

Supplemental Table 1. Baseline characteristics of JHS participants stratified by inclusion versus exclusion from the study cohort. Values are mean (standard deviation), median (interquartile range) or number (%). Abbreviations: body mass index, BMI; cardiovascular disease, CVD; high density lipoprotein, HDL; interquartile range, IQR; low density lipoprotein, LDL; number, N; standard deviation, SD.

| | Included n = 2893 | Excluded n = 2413 | p value |
|--|------------------------------|------------------------------|----------------|
| Age, mean (SD), years | 55.4 ± 9.4 | 55.2 ± 16.1 | 0.58 |
| Female, N (%) | 1884 (65.1) | 1487 (61.6) | 0.008 |
| BMI, mean (SD), kg/m ² | 31.6 ± 7.0 | 31.9 ± 7.5 | 0.58 |
| Current smoking, N (%) | 373 (12.9) | 320 (13.5) | 0.50 |
| Hypertension, N (%) | 1546 (53.4) | 1450 (60.1) | <0.0001 |
| Diabetes, N (%) | 451 (15.6) | 694 (29.6) | <0.0001 |
| CVD History, N (%) | 0 | 572 (23.7) | <0.0001 |
| Family history of premature heart disease, N (%) | 704 (24.5) | 600 (25.2) | 0.57 |
| Statin therapy, N (%) | 0 | 573 (28.6%) | <0.0001 |
| Antihypertensive therapy, N (%) | 1362 (47.1) | 1380 (58.4) | <0.0001 |
| Total cholesterol, mean (SD), mg/dl | 202.3 ± 39.3 | 194.8 ± 40.8 | <0.0001 |
| LDL, mean (SD), mg/dl | 129.5 ± 36.5 | 122.2 ± 36.3 | <0.0001 |
| HDL, mean (SD), mg/dl | 52.2 ± 14.5 | 51.1 ± 14.8 | 0.009 |
| Pooled cohort equation risk score, median (IQR), % | 7.0 (3.2-13.2) | 9.2 (1.8-19.9) | 0.0003 |
| Framingham risk score, median (IQR), % | 3.1 (1.1-7.2) | 3.5 (0.5-9.9) | 0.79 |
| Coronary artery calcium score | | | |
| Mean (SD) | 105.1 ± 321.8 | 267.4 ± 701.7 | |
| Median (IQR) | 0 (0-47.5) | 11.1 (0-186.9) | <0.0001 |
| N (%) with score >0 | 756 (42.2) | 629 (57.5) | <0.0001 |
| N (%) with score >100 | 327 (18.3) | 347 (31.7) | <0.0001 |
| Abdominal aortic calcium score | | | |
| Mean (SD) | 651.4 ± 1283.0 | 1206.3 ± 1926.3 | |
| Median (IQR) | 58.4 (0-660.5) | 248.1(0-1644.5) | <0.0001 |

| | | | |
|-------------------------|-------------|------------|-------|
| N (%) with score >0 | 1145 (64.0) | 752 (68.7) | 0.009 |
| Incident CHD and stroke | 129 (4.6) | 95 (4.9) | 0.62 |

Supplemental Table 2. Comparison of baseline characteristics by participation in CT scans. Values are mean (standard deviation), median (interquartile range) or number (%). P values represent comparisons between participants who underwent CT versus participants who did not undergo CT. Abbreviations: body mass index, BMI; computed tomography, CT; high density lipoprotein, HDL; interquartile range, IQR; low density lipoprotein, LDL; standard deviation, SD.

