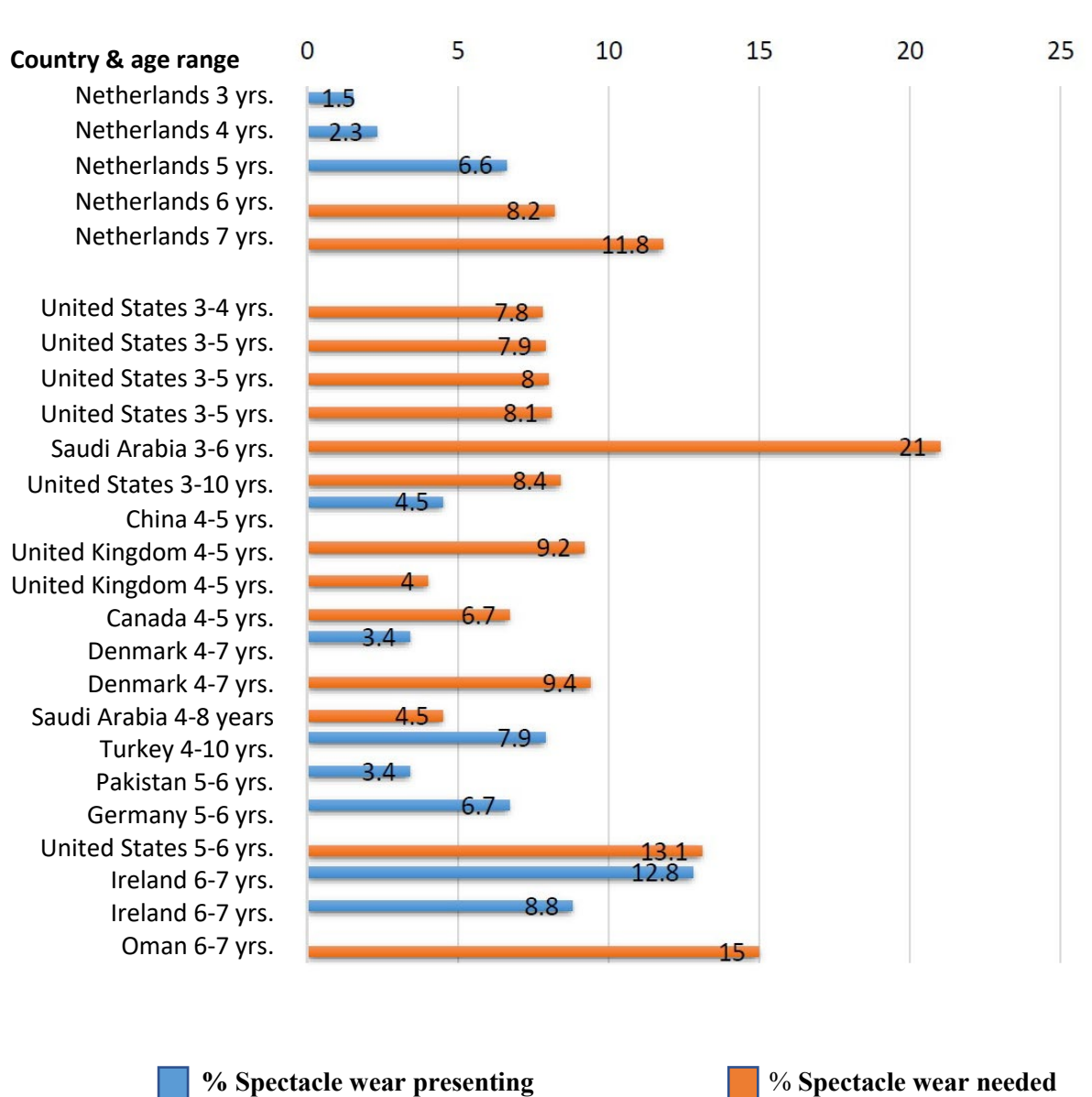


**Figure S1 Spectacle wear among 3-10-year-old children in the world**



**Table S1: Distribution of refractive errors in children with spectacle wear and share of the full study samples**

|                                                                                         | Generation R 6 years |                            | RAMSES 7 years |                            |
|-----------------------------------------------------------------------------------------|----------------------|----------------------------|----------------|----------------------------|
|                                                                                         | N                    | % of the full study sample | N              | % of the full study sample |
| <b>Myopia (<math>\leq -0.5</math> D)</b>                                                | <b>124</b>           | <b>1.7%</b>                | <b>42</b>      | <b>3.1%</b>                |
| <b>Myopia (<math>\leq -0.5</math> D) and astigmatism (<math>\leq -2.00</math> D)</b>    | <b>50</b>            | <b>0.7%</b>                | <b>13</b>      | <b>0.9%</b>                |
| <b>Hyperopia (<math>\geq +1.0</math> D)</b>                                             | <b>265</b>           | <b>3.7%</b>                | <b>21</b>      | <b>1.5%</b>                |
| <b>Hyperopia (<math>\geq +1.0</math> D) and astigmatism (<math>\leq -2.00</math> D)</b> | <b>66</b>            | <b>0.9%</b>                | <b>8</b>       | <b>0.6%</b>                |
| <b>Astigmatism alone (<math>\leq -2.00</math> D)</b>                                    | <b>20</b>            | <b>0.3%</b>                | <b>20</b>      | <b>1.5%</b>                |
| <b>Other (emmetropia/anisometropia)</b>                                                 | <b>57</b>            | <b>0.8%</b>                | <b>58</b>      | <b>4.2%</b>                |

**Table S2 Spectacle wear and refractive errors in other childhood population-based studies.**

| <b>Authors (year)</b>               | <b>Number of participants</b> | <b>Data collection (year)</b> | <b>Country</b> | <b>Age (years)</b> | <b>Ethnicity</b> | <b>Male (%)</b> | <b>Spectacle wear (%)</b>        |
|-------------------------------------|-------------------------------|-------------------------------|----------------|--------------------|------------------|-----------------|----------------------------------|
| <b>Hu et al., 2012 (1)</b>          | 2830                          | 2006-2007                     | United States  | 3-4                | -                | -               | 7.8 (needed)                     |
| <b>Margines et al., 2020 (2)</b>    | 79,451                        | 2012-2017                     | United States  | 3-5                | 79% Latino       | 51              | 7.9 (needed)                     |
| <b>Hendler et al., 2016 (3)</b>     | 11,260                        | 2012-2013                     | United States  | 3-5                | Hispanic         | -               | 8.0 (needed)                     |
| <b>Mehrvaran, et al., 2016 (4)</b>  | 12,088                        | 2012-2013                     | United States  | 3-5                | 86% Latino       | 50.8            | 8.1 (needed)                     |
