DO ART NCD Supplement

06 September, 2022

# Appendix tables

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## Appendix Table 1: Change in cardiovascular risk from baseline to endline, by trial arm and gender (AHRI site only, N = 350)

| **Change in CVD risk** | **Clinic Arm   Mean (SE)** | **Community Arm   Mean (SE)** | **Hybrid Arm   Mean (SE)** | **Women   Mean (SE)** | **Men   Mean (SE)** | **Total   Mean (SE)** |
| --- | --- | --- | --- | --- | --- | --- |
| Change in BMI, baseline to endline   [AHRI only] | 0.86 (0.27) | 0.93 (0.31) | 0.44 (0.35) | 0.53 (0.24) | 0.93 (0.26) | 0.74 (0.18) |
| Change in Systolic Blood pressure, baseline to endline   [AHRI only] | 0.78 (1.5) | 0.53 (1.48) | 3.65 (1.79) | 1.1 (1.33) | 2.08 (1.28) | 1.63 (0.92) |

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## Appendix Table 2: Descriptive statistics of cardiovascular risk in the DO ART study, by site (N = 1315)

|  | **Category** | **SW Uganda   n (%)** | **Midlands KZN SA   n (%)** | **Northern KZN SA   n (%)** | **Total   n (%)** |
| --- | --- | --- | --- | --- | --- |
| Age | 18-29 | 116 (38%) | 237 (36%) | 134 (38%) | 487 (37%) |
| 30-44 | 127 (42%) | 337 (51%) | 158 (45%) | 622 (47%) |
| 45-59 | 54 (18%) | 79 (12%) | 52 (15%) | 185 (14%) |
| 60+ | 8 (3%) | 7 (1%) | 6 (2%) | 21 (2%) |
| Gender | Women | 144 (47%) | 345 (52%) | 160 (46%) | 649 (49%) |
| Men | 161 (53%) | 315 (48%) | 190 (54%) | 666 (51%) |

| **ii) Lifestyle and other risk** | **Category** | **SW Uganda   n (%)** | **Midlands KZN SA   n (%)** | **Northern KZN SA   n (%)** | **Total   n (%)** |
| --- | --- | --- | --- | --- | --- |
| Smoking Status   [Baseline] | Not at all | 253 (83%) | 486 (74%) | 272 (78%) | 1011 (77%) |
| Former | 5 (2%) | 3 (0%) | 4 (1%) | 12 (1%) |
| Current - occasional | 13 (4%) | 45 (7%) | 14 (4%) | 72 (5%) |
| Current - frequent | 34 (11%) | 126 (19%) | 60 (17%) | 220 (17%) |
| Days of exercise (per week)   [Endline] | 5-7 | 162 (53%) | 21 (3%) | 31 (9%) | 214 (16%) |
| 3-4 | 58 (19%) | 312 (47%) | 86 (25%) | 456 (35%) |
| 1-2 | 22 (7%) | 189 (29%) | 111 (32%) | 322 (24%) |
| 0 | 5 (2%) | 99 (15%) | 69 (20%) | 173 (13%) |
| Unknown | 58 (19%) | 39 (6%) | 53 (15%) | 150 (11%) |
| Vegetable intake   [Endline] | Always or usually | 79 (26%) | 153 (23%) | 22 (6%) | 254 (19%) |
| Sometimes | 93 (30%) | 394 (60%) | 98 (28%) | 585 (44%) |
| Never or rarely | 76 (25%) | 73 (11%) | 207 (59%) | 356 (27%) |
| Unknown | 57 (19%) | 40 (6%) | 23 (7%) | 120 (9%) |
| Prior stroke or heart attack   [Endline] | No | 248 (81%) | 611 (93%) | 323 (92%) | 1182 (90%) |
| Yes | 0 (0%) | 10 (2%) | 4 (1%) | 14 (1%) |
| Unknown | 57 (19%) | 39 (6%) | 23 (7%) | 119 (9%) |