| | CT n =1790 | No CT n = 1103 | p value |
|--|-----------------------------|---------------------------------|----------------|
| Age, mean (SD), years | 54.9 ± 8.9 | 56.3 ± 10.1 | 0.0003 |
| Female, N (%) | 1199 (67.0) | 685 (62.1) | 0.008 |
| BMI, mean (SD), kg/m ² | 31.9 ± 6.6 | 33.4 ± 9.1 | 0.01 |
| Current smoking, N (%) | 181 (10.1) | 192 (17.4) | <0.0001 |
| Hypertension, N (%) | 911 (50.9) | 635 (57.6) | 0.0005 |
| Diabetes, N (%) | 243 (13.6) | 208 (18.9) | 0.0001 |
| Family history of premature heart disease, N (%) | 445 (24.9) | 259 (23.7) | 0.44 |
| Antihypertensive therapy, N (%) | 829 (46.3) | 533 (48.3) | 0.29 |
| Total cholesterol, mean (SD), mg/dl | 202.7 ± 39.4 | 201.7 ± 39.2 | 0.47 |
| LDL, mean (SD), mg/dl | 130.2 ± 36.8 | 128.5 ± 36.0 | 0.23 |
| HDL, mean (SD), mg/dl | 52.3 ± 14.5 | 52.0 ± 14.7 | 0.61 |
| Pooled cohort equation risk score, median (IQR), % | 6.2 (2.8-12.0) | 8.4 (3.6-15.3) | <0.0001 |
| Framingham risk score, median (IQR), % | 2.8 (0.9-6.5) | 3.7 (1.3-8.5) | <0.0001 |

Supplemental Table 3. Reclassification tables for coronary and abdominal aortic vascular calcification as a function of 2013 ACC/AHA versus 2004 ATP-III statin eligibility.

A. CAC present vs. absent

| CAC present (non-zero CAC; N=756) | | Eligibility by 2013 ACC/AHA | | CAC not present (CAC=0; N=1034) | | Eligibility by 2013 ACC/AHA | |
|--|---------------------|--------------------------------|--------------------|--|---------------------|--------------------------------|--------------------|
| | | Not statin eligible | Statin eligible | | | Not statin eligible | Statin eligible |
| Eligibility by 2004 ATP-III | Not statin eligible | 215 | 240 | Eligibility by 2004 ATP-III | Not statin eligible | 697 | 168 |
| | Statin eligible | 15 | 286 | | Statin eligible | 19 | 150 |

B. CAC \geq 100

| CAC \geq100 (N=327) | | Eligibility by 2013 ACC/AHA | | CAC < 100 (N=1463) | | Eligibility by 2013 ACC/AHA | |
|---|---------------------|--------------------------------|--------------------|--------------------------------|---------------------|--------------------------------|--------------------|
| | | Not statin eligible | Statin eligible | | | Not statin eligible | Statin eligible |
| Eligibility by 2004 ATP-III | Not statin eligible | 57 | 110 | Eligibility by 2004 ATP-III | Not statin eligible | 855 | 298 |
| | Statin eligible | 9 | 151 | | Statin eligible | 25 | 285 |

