

Supplemental Table 2. Estimated marginal means in original measurement units (mean $\pm$ SE) by sex across three models

Fundus parameter domain	Parameter	M1 Female	M1 Male	M2 Female	M2 Male	M3 Female	M3 Male
Retinal vascular morphology	VFD	1.481 $\pm$ 0.001	1.484 $\pm$ 0.001	1.488 $\pm$ 0.001	1.492 $\pm$ 0.001	1.492 $\pm$ 0.001	1.499 $\pm$ 0.001
Retinal vascular morphology	VL	75086.530 $\pm$ 283.486	77269.618 $\pm$ 333.731	77611.501 $\pm$ 309.659	79991.903 $\pm$ 359.924	80021.487 $\pm$ 436.038	83527.585 $\pm$ 486.269
Retinal vascular morphology	AVD	72.345 $\pm$ 0.134	73.410 $\pm$ 0.158	72.482 $\pm$ 0.132	73.187 $\pm$ 0.152	73.443 $\pm$ 0.182	73.410 $\pm$ 0.204
Retinal vascular morphology	AVC	0.001 $\pm$ 0.000	0.001 $\pm$ 0.000	0.001 $\pm$ 0.000	0.001 $\pm$ 0.000	0.001 $\pm$ 0.000	0.001 $\pm$ 0.000
Retinal vascular morphology	VD	0.055 $\pm$ 0.000	0.056 $\pm$ 0.000	0.057 $\pm$ 0.000	0.059 $\pm$ 0.000	0.058 $\pm$ 0.000	0.060 $\pm$ 0.000
Retinal vascular morphology	AAD	60.178 $\pm$ 0.098	60.149 $\pm$ 0.116	60.432 $\pm$ 0.102	60.179 $\pm$ 0.116	61.371 $\pm$ 0.139	60.717 $\pm$ 0.153
Retinal vascular morphology	AVeD	80.082 $\pm$ 0.152	81.318 $\pm$ 0.177	80.199 $\pm$ 0.149	81.020 $\pm$ 0.169	81.222 $\pm$ 0.206	81.324 $\pm$ 0.230
Retinal vascular morphology	AVR	0.761 $\pm$ 0.001	0.749 $\pm$ 0.001	0.764 $\pm$ 0.001	0.753 $\pm$ 0.001	0.767 $\pm$ 0.001	0.757 $\pm$ 0.001
Retinal vascular morphology	VAM_Distance	7334.407 $\pm$ 13.059	7510.371 $\pm$ 15.171	7348.030 $\pm$ 14.158	7496.538 $\pm$ 15.900	7450.273 $\pm$ 19.348	7588.381 $\pm$ 21.444
Retinal vascular morphology	VAPD1_Distance	3003.376 $\pm$ 4.571	3043.311 $\pm$ 5.273	3015.951 $\pm$ 4.500	3043.298 $\pm$ 5.075	3063.835 $\pm$ 6.142	3078.412 $\pm$ 6.842
Retinal vascular morphology	VAPD2_Distance	5483.939 $\pm$ 8.374	5572.523 $\pm$ 9.694	5524.119 $\pm$ 8.316	5589.925 $\pm$ 9.401	5608.357 $\pm$ 11.355	5653.175 $\pm$ 12.662
Optic disc & cup geometry	DA	1863752.838 $\pm$ 5751.348	1917544.892 $\pm$ 6678.703	1889038.119 $\pm$ 5639.765	1926935.826 $\pm$ 6387.640	1948986.477 $\pm$ 7779.013	1972197.525 $\pm$ 8690.356
Optic disc & cup geometry	HDD	1431.222 $\pm$ 2.371	1464.242 $\pm$ 2.771	1443.592 $\pm$ 2.300	1469.796 $\pm$ 2.631	1465.723 $\pm$ 3.203	1486.218 $\pm$ 3.593
Optic disc & cup geometry	VDD	1603.335 $\pm$ 2.569	1615.321 $\pm$ 2.919	1613.588 $\pm$ 2.577	1619.059 $\pm$ 2.841	1641.147 $\pm$ 3.519	1639.483 $\pm$ 3.854
Optic disc & cup geometry	DR	0.842 $\pm$ 0.000	0.850 $\pm$ 0.001	0.843 $\pm$ 0.001	0.852 $\pm$ 0.001	0.842 $\pm$ 0.001	0.851 $\pm$ 0.001
Optic disc & cup geometry	DCB	1886.984 $\pm$ 5.858	1935.972 $\pm$ 6.908	1878.893 $\pm$ 6.887	1917.736 $\pm$ 7.707	1890.031 $\pm$ 9.443	1945.864 $\pm$ 10.516

