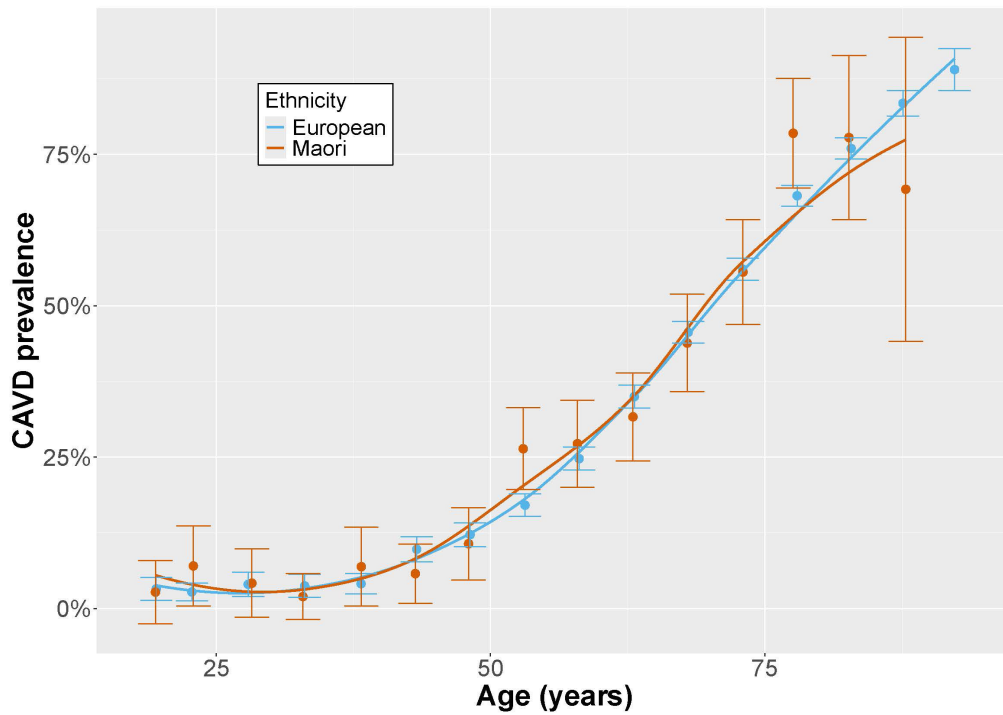


Table 1: Cohort characteristics.

| | Overall (N=23,635) | Māori (N=1,312) | European (N=22,323) |
|--|-------------------------------|----------------------------|--------------------------------|
| Age (years) | | | |
| Mean (SD) | 64.40 (16.70) | 55.40 (16.70) | 64.90 (16.60) |
| Sex | | | |
| Female | 11,027 (46.7) | 621 (47.3) | 10,406 (46.6) |
| Male | 12,608 (53.3) | 691 (52.7) | 11,917 (53.4) |
| Aortic valve maximum velocity (m/s) | | | |
| Mean (SD) | 1.47 (0.87) | 1.32 (0.69) | 1.47 (0.88) |
| Not reported | 2,374 (11.2) | 134 (11.4) | 2,240 (11.2) |
| CAVD severity | | | |
| No CAVD | 13,464 (57.0) | 915 (69.7) | 12,549 (56.2) |
| Sclerosis | 7,839 (33.2) | 327 (24.9) | 7,512 (33.7) |
| Mild | 895 (3.8) | 25 (1.9) | 870 (3.9) |
| Moderate | 522 (2.2) | 16 (1.2) | 506 (2.3) |
| Severe | 370 (1.6) | 8 (0.6) | 362 (1.6) |
| AVI | 545 (2.3) | 21 (1.6) | 524 (2.3) |
| Mitral annular calcification | | | |
| Yes | 3,302 (14.0) | 108 (8.2) | 3,194 (14.3) |
| No | 19,988 (84.6) | 1,186 (90.4) | 18,802 (84.2) |
| Not reported | 345 (1.5) | 18 (1.4) | 327 (1.5) |
| Bicuspid aortic valve | | | |
| Yes | 311 (1.3) | 21 (1.6) | 290 (1.3) |
| No | 23,324 (98.7) | 1,291 (98.4) | 22,033 (98.7) |

