4,196,294 | 41,530 | 1.21            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| Low HDL-C                    | 666,752   | 9,954  | 1.83            | 1.52 (1.48–1.55)     | 1.38 (1.35–1.41)     | 1.28 (1.25–1.30)     | 1.22 (1.19–1.25)     |
| Female                       |           |        |                 |                      |                      |                      |                      |
| Normal HDL-C                 | 2,796,082 | 18,532 | 0.80            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| Low HDL-C                    | 1,006,713 | 11,415 | 1.37            | 1.70 (1.67–1.74)     | 1.15 (1.13–1.18)     | 1.10 (1.07–1.13)     | 1.06 (1.03–1.08)     |
| Male                         |           |        |                 |                      |                      |                      |                      |
| Q1                           | 1,245,420 | 17,043 | 1.67            | 1.52 (1.49–1.56)     | 1.45 (1.41–1.48)     | 1.32 (1.29–1.35)     | 1.26 (1.22–1.29)     |
| Q2                           | 1,145,832 | 12,133 | 1.29            | 1.17 (1.14–1.20)     | 1.19 (1.16–1.22)     | 1.14 (1.11–1.17)     | 1.10 (1.08–1.13)     |
| Q3                           | 1,217,341 | 11,021 | 1.10            | 1.00 (0.98–1.03)     | 1.05 (1.02–1.07)     | 1.03 (1.00–1.05)     | 1.01 (0.98–1.04)     |
| Q4                           | 1,254,453 | 11,287 | 1.10            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| P value                      |           |        |                 | <0.001               | <0.001               | <0.001               | <0.001               |
| Female                       |           |        |                 |                      |                      |                      |                      |
| Q1                           | 910,501   | 10,551 | 1.40            | 2.18 (2.11–2.25)     | 1.24 (1.20–1.28)     | 1.16 (1.12–1.20)     | 1.10 (1.06–1.14)     |
| Q2                           | 992,323   | 8,111  | 0.99            | 1.54 (1.49–1.60)     | 1.12 (1.08–1.16)     | 1.08 (1.04–1.12)     | 1.06 (1.02–1.09)     |
| Q3                           | 976,863   | 6,405  | 0.79            | 1.24 (1.19–1.29)     | 1.06 (1.02–1.10)     | 1.04 (1.01–1.08)     | 1.03 (1.00–1.07)     |
| Q4                           | 923,108   | 4,880  | 0.64            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| P value                      |           |        |                 | <0.001               | <0.001               | <0.001               | <0.001               |
| <b>Stroke</b>                |           |        |                 |                      |                      |                      |                      |
| Male                         |           |        |                 |                      |                      |                      |                      |
| Normal HDL-C                 | 4,196,294 | 54,791 | 1.59            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| Low HDL-C                    | 666,752   | 11,492 | 2.11            | 1.33 (1.30–1.35)     | 1.18 (1.16–1.20)     | 1.11 (1.09–1.14)     | 1.08 (1.06–1.10)     |
| Female                       |           |        |                 |                      |                      |                      |                      |
| Normal HDL-C                 | 2,796,082 | 26,979 | 1.17            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| Low HDL-C                    | 1,006,713 | 17,734 | 2.14            | 1.83 (1.79–1.86)     | 1.16 (1.14–1.19)     | 1.10 (1.08–1.13)     | 1.06 (1.04–1.09)     |
| Male                         |           |        |                 |                      |                      |                      |                      |
| Q1                           | 1,245,420 | 20,093 | 1.97            | 1.25 (1.23–1.28)     | 1.19 (1.16–1.21)     | 1.12 (1.10–1.15)     | 1.08 (1.06–1.10)     |
| Q2                           | 1,145,832 | 15,153 | 1.61            | 1.02 (1.00–1.05)     | 1.06 (1.03–1.08)     | 1.04 (1.01–1.06)     | 1.01 (0.99–1.04)     |
| Q3                           | 1,217,341 | 14,888 | 1.49            | 0.95 (0.93–0.97)     | 1.01 (0.99–1.03)     | 1.01 (0.99–1.03)     | 0.99 (0.97–1.02)     |
| Q4                           | 1,254,453 | 16,149 | 1.57            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| P value                      |           |        |                 | <0.001               | <0.001               | <0.001               | <0.001               |
| Female                       |           |        |                 |                      |                      |                      |                      |
| Q1                           | 910,501   | 16,440 | 2.19            | 2.37 (2.30–2.43)     | 1.23 (1.20–1.26)     | 1.14 (1.11–1.18)     | 1.09 (1.06–1.12)     |
| Q2                           | 992,323   | 11,950 | 1.46            | 1.58 (1.53–1.62)     | 1.09 (1.06–1.12)     | 1.05 (1.02–1.08)     | 1.03 (1.00–1.06)     |
| Q3                           | 976,863   | 9,287  | 1.15            | 1.25 (1.21–1.29)     | 1.04 (1.01–1.07)     | 1.02 (0.99–1.06)     | 1.02 (0.98–1.05)     |
| Q4                           | 923,108   | 7,036  | 0.92            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| P value                      |           |        |                 | <0.001               | <0.001               | <0.001               | <0.001               |