Fundus parameter domain	Parameter	M1 Female	M1 Male	M2 Female	M2 Male	M3 Female	M3 Male
Optic disc & cup geometry	DDM	3868.019 ± 5.436	3906.718 ± 6.220	3862.676 ± 5.326	3885.780 ± 5.876	3932.789 ± 7.121	3942.878 ± 7.902
Optic disc & cup geometry	LSR	1.155 ± 0.001	1.142 ± 0.001	1.154 ± 0.001	1.141 ± 0.001	1.156 ± 0.001	1.142 ± 0.001
Optic disc & cup geometry	MCB	4017.830 ± 5.900	4087.422 ± 6.708	4055.775 ± 6.033	4110.041 ± 6.694	4127.211 ± 8.257	4170.706 ± 9.060
Optic disc & cup geometry	CA	387314.815 ± 1631.615	409910.282 ± 1995.982	397661.626 ± 1834.480	416991.774 ± 2142.363	404643.450 ± 2551.445	420552.813 ± 2889.670
Optic disc & cup geometry	HCD	671.610 ± 1.525	693.229 ± 1.821	683.623 ± 1.726	702.349 ± 1.978	687.695 ± 2.392	703.263 ± 2.680
Optic disc & cup geometry	VCD	683.966 ± 1.507	700.723 ± 1.773	688.091 ± 1.699	702.110 ± 1.937	694.374 ± 2.349	705.090 ± 2.627
Optic disc & cup geometry	CDR	0.206 ± 0.001	0.211 ± 0.001	0.209 ± 0.001	0.214 ± 0.001	0.205 ± 0.001	0.210 ± 0.001
Optic disc & cup geometry	CDR_H	0.469 ± 0.001	0.472 ± 0.001	0.473 ± 0.001	0.477 ± 0.001	0.468 ± 0.001	0.472 ± 0.001
Optic disc & cup geometry	CDR_V	0.425 ± 0.001	0.432 ± 0.001	0.426 ± 0.001	0.433 ± 0.001	0.422 ± 0.001	0.429 ± 0.001
Optic disc & cup geometry	VHR_OD_VA	1.126 ± 0.001	1.109 ± 0.001	1.123 ± 0.001	1.107 ± 0.001	1.126 ± 0.001	1.109 ± 0.002
Optic disc & cup geometry	SLR_OD	0.870 ± 0.000	0.880 ± 0.001	0.871 ± 0.001	0.880 ± 0.001	0.869 ± 0.001	0.879 ± 0.001
Optic disc & cup geometry	MaxRD_OC	1211.065 ± 2.180	1229.636 ± 2.524	1220.743 ± 2.271	1233.980 ± 2.569	1237.429 ± 3.132	1245.001 ± 3.487
Optic disc & cup geometry	MinRD_OC	304.093 ± 0.728	308.920 ± 0.836	300.524 ± 0.854	304.126 ± 0.941	306.846 ± 1.168	309.487 ± 1.293
Optic disc & cup geometry	RID	464.582 ± 0.927	461.549 ± 1.039	468.951 ± 1.017	463.794 ± 1.102	479.804 ± 1.370	473.181 ± 1.488
Optic disc & cup geometry	RND	357.785 ± 0.815	368.268 ± 0.962	356.985 ± 0.901	365.621 ± 1.014	365.321 ± 1.225	372.518 ± 1.358
Optic disc & cup geometry	RSD	457.523 ± 0.920	455.627 ± 1.022	456.635 ± 1.030	452.752 ± 1.109	465.916 ± 1.388	459.202 ± 1.499
Optic disc & cup	RTD	395.716 ± 1.004	397.381 ± 1.137	393.858 ± 1.177	393.323 ± 1.284	403.368 ± 1.612	401.173 ±

