Prevalence of vision loss
Population: 62 million  Countries: 3

Vision loss by age
- Children and adolescents (0-19): 0.9 million
- Adults (20-49): 1.6 million
- Older adults (50 and over): 5.5 million

Categories of vision loss
- Blindness: 0.3 million people (0.2M Female, 0.1M Male)
- Moderate to severe: 2.8 million people (1.5M Female, 1.3M Male)
- Mild: 2.1 million people (1.1M Female, 1.0M Male)
- Near: 2.7 million people (1.4M Female, 1.3M Male)

The number of people with vision loss is growing
- 1990: 3.6 million
  - Female: 1.9 million
  - Male: 1.7 million
- 2020: 8.0 million
  - Female: 4.2 million
  - Male: 3.8 million
- 2050: 15.2 million
  - Female: 8.1 million
  - Male: 7.1 million

Top five causes of blindness and moderate to severe vision loss
- Uncorrected refractive error: 1.6M
- Cataract: 826,400
- Glaucoma: 79,700
- Age-related macular degeneration: 64,600
- Diabetic retinopathy: 19,700

Eye care service indicators
- Human resources:
  - Ophthalmologists: 1,712
  - Optometrists: 3,090
  - Allied ophthalmic personnel: 1,900
- National eye health:
  - No. countries reporting:
    - Coordinators: 3
    - Committees: 3
    - Plans: 1
- Data:
  - No. countries reporting:
    - Prevalence surveys: 3
    - Service assessments: 1
- Cataract surgeries: 89,891 annually

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
Prevalence of vision loss
Population: 30 million  Countries: 2

Vision loss by age

<table>
<thead>
<tr>
<th>Category</th>
<th>1990</th>
<th>2020</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blindness</td>
<td>0.5M</td>
<td>0.9M</td>
<td>1.7M</td>
</tr>
<tr>
<td>Moderate to severe</td>
<td>0.4M</td>
<td>0.7M</td>
<td>1.3M</td>
</tr>
<tr>
<td>Near</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The number of people with vision loss is growing

Top five causes of blindness and moderate to severe vision loss

- Uncorrected refractive error: 436,000
- Cataract: 192,900
- Glaucoma: 29,400
- Age-related macular degeneration: 21,200
- Diabetic retinopathy: 10,800

Eye care service indicators

<table>
<thead>
<tr>
<th>Human resources</th>
<th>National eye health</th>
<th>Data</th>
<th>Cataract surgeries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,087 ophthalmologists</td>
<td>No. countries reporting:</td>
<td>No. countries reporting:</td>
<td>165,000 annually</td>
</tr>
<tr>
<td>6,437 optometrists</td>
<td>Coordinators:</td>
<td>Prevalence surveys:</td>
<td></td>
</tr>
<tr>
<td>- allied ophthalmic personnel</td>
<td>Committees:</td>
<td>Service assessments:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plans:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
Prevalence of vision loss
Population: 44 million Countries: 19

Vision loss by age
- Children and adolescents (0-19): 0.5 million
- Adults (20-49): 1.2 million
- Older adults (50 and over): 4.6 million

Categories of vision loss
- Blinding: 0.3 million people (0.1M Female, 0.1M Male)
- Moderate to severe: 1.6 million people (0.9M Female, 0.7M Male)
- Mild: 1.7 million people (0.9M Female, 0.8M Male)
- Near: 2.7 million people (1.3M Female, 1.4M Male)

The number of people with vision loss is growing
- 1990: 3.7 million
  - Male: 1.8 million
  - Female: 1.9 million
- 2020: 6.2 million
  - Male: 3.0 million
  - Female: 3.2 million
- 2050: 8.9 million
  - Male: 3.9 million
  - Female: 5.0 million

Top five causes of blindness and moderate to severe vision loss
- Uncorrected refractive error: 823,300
- Cataract: 329,900
- Glaucoma: 69,100
- Diabetic retinopathy: 33,000
- Age-related macular degeneration: 11,900

Eye care service indicators
- Human resources:
  - Ophthalmologists: 2,744
  - Optometrists: 532
  - Allied ophthalmic personnel: 302
- National eye health:
  - No. countries reporting: 6
  - Coordinators: 9
  - Committees: 4
  - Plans: 1
- Data:
  - No. countries reporting: 6
  - Prevalence surveys: 6
  - Service assessments: 2
- Cataract surgeries: 68,692 annually

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.

