

Visual disability & Blindness- Worthiness for Social Security.

Sunil Kumar Mishra
Research Scholar,
Pacific Academy of Higher Education and
Research University, Udaipur,
Co Author
Dr. MANISH SHRIMALI
Assistant Professor
Pacific Academy of Higher Education and
Research University, Udaipur.

Abstract

Vision is said to be the most significant sense among every single human sense in a manner that approximately 80 percent of impressions are gotten by our sight. It causes us to distinguish light from dimness, shields us from threat, and guarantees our investment in daily communication, exercises, sports, work, just as instruction. It might be hard for the vast majority of us to envision how a visually impaired person manages to live in a society where most models and offices are built up for located individuals. In like manner, it can be hard for located individuals to consider how a visually impaired student manage to study in a study hall that is all around furnished with visual learning materials. Blind individuals experience troubles at three unique levels including physical, medical limitations, ecological impediments and they required additional help for their everyday exercises. In spite of specific sorts of arrangement and backing from the administration, NGOs and schools, including aide hounds, long sticks, PCs, sound programmes, training on PC abilities and somebody to-one educating segments. In any case, the difficulties of the practices would in general originate from three distinct levels. At the individual level, the witnesses encountered an absence of preparing and backing on direction and mobility. At the educators level, there was absence of instructor preparing and the instructors had little information and aptitudes to help daze understudies in schools. At the basic leadership level, the informants encountered a few jumbles between what they real required and the provision and bolster that being given. At arrangement making level, interest of visually impaired individuals in basic leadership is significant, their voice ought to be heard. The guardians ought to realize what sort of troubles their youngster with visual impairment experience. So they will comprehend when they ought to give assistance and support them understudy.

Watchwords: Blindness, physical, restorative confinements, natural constraints

Introduction

The term visual deficiency is utilized for complete or about complete vision misfortune. Visual hindrance, otherwise called vision disability or vision misfortune, is a diminished capacity to see to a degree that causes issues not fixable by regular methods, for example, glasses. Some likewise incorporate the individuals who have a diminished capacity to see since they don't approach glasses or contact lenses. Visual weakness may cause individuals challenges with typical every day exercises, for example, driving, perusing, mingling, and walking. The most normal reasons for visual deficiency all around are uncorrected refractive (43%), waterfalls (33%), and glaucoma (2%). Refractive blunders incorporate myopic, presbyopia, and astigmatism.

Cataracts are the most well-known reason for visual impairment. Different issue that may cause visual issues incorporate age related macular degeneration, diabetic retinopathy, corneal obfuscating, youth visual deficiency, and various disease. Visual impairment or visual weakness can likewise be brought about by issues in the cerebrum because of stroke, untimely birth, or injury among others. These cases are known as cortical visual impedence. Screening for vision issues in kids may improve future vision and instructive accomplishment. Screening grown-ups without indications is of unsure advantage. The WHO gauges that 80% of visual debilitation is either preventable or reparable with treatment. This incorporates Cataracts, the contaminations waterway visual impairment and trachoma, glaucoma, diabetic retinopathy, uncorrected refractive blunders, and a few instances of youth visual impairment. Numerous individuals with critical visual weakness profit by vision restoration, changes in their condition, and assistive devices. As of 2018 there were 940 million individuals with some level of vision misfortune. 246 million had low vision and 39 million were visually impaired. The majority of people with poor vision are in the developing world and are over the age of 50 years. Rates of visual debilitation have diminished since the 1990s. Visual weaknesses and visual impairment have extensive monetary costs both legitimately because of the expense of treatment and in a roundabout way because of diminished capacity to work. About 90% of individuals who are outwardly hindered and are visually impaired live in the creating scene. Incapacities like visual deficiency can be by birth or because of some disastrous occurrence throughout everyday life. Encouraging their lives is a significant worry of government just as that of society. In the expressions of Stephen Hawking Disability is characterized as, "Individuals with incapacities are defenceless a direct result of the numerous boundaries, for example, attitudinal, physical, and budgetary. Tending to these hindrances is inside our scope and we have an ethical obligation to do as such, however most significant, tending to these obstructions will open the capability of such a large number of individuals with such a great amount to add to the world. Governments wherever can never again disregard the a huge number of individuals with inabilities who are denied access to wellbeing, recovery, backing, training, and business—and never find the opportunity to sparkle. Ladies, men and youngsters with visual deficiency are over and over again among the most underestimated in all social orders and face novel difficulties in the pleasure in their human rights. For quite a while it was expected that such blindness is regular and unavoidable result of their physical, mental, scholarly or tactile disability. The reception and the passage into power of the Convention on the Rights of Persons with Disabilities and its Optional Protocol challenge such dispositions and imprint a significant move in existing methodologies towards this inability. In the Convention, the spotlight is no longer on an apparent "unsoundness" of the individual, with the visual hindrance seen as an issue of lack or infection. Unexpectedly, the Convention sees inability as a "pathology of society", that is, as the consequence of the disappointment of social orders to be comprehensive and to oblige singular contrasts. Social orders need to change, not the individual, and the Convention gives a guide to such change. Human rights observing can assume a key job in supporting States to adequately actualize the Convention at national level and in enabling people with inabilities to turn out to be progressively mindful of their rights, along these lines achieving constructive change in the lives of people with visual handicaps crosswise over regions. Human rights work requires arrangement, specialized aptitudes and substantive information so as to be viably led.

