Supplemental material

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**Supplement Table 1 Age- and gender-specific percentiles of baseline spherical equivalent distribution among participants (including negative progression)**

| Age(yrs) | N | Boys (N=2331) | | | | | | | Girls (N=1948) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | Raw Percentiles | Estimated Percentiles (LMS) | | | | | | Raw Percentiles | Estimated Percentiles (LMS) | | | | | |
| | | *P*50 (*P*25, *P*75) | P2.5 | P25 | P50 | P75 | P97.5 | | *P*50 (*P*25, *P*75) | P2.5 | P25 | P50 | P75 | P97.5 | |
| 3 | 317 | 1.00 (0.50, 1.50) | -1.99 | 0.31 | 0.96 | 1.36 | 2.91 | | 1.00 (0.50, 1.63) | -1.69 | 0.51 | 1.13 | 1.62 | 3.51 | |
| 4 | 594 | 1.00 (0.50, 1.38) | -1.98 | 0.32 | 0.96 | 1.37 | 2.92 | | 1.13 (0.75, 1.63) | -1.71 | 0.49 | 1.11 | 1.60 | 3.49 | |
| 5 | 322 | 1.00 (0.50, 1.38) | -1.99 | 0.30 | 0.95 | 1.35 | 2.90 | | 1.00 (0.75, 1.50) | -1.79 | 0.40 | 1.03 | 1.52 | 3.41 | |
| 6 | 508 | 0.75 (0.25, 1.25) | -2.09 | 0.20 | 0.85 | 1.26 | 2.81 | | 1.00 (0.50, 1.47) | -1.96 | 0.24 | 0.86 | 1.35 | 3.24 | |
| **7** | 910 | 0.75 (0.25, 1.25) | -2.24 | 0.05 | 0.70 | 1.11 | 2.66 | | 0.75 (0.13, 1.13) | -2.20 | 0.00 | 0.62 | 1.12 | 3.00 | |
| 8 | 1080 | 0.25 (-0.50, 0.88) | -2.44 | -0.15 | 0.50 | 0.91 | 2.46 | | 0.25 (-0.38, 0.88) | -2.44 | -0.24 | 0.38 | 0.87 | 2.76 | |
| 9 | 164 | 0.38 (-0.59, 0.75) | -2.62 | -0.32 | 0.33 | 0.73 | 2.28 | | 0.31 (-1.22, 0.75) | -2.63 | -0.43 | 0.19 | 0.68 | 2.57 | |
| 10 | 50 | 0.06 (-1.28, 0.75) | -2.78 | -0.48 | 0.17 | 0.57 | 2.12 | | 0.50 (-0.72, 0.97) | -2.85 | -0.65 | -0.03 | 0.46 | 2.35 | |
| 11 | 50 | 0.25 (-1.63, 0.50) | -2.96 | -0.67 | -0.02 | 0.39 | 1.94 | | 0.25 (-1.75, 0.63) | -3.15 | -0.96 | -0.34 | 0.16 | 2.05 | |
| 12 | 65 | -0.13 (-0.88, 0.75) | -3.19 | -0.90 | -0.25 | 0.16 | 1.70 | | -0.50 (-1.91, 0.03) | -3.57 | -1.37 | -0.75 | -0.26 | 1.63 | |
| 13 | 56 | -0.88 (-2.00, 0.50) | -3.49 | -1.20 | -0.55 | -0.14 | 1.41 | | -2.06 (-3.44, -0.56) | -4.08 | -1.89 | -1.27 | -0.77 | 1.12 | |
| 14 | 21 | -1.00 (-1.75, 0.25) | -3.84 | -1.55 | -0.90 | -0.49 | 1.06 | | -0.38 (-1.31, 0.19) | -4.67 | -2.48 | -1.86 | -1.36 | 0.53 | |
| 15 | 83 | -3.13 (-3.84, -0.91) | -4.22 | -1.93 | -1.28 | -0.87 | 0.67 | | -3.00 (-5.25, -1.50) | -5.31 | -3.11 | -2.49 | -2.00 | -0.11 | |
| 16 | 62 | -2.94 (-4.13, -1.25) | -4.62 | -2.32 | -1.67 | -1.27 | 0.28 | | -4.19 (-5.34, -0.78) | -5.96 | -3.76 | -3.14 | -2.65 | -0.76 | |