| **iii) Cardiovascular Risk** | **Category** | **SW Uganda   n (%)** | **Midlands KZN SA   n (%)** | **Northern KZN SA   n (%)** | **Total   n (%)** |
| --- | --- | --- | --- | --- | --- |
| Blood pressure   [Endline] | Normal | 143 (47%) | 330 (50%) | 175 (50%) | 648 (49%) |
| Elevated | 14 (5%) | 160 (24%) | 61 (17%) | 235 (18%) |
| Hypertension Stage 1 | 92 (30%) | 123 (19%) | 74 (21%) | 289 (22%) |
| Hypertension Stage 2 | 14 (5%) | 16 (2%) | 16 (5%) | 46 (3%) |
| Missing | 42 (14%) | 31 (5%) | 24 (7%) | 97 (7%) |
| BMI (kg/m^2)   [Endline] | <18.5 | 14 (5%) | 19 (3%) | 11 (3%) | 44 (3%) |
| 18.5-24.9 | 161 (53%) | 244 (37%) | 176 (50%) | 581 (44%) |
| 25-29.9 | 47 (15%) | 231 (35%) | 88 (25%) | 366 (28%) |
| 30+ | 8 (3%) | 134 (20%) | 49 (14%) | 191 (15%) |
| Missing | 75 (25%) | 32 (5%) | 26 (7%) | 133 (10%) |
| Hemoglobin A1C (%)   [Endline] | Normal | 174 (57%) | 379 (57%) | 259 (74%) | 812 (62%) |
| Prediabetes | 14 (5%) | 18 (3%) | 36 (10%) | 68 (5%) |
| Diabetes | 3 (1%) | 0 (0%) | 8 (2%) | 11 (1%) |
| Missing | 114 (37%) | 263 (40%) | 47 (13%) | 424 (32%) |
| Total cholesterol (mg/dL)   [Endline] | Normal | 185 (61%) | 615 (93%) | 293 (84%) | 1093 (83%) |
| Borderline High | 5 (2%) | 3 (0%) | 7 (2%) | 15 (1%) |
| High | 1 (0%) | 0 (0%) | 2 (1%) | 3 (0%) |
| Missing | 114 (37%) | 42 (6%) | 48 (14%) | 204 (16%) |
| 10-year CVD risk score   [Endline] | <10% | 190 (62%) | 397 (60%) | 302 (86%) | 889 (68%) |
| Missing | 115 (38%) | 263 (40%) | 48 (14%) | 426 (32%) |

## Appendix Table 3. Cardiovascular risk among people virally suppressed versus those not virally suppressed at endline (N = 983).

\*\* Note, we drop 27 participants without endline viral load available.

|  | **Baseline Analysis** | | | **Adjusted Analysis** | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Relative Risk** | **95% CI** | **p-value** | **Adj. Relative Risk** | **Adj. 95% CI** | **Adj. p-value** |
| Elevated BP | 1.03 | (0.87,1.21) | 0.762 | 1.04 | (0.88,1.22) | 0.674 |
| Overweight (BMI >= 25) | 1.24 | (1.08,1.42) | 0.002 | 1.16 | (1.02,1.32) | 0.028 |
| Elevated blood sugar (a1c >= 5.7) | 0.89 | (0.54,1.46) | 0.644 | 0.99 | (0.61,1.6) | 0.952 |
| Current smoker [baseline] | 0.85 | (0.64,1.12) | 0.252 | 1 | (0.77,1.29) | 0.991 |

|  | **Baseline Analysis** | | | **Adjusted Analysis** | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Mean Difference** | **95% CI** | **p-value** | **Adj. Mean Difference** | **Adj. 95% CI** | **Adj. p-value** |
| Systolic blood pressure (mmHg) | -0.33 | (-1.67,1.02) | 0.635 | -0.3 | (-1.64,1.03) | 0.656 |
| Diastolic blood pressure (mmHg) | -0.27 | (-1.35,0.82) | 0.63 | -0.31 | (-1.38,0.76) | 0.568 |
| BMI (kg/m^2) | 1.32 | (0.67,1.98) | 0 | 0.94 | (0.31,1.57) | 0.003 |
| Hemoglobin A1c (%) | -0.02 | (-0.1,0.06) | 0.639 | -0.02 | (-0.1,0.07) | 0.696 |
| Total cholesterol (mg/dL) | 6 | (2.56,9.44) | 0.001 | 5.53 | (2.12,8.95) | 0.001 |

* Relative risk is estimated using a GEE poisson model (and log link).
* Mean difference is estimated using a GEE linear model.
* This analysis does NOT include trial arm.
* Baseline model adjusts for site only; adjusted models include site, age, smoking, and gender
* The adjusted model for smoking includes only site, age and gender

## Appendix S4: Additional Figures

* S4 Figure 1: CVD variables, comparing community follow-up with clinic follow-up
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