People with handicaps have generally been undetectable in the human rights framework and have been neglected in human rights work. This is never again satisfactory.

UN Convention on Person with Disabilities

The UN Convention on individual with handicaps and its convention was received on 13 Dec 2006 at the United Nations Headquarters at New York. The show came as a result on 03 May 2008. The show is planned as a human rights instrument with an unequivocal, social improvement measurement. It receives a general categorisation of individual with disabilities and reaffirms that all individuals with all sorts of handicaps must appreciate every single human right and principal opportunity. It explains and qualifies how all kinds of rights apply to individual with handicaps and distinguishes where adjustment must be made for individual with incapacities to viably practice their rights and regions where their rights have been abused, and where the security of rights must be fortified. The reason for UN show on the privilege of individual with disabilities (UN CRPD) is to advance, protect and strengthen the privileges of all individual with handicaps.

Characterizing Disability

There is no all-inclusive meaning of what comprises a handicap or of who ought to be considered as having an incapacity. Besides, there is nobody static state of incapacity. An incapacity is an aftereffect of the association between an individual with a wellbeing condition and a specific natural setting. People with comparative wellbeing conditions may not be comparably handicapped or offer a similar impression of their incapacity, contingent upon their ecological adjustments. For instance, approaching specialized guides, administrations or drug, or physical adjustment to the earth may enable people to defeat their crippling conditions. Inability isn't a win big or bust marvel however includes degrees of trouble, restriction or reliance, extending from slight to serious. Inability is an advancing idea and that handicap results from connection between people with debilitations and attitudinal and ecological obstructions that ruins their full and effective support in the public arena on an equivalent premise with others. The unequivocal reference to the boundaries that are outer to the subject as comprising components of inability speaks to a significant advance away from thoughts that likened incapacity to the presence of practical confinements. People with incapacities incorporate the individuals who have long haul physical, mental, scholarly or tangible disabilities which in communication with different hindrances may block their full and effective interest in the public eye on an equivalent premise with others. From this point of view, people with disabilities investment in the public arena, be it having a vocation, going to class, visiting a specialist or running for races is constrained or avoided not due to their having an impedance, but since of different obstructions, which may incorporate physical hindrances. Questions ought to be intended to catch those with serious just as those with less extreme types of crippling conditions and should consider any assistive gadgets or lodging that the individual may have. Screens ought to see whether national enactment perceives that separation can happen in connection to mental, scholarly, tactile or physical impedances; joins the social model by alluding to handicap as the aftereffect of the cooperation between the individual with a weakness and outside boundaries; centres around the disallowance of segregation and the advancement of correspondence as opposed to on the order of different incapacities.

