Rapid Assessment of Avoidable Blindness

in

Brahmanbaria & Satkhira Districts, Bangladesh

Survey Planning & Implementation: Child Sight Foundation, Dhaka, Bangladesh

Supported by: The Fred Hollows Foundation

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Report on Rapid Assessment of Avoidable Blindness

in

Brahmanbaria & Satkhira Districts of Bangladesh

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SUMMARY OF THE REPORT

Rapid Assessment of Avoidable Blindness in Brahmanbaria District of Bangladesh

Summary:

- The all-age prevalence of blindness for Brahmanbaria is estimated to be 0.21%.
- The all-age magnitude of blindness for Brahmanbaria is estimated to be 5,565 people out of a population of 2.6 million.
- Avoidable causes of blindness (operated and un-operated cataract, refractive error and corneal scar) accounted for 78.6% of blindness,100% of severe visual impairment and 99.1% of visual impairment.
- Cataract (64.3%) and sequelae related to cataract extraction (14.2%) accounted for 78.5% of all causes of bilateral blindness.
- Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) is responsible for 21.4% of bilateral blindness.
- 90.9% of people with bilateral cataract VA<3/60 had had surgery and 29.1% at VA<6/18.

Subjects

- A total of 3,050 individuals aged 50 years and over were examined in the survey.
- The overall response rate for the survey was 100% (45.7%Women, Men 54.3%).
- Of these 3050 subjects, 14 were bilaterally blind (<3/60 in the better eye based on presenting visual acuity, with available correction).

Crude Prevalence 50 years an older

- This corresponds to a crude prevalence of blindness of 0.46% in people aged 50 years and above (95% CI: 0.21-0.71%).
- The distribution of visual acuity status of the examined subjects is shown in table 2.

Magnitude of Blindness in Brahmanbaria district

- In people aged over 50 years in Brahmanbaria district the magnitude of blindness is estimated to be 3,272 people.
- The all-age prevalence of blindness for Brahmanbaria district is estimated to be 0.21%.
- The all-age magnitude of blindness for Brahmanbaria district is estimated to be 3,272 people out of a population of 2.6 million.

Blindness and Visual Acuity by Age

- The prevalence of blindness was associated with increasing age ranging from 0.37% in those aged 50-59 years to 4.0% in those aged 80 years and above. (Figure 1).
- Increasing age was associated with higher levels of impaired vision. In those aged 50-59, 92.9% had normal vision, compared with 36% in those aged 80 years and above (Figure 1).

Causes of Blindness in adults aged 50 years and older

- Avoidable causes of blindness (operated and un-operated cataract, refractive error and corneal scar) accounted for 78.6% of blindness,100% of severe visual impairment and 99.1% of visual impairment.
- Cataract (64.3%) and sequelae related to cataract extraction (14.2%) accounted for 78.5% of all causes of bilateral blindness (Table 3).
- Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) is responsible for 21.4% of bilateral blindness (Table 3).

Cataract Surgical Coverage

- Cataract surgical coverage was relatively high; 90.9% of people with bilateral cataract VA<3/60 had had surgery and 29.1% at VA<6/18. (Table 4).
- 8.1% of the 186 eyes that had undergone cataract surgery had a poor outcome with best correction (i.e VA<6/60) (Table 5).

Rapid Assessment of Avoidable Blindness in Satkhira District of Bangladesh

Summary:

- The all-age prevalence of blindness for Satkhira is estimated to be 1.03%.
- The all-age magnitude of blindness for Satkhira is estimated to be 18,540 people out of a population of 1.8 million.
- Avoidable causes of blindness (operated and un-operated cataract, refractive error and corneal scar) accounted for 91.9 % of blindness,96.7% of severe visual impairment and 99.3% of visual impairment.
- Cataract (85.9%) and sequelae related to cataract extraction (cataract surgical complications 2.0 %) accounted for 87.9 % of all causes of bilateral blindness.
- Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) is responsible for 8.1% of bilateral blindness.
- 57.9% of people with bilateral cataract VA<3/60 had had surgery and 21.6% at VA<6/18.