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Central Asia
GBD Region snapshot

Prevalence of vision loss
Population: 95 million  Countries: 9

Vision loss by age

<table>
<thead>
<tr>
<th>Category</th>
<th>1990</th>
<th>2020</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blindness</td>
<td>0.3M</td>
<td>3.0M</td>
<td>5.0M</td>
</tr>
<tr>
<td>Moderate to severe</td>
<td>7.7M</td>
<td>10.5M</td>
<td>18.9M</td>
</tr>
<tr>
<td>Near</td>
<td>10.5M</td>
<td>18.9M</td>
<td></td>
</tr>
</tbody>
</table>

Categories of vision loss

- Blindness: 0.3 million people
  - 0.2M Female
  - 0.1M Male
- Moderate to severe: 3.0 million people
  - 1.7M Female
  - 1.2M Male
- Near: 2.2 million people
  - 1.2M Female
  - 1.0M Male
- Blindness: 5.0 million people
  - 3.0M Female
  - 2.0M Male

The number of people with vision loss is growing

- 1990: 7.0 million
  - 4.2 million Female
  - 2.8 million Male
- 2020: 10.5 million
  - 6.1 million Female
  - 4.4 million Male
- 2050: 18.9 million
  - 11.3 million Female
  - 7.7 million Male

Top five causes of blindness and moderate to severe vision loss

- Uncorrected refractive error: 1.6M
- Cataract: 781,000
- Glaucoma: 66,000
- Age-related macular degeneration: 51,000
- Diabetic retinopathy: 29,000

Eye care service indicators

- Human resources: 4,399 ophthalmologists - 260 allied ophthalmic personnel
- National eye health: No. countries reporting: 1
  - Coordinators: 1
  - Committees: -
  - Plans: 1
- Data: No. countries reporting: 3
  - Prevalence surveys: 3
  - Service assessments: -
- Cataract surgeries: annually

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas
Prevalence of vision loss
Population: **114 million**  Countries: **13**

**Vision loss by age**

- **Children and adolescents (0-19)**: 0.4 million
- **Adults (20-49)**: 1.8 million
- **Older adults (50 and over)**: 16.3 million

**Categories of vision loss**

- **Blindness**: 0.3 million people
  - Female: 2.4 million
  - Male: 0.1 million
- **Moderate to severe**: 4.0 million people
  - Female: 2.4 million
  - Male: 1.5 million
- **Mild**: 2.0 million people
  - Female: 1.1 million
  - Male: 0.8 million
- **Near**: 12.2 million people
  - Female: 7.3 million
  - Male: 4.9 million

The number of people with vision loss is growing

- **1990**: 14.1 million people
  - Female: 8.3 million
  - Male: 5.7 million
- **2020**: 18.4 million people
  - Female: 11.1 million
  - Male: 7.4 million
- **2050**: 22.2 million people
  - Female: 12.9 million
  - Male: 9.3 million

Top five causes of blindness and moderate to severe vision loss

- **Uncorrected refractive error**: 2.1 million
- **Cataract**: 0.9 million
- **Age-related macular degeneration**: 0.1 million
- **Glaucma**: 0.1 million
- **Diabetic retinopathy**: 0.1 million

Eye care service indicators

<table>
<thead>
<tr>
<th>Human resources</th>
<th>National eye health</th>
<th>Data</th>
<th>Cataract surgeries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ophthalmologists: 11,111</td>
<td>No. countries reporting:</td>
<td>No. countries reporting:</td>
<td>736,657 annually</td>
</tr>
<tr>
<td>Optometrists: 6,687</td>
<td>Coordinators: -</td>
<td>Prevalence surveys: 3</td>
<td></td>
</tr>
<tr>
<td>Allied ophthalmic personnel: 1,700</td>
<td>Committees: 1</td>
<td>Service assessments: -</td>
<td></td>
</tr>
<tr>
<td>Plans: -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.

