**Supplementary Table 1.** Population- and hospital-based studies that assessed retinal vessel caliber using Retinal Analysis, IVAN and SIVA

<table>
<thead>
<tr>
<th>Study Name/ Population</th>
<th>Population Size</th>
</tr>
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<tbody>
<tr>
<td><strong>RA</strong></td>
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<tr>
<td>Atherosclerosis Risk in Communities study¹</td>
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<tr>
<td>Cardiovascular Health Study²</td>
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<tr>
<td>AusDiab³</td>
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<tr>
<td>The Rotterdam study⁴</td>
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<tr>
<td>WESDR⁵</td>
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<td>BDES⁶</td>
<td>4926</td>
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<tr>
<td>The Funagata study⁷</td>
<td>1961</td>
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<tr>
<td>The Hoorn Study⁸</td>
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<td>SCORM⁹</td>
<td>851</td>
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<td>Children recruited from the Children’s Hospital at Westmead¹⁰</td>
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<td>Department of Cardiology at Austin Health ¹¹</td>
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<td>EDC¹²</td>
<td>658</td>
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<tr>
<td>International Diabetes Institute general eye clinics at the Royal Victorian Eye and Ear Hospital ¹³</td>
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<td>Type 2 diabetes and healthy controls ¹⁴</td>
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<td>The New Jersey 725 study ¹⁵</td>
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<td>The Handan Eye Study ¹⁶</td>
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<td>BODYLab ¹⁷</td>
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<tr>
<td><strong>IVAN</strong></td>
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<td>MESA²¹</td>
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<td>The Sydney Childhood Eye Study²²</td>
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<td>SiMES²³</td>
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<td>Sydney Eye Hospital ²⁴</td>
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<td>TEST²⁵</td>
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<td>Twins UK Adult Twin Registry²⁶</td>
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<td>Diabetes Changfeng Study²⁷</td>
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<td>SP²⁸</td>
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</table>
Shinoda General Hospital\textsuperscript{29} 1003
Longitudinal Studies of the Ocular Complications of AIDS\textsuperscript{30} 1712
Chaim Sheba Medical center\textsuperscript{31} 285
Diabetic and non-diabetic patients\textsuperscript{32} 43
Royal Victorian Eye and Ear Hospital, Melbourne\textsuperscript{33} 202
Diabetic Management Project\textsuperscript{34} 289
Local programme of screening for cardiovascular risk\textsuperscript{35} 80
Sydney Pediatric Eye Disease Study\textsuperscript{36} 1077
The Tromsø Study\textsuperscript{6\textsuperscript{37}} 3309
STARS\textsuperscript{38} 592
Odense University Hospital\textsuperscript{39} 46
Royal Prince Alfred Hospital, Sydney\textsuperscript{40} 92
EUREYE\textsuperscript{41} 684
Kyoto University Hospital Department of Ophthalmology\textsuperscript{42} 238
Adult Health Study of Japanese atomic bomb survivors\textsuperscript{43} 2263
Guangzhou Twin Eye Study\textsuperscript{44} 2086
The Danish Cohort of Pediatric Diabetes\textsuperscript{45} 339
POLA\textsuperscript{46} 2113
Age, Gene/Environment Susceptibility-Reykjavik Study\textsuperscript{47} 2300
Department of Ophthalmology at Kyoto University Hospital\textsuperscript{48} 212

\textbf{SIVA}

Sydney Pediatric Diabetes Study \textsuperscript{49} 1159
Diabetics/ non-diabetics\textsuperscript{50} 327
SiMES\textsuperscript{51} 3280
Volunteers\textsuperscript{52} 15
GUSTO Study\textsuperscript{53} 1248
AIBL\textsuperscript{54} 1166
SiMES, SCES, SIND\textsuperscript{55} 10033
Dunedin Study\textsuperscript{56} 1007
MCRS\textsuperscript{57} 1114
Diabetes Complications Assessment Service at Children’s Hospital\textsuperscript{58} 481
Alzheimer’s Disease recruited from dementia/memory clinics from NUH, KTPH and SGH. Controls recruited from SEED.

AusDiab= Australian Diabetes, Obesity and Lifestyle study; WESDR= Wisconsin Epidemiologic Study of Diabetic; BDES= Beaver Dam Eye Study; SCORM= Singapore Cohort Study of Risk Factors for Myopia; EDC= Pittsburgh Epidemiology of Diabetes Complications Study; BODyLab= NYU School of Medicine’s Brain, Obesity, and Diabetes Laboratory; BMES= Blue Mountains Eye Study; MESA= Multi-Ethnic Study of Atherosclerosis; SiMES= Singapore Malay Eye Study; TEST= Twins Eye Study in Tasmania; SP2= Singapore Prospective Study Program; AIDS= acquired immune deficiency syndrome; STARS= Strabismus, Amblyopia and Refractive Error Study in Singaporean Chinese Pre-schoolers Family study; EUREYE= European Eye study; POLA= Pathologies Oculaires Liées à l’Age Study; GUSTO= Growing Up in Singapore Towards Health Outcomes; AIBL= Australian Imaging, Biomarkers and Lifestyle; SCES= Singapore Chinese Eye Study; SiINDI= Singapore Indian Eye Study; MCRS= Multi-Center Retinal Stroke Study; NUH= National University of Hospital; KTPH= Khoo Teck Puat Hospital; SGH= Singapore General Hospital; SEED= Singapore Epidemiology of Eye Diseases.
REFERENCES