Subjects

- A total of 2,485 individuals aged 50 years and over were examined in the survey.
- The overall response rate for the survey was 99.4% (43.9%Women, Men 56.1%).
- Of these 2,485 subjects, 99 were bilaterally blind (<3/60 in the better eye based on presenting visual acuity, with available correction).

Crude Prevalence 50 years an older

- This corresponds to a crude prevalence of blindness of 3.98% in people aged 50 years and above (95% CI: 2.38% -5.59%).
- The distribution of visual acuity status of the examined subjects is shown in table 7.

Magnitude of Blindness in Satkhira district

- In people aged over 50 years in Satkhira district the magnitude of blindness is estimated to be 11,419 people.

- The all-age prevalence of blindness for Satkhira district is estimated to be 1.03%.

- The all-age magnitude of blindness for Satkhira is estimated to be 18,540 people out of a population of 1.8 million.

Blindness and Visual Acuity by Age

- The prevalence of blindness was associated with increasing age ranging from 0.57% in those aged 50-59 years to 14.12% in those aged 80 years and above. (Figure 2).

- Increasing age was associated with higher levels of impaired vision. In those aged 50-59, 93.38% had normal vision, compared with 49.5% in those aged 80 years and above (Figure 2).

Causes of Blindness in adults aged 50 years and older

- Avoidable causes of blindness (operated and un-operated cataract, refractive error and corneal scar) accounted for 91.9 % of blindness,96.7% of severe visual impairment and 99.3% of visual impairment.

- Cataract (85.9%) and sequelae related to cataract extraction (cataract surgical complications 2.0 %) accounted for 87.9 % of all causes of bilateral blindness. (Table 8).

- Posterior segment disease (8.1%) (Including glaucoma, diabetic retinopathy and age-related macular degeneration) is the second cause of bilateral blindness.(Table 8).

Cataract Surgical Coverage

- Cataract surgical coverage was moderate; 57.9% of people with bilateral cataract VA<3/60 had had surgery and 21.6% at VA<6/18. (Table 9).

- 7.3% of the 151 eyes that had undergone cataract surgery had a poor outcome with best correction (i.e VA<6/60). (Table 10).

Summary table of RAAB survey in Brahmanbaria district of Bangladesh

District	Total cluster	Adult pop Examined	All age mag.	Above 50 age meg.	Blind	Prev. of Blind %	Avoi. Cause of blindness %			Bi. Cataract %
							Blind	SVI	VI	
Brahmanbaria	61	3050	5565	3272	14	0.46	78.6%	100%	99.1%	64.3%
Satkhira	50	2,485	18,540	11,419	99	3.98	91.9%	96.7%	99.3%	85.9%

AIM

The aim of this study was to conduct a Rapid Assessment of Avoidable Blindness in Brahmanbaria and Satkhira districts to estimate the prevalence and causes of blindness in people aged ≥50 years.

INTRODUCTION

The World Health Organization estimates that currently 180 million people in the world have been suffering with some degree of visual impairment; and between 40 and 45 million of these are blind. Each year at least 7 million people in the world become blind. Among these 70 percent are avoidable. So, the number of blind people is increasing by up to 2 million per year. Mostly three conditions such as: cataract, trachoma, and glaucoma are responsible for those 70% of avoidable blindness. By considering the aging world population and the continuing cycle of poverty in many developing countries, it is estimated that the number of blind people will be 75 million by 2020 without major intervention**.** VISION 2020 – the right to sight, is the global initiative by WHO and IAPB to eliminate avoidable blindness by the year 2020. The priority diseases in the first phase of VISION 2020 are cataract, refractive error and low vision, childhood blindness, onchocerciasis and trachoma. These conditions constitute more than 75% of blinding diseases and are amenable to cost-effective preventive and curative interventions. The VISION 2020 strategy depends on the development of district-level plans for the prevention of avoidable blindness.