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Prevalence of vision loss
Population: 259 million  Countries: 9

Vision loss by age

Children and adolescents (0-19): 3.2 million
Adults (20-49): 6.6 million
Older adults (50 and over): 24.1 million

The number of people with vision loss is growing
1990: 14.6 million
2020: 33.9 million
2050: 58.8 million

Categories of vision loss
1.3 million people
Blindness
0.7M Female
0.6M Male

9.8 million people
Moderate to severe
5.5M Female
4.4M Male

9.1 million people
Mild
5.0M Female
4.1M Male

13.7 million people
Near
7.7M Female
5.9M Male

Top five causes of blindness and moderate to severe vision loss
Uncorrected refractive error: 5.8M
Cataract: 2.3M
Glaucoma: 0.3M
Diabetic retinopathy: 0.3M
Age-related macular degeneration: 0.1M

Eye care service indicators
Human resources
9,082 ophthalmologists
15,530 optometrists
5,625 allied ophthalmic personnel

National eye health
No. countries reporting: 8
Coordinators: 9
Committees: 6

Data
No. countries reporting:
Prevalence surveys: 7
Service assessments: 1

Cataract surgeries: 394,238 annually

For further information and definitions visit https://www.iapb.org/learn/vision-atlas. Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
Prevalence of vision loss
Population: 136 million  Countries: 6

Vision loss by age

Children and adolescents (0-19) 2.4 million
Adults (20-49) 2.7 million
Older adults (50 and over) 5.8 million

Categories of vision loss
- Blindness: 0.3 million people (0.2M Female, 0.1M Male)
- Moderate to severe: 2.0 million people (1.1M Female, 1.0M Male)
- Mild: 3.8 million people (2.1M Female, 1.7M Male)
- Near: 4.7 million people (2.6M Female, 2.1M Male)

The number of people with vision loss is growing

<table>
<thead>
<tr>
<th>Year</th>
<th>Blindness</th>
<th>Moderate to Severe</th>
<th>Mild</th>
<th>Near</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>2.6 million</td>
<td>2.2 million</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2020</td>
<td>5.9 million</td>
<td>4.9 million</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2050</td>
<td>15.5 million</td>
<td>12.8 million</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Top five causes of blindness and moderate to severe vision loss

- Uncorrected refractive error: 1.2M
- Cataract: 170,600
- Glaucoma: 53,900
- Age-related macular degeneration: 12,200
- Diabetic retinopathy: 9,700

Eye care service indicators

- Human resources:
  - Ophthalmologists: 152
  - Optometrists: 114
  - Allied ophthalmic personnel: 486

- National eye health:
  - No. countries reporting:
    - Coordinators: 4
    - Committees: -
    - Plans: 1
  - Data:
    - No. countries reporting:
      - Prevalence surveys: 2
      - Service assessments: -

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
### Prevalence of vision loss
Population: 1,489 million  Countries: 3

### Vision loss by age
- **Children and adolescents (0-19)**: 10.7 million
- **Adults (20-49)**: 40.0 million
- **Older adults (50 and over)**: 236.1 million

### Categories of vision loss
- **Blindness**: 9.1 million people (5.0M Female, 4.1M Male)
- **Moderate to severe**: 53.9 million people (30.8M Female, 23.1M Male)
- **Mild**: 60.1 million people (34.1M Female, 26.0M Male)
- **Near**: 163.6 million people (89.6M Female, 74.0M Male)

### The number of people with vision loss is growing

<table>
<thead>
<tr>
<th>Year</th>
<th>Blind</th>
<th>Moderate to Severe</th>
<th>Mild</th>
<th>Near</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>73.1M</td>
<td>286.7M</td>
<td>1.4M</td>
<td>133.1M</td>
</tr>
<tr>
<td>2020</td>
<td>159.5M</td>
<td>286.7M</td>
<td>1.2M</td>
<td>286.7M</td>
</tr>
<tr>
<td>2050</td>
<td>204.3M</td>
<td>353.5M</td>
<td>1.2M</td>
<td>353.5M</td>
</tr>
</tbody>
</table>

### Top five causes of blindness and moderate to severe vision loss
- **Uncorrected refractive error**: 28.9M
- **Cataract**: 19.5M
- **Age-related macular degeneration**: 2.8M
- **Glaucoma**: 1.4M
- **Diabetic retinopathy**: 1.2M

### Eye care service indicators

- **Human resources**
  - ophthalmologists: 39,071
  - optometrists: 2,100
  - allied ophthalmic personnel: 52,500