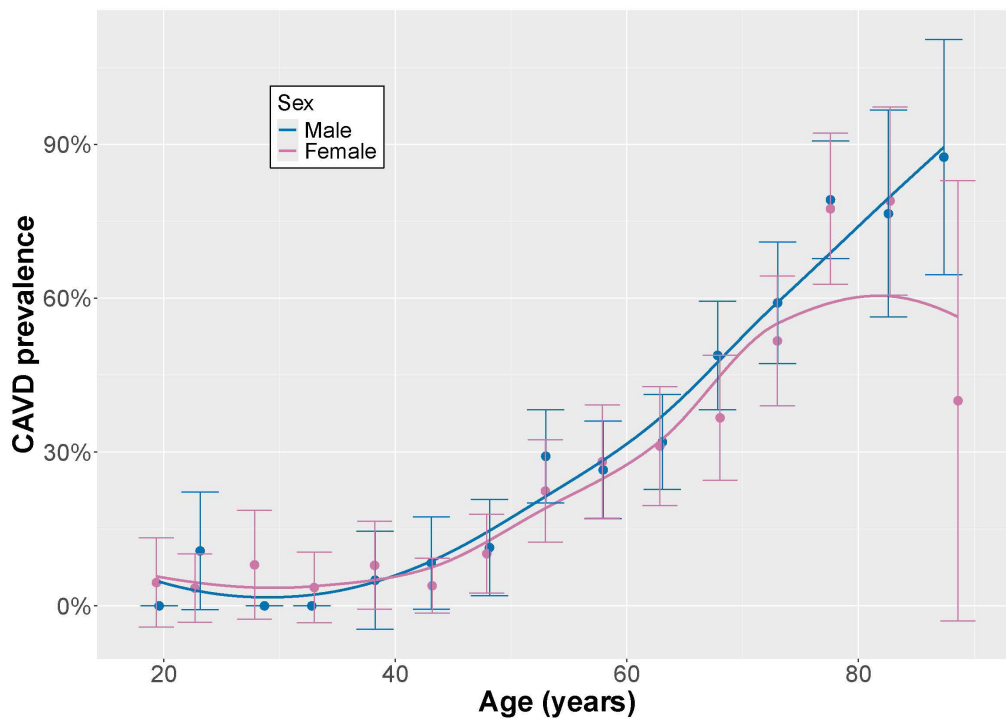
SD = standard deviation; CAVD = calcific aortic valve disease; AVI = aortic valve intervention.

Figure 1: Age-related prevalence of calcific aortic valve disease stratified by ethnicity in patients undergoing clinically indicated echocardiography.



Points are the proportion within each 5-year age band and the average age within each band. Error bars represent 95% confidence intervals. The plotted curve was fitted using locally weighed smoothing (LOESS regression function).

Figure 2: Age-related prevalence of calcific aortic valve disease in Māori, stratified by sex.



Points are the proportion within each 5-year age band and the average age within each band. Error bars represent 95% confidence intervals. The plotted curve was fitted using locally weighed smoothing (LOESS regression function).

Table 2: Proportion of Māori and Europeans with different severity of CAVD.

| | Māori (n=1,313) | European (n=22,323) | Corrected p-value |
|-------------------------|------------------------|----------------------------|--------------------------|
| Aortic sclerosis | 327 (24.9) | 7,512 (33.7) | <0.001 |
| Aortic stenosis | 70 (5.3) | 2,262 (10.1) | <0.001 |
| Any CAVD | 397 (30.2) | 9,774 (43.8) | <0.001 |

Cell values are expressed in n (%) and P determined using a two-sided Z-test (with Bonferroni correction for multiple testing).
CAVD = calcific aortic valve disease.

Table 3: Age-standardised rates per 100,000 of CAVD by ethnicity with 95% confidence intervals in patients undergoing clinically indicated echocardiography.

| | Māori | European |
|-------------------------|-----------------------|------------------------|
| Aortic sclerosis | 9,100 (7,700–11,300) | 7,900 (7,600–8,300) |
| Aortic stenosis | 2,100 (1,500–3,600) | 2,600 (2,400–3,000) |
| Any CAVD | 11,200 (9,700–13,400) | 10,600 (10,100–11,100) |

CAVD = calcific aortic valve disease

Table 4: Rate of comorbid pathologies of the heart and surrounding structures in those with any CAVD (sclerosis or aortic stenosis).