The National Blindness and Low Vision Survey of Bangladesh was conducted in Bangladesh in 2000. A nationally representative sample of 11,624 adults 30 years and older underwent detailed ophthalmic examination, of whom 1.4% were blind (95% confidence intervals 1.2%-1.6%), 80%

of which was due to cataract. There was a two-fold variation in the prevalence of blindness between the richest and the poorest divisions.

The National Survey produced important data which have been used to plan a national strategy, but district-level planning and monitoring requires district-level prevalence data together with a needs assessment of eye care services. Eye care programmes are often limited in resources and need to allocate these as efficiently as possible. The efficient implementation and monitoring of eye care programmes is constrained by the lack of data concerning the prevalence and causes of blindness and visual impairment. Large scale surveys of blindness are expensive and time consuming to conduct. The Rapid Assessment of Avoidable Blindness (RAAB) is a simple and rapid survey methodology that can provide data on the prevalence and causes of avoidable blindness. RAAB was successfully conducted in Satkhira in Bangladesh in 2005 which was used as a model in Narail and Jamalpur districts.

Brahmanbaria District is a located in east-central side of Bangladesh. It is a part of the Chittagong Division. Brahmanbaria District shares borders with Comilla District on the SOUTH side, Habiganj District and Tripura State, India on the EAST side, Narayanganj, Narsingdi, Kishoreganj District and Meghna River on the WEST side and Habiganj district and Kishoreganj District on the NORTH side. Brahmanbaria district consists of 9 Upazilas, 4 municipalities , 98 Union Parishads and 1331 Villages. It has a total area of 1927.11 square kilometer. It has a population of about 2.6 million. The geography of the district is characterized by low-lying land with small hills and hillocks of red soil.

Satkhira is a district in south-western Bangladesh and is part of Khulna Division Satkhira District has an area of 3858.33 km . It is bordered to the north by Jessore District, on the south by the

Bay of Bengal, to the east by Khulna District, and to the west by 24 Pargana District of West Bengal, India. The total population of Satkhira District is 1,843,194 of which 50.54% are male and 49.46% are female according to the Census, 2011.

METHODS

Sample Selection:

Brahmanbaria: The expected prevalence of blindness in the adults aged ≥50 years in Khulna was 5.7%. Allowing for a required confidence of 95%, a worst acceptable result of 3.1%, a population size of approximately 585,762 adults aged ≥50 years in Brahmanbaria, a design effect of 1.5 for clusters of 61, and 10% non-response, the required sample size was estimated to be 3050 subjects. In total, 61 clusters of 50 adults aged ≥50 years were required for this survey.

Satkhira Similarly, allowing for a required confidence of 95%, a worst acceptable result of 3.1%, a population size of approximately 242,926 adults aged ≥50 years in Satkhira, a design effect of 1.5 for clusters of 50, and 10% non-response, the required sample size was estimated to be 2500 subjects. In total, 50 clusters of 50 adults aged ≥50 years were required for this survey.

The clusters were selected through probability-proportionate to size sampling. Updated data from the 2001 national census was used as the sampling frame. We produced a list of all the enumeration areas in Brahmanbaria and Satkhira district with their respective populations aged ≥50 years, estimated using the population size of the enumeration areas and the population age-structure from the census data. The sampling frame was entered into specially designed spreadsheet.

Using the RAAB software package, containing an automated programme, a list of population units (clusters) was selected for the survey from the sampling frame. Households within clusters

were selected through compact segment sampling. The cluster was visited two to three days before the survey by the cluster informers to inform them of the survey. The village leaders were asked if they could produce a sketch map of the enumeration area showing major landmarks and the approximate distribution of households. The enumeration area was divided into segments, so that each segment included approximately 50 people aged ≥ 50 years. For instance, if an enumeration area included 250 people aged ≥ 50 years then it would be divided into five segments. One of the segments was chosen at random by drawing lots and all households in the segment were included sequentially until 50 people aged ≥ 50 years were identified. A household was defined as a group of people living and eating together for at least six months of the year. If the segment did not include 50 people aged ≥50 years then another segment was chosen at random and sampling continued. The survey team visited households door-to-door, accompanied by a village guide. The purpose of the study and the examination procedure were explained to the subjects and verbal consent was obtained. The team conducted the visual examinations in the household. If an eligible person was absent, the survey team returned to the household on the same day at least two times to examine the individual before leaving the area. If after repeated visits the subject could not be examined, information about his/her visual status was collected from relatives or neighbors. The contact details of the project ophthalmologists including the cell number were left with the neighbors and vice versa to minimize the non-responders.

