	PCT-100	PCT-300	PCT-500	PCT-700	PCT-900	PCT-1100
Sector	0.0060	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Age	0.0040	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Axial Length	0.0016	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Ethnicity	0.2037	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
ASCO Area	0.8172	0.0369	0.0133	0.0148	0.0195	0.0206
Gender	0.2678	0.0147	0.0067	0.0041	0.0032	0.0046
IOP	0.0704	0.5234	0.3202	0.2374	0.2138	0.2128
Sector: Age	0.3035	0.0004	0.0009	0.0355	0.0421	0.0017

Data are p values by ANOVA using general estimation equation model, **Bold** ( $p \le 0.05$ );

Supplemental Table 1. Statistical significance of the demographic, ocular, ethnicity, gender, age and sectoral effects on peripapillary choroidal thickness (PCT) at each measurement distance from the anterior scleral canal opening (ASCO) by Analysis of Variance (ANOVA).

	%PCT-100	%PCT-300	%PCT-500	%PCT-700	%PCT-900	%PCT-1100
Age	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Axial Length	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Ethnicity	0.0026	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
ASCO Area	0.0231	0.0019	0.0009	0.0015	0.0027	0.0012
Gender	0.0666	0.0642	0.0271	0.0162	0.0142	0.0254
IOP	0.6540	0.5627	0.2994	0.2513	0.2364	0.2567
Sector: Age	0.0426	0.0001	0.0008	0.0023	0.0029	0.0044

Data are p values by ANOVA using a general estimation equation model. **Bold** = (p < 0.05); **%PCT** - Percent peripapillary choroidal thickness is calculated for each sector for each eye by dividing the PCT value for that eye by the mean PCT value for all study eyes, (top row of Figure 7).

Supplemental Table 2. Statistical significance of the demographic, ocular, ethnicity, gender, age and sectoral effects on percent peripapillary choroidal thickness (%PCT) at each measurement distance from the anterior scleral canal opening (ASCO) by Analysis of Variance (ANOVA).

Measurement Location <sup>1</sup>	Number of Eyes <sup>2</sup>	Mean	SD	Minimum	5% Percentile	Median	95% Percentile	Maximum
PCT-100	79	99.51	25.61	56.68	62.30	96.18	147.56	174.97
PCT-300	352	121.45	33.81	41.42	63.70	120.67	178.74	233.25
PCT-500	357	138.06	43.84	36.08	64.89	136.86	215.83	263.77
PCT-700	357	151.21	51.66	35.24	69.56	149.5	244.01	287.89
PCT-900	357	161.99	57.36	37.75	73.75	159.32	267.77	316.76
PCT-1100	357	170.24	61.24	40.04	76.72	167.19	277.72	335.26

 $\frac{1}{2} \frac{1}{1}$  measured relative to the BMO

3 <sup>2</sup>number of eyes with data at each measurement point (see Discussion)

4 Supplemental Table 3. Global peripapillary choroidal thickness (PCT) at each measurement distance from 5 the Bruch's Membrane Opening (BMO).



**Supplemental Figure 1. Scatterplot and univariate linear regression of peripapillary choroidal thickness** (PCT) and Axial Length at each measurement point. Panels depict data at the 100, 300 and 500 μm measurement distances above and the 700, 900 and 1100 μm distances below. The slope of the regression line achieved significance at the p < 0.0001 level at all distances from the anterior scleral canal opening (ASCO) except the 100 μm measurepoint (p<0.00115). **Solid blue lines** - fitted linear regression lines; **dotted blue curves** - the 95% Cl of the regression lines; grey circles with black border - individual eye values.



Supplemental Figure 2. Measurement of peripapillary choroidal thickness (PCT) relative to the anterior scleral surface at six radial distances from Bruch's membrane opening (BMO). Within the 3D point cloud of segmented points from each OCT ONH data set, (Figure 1C, above), Bruch's membrane and anterior scleral surface points were interpolated using b-splines. PCT was assessed in microns at six radial distances (vertical blue dotted lines) from BMO, measured within the BMO reference plane, (horizontal red line). Each measurement distance was projected from the BMO reference plane to the anterior sclera surface (yellow dots). At each anterior scleral measurement point, PCT was defined by the minimum distance to the posterior surface of Bruch's membrane (green arrows - PCT-100, PCT-300, PCT-500, PCT-700, PCT-900, and PCT-1100, respectively). In this study, PCT measurements within the regions of BTE obliqueness, (pink externally oblique, left – and blue internally oblique, right) were not included in the normative values as explained in Figure 3.