Characterizing Blindness

Visual deficiency: Loss of helpful sight. Visual impairment can be transitory or perpetual. Harm to any segment of the eye, the optic nerve, or the zone of the mind in charge of vision can prompt visual deficiency. There are various multitudinous reasons for visual deficiency. The current politically right terms for visual deficiency incorporate outwardly disabled and outwardly challenged. Legal visual impairment is definitely not a restorative term. The lawful meaning of blindness is characterized by administrators in countries or states so as far as possible suitable exercises, for example, driving, by people who are legitimately visually impaired or to give particular legislative advantages to those individuals as instructive administrations or money related help. Visual deficiency in one eye is never characterized as legitimate visual deficiency if the other eye is typical or close ordinary.

Reason for visual impairment

The numerous reasons for visual impairment vary as per the financial state of the country being examined. In created countries, the main sources of visual deficiency incorporate visual difficulties of diabetes, macular degeneration, glaucoma, and awful wounds. In underdeveloped countries where 90% of the universes outwardly disabled populace lives, the chief causes are diseases, waterfalls, glaucoma, damage, and powerlessness to get any glasses. In created countries, the term visual impairment isn't utilized to portray those individuals whose vision is correctable with glasses. Infectious causes in immature zones of the world incorporate trachoma onchocerciasis (waterway visual deficiency), and disease. The most well-known irresistible reason for visual impairment in created countries is herpes simplex. Different reasons for visual impairment incorporate nutrient an inadequacy, retinopathy of rashness, vein sicknesses including the retina or optic nerve including stroke, irresistible illnesses of the cornea or retina, visual fiery ailment, retinitis pigmentosa, essential or optional malignancies of the eye, inherent variations from the norm, innate infections of the eye, and compound harming from poisonous specialists, for example, methanol.

Challenges faced by Blind People

1. **Environmental Challenges:** People who are totally visually impaired or have weakened vision as a rule have a troublesome time exploring outside the spaces that they're familiar with. Truth be told, physical development is perhaps the greatest test for visually impaired individuals. Voyaging or only strolling down a packed road can be testing. Along these lines, numerous individuals with low vision will like to go with a located companion or relative when exploring new places. Also, dazzle individuals must retain the area of each obstruction or thing in their home condition. Items like beds, tables and seats must not be moved without notice to forestall mishaps. In the event that a visually impaired individual lives with others, every individual from the family unit must be determinedly about keeping walkways clear and all things in their assigned locations. Blind individuals can experience issues cooperating with their condition. Since it can wind up hard to see where one is and to get starting with one spot then onto the next, development can end up confined, prompting having little contact with the encompassing scene. While different faculties can be upgraded, this can be balanced by an inclination toward over-security.

2. **Social Challenges:** Blindness can cause critical social difficulties, normally in light of the fact that there are exercises wherein visually impaired individuals can only with significant effort take an interest. Much of the time, visual impairment impacts an individual's capacity to perform many employment capacities, which can confine their profession alternatives, as indicated by the WHO. This may unfavourably influence their funds, and their self-esteem. Blindness may likewise cause challenges when taking an interest in exercises outside of the work environment, for example, sports and recreational exercises. This can confine the visually impaired individual's capacity to associate and meet new individuals, influencing their passionate health. Blind individuals are frequently limited in their capacity to connect socially. There can be a worry or ungainliness with respect to located individuals when managing the visually impaired, which can prompt trouble for the visually impaired in creating connections. Accordingly, they are regularly consigned to explicit jobs in the public arena and are typically held to bring down principles and desires. As indicated by Carrie Gilmer, leader of Minnesota Parents of Blind Children, her 15-year-old outwardly debilitated child Jordan has consistently been treated by his school with brought down desires, regardless of the way that Jordan was a distinctions understudy. At a certain point, school authorities denied him from learning a nonvisual method of carpentry.

3. **Technological Challenges:** Blindness can make it hard to utilize the web for research, diversion, web based life and shopping. For model, somebody who is visually impaired can't legitimately peruse the data on a website page. Absolute visual deficiency can make it important to depend on screen perusing programming to have the data perused as sound. This can make surfing the web a moderate and awkward procedure. Rather than seeing an image, somebody who is visually impaired must depend on a portrayal of what the image shows. Even the individuals who, in spite of the fact that not totally visually impaired, have very poor vision, may experience issues with little textual styles, translating symbols and seeing the hues utilized by numerous locales. Individuals who have poor vision will commonly require unique gear or programming that can expand screen pictures, so they're simpler to see. The little touch screens of numerous tablets and cell phones might be especially trouble for the outwardly weakened, on the grounds that their little size breaking points how enormous a picture can be amplified.

