

**Table S3. Log odds ratios for POAG comparing each decile to the reference middle 20% (deciles 5-6) for each GRS type calculated for AFR and EUR**

**Veterans in the MVP.** GRS were unweighted or weighted by published cross-ancestry meta-analysis or ancestry-specific effect estimates. We tested for statistical association between deciles of GRS and POAG case-control status using the middle 20% (percentiles 40-60%) as the reference in our analyses. Models were unadjusted for additional covariates.

GRS Type	Risk Decile (5-6 reference)	AFR beta (95% CI)	AFR OR (95% CI)	AFR <i>p</i> -value	EUR beta (95% CI)	EUR OR (95% CI)	EUR <i>p</i> -value
<b>Unweighted</b>	<b>1</b>	-0.797 (-1.013--0.586)	0.451 (0.363-0.557)	2.45 x 10 <sup>-13</sup>	-0.882 (-1.085--0.688)	0.414 (0.338-0.503)	3.09 x 10 <sup>-18</sup>
	<b>2</b>	-0.51 (-0.712--0.312)	0.6 (0.491-0.732)	5.52 x 10 <sup>-07</sup>	-0.583 (-0.763--0.408)	0.558 (0.466-0.665)	1.14 X 10 <sup>-10</sup>
	<b>3</b>	-0.259 (-0.451--0.07)	0.772 (0.637-0.932)	0.007584	-0.321 (-0.485--0.161)	0.725 (0.616-0.851)	9.81 x 10 <sup>-05</sup>
	<b>4</b>	-0.151 (-0.339-0.035)	0.86 (0.712-1.036)	0.113082	-0.066 (-0.216-0.081)	0.936 (0.806-1.085)	0.382425
	<b>7</b>	0.12 (-0.061-0.3)	1.128 (0.941-1.35)	0.191667	0.272 (0.137-0.406)	1.313 (1.146-1.501)	7.64 x 10 <sup>-05</sup>
	<b>8</b>	0.303 (0.125-0.48)	1.353 (1.133-1.615)	0.000825	0.428 (0.298-0.557)	1.534 (1.347-1.746)	9.13 x 10 <sup>-11</sup>
	<b>9</b>	0.318 (0.141-0.495)	1.375 (1.151-1.641)	0.000426	0.639 (0.516-0.762)	1.895 (1.675-2.144)	2.53 x 10 <sup>-24</sup>
	<b>10</b>	0.537 (0.362-0.711)	1.711 (1.436-2.037)	1.67 x 10 <sup>-09</sup>	1.039 (0.925-1.153)	2.826 (2.523-3.168)	1.34 x 10 <sup>-71</sup>
<b>Cross-ancestry meta-analysis</b>	<b>1</b>	-0.748 (-0.963--0.538)	0.473 (0.382-0.584)	4.90 x 10 <sup>-12</sup>	-1.002 (-1.218--0.796)	0.367 (0.296-0.451)	1.15 x 10 <sup>-20</sup>
	<b>2</b>	-0.644 (-0.854--0.439)	0.525 (0.426-0.644)	1.06 x 10 <sup>-09</sup>	-0.585 (-0.767--0.408)	0.557 (0.464-0.665)	1.65 x 10 <sup>-10</sup>
	<b>3</b>	-0.263 (-0.456--0.073)	0.769 (0.634-0.93)	0.007080	-0.332 (-0.498--0.17)	0.718 (0.608-0.844)	7.24 x 10 <sup>-05</sup>
	<b>4</b>	-0.198 (-0.389--0.01)	0.82 (0.678-0.99)	0.040414	-0.171 (-0.328--0.017)	0.843 (0.721-0.983)	0.031283
	<b>7</b>	0.196 (0.016-0.375)	1.217 (1.016-1.456)	0.032453	0.215 (0.076-0.353)	1.24 (1.079-1.423)	0.002326
	<b>8</b>	0.336 (0.158-0.513)	1.399 (1.171-1.67)	0.000210	0.53 (0.402-0.658)	1.699 (1.495-1.93)	3.91 x 10 <sup>-16</sup>
	<b>9</b>	0.45 (0.274-0.626)	1.568 (1.315-1.869)	5.48 x 10 <sup>-07</sup>	0.689 (0.565-0.812)	1.991 (1.76-2.252)	5.67 x 10 <sup>-28</sup>
	<b>10</b>	0.594 (0.42-0.769)	1.812 (1.522-2.158)	2.53 x 10 <sup>-11</sup>	1.143 (1.03-1.256)	3.136 (2.802-3.513)	1.68 x 10 <sup>-87</sup>
<b>Ancestry-specific</b>	<b>1</b>	-0.654 (-0.857--0.454)	0.52 (0.424-0.635)	2.04 x 10 <sup>-10</sup>	-0.981 (-1.196--0.777)	0.375 (0.303-0.46)	3.77 x 10 <sup>-20</sup>
	<b>2</b>	-0.393 (-0.586--0.203)	0.675 (0.557-0.816)	5.58 x 10 <sup>-05</sup>	-0.532 (-0.711--0.359)	0.587 (0.491-0.699)	3.14 x 10 <sup>-09</sup>
	<b>3</b>	-0.497 (-0.693--0.303)	0.609 (0.5-0.739)	6.04 x 10 <sup>-07</sup>	-0.426 (-0.598--0.259)	0.653 (0.55-0.772)	8.30 x 10 <sup>-07</sup>
	<b>4</b>	-0.195 (-0.382--0.011)	0.823 (0.683-0.989)	0.038622	-0.117 (-0.272-0.034)	0.889 (0.762-1.035)	0.132804
	<b>7</b>	0.141 (-0.037-0.319)	1.152 (0.964-1.375)	0.118522	0.226 (0.087-0.364)	1.254 (1.091-1.439)	0.001326
	<b>8</b>	0.043 (-0.137-0.222)	1.044 (0.872-1.248)	0.639173	0.486 (0.357-0.615)	1.626 (1.429-1.85)	1.53 x 10 <sup>-13</sup>
	<b>9</b>	0.131 (-0.048-0.308)	1.14 (0.953-1.361)	0.149781	0.711 (0.588-0.834)	2.036 (1.801-2.302)	6.23 x 10 <sup>-30</sup>
	<b>10</b>	0.293 (0.117-0.468)	1.34 (1.124-1.596)	0.001070	1.149 (1.037-1.263)	3.156 (2.82-3.535)	1.81 x 10 <sup>-88</sup>

**Abbreviations:** POAG = primary open-angle glaucoma, AFR = non-Hispanic African ancestry, EUR = non-Hispanic European ancestry, MVP = Million Veteran

Program, GRS = genetic risk score, OR = odds ratio, CI = confidence interval.