- **National eye health**
  - Coordinators: 1
  - Committees: 1
  - Plans: 1

- **Data**
  - No. countries reporting: 3
  - Prevalence surveys: 3
  - Service assessments: -

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
Prevalence of vision loss
Population: 209 million  Countries: 7

Vision loss by age

Children and adolescents (0-19) 1.3 million
Adults (20-49) 4.8 million
Older adults (50 and over) 37.2 million

Categories of vision loss

- 0.8 million people (0.5M Female 0.3M Male) Blindness
- 11.1 million people (7.3M Female 3.8M Male) Moderate to severe
- 5.3 million people (3.3M Female 2.0M Male) Mild
- 26.0 million people (16.9M Female 9.2M Male) Near

The number of people with vision loss is growing

1990 2020 2050

- 22.8 million 27.9 million 28.3 million Blindness
- 11.7 million 15.3 million 16.3 million

Top five causes of blindness and moderate to severe vision loss

- Uncorrected refractive error: 6.0M
- Cataract: 1.8M
- Glaucoma: 0.2M
- Age-related macular degeneration: 0.1M
- Diabetic retinopathy: 0.1M

Eye care service indicators

- Human resources:
  - 18,295 ophthalmologists
  - 3,257 optometrists
  - Allied ophthalmic personnel
- National eye health:
  - No. countries reporting: 1
  - Coordinators: 1
  - Committees: 1
  - Plans: -
- Data:
  - No. countries reporting: 3
  - Prevalence surveys: -
  - Service assessments: -
- Cataract surgeries: 78,998 annually

For further information and definitions visit https://www.iapb.org/learn/vision-atlas. Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
Prevalence of vision loss
Population: 428 million  Countries: 15

Vision loss by age
- Children and adolescents (0-19): 7.3 million
- Adults (20-49): 10.1 million
- Older adults (50 and over): 20.3 million

Categories of vision loss
- 2.0 million people: Blindness
  - 0.9M Female
  - 0.9M Male
- 7.0 million people: Moderate to severe
  - 3.2M Female
  - 3.8M Male
- 11.3 million people: Mild
  - 5.2M Female
  - 6.1M Male
- 17.3 million people: Near
  - 7.9M Female
  - 9.4M Male

The number of people with vision loss is growing
- 18.3 million in 1990:
  - 9.7 million Female
  - 8.6 million Male
- 37.6 million in 2020:
  - 20.3 million Female
  - 17.2 million Male
- 95.8 million in 2050:
  - 53.5 million Female
  - 42.3 million Male

Top five causes of blindness and moderate to severe vision loss
- Uncorrected refractive error: 3.2M
- Cataract: 2.3M
- Glaucoma: 0.3M
- Age-related macular degeneration: 0.2M
- Diabetic retinopathy: 0.1M

Eye care service indicators
- Human resources:
  - 532 ophthalmologists
  - 1,466 optometrists
  - 2,992 allied ophthalmic personnel
- National eye health:
  - No. countries reporting: 13
  - Coordinators: 8
  - Committees: 9
- Data:
  - No. countries reporting: 12
  - Prevalence surveys: 12
  - Service assessments: 4
- Cataract surgeries: 189,605 annually

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.

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Prevalence of vision loss
Population: 184 million  Countries: 4

Vision loss by age
- Children and adolescents (0-19): 1.2 million
- Adults (20-49): 2.5 million
- Older adults (50 and over): 14.0 million

Categories of vision loss
- Blindness: 0.5 million (0.3M Female, 0.2M Male)
- Moderate to severe: 5.3 million (2.0M Female, 3.3M Male)
- Mild: 9.8 million (5.8M Female, 4.0M Male)
- Near: 2.0 million (1.2M Female, 0.8M Male)

The number of people with vision loss is growing
- 1990: 10.6 million (6.0M Female, 4.7M Male)
- 2020: 17.7 million (10.2M Female, 7.4M Male)
- 2050: 24.9 million (13.0M Female, 11.9M Male)

Top five causes of blindness and moderate to severe vision loss
- Uncorrected refractive error: 2.8M
- Cataract: 1.6M
- Glaucoma: 0.3M
- Age-related macular degeneration: 0.1M
- Diabetic retinopathy: 0.1M

Eye care service indicators
- Human resources
  - 18,119 ophthalmologists
  - 47,466 optometrists
  - 12,416 allied ophthalmic personnel
- National eye health
  - No. countries reporting: -
  - Coordinators: -
  - Committees: 1
  - Plans: -
- Data
  - No. countries reporting:
    - Prevalence surveys: 3
    - Service assessments: 1
- Cataract surgeries: 1,310,520 annually

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.