4. **Access to data:** The major tangible organ of an individual is their eyes. One look around us is sufficient to cause us to acknowledge how visual the majority of the data in our condition is. Timetables in train stations, signs showing the correct way or potential peril, a bulletin promoting another item in the market, these are all the visual sorts of data we as a whole run over in our everyday life. The vast majority of this data is difficult to reach for the visually impaired and the outwardly disabled, restraining their freedom, since access to data implies self-governance.

Legitimate Rights for Visually Impaired

1. **The Rights of Persons with Disabilities Bill – 2016:** The individuals of India with inabilities like visual deficiency or visual impedance have been furnished with "The Rights of Persons with Disabilities Bill – 2016". Duty has been given occasion to feel qualms about the proper governments to take powerful measures to guarantee that the people with visual deficiency or visual impedance incapacities make the most

of their rights similarly with others. Youngsters with visual deficiency or different handicaps ought to be given the transportation office, free human services in the region. Each work trade will keep up records of people with incapacities looking for business, particularly in the provincial zone subject to such family pay the same number of, be informed. Advancement through different channels for avoiding incapacities is required for more noteworthy assistance and effort.

2. **The Disability Discrimination Act:** The legislature passed the Disability Discrimination (Blind and Partially Sighted) Regulations 2003 (SI No 712) with the goal that currently, as long as you are enrolled visually impaired or somewhat located or an ophthalmologist confirms you all things considered, you will naturally be secured by the act. The demonstration has been altered a few times since being passed. It presently gives security from segregation in connection to business and occupation including being a councillor; exchange associations and capabilities bodies; training; the arrangement of merchandise offices and administrations; premises both private and business; and exclusive hangouts. Every one of the elements of open bodies, for example, capturing somebody will be secured, just as the arrangement and utilization of certain vehicle vehicles. Changes will be made to grow the extent of the councillor arrangements, those identifying with lodging, exclusive hangouts, and capabilities bodies. The demonstration will likewise force an obligation to advance inability uniformity on open experts, including NHS trusts. At the core of the demonstration lies the obligation to make what are known as "sensible modifications." This implies those secured by the demonstration managers, teachers, specialist organizations, and so on must make sensible acclimations to hindrances which upset incapacitated individuals in their entrance to business, training, administration arrangement, etc. The Disability Discrimination Act is a ground-breaking bit of enactment that has the ability to empower visually impaired and incompletely located individuals to appreciate business, products administrations and premises, and instruction without discrimination This mirrors the social model of disability that it's anything but a person's debilitation that makes them be not able take up, for instance, business, but instead the manner by which an occupation or working premises is organised or structured, with next to zero idea for distinction or impedance. For instance, if an outwardly debilitated individual experiences issues in her activity as a result of the way that data is given to her in little print that she can't peruse, it isn't her weakness which has caused her difficulties it is the way that the data isn't given in an implies that she can get to that has caused those troubles.

3. **Privileges of Persons with Disabilities Act, 2016:** The Act replaces the Persons with Disabilities Equal Opportunities, Protection of Rights and Full Participation Act, 1995. It satisfies the commitments to the United National Convention on the Rights of Persons with Disabilities (UNCRPD), to which India is a signatory. The Act came into power during December 2016. The kinds of handicaps have been expanded from existing 7 to 21 and the Central Government will have the ability to include more sorts of inabilities. Out of the 21 inabilities recorded, few are: Blindness, Low-vision, Hearing Impairment (hard of hearing and in need of a hearing aid), and Speech and Language incapacity, Multiple Disabilities incorporating hard of hearing visual deficiency etc. Persons with "benchmark handicaps" are characterized as those guaranteed to have in any event 40 percent of the inabilities indicated in the list. Responsibility has been given occasion to feel qualms about the fitting governments to take successful measures to guarantee that the people with

incapacities make the most of their rights similarly with others. Additional advantages, for example, reservation in advanced education (at the very least 5%), government occupations (at least 4 %), reservation in designation of land, destitution mitigation plans (5% assignment) and so forth have been given for people benchmark incapacities and those with high help needs. Every youngster with benchmark inability between the age gathering of 6 and 18 years will reserve the option to free education. Government financed instructive organizations just as the administration perceived foundations should furnish comprehensive training to the kids with incapacities. For reinforcing the Prime Minister's Accessible India Campaign, stress has been given to guarantee availability in open structures (both Government and private) in an endorsed time period.