Ophthalmic examination

A standardized protocol was used for the Rapid Assessment of Avoidable Blindness. A survey record was completed for each eligible person that included seven sections: general information;

vision and pinhole examination; lens examination; principal cause of vision impairment; history, if not examined; why cataract operation had not been done; details about cataract operation. Visual acuity (VA) was measured by an ophthalmic assistant with a Snellen tumbling "E" chart using optotype size 6/18 (20/60) on one side and size 6/60 (20/200) on the other side at 6 or 3 meter distance. All measurements were taken in full daylight with available spectacle correction. If the VA was <6/18 in either eye then pinhole vision was also measured. Categories of visual impairment were defined as:

- Blindness - VA < 3/60 in the better eye with available correction.
- Severe visual impairment - VA≥3/60 - <6/60 in the better eye with available correction.
- Visual impairment - VA≥6/60 - <6/18 in the better eye with available correction.

All participants were examined by an ophthalmologist. The lens status was assessed by torch or by distant direct ophthalmoscopy in a shaded or dark environment without dilatation of the pupil. Lens status was graded as: "normal lens", "obvious lens opacity present", "lens absent (aphakia)", or "IOL implantation without posterior capsule opacification" or "IOL implantation with posterior capsule opacification". If the lens could not be examined (e.g. corneal scarring present) then "No view of lens" was noted. The ophthalmologist examined all eyes with a presenting VA<6/18 with a torch, direct ophthalmoscope and/or portable slit lamp. The examination was made with pupil dilation if the cause of visual impairment was not refractive error, cataract, aphakia, or corneal scar. The principal cause of blindness or visual impairment was recorded, according to the WHO convention where the major cause is assigned to the disorder that is easiest to treat.

Refresher training

There were four teams, two for each district. Each team consisted of one ophthalmologist and one ophthalmic assistant. Beside this, one cluster informer as well as a coordinator was working for both teams. The teams received 4 days training. Inter-observer agreement was measured through repeat examination of 40 patients by each of the four teams. Measurement of VA, lens examination and cause of blindness were compared between the teams to ensure that it was of an acceptable standard (i.e. kappa $\geq$ 0.60). Teams were accompanied by field supervisors on every alternate day, to ensure that a high quality was maintained. The training is conducted 15 to 18 June, 2010.

Statistical analysis

A software programme developed for this survey (RAAB version 4.02) was used for data entry and automatic standardised data analysis. The prevalence estimates took account of the design effect (DEFF) when estimating the confidence intervals. This software package and manual was collected free of charge from www.iceh.co.uk.

Ethical Approval

Ethical approval for this work was granted by the Institutional Review Board, Research, Evaluation, Advocacy and Development (READ) centre, Child Sight Foundation, Bangladesh. Informed consent was obtained from the subjects after explanation of the nature and possible consequences of the study. All people with operable cataract were referred for surgery to a linkage hospital. All people with other treatable conditions were referred for treatment.

RESULTS –

The study population consisted of 2500 people. 7 (0.3%) of them were available and no one was refused so that 2493 people were included in the survey (99.7 %). Among those who were examined 45.7% was male and 54.3% was female. The sampled population was relatively representative of the district population in terms of age and sex distribution (Table 1). There were 14 bilaterally blind people with available correction, giving a sample prevalence of blindness of 0.46 % (95% confidence interval (CI): 0.21-0.71 %) with an observed DEFF of 1.08 (Table 2). The prevalence of bilateral severe visual impairment was 3.51% (95% CI: 2.66-4.36%; DEFF=1.69), and the prevalence of bilateral visual impairment was 19.02% (95% CI: 17.12-20.91%; DEFF=1.85). The prevalence of visual impairment was higher in males (20.59%) than in females (17.69%). The prevalence of blindness increased rapidly with age (Figure 1). There were 61 people who were pseudophakic or aphakic in both eyes and 64 had unilateral (pseudo) aphakia. Male were more likely to have unilateral (pseudo) aphakia (2.22%) than females (1.99%).