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Prevalence of vision loss
Population: **369 million**  Countries: **3**

**Vision loss by age**

- **Children and adolescents (0-19)**: 1.9 million
- **Adults (20-49)**: 3.1 million
- **Older adults (50 and over)**: 13.2 million

**Categories of vision loss**

- **Blindness**: 0.7 million people
  - 0.4M Female
  - 0.3M Male

- **Moderate to severe**: 7.4 million people
  - 4.2M Female
  - 3.2M Male

- **Mild**: 5.1 million people
  - 2.8M Female
  - 2.3M Male

- **Near**: 4.9 million people
  - 2.5M Female
  - 2.4M Male

The number of people with vision loss is growing

- **1990**: 11.7 million
  - 6.6 million Female
  - 5.1 million Male

- **2020**: 18.2 million
  - 10.0 million Female
  - 8.3 million Male

- **2050**: 28.8 million
  - 16.0 million Female
  - 12.8 million Male

**Top five causes of blindness and moderate to severe vision loss**

- Uncorrected refractive error: 4.2M
- Cataract: 1.9M
- Glaucoma: 0.3M
- Diabetic retinopathy: 0.2M
- Age-related macular degeneration: 0.2M

**Eye care service indicators**

- **Human resources**
  - 18,821 ophthalmologists
  - 42,600 optometrists
  - 50,000 allied ophthalmic personnel

- **National eye health**
  - No. countries reporting: -
  - Coordinators: -
  - Committees: -
  - Plans: -
  - Prevalence surveys: 1
  - Service assessments: -

- **Data**
  - No. countries reporting: -

- **Cataract surgeries**
  - - annually

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
Prevalence of vision loss
Population: 621 million  Countries: 21

Vision loss by age

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Population (0-19)</th>
<th>Population (20-49)</th>
<th>Population (50 and over)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children and adolescents</td>
<td>8.6 million</td>
<td>12.7 million</td>
<td>32.6 million</td>
<td></td>
</tr>
<tr>
<td>Adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Categories of vision loss

- **Blindness**: 3.1 million people (1.6M Female 1.5M Male)
- **Moderate to severe**: 21.8 million people (11.3M Female 10.6M Male)
- **Mild**: 14.4 million people (7.4M Female 7.1M Male)
- **Near**: 14.5 million people (7.5M Female 6.9M Male)

The number of people with vision loss is growing

- **1990**: 26.6 million people (13.7 million Female 12.9 million Male)
- **2020**: 53.8 million people (27.8 million Female 26.0 million Male)
- **2050**: 116.1 million people (61.6 million Female 54.5 million Male)

Top five causes of blindness and moderate to severe vision loss

<table>
<thead>
<tr>
<th>Cause</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncorrected refractive error</td>
<td>13.0M</td>
</tr>
<tr>
<td>Cataract</td>
<td>6.2M</td>
</tr>
<tr>
<td>Glaucoma</td>
<td>0.8M</td>
</tr>
<tr>
<td>Age-related macular degeneration</td>
<td>0.7M</td>
</tr>
<tr>
<td>Diabetic retinopathy</td>
<td>0.5M</td>
</tr>
</tbody>
</table>

Eye care service indicators

<table>
<thead>
<tr>
<th>Human resources</th>
<th>National eye health</th>
<th>Data</th>
<th>Cataract surgeries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ophthalmologists: 21,236</td>
<td>No. countries reporting:</td>
<td>No. countries reporting:</td>
<td>491,706 annually</td>
</tr>
<tr>
<td>Optometrists: 9,527</td>
<td>Coordinators: 13</td>
<td>Prevalence surveys: 15</td>
<td></td>
</tr>
<tr>
<td>Allied ophthalmic personnel: 30,505</td>
<td>Committees: 7</td>
<td>Service assessments: 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plans: 12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.