Assistive Technologies for Blind People

1. **Computers and portable innovation:** Access innovation, for example, screen peruser, screen magnifier and refreshable Braille empower the incognizant in regards to utilize standard PC applications and cell phones. The accessibility of assistive innovation is expanding, joined by purposeful endeavours to guarantee the availability of data innovation to every single potential client, including the visually impaired. Later forms of Microsoft window incorporate an Accessibility Wizard and Magnifier for those with incomplete vision, and Microsoft Narrator, a straightforward screen peruser. Linux conveyance for the visually impaired incorporate Vinux and Adriane Knoppix the last created to a limited extent by Adrine Knopper who has a visual impedance. MaCos and iOS likewise accompany an inherent screen peruser brought Voice over, while Google Talk Back is worked in to most Android gadgets. The development towards more prominent web availability is opening a far more extensive number of sites to versatile innovation, making the web an all the more welcoming spot for outwardly impeded surfers. Test approaches in tactile substitution are starting to give access to self-assertive live perspectives from a camera. Altered visual yield that incorporates huge print and additionally clear straightforward designs can be of advantage to clients with some leftover vision.

2. **Braille Watch:** Most outwardly impeded individuals who are not absolutely visually impaired perused print, both of a standard size or expanded by amplification gadgets. Numerous likewise perused huge print, which is simpler for them to peruse without such gadgets. An assortment of amplifying glass, some handheld, and some on work areas, can make perusing simpler for them. Others read braille), or depend on talking books and perusers or perusing machines, which convert printed content to discourse or Braille. They use PCs with uncommon equipment, for example, scanners and refreshable Braille shows just as programming composed explicitly for the visually impaired, for example, optical character acknowledgment applications and screen perusers. A few people get to these materials through offices for the visually impaired, for example, the National Library Services for the visually impaired and Physically Handicapped in United States. Shut circuit TVs, hardware that grows and differences literary things, are an all the more cutting edge option in contrast to conventional amplification gadgets. There are likewise more than 100 radio perusing administrations all through the world that furnish individuals with vision impedances with readings from periodicals over the radio. The International Association of Audio Information Services gives connects to these associations.

3. **GPS Devices:** GPS gadgets can likewise be utilized as a versatility help. Such programming can help visually impaired individuals with direction and route. Some visually impaired individuals are gifted at reverberation finding quiet items essentially by delivering mouth snaps and tuning in to the returning echoes. It has been demonstrated that visually impaired echolocation specialist's use what is regularly the "visual" some portion of their mind to process the echoes.
4. **Professional Help:** Many individuals with genuine visual hindrances can travel autonomously, utilizing a wide scope of apparatuses and strategies. Direction and versatility are experts who are explicitly prepared to show individuals with visual hindrances how to travel securely, unquestionably, and autonomously in the home and the network. These experts can likewise help visually impaired individuals to work on going on explicit courses which they may utilize regularly, for example, the course from one's home to an accommodation store. Getting comfortable with a situation or course can make it a lot simpler for a visually impaired individual to explore successfully. Tools, for example, the white stick with a red tip – the global image of visual deficiency may likewise be utilized to improve versatility. A long stick is utilized to expand the client's scope of touch sensation. It is normally swung in a low clearing movement, over the expected way of movement, to recognize obstructions. In any case, strategies for stick travel can shift contingent upon the client and the circumstance. Some outwardly disabled people don't convey these sorts of sticks, selecting rather for the shorter, lighter ID stick. Still others need a help stick. The decision relies upon the person's vision, inspiration, and different elements.
5. **Trained Dogs:** few individuals utilize guide mutts to aid versatility. These mutts are prepared to explore around different deterrents, and to demonstrate when it winds up important to go up or down a stage. Be that as it may, the supportiveness of guide canines is restricted by the failure of mutts to comprehend complex headings. The human portion of the guide canine group does the coordinating, in view of aptitudes obtained through past portability preparing. In this sense, the handler may be compared to an air ship's guide, who must realize how to get starting with one spot then onto the next, and the canine to the pilot, who gets them there securely.
6. **Talking Equipment:** Blind individuals may utilize talking gear, for example, thermometers, watches, timekeepers, scales, mini-computers, and compasses. They may likewise broaden or stamp dials on gadgets, for example, stoves and indoor regulators to make them usable. In grown-ups with low vision there is no definitive proof supporting one type of perusing help over another. In a few examinations stand-mounted gadgets permitted quicker perusing than hand-held or versatile optical guides. While electronic guides may permit quicker perusing for people with low vision, transportability, usability, and moderateness must be considered for individuals.