Cataract was the primary cause of bilateral blindness (57.1%) and bilateral severe visual impairment (86.0%) while Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) was the second leading cause of bilateral blindness (21.4%) and it was refractive error for the bilateral severe visual impairment (11.3%). And in case of bilateral visual impairment, refractive error (65.3%) was the leading cause followed by cataract (33.1%). Avoidable causes, that is, cataract (including unoperated and post-operative complications) refractive error, and corneal scar were responsible for almost all cases of bilateral blindness (78.6%), bilateral severe visual impairment (100%) and bilateral visual impairment (99.1%).

Extrapolating survey data to the age- and sex- distribution of Brahmanbaria district, in the people aged ≥50 years there were estimated to be 713 blind men and 2,558 blind women, 11,408 severely visually impaired men and 13,776 severely visually impaired women, and 63,297 visually impaired men and 58,943 visually impaired women. The age- and sex- adjusted prevalence of blindness was 0.56%, 4.30% for severe visual impairment and 20.87% for visual impairment. There are a total of 1,738 people (567 men and 1,171 women) with best corrected bilateral VA<6/60 due to cataract who require surgery.

The cataract surgical coverage (CSC) was moderately high for people than eyes (Table 4). For people with VA < 3/60 the CSC was high (90.9%) and for eyes with cataract at VA < 3/60 the CSC was 85.7%.

Information was available on 155 eyes operated for cataract. Most of the surgeries were undertaken in eye camp or improvised settings (38.2%) and private hospital (33.9%). Some were undertaken at government hospitals (24.7%), and few were conducted in voluntary or charitable hospitals (3.2%). Outcome after surgery was relatively poor (Table 5). With available correction only 69.6% of eyes achieved a good outcome (VA≥6/18) after surgery, while 13.4% had a borderline outcome (<6/18-6/60), and 16.7% had a poor outcome (<6/60). This improved with best correction so that 82.3 % of eyes achieved a good outcome. Most of the people were very satisfied (71.5%), some were partially satisfied (11.8%) with the surgery, while few were indifferent (4.8%), partially dissatisfied (4.8%) or very dissatisfied (7%). People with a cataract causing a VA<6/60 in the better eye were asked why they had not gone for surgery. The most common reasons were “cannot afford the operation” (42.9%), “unaware of treatment” (28.6%), contraindication (14.3%) “wait for maturity” (7.1%) and “unaware of treatment” (7.1%).

RESULTS - SATKHIRA

The study population consisted of 2500 people. Out of them 0.6% were not available so that 2,485 people were included in the survey (99.4%). Among those who were examined 43.9% was male and 56.1% was female. The sample population was relatively representative of the district population in terms of age and sex distribution (Table 6). There were 99 bilaterally blind people with available correction, giving a sample prevalence of blindness of 3.98 % (95% confidence interval (CI): 2.38-5.59 %) with an observed DEFF of 4.34 (Table 7). The prevalence of bilateral severe visual impairment was 3.70% (95% CI: 2.81-4.59%; DEFF=1.44), and the prevalence of bilateral visual impairment was 18.11% (95% CI: 15.21-21.00%; DEFF=3.66). The prevalence of blindness was higher in females (5.02%) than in males (2.66%). The prevalence of blindness increased rapidly with age (Figure 2). There were 35 people who were pseudophakic or aphakic in both eyes and 81 had unilateral (pseudo) aphakia. Male were more likely to have bilateral (pseudo) aphakia (1.83%) than females (1.08%).

Cataract was the primary cause of bilateral blindness (85.9%), bilateral severe visual impairment (81.5%), as well as bilateral visual impairment (54.7%) while Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) was the second leading cause of bilateral blindness (8.1%) and it was refractive error for the bilateral severe visual impairment (15.2%) and bilateral visual impairment (43.8%). Avoidable causes, that is, cataract (including unoperated and post-operative complications) refractive error, and corneal scar were responsible for almost all cases of bilateral blindness (91.9%), bilateral severe visual impairment (96.7%) and bilateral visual impairment (99.3%).

