India Fact Sheet

Country Overview

» Shares borders with six countries: China, Bangladesh, Burma, Nepal, Bhutan and Pakistan.
» Population of 1.42 billion, India is close behind China as of 2020 as the worlds most populous nation.
» 3.1 million square kilometers in size
» 2020 Human Development Index Ranking: 131 of 189 countries

Scope of Eye Care Needs*

» 0.64% of India’s population is blind compared to 0.19% in the United States.
» 5.55% of the population have moderate severe visual impairment (MSVI) compared to 2.02% in the United States.
» IAPB estimates 270M people with Vision loss in India, one of the highest in the world among all countries.

Nationwide Eye Care Response

» India CSR 5,050 (needed 8K – 8.7K to eliminate blindness), as compared to Median global CSR 1,747 (Range of 633 to 2,450).
» 13 Ophthalmologists per million people.
» 39.1 Optometrists per million people.
» 29 Allied Ophthalmic Personnel per million people.

*Unless otherwise noted, all country sight statistics from IAPB Vision Atlas: http://atlas.iapb.org/global-action-plan/gap-indicators/
**Context**

India has an extraordinarily diverse terrain, from the Himalayan peaks to the Indian Ocean coastline. With a population of over 1.4 billion, it’s the world’s largest democracy and as of 2020 close behind China as the world’s most populous nation. While wealth has been rising in India, not everyone has shared in this growth.

The country continues to tackle huge social, economic and environmental challenges while poverty remains an issue, reflected in the fact that 73% of the adult population has wealth below 10,000 USD, whereas average wealth per adult in North America is $446,638 USD. Property and other real assets make up 86% of estimated household wealth in India, which is typical for developing countries. Property and other real assets make up 86% of estimated household wealth in India, which is typical for developing countries. The human development index’s most recent measurement for India’s Gross national income (GNI) per capita (constant 2017 PPP$) in 2019 was $6,681. Compared to the US’s GNI of $63,826 from that same year, this is quite a significant disparity.

India became an independent state in 1947, after gaining its sovereignty from the United Kingdom, though the country’s history reaches back 5 millennia. Home to some of the world’s most ancient surviving civilizations, the Indian subcontinent is both vast and diverse in terms of its people, language and cultural traditions. According to the 2011 census (which is the most recent for the country), 79.8% of the population of India practices Hinduism and 14.2% observe Islam, while the remaining 6% adheres to other religions (Christianity, Sikhism, Buddhism, Jainism and various indigenous ethnically-bound faiths). Christianity is the 3rd largest religion in India.

In 2020 in India, there were an estimated 270 million people with vision loss. Nearly 0.64% of India’s total population, or over 9 million people, is blind. By assessing India’s Burden of Blindness, we are able to reveal just how severely blindness or moderate to severe visual impairment (MSVI) imposes a challenge to this population.

**Seva’s Approach in India**

Seva started working in India in 1978 and has been consistently invested in the development of eye care service strategies, research, and resource institutions in the last four decades. At present, Seva works with more than 60 hospital partners and 6 mentor institutions including Aravind Eye Care System, Dr. Shroff’s Charity Eye Hospital, HV Desai Eye Hospital, L V Prasad Eye Institute, Sadguru Netra Chikitsalaya and Vivekananda Mission Ashram Netra Niramay Niketan serving across 15 Indian states and 2 union territories. In the last five years (2016 to 2019), apart from investment in capacity building of more than 60 partner hospitals and supporting more than 50 vision centers across the country, Seva’s partner in the country has provided services to more than 10 million patients, completed 1.17 million surgeries and screened more than 450,000 children. Seva’s investments have resulted in the direct training of thousands of clinical and non-clinical personal along with the development of institutional training and research capabilities in select partners across the country.

Seva’s approach to addressing eye health needs in India prioritize three key strategies: **Access** to universal eye care, building **Capacity** of personnel and infrastructure as well as **Evidence**-based interventions and advocacy. These primary strategies are otherwise referred to as ACE, thoughtfully incorporated into all Seva partnership programs from delivery to post-care assessment.

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Seva supports primary eye care services through the establishment of vision centers (VCs) and funding direct care at key partner hospitals throughout the country. Services include adult outpatient care, pediatric services and eye screening camps. Pediatric services support school screenings, teacher trainings, glasses and surgical services, and health education of parents, students and teachers. Community outreach activities include screenings and door-to-door visits in remote communities as well as distribution of educational materials and radio announcements.

Seva’s commitment to improve access to eye care through innovative technology has resulted the exploration and development of technical interventions such as:

1) Artificial intelligence assisted Retinopathy of Prematurity (ROP) screenings on multiple lower-cost camera system
2) Development of cloud-based, mobile application for remote monitoring of clinical quality and referral from VCs to hospitals
3) Developing a smart phone-based system to diagnose corneal disease, prescribe treatment, and help prevent it in some patients through Seva partners in India.