Suggestions

1. Decentralized implementation of the scheme through District Health Societies (NPCB)
2. Reduction in the backlog of blind persons by active screening of population above 50 years, organising screening eye camps and transporting operable cases to eye care facilities.

3. Development of eye care services and improvement in quality of eye care by training of personnel, supply of high-tech ophthalmic equipment, strengthening follow up services and regular monitoring of services.
4. Screening of school age group (Primary & Secondary) children for identification and treatment of Refractive Errors, with special attention in under-served areas.
5. Public awareness about prevention and timely treatment of eye ailments.
6. Special focus on illiterate women in rural areas. For this purpose, there should be convergence with various ongoing schemes for development of women and children.
7. To make eye care comprehensive, besides cataract surgery, provision of assistance for other eye diseases like Diabetic Retinopathy, Glaucoma Management, Laser Techniques, Corneal Transplantation, Vitreoretinal Surgery, Treatment of Childhood Blindness etc..
8. Construction of dedicated Eye Wards and Eye OTs in District Hospitals in NE States and few other States as per need.
9. Development of Mobile Ophthalmic Units [renamed as Multipurpose District Mobile Ophthalmic Units (MDMOU)] in the district level for patient screening & transportation of patients.
10. Continuing emphasis on Primary Healthcare (eye care) by establishing Vision centres in all PHCs with a PMOA in position.
11. Participation of community and Panchayat Raj institutions in organizing services in rural areas;
12. Involvement of Private Practitioners in the programme.

Conclusion

Communication with the visually impaired can be more difficult than communicating with someone who doesn't have vision loss. However, many people are uncomfortable with communicating with the blind, and this can cause communication barriers. One of the biggest obstacles in communicating with visually impaired individuals comes from face-to-face interactions. There are many factors that can cause the sighted to become uncomfortable while communicating face to face. There are many non-verbal factors that hinder communication between the visually impaired and the sighted, more often than verbal factors do. These factors, which include are Lack of facial expressions, mimics, or body gestures/responses, Non-verbal gestures that could imply the visually impaired individual not appearing interested, Speaking when not anticipated or not speaking when anticipated, Fear of offending the visually impaired Standing too close and invading the personal comfort level, Having to exercise or ignore feelings of pity, Being uncomfortable with touching objects or people, A look of detachment or disengagement, Dependency, Being reminded of the fear of becoming blind, The blind person sends these signals or types of non-verbal communication without being aware that they are doing so. These factors can all affect the way an individual would feel about communicating with the visually impaired. This leaves the visually impaired feeling rejected and lonely. To avoid the rejected feeling of the visually impaired, people need to treat the blind the same way they would treat anyone else, rather than treating them like they have a disability, and need special attention. People may feel that it is improper to, for example, tell their blind child to look at them when they are speaking. However, this contributes to the sight-gilt method. It is important to

disregard any mental fears or uncomfortable feelings people have while communicating verbally and non-verbally or face-to-face. Individuals with a visual disability not only have to find ways to communicate effectively with the people around them, but their environment as well. The blind or visually impaired rely largely on their other senses such as hearing, touch, and smell in order to understand their surroundings. Visual impairment can limit people's ability to perform everyday tasks and can affect their quality of life and ability to interact with the surrounding world. Blindness, the most severe form of visual impairment, can reduce people's ability to perform daily tasks, and move about unaided. Good quality rehabilitation allows people with different degrees of visual impairment to fully profit from life, achieve their goals and be active and productive in today's society. Most of the diseases and conditions causing visual impairment and blindness can be prevented or readily treated with known and cost-effective interventions.