| | Māori (N=397) | European (N=9,774) | Overall (N=10,171) |
|--|--------------------------|-------------------------------|-------------------------------|
| Left ventricular systolic dysfunction | | | |
| Normal | 258 (65.0%) | 6,725 (68.8%) | 6,983 (68.7%) |
| Hyperdynamic | 3 (0.8%) | 150 (1.5%) | 153 (1.5%) |
| Mild | 37 (9.3%) | 1,026 (10.5%) | 1,063 (10.5%) |
| Moderate | 21 (5.3%) | 637 (6.5%) | 658 (6.5%) |
| Severe | 25 (6.3%) | 424 (4.3%) | 449 (4.4%) |
| Not reported | 53 (13.4%) | 812 (8.3%) | 865 (8.5%) |
| Right ventricular systolic dysfunction | | | |
| Normal | 268 (67.5%) | 7,739 (79.2%) | 8,007 (78.7%) |
| Hyperdynamic | 0 (0%) | 13 (0.1%) | 13 (0.1%) |
| Mild | 56 (14.1%) | 767 (7.8%) | 823 (8.1%) |
| Moderate | 27 (6.8%) | 328 (3.4%) | 355 (3.5%) |
| Severe | 15 (3.8%) | 112 (1.1%) | 127 (1.2%) |
| Not reported | 31 (7.8%) | 815 (8.3%) | 846 (8.3%) |
| Right ventricular systolic pressure ≥25mmHg | | | |
| Yes | 160 (40.3%) | 4,032 (41.3%) | 4,192 (41.2%) |
| No | 93 (23.4%) | 2,085 (21.3%) | 2,178 (21.4%) |
| Not reported | 144 (36.3%) | 3,657 (37.4%) | 3,801 (37.4%) |
| Mitral stenosis | | | |
| None | 375 (94.5%) | 9,361 (95.8%) | 9,736 (95.7%) |
| Mild | 0 (0%) | 57 (0.6%) | 57 (0.6%) |
| Moderate | 0 (0%) | 17 (0.2%) | 17 (0.2%) |
| Severe | 1 (0.3%) | 5 (0.1%) | 6 (0.1%) |
| MVR/repair | 9 (2.3%) | 69 (0.7%) | 78 (0.8%) |
| Rheumatic valve | 3 (0.8%) | 9 (0.1%) | 12 (0.1%) |
| Not reported | 9 (2.3%) | 256 (2.6%) | 265 (2.6%) |
| Aortic regurgitation | | | |
| None | 337 (84.9%) | 8,445 (86.4%) | 8,782 (86.3%) |
| Mild | 51 (12.8%) | 1,213 (12.4%) | 1,264 (12.4%) |

Table 4 (continued): Rate of comorbid pathologies of the heart and surrounding structures in those with any CAVD (sclerosis or aortic stenosis).

| | Māori (N=397) | European (N=9,774) | Overall (N=10,171) |
|--------------------------------|--------------------------|-------------------------------|-------------------------------|
| Moderate | 8 (2.0%) | 84 (0.9%) | 92 (0.9%) |
| Severe | 1 (0.3%) | 32 (0.3%) | 33 (0.3%) |
| Mitral regurgitation | | | |
| None | 261 (65.7%) | 6,394 (65.4%) | 6,655 (65.4%) |
| Mild | 78 (19.6%) | 2,348 (24.0%) | 2,426 (23.9%) |
| Moderate | 16 (4.0%) | 352 (3.6%) | 368 (3.6%) |
| Severe | 9 (2.3%) | 73 (0.7%) | 82 (0.8%) |
| Not reported | 33 (8.3%) | 607 (6.2%) | 640 (6.3%) |
| Pulmonary regurgitation | | | |
| None | 243 (61.2%) | 5,111 (52.3%) | 5,354 (52.6%) |
| Mild | 18 (4.5%) | 457 (4.7%) | 475 (4.7%) |
| Moderate | 0 (0%) | 7 (0.1%) | 7 (0.1%) |
| Severe | 1 (0.3%) | 2 (0.0%) | 3 (0.0%) |
| Not reported | 135 (34.0%) | 4,197 (42.9%) | 4,332 (42.6%) |
| Tricuspid regurgitation | | | |
| None | 253 (63.7%) | 6,343 (64.9%) | 6,596 (64.9%) |
| Mild | 82 (20.7%) | 1,899 (19.4%) | 1,981 (19.5%) |
| Moderate | 22 (5.5%) | 327 (3.3%) | 349 (3.4%) |
| Severe | 5 (1.3%) | 40 (0.4%) | 45 (0.4%) |
| Not reported | 35 (8.8%) | 1,165 (11.9%) | 1,200 (11.8%) |

CAVD = calcific aortic valve disease; MVR = mitral valve replacement.

Table 5: Stage of cardiac impairment in those with any CAVD, stratified by ethnicity.

| | Māori (n=376) | European (n=9,250) |
|----------------|----------------------|---------------------------|
| Stage 0 | 53 (14.1) | 1,313 (14.2) |
| Stage 1 | 187 (49.7) | 5,152 (55.7) |
| Stage 2 | 86 (22.9) | 2,099 (22.7) |
| Stage 3 | 12 (3.2) | 263 (2.8) |
| Stage 4 | 38 (10.1) | 423 (4.6) |

Cells are formatted as n (%). Chi-squared test: X-squared=25.578, df=4, p<0.001. CAVD = calcific aortic valve disease.