The Vision Atlas is a free knowledge resource for eye health thanks to the support from Allergan an AbbVie company, Bayer, Seva Foundation, Sightsavers, CBM and The Fred Hollows Foundation.
Oceania
GBD Region snapshot

Prevalence of vision loss
Population: 12 million  Countries: 18

Categories of vision loss
Blindness
39,000
21,000 Female  18,000 Male

Moderate to severe
385,000
191,000 Female  194,000 Male

Mild
376,000
197,000 Female  180,000 Male

Near
403,000
210,000 Female  193,000 Male

The number of people with vision loss is growing

1990
563,000
Female  288,000  Male  275,000

2020
1.2 million
Female  619,000  Male  585,000

2050
2.4 million
Female  1.3 million  Male  1.1 million

Top five causes of blindness and moderate to severe vision loss
Uncorrected refractive error
244,000
Cataract
134,000
Diabetic retinopathy
6,000
Glaucoma
4,500
Age-related macular degeneration
1,800

Eye care service indicators
Human resources
35  ophthalmologists
39  optometrists
236  allied ophthalmic personnel

National eye health
No. countries reporting:
Coordinators:  5
Committees:  4
Plans:  2

Data
No. countries reporting:
Prevalence surveys:  6
Service assessments:  3

Cataract surgeries
- annually

For further information and definitions visit https://www.iapb.org/learn/vision-atlas. Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
**Prevalence of vision loss**
Population: 1,795 million  Countries: 5

<table>
<thead>
<tr>
<th>Category</th>
<th>Male (Million)</th>
<th>Female (Million)</th>
<th>Total (Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blindness</td>
<td>6.5</td>
<td>5.6</td>
<td>12.1</td>
</tr>
<tr>
<td>Moderate to severe vision loss</td>
<td>44.9</td>
<td>51.4</td>
<td>96.2</td>
</tr>
<tr>
<td>Mild vision loss</td>
<td>28.1</td>
<td>32.0</td>
<td>60.1</td>
</tr>
<tr>
<td>Near vision loss</td>
<td>78.3</td>
<td>88.5</td>
<td>166.8</td>
</tr>
</tbody>
</table>

The number of people with vision loss is growing

- **1990**: 162.8 million people
- **2020**: 335.1 million people
- **2050**: 518 million people

<table>
<thead>
<tr>
<th>Sex</th>
<th>1990 (Million)</th>
<th>2020 (Million)</th>
<th>2050 (Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>82.8</td>
<td>178.2</td>
<td>276.8</td>
</tr>
<tr>
<td>Male</td>
<td>80.0</td>
<td>156.9</td>
<td>241.2</td>
</tr>
</tbody>
</table>

**Top five causes of blindness and moderate to severe vision loss**

- Uncorrected refractive error: 55.4M
- Cataract: 35.1M
- Glaucoma: 1.5M
- Age-related macular degeneration: 1.5M
- Diabetic retinopathy: 0.6M

**Eye care service indicators**

- **Human resources**
  - Ophthalmologists: 26,248
  - Optometrists: 57,738
  - Allied ophthalmic personnel: 44,589
- **National eye health**
  - No. countries reporting: 5
  - Coordinators: 5
  - Committees: 4
  - Plans: 5
- **Data**
  - No. countries reporting:
    - Prevalence surveys: 5
    - Service assessments: 4
- **Cataract surgeries**
  - 500,000 annually

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
Prevalence of vision loss
Population: 686 million Countries: 13

Vision loss by age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Blindness</th>
<th>Moderate to Severe</th>
<th>Mild</th>
<th>Near</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children (0-19)</td>
<td>12.0 million</td>
<td>16.9 million</td>
<td>65.8 million</td>
<td></td>
</tr>
<tr>
<td>Adults (20-49)</td>
<td>23.8 million</td>
<td>30.5 million</td>
<td>29.5 million</td>
<td></td>
</tr>
<tr>
<td>Older adults (50 and over)</td>
<td>28.5 million</td>
<td>37.2 million</td>
<td>19.1 million</td>
<td></td>
</tr>
</tbody>
</table>

The number of people with vision loss is growing

<table>
<thead>
<tr>
<th>Year</th>
<th>Blindness</th>
<th>Moderate to Severe</th>
<th>Mild</th>
<th>Near</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>28.5 million</td>
<td>53.0 million</td>
<td>12.0 million</td>
<td>92.3 million</td>
</tr>
<tr>
<td>2020</td>
<td>53.0 million</td>
<td>100.8 million</td>
<td>12.5 million</td>
<td>215.1 million</td>
</tr>
<tr>
<td>2050</td>
<td>92.3 million</td>
<td>185.1 million</td>
<td>12.5 million</td>
<td>307.9 million</td>
</tr>
</tbody>
</table>