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**Supplemental Table S2.** Continue

| Variable            | Number    | Event   | IR <sup>a</sup> | HR (95% CI)          |                      |                      |                      |
|---------------------|-----------|---------|-----------------|----------------------|----------------------|----------------------|----------------------|
|                     |           |         |                 | Model 1 <sup>b</sup> | Model 2 <sup>c</sup> | Model 3 <sup>d</sup> | Model 4 <sup>e</sup> |
| All-cause mortality |           |         |                 |                      |                      |                      |                      |
| Male                |           |         |                 |                      |                      |                      |                      |
| Normal HDL-C        | 4,196,294 | 140,198 | 4.05            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| Low HDL-C           | 666,752   | 28,232  | 5.15            | 1.27 (1.25–1.29)     | 1.12 (1.10–1.13)     | 1.17 (1.16–1.19)     | 1.17 (1.15–1.18)     |
| Female              |           |         |                 |                      |                      |                      |                      |
| Normal HDL-C        | 2,796,082 | 45,585  | 1.96            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| Low HDL-C           | 1,006,713 | 30,294  | 3.62            | 1.84 (1.81–1.86)     | 1.09 (1.08–1.11)     | 1.10 (1.08–1.12)     | 1.11 (1.10–1.13)     |
| Male                |           |         |                 |                      |                      |                      |                      |
| Q1                  | 1,245,420 | 48,209  | 4.70            | 1.04 (1.03–1.06)     | 0.99 (0.97–1.00)     | 1.09 (1.07–1.10)     | 1.10 (1.09–1.12)     |
| Q2                  | 1,145,832 | 36,536  | 3.86            | 0.86 (0.85–0.87)     | 0.89 (0.88–0.90)     | 0.97 (0.95–0.98)     | 0.99 (0.98–1.00)     |
| Q3                  | 1,217,341 | 37,216  | 3.70            | 0.82 (0.81–0.83)     | 0.89 (0.87–0.90)     | 0.94 (0.93–0.95)     | 0.96 (0.95–0.97)     |
| Q4                  | 1,254,453 | 46,469  | 4.51            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| P value             |           |         |                 | <0.001               | <0.001               | <0.001               | <0.001               |
| Female              |           |         |                 |                      |                      |                      |                      |
| Q1                  | 910,501   | 28,066  | 3.71            | 2.26 (2.21–2.31)     | 1.06 (1.04–1.08)     | 1.09 (1.06–1.11)     | 1.11 (1.09–1.14)     |
| Q2                  | 992,323   | 19,659  | 2.38            | 1.46 (1.42–1.49)     | 0.95 (0.93–0.97)     | 0.98 (0.96–1.01)     | 1.00 (0.98–1.03)     |
| Q3                  | 976,863   | 15,646  | 1.93            | 1.18 (1.15–1.21)     | 0.95 (0.93–0.98)     | 0.98 (0.95–1.00)     | 0.99 (0.97–1.01)     |
| Q4                  | 923,108   | 12,508  | 1.63            | 1 (ref)              | 1 (ref)              | 1 (ref)              | 1 (ref)              |
| P value             |           |         |                 | <0.001               | <0.001               | <0.001               | <0.001               |

HDL-C, high-density lipoprotein cholesterol; IR, incidence rate; HR, hazard ratio; CI, confidence interval; Q, quartile.

<sup>a</sup>Incidence per 1,000 person-years; <sup>b</sup>Model 1 was unadjusted; <sup>c</sup>Model 2 was adjusted for age and sex; <sup>d</sup>Model 3 was adjusted for age, sex, smoking status, alcohol consumption, physical activity, income, body mass index, hypertension, diabetes mellitus, and estimated glomerular filtration rate; <sup>e</sup>Model 4 was adjusted for age, sex, smoking status, alcohol consumption, physical activity, income, body mass index, hypertension, diabetes mellitus, estimated glomerular filtration rate, low-density lipoprotein cholesterol, and triglycerides.