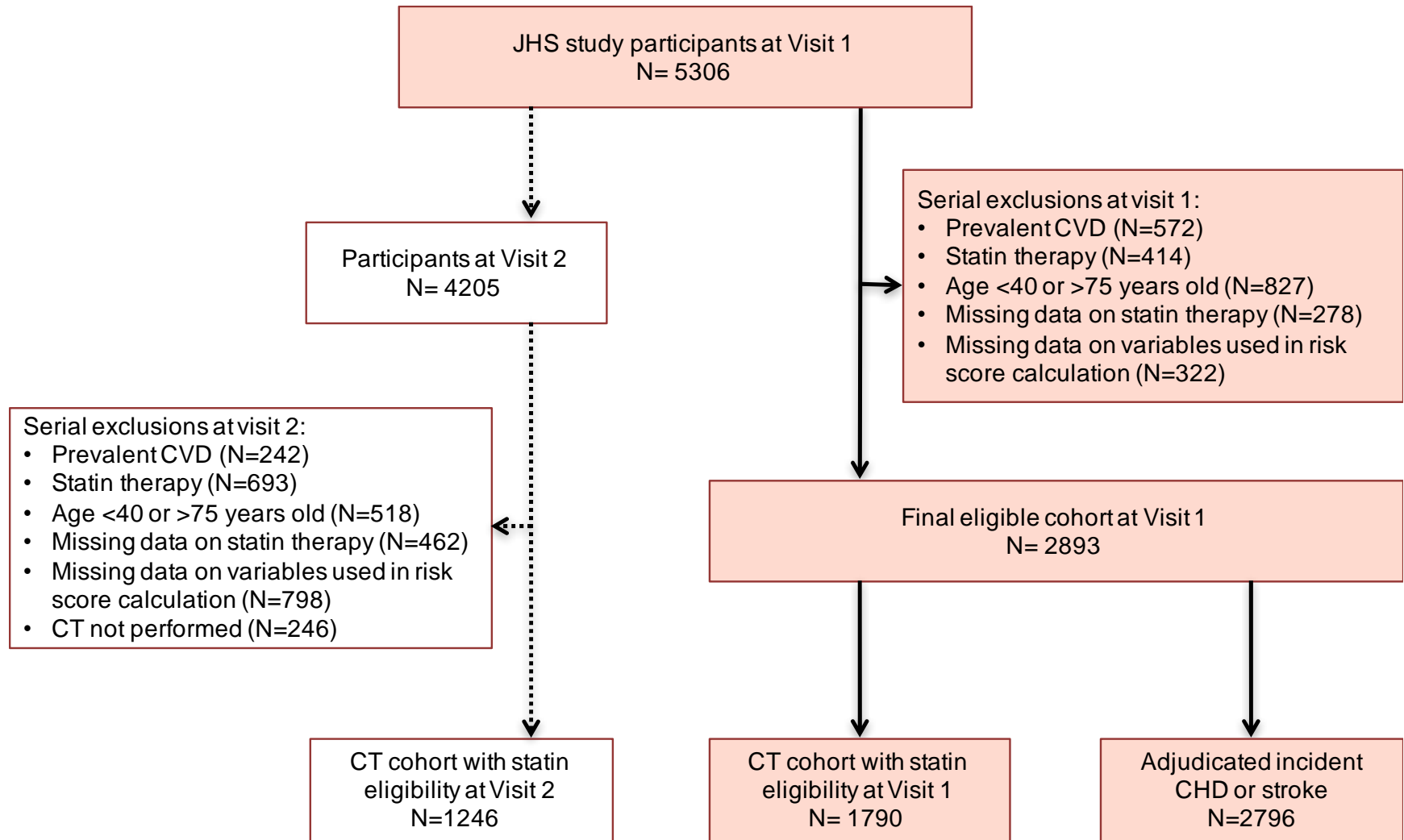
C. AAC present vs. absent

| AAC present (non-zero AAC; N=1145) | | Eligibility by 2013 ACC/AHA | | AAC not present (AAC=0; N=644) | | Eligibility by 2013 ACC/AHA | |
|---|---------------------|--------------------------------|--------------------|---|---------------------|--------------------------------|--------------------|
| | | Not statin eligible | Statin eligible | | | Not statin eligible | Statin eligible |
| Eligibility by 2004 ATP-III | Not statin eligible | 411 | 338 | Eligibility by 2004 ATP-III | Not statin eligible | 501 | 70 |
| | Statin eligible | 27 | 369 | | Statin eligible | 7 | 66 |