Top five causes of blindness and moderate to severe vision loss

<table>
<thead>
<tr>
<th>Condition</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cataract</td>
<td>15.0M</td>
</tr>
<tr>
<td>Uncorrected refractive error</td>
<td>12.0M</td>
</tr>
<tr>
<td>Age-related macular degeneration</td>
<td>0.5M</td>
</tr>
<tr>
<td>Glaucoma</td>
<td>0.5M</td>
</tr>
<tr>
<td>Diabetic retinopathy</td>
<td>0.4M</td>
</tr>
</tbody>
</table>

Eye care service indicators

<table>
<thead>
<tr>
<th>Category</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resources</td>
<td>6,728 ophthalmologists, 17,510 optometrists, 7,559 allied ophthalmic personnel</td>
</tr>
<tr>
<td>National eye health</td>
<td>No. countries reporting: 12 Committees: 9 Plans: 9</td>
</tr>
<tr>
<td>Data</td>
<td>No. countries reporting: Prevalence surveys: 11 Service assessments: 10</td>
</tr>
<tr>
<td>Cataract surgeries</td>
<td>445,449 annually</td>
</tr>
</tbody>
</table>

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Prevalence of vision loss
Population: 68 million  Countries: 3

Categories of vision loss
Blindness
- 0.2 million people 0.1M Female 0.1M Male

Moderate to severe
- 2.1 million people 1.2M Female 0.9M Male

Mild
- 1.3 million people 0.7M Female 0.6M Male

Near
- 0.5 million people 0.3M Female 0.2M Male

The number of people with vision loss is growing
1990
- 1.4 million Female 1.2 million Male

2020
- 2.3 million Female 1.8 million Male

2050
- 3.9 million Female 3.0 million Male

Uncorrected refractive error 1.3M
Cataract 471,400
Glaucoma 57,300
Diabetic retinopathy 42,000
Age-related macular degeneration 27,500

Top five causes of blindness and moderate to severe vision loss

Eye care service indicators
Human resources
- 5,613 ophthalmologists
- 1,215 optometrists
- 1,618 allied ophthalmic personnel

National eye health
No. countries reporting:
- Coordinators: 3
- Committees: 3
- Plans:

Data
No. countries reporting:
- Prevalence surveys: 3
- Service assessments: -

Cataract surgeries 333,724 annually

For further information and definitions visit https://www.iapb.org/learn/vision-atlas. Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
Prevalence of vision loss
Population: 82 million  Countries: 6

Vision loss by age

- **Children and adolescents (0-19)**: 1.1 million
- **Adults (20-49)**: 4.0 million
- **Older adults (50 and over)**: 9.1 million

The number of people with vision loss is growing

- **1990**: 7.1 million
  - **Female**: 4.0 million
  - **Male**: 3.1 million
- **2020**: 14.1 million
  - **Female**: 8.1 million
  - **Male**: 6.0 million
- **2050**: 19.3 million
  - **Female**: 11.1 million
  - **Male**: 8.2 million

Top five causes of blindness and moderate to severe vision loss

- **Uncorrected refractive error**: 1.0M
- **Cataract**: 455,000
- **Glucoma**: 89,400
- **Age-related macular degeneration**: 23,700
- **Diabetic retinopathy**: 39,100

Eye care service indicators

- **Human resources**
  - Ophthalmologists: 336
  - Optometrists: 4,038
  - Allied ophthalmic personnel: 419
- **National eye health**
  - No. countries reporting: 4
  - Coordinators: 4
  - Committees: 2
  - Plans: 5
- **Data**
  - No. countries reporting: 3
  - Prevalence surveys: 3
  - Service assessments: 1
- **Cataract surgeries**
  - 57,287 annually

For further information and definitions visit [https://www.iapb.org/learn/vision-atlas](https://www.iapb.org/learn/vision-atlas). Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
Prevalence of vision loss
Population: 220 million  Countries: 2