Modern technology for patient care is vital in supporting up to date practices implemented locally. By purchasing clinical equipment for partner hospitals as well as supporting the implementation of tele-ophthalmology within VCs and base hospitals, Seva and our partners ensure an increase in availability of quality services for all of India. With the establishment of tele-ophthalmology services, Seva-supported VCs can get a second opinion from doctors based at referral tertiary eye hospitals. Tele-ophthalmology will thus improve quality of care and improve referral by limiting unnecessary travel and crowding at the clinics providing specialized services — only patients who require surgery or specialized care will need to go to the hospital.

By focusing on smart solutions and building partners capacity in Evidence based decision making with the support of data dashboard, Hospital Management Systems and training — which includes Eyexcel, fellowships, joint learning events and conferences — as well as tracking data collection and evaluations, hospitals and local communities alike are more equipped to build out their capacity and more effectively serve their populations. Seva with our partners, provide trainings for local doctors in ophthalmology residencies and short-term clinical advancement, allied ophthalmic personnel, as well as teachers for school screenings. Attending professional conferences and meetings allows our partners to share program findings with a broader community of specialists.

SPOTLIGHT ON VISION CENTERS

Seva’s partnership with India’s Aravind Eye Hospital is one of the oldest and most productive in our history. In 2020, Aravind hit a huge milestone: they opened their 100th eye care facility! About 90 of these are vision centers.

Located in Eral, in the far southern Indian state of Tamil Nadu, the clinic opened in September to great fanfare. Thiru A.R.K.A. Karuthapandiya Nadar, who is a trustee at the historic Sri Arunachala Swamy Temple, officially cut the ribbon, in the presence of Dr. R. Ramakrishnan, Advisor, and Dr. R. Meenakshi, Chief Medical Officer, Aravind Eye Hospital, Tirunelveli. A host of local dignitaries, medical professionals, and well-wishers attended, including Mr. Dasaratha Pandian (Head – Merchants Association), Mr. Bakkar Ali (Head – Muslim Commerce Association), Mr. Alaru Pillai (local businessman), and Dr. Morton Thomas (ophthalmologist). On the inaugural day, the center examined 54 patients.
## Impact of COVID-19 in India

COVID-19 cases continue to increase across the country. The pandemic has created huge uncertainty and increasing cases in rural areas are adding to the uncertainty. Despite this, the number of patients visiting Seva’s partner eye clinics are increasing from the initial pause in March and April. Partner hospital patient levels are at 50% or around that from pre-COVID era. Outreach to remote communities remains limited. Vision centers continue to be a focus and some outreach staff are deployed for door to door screening by select partners at a limited level depending on safety measures and local impact of pandemic. Seva and partners continue to strengthen the VCs and there is a renewed focus towards tele-ophthalmology. This year, Seva provided essential protective equipment and other support to partner hospitals.

### Impact (FY 2020-2021)*

<table>
<thead>
<tr>
<th>People receiving services</th>
<th>Cataract surgeries performed</th>
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<tbody>
<tr>
<td>1,647,521</td>
<td>297,957</td>
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<table>
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<tr>
<th>Children screened</th>
<th>Children receiving surgery</th>
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<tbody>
<tr>
<td>33,011</td>
<td>156</td>
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<table>
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<tr>
<th>Children receiving glasses</th>
<th>New VCs funded through Seva</th>
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<tr>
<td>1,208</td>
<td>21</td>
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<tr>
<th>People who now have access to care</th>
<th>People receiving services at VCs</th>
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<tbody>
<tr>
<td>2,116,000</td>
<td>52,043</td>
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<tr>
<th>Doctors trained</th>
<th>Eyexcels and 6 Webinars</th>
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<tbody>
<tr>
<td>26</td>
<td>2</td>
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<tr>
<th>Hospitals participating in Eyexcel</th>
<th>People participating in Eyexcel</th>
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<tbody>
<tr>
<td>21</td>
<td>76</td>
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<table>
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<tr>
<th>AOPS trained</th>
<th>Administrators trained</th>
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<tbody>
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<td>64</td>
<td>30</td>
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### EYE CARE PERSONNEL

- **Ophthalmologists per million people**: 13
- **Optometrists per million people**: 39.1
- **Ophthalmic personnel per million people**: 29

\[ \text{People} = 10 \text{ million people} \]

### Resources

- **Seva in India**
- **The Economic and Social Cost of Visual Impairment and Blindness in India**
- **Primary eye care in India - The vision center model**

*Numbers based on reports received.*