References

- **Dandona L**, Dandona R, Naduvilath TJ, *et al.* Is current eye-care-policy focus almost exclusively on cataract adequate to deal with blindness in India? *Lancet* 1998;351:312–16. [PubMed] [Google Scholar]
- **Thulasiraj RD**, Nirmalan PK, Ramakrishnan R, *et al.* Blindness and vision impairment in a rural south Indian population: the Aravind Comprehensive Eye Survey. *Ophthalmology* 2003;110:1491–8. [PubMed] [Google Scholar]
- **Dandona L**, Dandona R, John RK. Estimation of blindness in India from 2000 through 2020: implications for blindness control policy. *Nat Med J India* 2001;14:327–34. [PubMed] [Google Scholar]
- **Thulasiraj RD**, Rahamathulla R, Saraswati A, *et al.* The Sivaganga eye survey: I. Blindness and cataract surgery. *Ophthalmic Epidemiol* 2002;9:299–312. [PubMed] [Google Scholar]
- **Nirmalan PK**, Thulasiraj RD, Maneksha V, *et al.* A population based eye survey of older adults in Tirunelveli district of south India: blindness, cataract surgery and visual outcomes. *Br J Ophthalmol* 2002;86:505–12. [PMC free article] [PubMed] [Google Scholar]
- **Murthy GVS**, Gupta Sanjeev, Ellwein LB, *et al.* A population-based eye survey of older adults in a rural district of Rajasthan. I. Central vision impairment, blindness and cataract surgery. *Ophthalmology* 2001;108:679–85. [PubMed] [Google Scholar]
- **Thylefors B**, *et al.* Global data on blindness. *Bull World Health Organ* 1995;73:115–21. [PMC free article] [PubMed] [Google Scholar]
- **Limburg H**, Vaidyanathan K, Pampattiwar KN. Cataract blindness on the rise? results of a door-to-door examination in Mohadi. *Indian J Ophthalmol* 1996;44:241–4. [PubMed] [Google Scholar]
- **Banthia JK**. Census of India 2001: Series 1—India: provisional population totals. New Delhi: Registrar General and Census Commissioner, India, Government of India, 2001:1–311.
- **Mohan M**. National survey of blindness—India. NPCB-WHO report. New Delhi: Ministry of Health and Family Welfare, Government of India, 1989.
- **Mohan M**. Collaborative study on blindness (1971–1974). A report. New Delhi: Indian Council of Medical Research, 1987:1–65.
- **Jose R**, Bachani D. World bank assisted cataract blindness control project. *Indian J Ophthalmol* 1995;43:35–43. [PubMed] [Google Scholar]
- **Vijayanunni M**. Census of India 1991: state profile 1991—India. New Delhi: Registrar General and Census Commissioner, India, Government of India, 1998:2–288.
- **StatCorp**. Stata Statistical Software: Release 8.0. College Station, TX: Stata Corporation, 2003.
- **Limburg H**, Raj Kumar, Indrayan A, *et al.* Rapid assessment of prevalence of cataract blindness at district level. *Int J Epidemiol* 1997;26:1049–54. [PubMed] [Google Scholar]
- **Wormald Richard PL**, Rauf A. Glaucoma screening. *J Med Screening* 1995;2:109–14. [PubMed] [Google Scholar]
- **Brian G**, Taylor H. Cataract blindness—challenges for the 21st century. *Bull World Health Organ* 2001;79:249–56. [PMC free article] [PubMed] [Google Scholar]
- **Foster A**. Cataract—a global perspective: output, outcome and outlay. *Eye* 1999;13:65–70. [PubMed] [Google Scholar]
- **Foster A**. Cataract and “Vision 2020: the right to sight” initiative. *Br J Ophthalmol* 2001;85:635–9. [PMC free article] [PubMed] [Google Scholar]
- **National Programme for Control of Blindness, India**. Performance of cataract surgery between April 2002 and March 2003. NPCB-India Quarterly Newsletter 2003;2:2. [Google Scholar]