| <b>Alrahili et al., 2017 (5)</b>    | 865                           | 2015                          | Saudi Arabia   | 3-6                | -                | -               | 21.0 (needed)                    |
| <b>Griffith et al., 2016 (6)</b>    | 63,841                        | 2002-2014                     | United States  | 3-10               | -                | 49.4            | 8.4 (needed)                     |
| <b>Zhang et al., 2018 (7)</b>       | 1986                          | 2016                          | China          | 4-5                | Chinese          | 54.8            | 4.5 (presenting)                 |
| <b>Toufееq and Oram, 2014 (8)</b>   | 4171                          | 2009-2010                     | United Kingdom | 4-5                | -                | -               | 9.2 (needed)                     |
| <b>Garretty et al., 2017 (9)</b>    | 7807                          | 2013-2014                     | United Kingdom | 4-5                | -                | -               | 4.0 (needed)                     |
| <b>Nishimura et al., 2020 (10)</b>  | 4811                          | 2015-2017                     | Canada         | 4-5                | -                | -               | 6.7 (needed)                     |
| <b>Sandfeld et al., 2019 (11)</b>   | 447                           | 2015-2016                     | Denmark        | 4.5-7              | 87% White        | 52.5            | 3.4 (presenting)<br>9.4 (needed) |
| <b>Al-Rowaily., 2010 (12)</b>       | 1319                          | 2008                          | Saudi Arabia   | 4-8                | Saudi            | 44              | 4.5 (needed)                     |
| <b>Azizoglu et al., 2017 (13)</b>   | 823                           | 2009                          | Turkey         | 4-10               | Turkish          | 50.4            | 7.9 (presenting)                 |
| <b>Ertekin et al., 2016 (14)</b>    | 476                           | 2013                          | Pakistan       | 5-6                | Pakistani        | 49.4            | 3.4 (presenting)                 |
| <b>Elflein et al., 2020 (15)</b>    | 160,122                       | 2010-2015                     | Germany        | 5.8                | White            | 52.1            | 6.7 (presenting)                 |
| <b>Hark et al., 2018. (16)</b>      | 275                           | 2014-2016                     | United States  | 5-6                | -                | -               | 13.1 (needed)                    |
| <b>O'Donoghue et al., 2010 (17)</b> | 392                           | 2006-2008                     | Ireland        | 6-7                | White            | 49.5            | 12.8 (presenting)                |
| <b>Harrington et al., 2019 (18)</b> | 728                           | 2016-2018                     | Ireland        | 6-7                | 79.9% White      | 51.8            | 8.8 (presenting)                 |
| <b>Al Harby et al., 2016 (19)</b>   | 286                           | 2012                          | Oman           | 6-7                | -                | 35              | 15.0 (needed)                    |

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