Vision loss by age
- Older adults (50 and over): 20.4 million
- Adults (20-49): 6.4 million
- Children and adolescents (0-19): 2.7 million

Categories of vision loss
- Blindness: 1.8 million people (0.8M Female, 1.0M Male)
- Moderate to severe: 10.3 million people (5.7M Female, 4.6M Male)
- Mild: 8.5 million people (4.7M Female, 3.7M Male)
- Near: 8.8 million people (4.9M Female, 4.0M Male)

The number of people with vision loss is growing
- 1990: 14.6 million (7.9 million Female, 6.7 million Male)
- 2020: 29.4 million (16.3 million Female, 13.1 million Male)
- 2050: 57.5 million (32.6 million Female, 24.9 million Male)

Top five causes of blindness and moderate to severe vision loss
- Uncorrected refractive error: 6.6M
- Cataract: 2.3M
- Glaucoma: 0.4M
- Diabetic retinopathy: 0.4M
- Age-related macular degeneration: 0.2M

Eye care service indicators
- Human resources: 14,216 ophthalmologists, 3,500 optometrists, 432 allied ophthalmic personnel
- National eye health: No. countries reporting: 2, Coordinators: 2, Committees: 2, Plans: 1
- Data: No. countries reporting: Prevalence surveys: 2, Service assessments: -
- Cataract surgeries: 654,032 annually

For further information and definitions visit https://www.iapb.org/learn/vision-atlas. Data from VLEG/GBD 2020 model, via the IAPB Vision Atlas.
### Prevalence of vision loss

Population: **434 million**  
Countries: **24**

### Vision loss by age

- **Children and adolescents (0-19)**: 2.6 million
- **Adults (20-49)**: 5.2 million
- **Older adults (50 and over)**: 24.6 million

### Categories of vision loss

<table>
<thead>
<tr>
<th>Loss Type</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blindness</td>
<td>1.5M</td>
<td>0.9M</td>
<td>2.4M</td>
</tr>
<tr>
<td>Moderate to severe</td>
<td>15.4M</td>
<td>8.7M</td>
<td>24.1M</td>
</tr>
<tr>
<td>Mild</td>
<td>10.9M</td>
<td>6.3M</td>
<td>17.2M</td>
</tr>
<tr>
<td>Near</td>
<td>4.5M</td>
<td>2.6M</td>
<td>7.1M</td>
</tr>
</tbody>
</table>

### The number of people with vision loss is growing

- **1990**: 23.7 million
  - Male: 9.9 million  
  - Female: 13.8 million
- **2020**: 32.4 million
  - Male: 13.8 million  
  - Female: 18.5 million
- **2050**: 49.7 million
  - Male: 22.5 million  
  - Female: 27.1 million

### Top five causes of blindness and moderate to severe vision loss

<table>
<thead>
<tr>
<th>Cause</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncorrected refractive error</td>
<td>8.5M</td>
<td></td>
<td>8.5M</td>
</tr>
<tr>
<td>Cataract</td>
<td>4.5M</td>
<td></td>
<td>4.5M</td>
</tr>
<tr>
<td>Age-related macular degeneration</td>
<td>1.0M</td>
<td></td>
<td>1.0M</td>
</tr>
<tr>
<td>Glaucoma</td>
<td>0.7M</td>
<td></td>
<td>0.7M</td>
</tr>
<tr>
<td>Diabetic retinopathy</td>
<td>0.2M</td>
<td></td>
<td>0.2M</td>
</tr>
</tbody>
</table>

### Eye care service indicators

<table>
<thead>
<tr>
<th>Human resources</th>
<th>National eye health</th>
<th>Data</th>
<th>Cataract surgeries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ophthalmologists</td>
<td>Coordinators: -</td>
<td>No. countries reporting: 13</td>
<td>4,222,850 annually</td>
</tr>
<tr>
<td>Optometrists</td>
<td>Committees: -</td>
<td>Prevalence surveys: -</td>
<td></td>
</tr>
<tr>
<td>Allied ophthalmic personnel</td>
<td>Plans: 2</td>
<td>Service assessments: -</td>
<td></td>
</tr>
</tbody>
</table>

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Prevalence of vision loss
Population: 445 million  Countries: 19

The number of people with vision loss is growing

Top five causes of blindness and moderate to severe vision loss

Eye care service indicators

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