## Supplement 3

Supplementary Table 1. Distributions of predictor variables in all five datasets. Numeric variables are described by their median and (interquartile range) unless otherwise stated. Dichotomous variables are described by the proportion of observations.

| Visits by male donors | | | | | |
|---|---|---|---|---|---|
| **Variable** | **Australia** | **Belgium** | **Finland** | **Netherlands** | **South Africa** |
| Number of donors | 10000 | 8552 | 10000 | 10000 | 10000 |
| Age in years | 41 (29-54) | 39 (25-52) | 53 (41-60) | 52 (39-60) | 44 (33-54) |
| Mean consecutive deferrals | 0.003 | 0.025 | 0.018 | 0.029 | 0.213 |
| Days to previous donation | 98 (84-167) | 99 (90-182) | 106 (77-168) | 92 (70-147) | 73 (59-118) |
| Hemoglobin in g/L | 149 (142-157) | 153 (147-159) | 154 (147-162) | 148 (142-156) | 153 (142-163) |
| Proportion of Hb deferrals | 0.004 | 0.022 | 0.018 | 0.029 | 0.129 |
| First Hb level in g/L | 150 (143-158) | 154 (148-160) | 155 (147-162) | 150 (143-158) | 153 (140-163) |
| Time of day as hour between 0-24 | 13.1 (10.8-15.6) | 18.9 (17.8-19.7) | 14.8 (13.1-16.4) | 16.3 (13.1-18.7) | 12.8 (11.2-14.6) |
| Hb level at previous visit in g/L | 148 (139-156) | 151 (143-158) | 153 (144-161) | 148 (140-155) | 151 (137-162) |
| Proportion of low Hb at previous visit | 0.003 | 0.020 | 0.018 | 0.030 | 0.124 |
| Mean recent low Hb | 0.008 | 0.066 | 0.074 | 0.127 | 0.553 |
| Recent donations | 4 (2-6) | 4 (2-6) | 5 (2-9) | 5 (2-9) | 4 (2-7) |
| Warm season proportion | 0.500 | 0.477 | 0.491 | 0.494 | 0.524 |

| Visits by female donors | | | | | |
|---|---|---|---|---|---|
| Variable | Australia | Belgium | Finland | Netherlands | South Africa |
| Number of donors | 10000 | 9028 | 10000 | 10000 | 10000 |
| Age in years | 37 (25-50) | 34 (21-47) | 50 (35-58) | 47 (31-57) | 41 (31-52) |
| Mean consecutive deferrals | 0.016 | 0.131 | 0.040 | 0.057 | 0.146 |
| Days to previous donation | 104 (87-183) | 111 (91-196) | 140 (106-224) | 154 (132-222) | 84 (62-156) |
| Hemoglobin in g/L | 133 (127-140) | 135 (130-141) | 140 (133-147) | 135 (129-142) | 136 (128-144) |
| Proportion of Hb deferrals | 0.021 | 0.106 | 0.038 | 0.054 | 0.141 |
| First Hb level in g/L | 134 (128-141) | 137 (132-143) | 141 (134-147) | 135 (129-142) | 135 (128-144) |
| Time of day as hour between 0-24 | 13.1 (11.0-15.4) | 18.7 (17.7-19.6) | 15.3 (13.5-16.6) | 15.5 (13.1-18.3) | 13.0 (11.4-14.7) |
| Hb level at previous visit in g/L | 131 (124-138) | 134 (126-140) | 138 (130-146) | 134 (127-142) | 134 (125-143) |
| Proportion of low Hb at previous visit | 0.017 | 0.096 | 0.040 | 0.057 | 0.127 |
| Mean recent low Hb | 0.039 | 0.287 | 0.110 | 0.151 | 0.390 |
| Recent donations | 3 (1-5) | 3 (1-5) | 4 (2-6) | 3 (1-6) | 3 (1-6) |
| Warm season proportion | 0.506 | 0.472 | 0.504 | 0.491 | 0.523 |
| | | | | | |