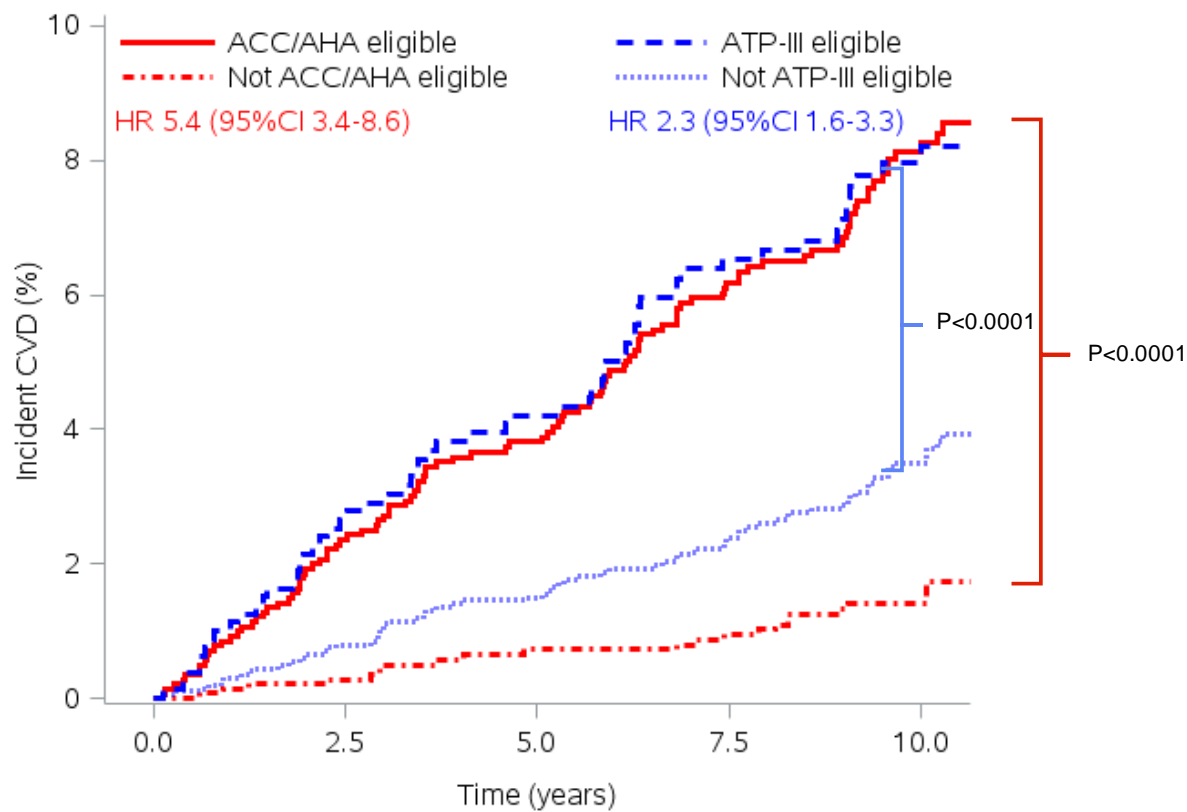
Supplemental Table 4. Comparison of baseline characteristics by presence of CAC among ACC/AHA guideline statin eligible participants. Values are mean (standard deviation), median (interquartile range) or number (%). P values represent comparisons between participants with and without CAC. Abbreviations: body mass index, BMI; coronary artery calcium, CAC; HDL; interquartile range, IQR; low density lipoprotein, LDL; standard deviation, SD.

| | CAC >0 n =526 | CAC=0 n = 318 | p value |
|--|-----------------------------------|--------------------------------|----------------|
| Age, mean (SD), years | 61.6 ± 7.7 | 58.1 ± 8.2 | <0.0001 |
| Female, N (%) | 305 (58.0) | 188 (59.1) | 0.75 |
| BMI, mean (SD), kg/m ² | 31.6 ± 6.2 | 31.4 ± 6.1 | 0.71 |
| Current smoking, N (%) | 80 (15.2) | 34 (10.7) | 0.06 |
| Hypertension, N (%) | 379 (72.1) | 206 (64.8) | 0.03 |
| Diabetes, N (%) | 147 (28.0) | 87 (27.4) | 0.85 |
| Family history of premature heart disease, N (%) | 132 (25.1) | 67 (21.1) | 0.18 |
| Antihypertensive therapy, N (%) | 333 (63.3) | 197 (62.0) | 0.69 |
| Total cholesterol, mean (SD), mg/dl | 216.9 ± 41.0 | 210.8 ± 44.1 | 0.04 |
| LDL, mean (SD), mg/dl | 143.3 ± 37.4 | 139.2 ± 40.3 | 0.14 |
| HDL, mean (SD), mg/dl | 50.5 ± 13.9 | 50.8 ± 13.2 | 0.73 |
| Pooled cohort equation risk score, median (IQR), % | 13.5 (9.9-19.2) | 10.3 (8.1-14.6) | <0.0001 |
| Framingham risk score, median (IQR), % | 6.9 (4.0-11.7) | 5.2 (2.8-8.8) | <0.0001 |

Supplemental Figure 1. Consort diagram



Supplemental Figure 2. Cumulative hazard functions for combined incident CHD and stroke corresponding to Cox models.



| | | | | | |
|----------------------|------|------|------|------|------|
| Not ACC/AHA eligible | 1390 | 1382 | 1347 | 1314 | 682 |
| ACC/AHA eligible | 1406 | 1355 | 1288 | 1183 | 703 |
| Not ATP-III eligible | 2003 | 1974 | 1913 | 1828 | 1001 |
| ATP-III eligible | 793 | 763 | 722 | 669 | 384 |