Fundus parameter domain	Parameter	M1 Female	M1 Male	M2 Female	M2 Male	M3 Female	M3 Male
geometry							1.751
Peripapillary atrophy	AAA	448675.347 ± 6416.620	542208.121 ± 8181.018	402986.458 ± 6997.025	482709.142 ± 8963.282	428346.787 ± 10590.827	490564.799 ± 12216.271
Peripapillary atrophy	AAH	942.824 ± 7.197	1108.471 ± 8.201	906.918 ± 8.530	1057.775 ± 9.566	949.483 ± 11.830	1079.772 ± 13.014
Peripapillary atrophy	AAW	235.900 ± 2.075	271.895 ± 2.388	218.133 ± 2.395	250.011 ± 2.734	226.909 ± 3.352	253.247 ± 3.714
Peripapillary atrophy	AADM	2929.148 ± 5.313	2907.278 ± 5.721	2916.422 ± 5.599	2894.703 ± 5.812	2952.801 ± 7.404	2926.075 ± 7.828
Peripapillary atrophy	AAR	0.234 ± 0.003	0.280 ± 0.004	0.204 ± 0.004	0.245 ± 0.005	0.210 ± 0.005	0.243 ± 0.006
Peripapillary atrophy	AAW_DDH	0.163 ± 0.001	0.186 ± 0.002	0.149 ± 0.002	0.170 ± 0.002	0.152 ± 0.002	0.170 ± 0.003
Peripapillary atrophy	AAH_DDV	0.570 ± 0.004	0.673 ± 0.005	0.545 ± 0.005	0.641 ± 0.006	0.562 ± 0.007	0.647 ± 0.008
Fundus tessellation density	Fundus_FTD	6.191 ± 0.075	6.407 ± 0.082	5.300 ± 0.078	5.343 ± 0.087	5.482 ± 0.114	5.550 ± 0.127
Fundus tessellation density	OD_4.5mm_FTD	4.239 ± 0.057	4.658 ± 0.070	3.803 ± 0.063	4.138 ± 0.076	3.894 ± 0.091	4.319 ± 0.108
Fundus tessellation density	M_1mm_FTD	3.787 ± 0.088	3.093 ± 0.093	2.886 ± 0.095	2.039 ± 0.102	3.227 ± 0.139	2.388 ± 0.153
Fundus tessellation density	M_3mm_FTD	5.502 ± 0.096	4.516 ± 0.100	4.244 ± 0.100	3.065 ± 0.108	4.518 ± 0.148	3.369 ± 0.163
Fundus tessellation density	M_6mm_FTD	6.813 ± 0.097	5.971 ± 0.101	5.594 ± 0.100	4.529 ± 0.108	5.923 ± 0.149	4.883 ± 0.163
Fundus tessellation density	OD_4.5mm_S_FTD	1.994 ± 0.042	2.346 ± 0.052	1.555 ± 0.047	1.851 ± 0.057	1.597 ± 0.067	1.861 ± 0.077
Fundus tessellation density	OD_4.5mm_I_FTD	4.949 ± 0.068	5.955 ± 0.089	4.425 ± 0.077	5.342 ± 0.097	4.410 ± 0.112	5.461 ± 0.137
Fundus tessellation density	OD_4.5mm_N_FTD	3.109 ± 0.054	3.355 ± 0.066	2.940 ± 0.065	3.120 ± 0.076	2.998 ± 0.091	3.297 ± 0.106
Fundus tessellation density	OD_4.5mm_T_FTD	6.469 ± 0.095	6.489 ± 0.110	6.283 ± 0.108	6.174 ± 0.124	6.565 ± 0.156	6.630 ± 0.179

Note: Values are estimated marginal means $\pm$ standard error in original measurement units. M1 was unadjusted; M2 was adjusted for age and age squared; M3 was additionally adjusted for 20 binary systemic conditions. Generalized estimating equations used participant-level clustering.