**Supplement Table 2 Age-specific Refractive distribution and progression in myopes and non-myopes (including negative progression)**

| Age (yrs) | *N* | Myopes (N=745) | | Non-myopes (N=3541) | |
| --- | --- | --- | --- | --- | --- |
| | | Baseline SE *P50 (P25, P75)* | One-year progression *P50 (P25, P75)* | Baseline SE *P50 (P25, P75)* | One-year progression *P50 (P25, P75)* |
| 3 | 317 | -0.75 (-1.13, -0.63) | -1.50 (-2.75, -0.25) | 1.00 (0.53, 1.50) | -0.13 (-0.50, 0.25) |
| 4 | 594 | -1.25 (-1.88, -0.63) | -0.88 (-2.25, -0.38) | 1.13 (0.63, 1.50) | 0.00 (-0.25, 0.25) |
| 5 | 322 | -0.88 (-0.94, -0.75) | 0.13 (-1.06, 0.56) | 1.00 (0.75, 1.50) | 0.00 (-0.25, 0.25) |
| 6 | 508 | -0.75 (-1.25, -0.63) | 0.00 (-1.25, 1.25) | 1.00 (0.50, 1.38) | 0.25 (-0.13, 0.63) |
| 7 | 910 | -0.88 (-1.5, -0.63) | 0.63 (-0.13, 1.13) | 0.88 (0.50, 1.25) | 0.25 (0.00, 0.75) |
| 8 | 1080 | -1.38 (-2.25, -0.88) | 0.75 (0.38, 1.13) | 0.63 (0.13, 1.00) | 0.25 (0.00, 0.75) |
| 9 | 164 | -1.75 (-2.75, -0.97) | 0.75 (0.50, 1.00) | 0.63 (0.38, 1.00) | 0.25 (0.13, 0.50) |
| 10 | 50 | -1.75 (-2.00, -1.00) | 0.75 (0.50, 1.13) | 0.75 (0.25, 1.00) | 0.25 (0.13, 0.63) |
| 11 | 50 | -2.25 (-2.88, -1.63) | 0.88 (0.66, 1.00) | 0.50 (0.25, 0.75) | 0.25 (0.13, 0.50) |
| 12 | 65 | -1.88 (-2.75, -0.88) | 0.75 (0.50, 1.00) | 0.50 (0.00, 0.75) | 0.25 (0.00, 0.50) |
| 13 | 56 | -2.63 (-3.81, -1.63) | 0.63 (0.25, 0.88) | 0.50 (0.28, 0.75) | 0.25 (0.00, 0.47) |
| 14 | 21 | -1.50 (-2.28, -1.19) | 0.56 (0.25, 0.75) | 0.25 (0.25, 0.88) | 0.25 (-0.25, 0.25) |
| 15 | 83 | -3.50 (-5.25, -2.00) | 0.38 (0.13, 0.63) | 0.19 (-0.06, 0.69) | 0.38 (0.13, 0.41) |
| 16 | 62 | -3.94 (-5.16, -2.22) | 0.38 (0.25, 0.63) | 0.00 (-0.06, 0.75) | 0.13 (0.00, 0.38) |

**Supplement Table 3 Age-specific means of refractive progression and the standard value of hyperopia reserve by backward calculation (including negative progression)**

| Age (yrs) | N | Refractive progression *Mean ± SD* | Hyperopia reserve *mean* | Hyperopia reserve *range* | Proportion of baseline participants that fall within the hyperopia reserve range (%) |
|---|---|---|---|---|---|
| 3 | 302 | -0.14±0.62 | 1.16 | (0.54, 1.78) | 61.3 |
| 4 | 578 | -0.04±0.57 | 1.30 | (0.73, 1.87) | 61.2 |
| 5 | 311 | -0.02±0.49 | 1.34 | (0.85, 1.83) | 52.4 |
| 6 | 479 | 0.20±0.60 | 1.36 | (0.76, 1.96) | 46.1 |
| 7 | 787 | 0.21±0.56 | 1.16 | (0.60, 1.72) | 57.9 |
| 8 | 815 | 0.21±0.43 | 0.95 | (0.52, 1.38) | 43.4 |
| 9 | 112 | 0.21±0.25 | 0.74 | (0.49, 0.99) | 39.3 |
| 10 | 33 | 0.21±0.16 | 0.53 | (0.37, 0.69) | 15.2 |
| 11 | 32 | 0.18±0.18 | 0.32 | (0.14, 0.50) | 40.6 |
| 12 | 36 | 0.12±0.21 | 0.14 | (-0.07, 0.35) | 22.2 |
| 13 | 22 | 0.16±0.20 | 0.02 | (-0.18, 0.22) | 4.5 |
| 14 | 9 | 0.10±0.28 | -0.14 | (-0.42, 0.14) | 22.2 |
| 15 | 12 | 0.18±0.21 | -0.24 | (-0.45, -0.03) | 25.0 |
| 16 | 12 | 0.08±0.20 | -0.42 | (-0.50, -0.22) | 18.2 |
| 17 | | | -0.50 | >-0.5 | |