Extrapolating survey data to the age- and sex- distribution of Satkhira district, in the people aged ≥50 years there were estimated to be 3,560 blind men and 7,859 blind women, 8,074 severely visually impaired men and 14,107 severely visually impaired women, and 32,605 visually impaired men and 38,335 visually impaired women. The age- and sex- adjusted prevalence of blindness was 4.70%, 4.43% for severe visual impairment and 20.07% for visual impairment. There are a total of 16,854 people (5,552 men and 11,002 women) with best corrected bilateral VA<6/60 due to cataract who require surgery.

The cataract surgical coverage (CSC) was moderately high for people than eyes (Table 9). For people with VA < 3/60 the CSC was high (57.9%) and for eyes with cataract at VA < 3/60 the CSC was 48.9%.

Information was available on 151 eyes operated for cataract. Most of the surgeries were undertaken in private hospital (43.7%) and government hospitals (30.5%). Some were undertaken at voluntary or charitable hospitals (21.2%) and few were conducted in eye camp or improvised settings (4.6%). Outcome after surgery was relatively poor (Table-10). With available correction only 73.5% of eyes achieved a good outcome (VA≥6/18) after surgery, while 15.2% had a borderline outcome (<6/18-6/60), and 11.3% had a poor outcome (<6/60). This improved with best correction so that 85.4 % of eyes achieved a good outcome. Most of the people were very satisfied (75.5%), some were partially satisfied (17.2%) with the surgery, while few were indifferent (0.7%), partially dissatisfied (4.6%) or very dissatisfied (2%). People with a cataract causing a VA<6/60 in the better eye were asked why they had not gone for surgery. The most common reasons were “cannot afford the operation” (32.3%), “no company”(16.7%), “how to get surgery” (14.6%) “unaware of treatment” (11.5%), “no services”(10.4%) and “old age-no need” (6.3%).

Table-1 : Age and Gender composition of district and sample population- Brahmanbaria

	Male		Female	
Age group	**District**	**Sample**	**District**	**Sample**
50-54	92503(29.4%)	186(13.3%)	80103(29.6%)	748(45.2%)
55-59	59271(18.8%)	400(28.7%)	52079(19.2%)	288(17.4%)
60-64	56791(18.0%)	298(21.4%)	49847(18.4%)	230(13.9%)
65-69	38191(12.1%)	198(14.2%)	32239(11.9%)	172(10.4%)
70-74	31743(10.1%)	151(10.8%)	26789(9.9%)	124(7.5%)
75-79	15375(4.9%)	105(7.5%)	11903(4.4%)	50(3.0%)
80+	21079(6.7%)	56(4.0%)	17855(6.6%)	44(2.7%)

Table -2: Distribution by visual acuity with available correction in the better eye in adults aged 50 years and older- Brahmanbaria.

VA with available correction	Male (n= 1,394)	Female (n= 1,656)	Total (n= 3,050)
VA < 3/60			
Bilateral blindness	3(0.22%)	11(0.66%)	14(0.46%)
Blind eyes	29(1.04%)	43(1.30%)	72(1.18%)
VA < 6/60 and VA ≥3/60			
Bilateral severe visual impairment	50(3.59%)	57(3.44%)	107(3.51%)
Severe visually impaired eyes	142(5.09%)	152(4.59%)	294(4.82%)
VA < 6/18 and VA≥6/60			
Bilateral visual impairment	287(20.59%)	293(17.69%)	580(19.02%)
Unilateral visual impairment	623(22.35%)	616(18.60%)	1239(20.31%)
Bilateral aphakia	28(2.01%)	33(1.99%)	61(2.00%)
Unilateral aphakia	31(2.22%)	33(1.99%)	64(2.10%)
Aphakic eyes	87(3.12%)	99(2.99%)	186(3.05%)

Table-3: Cause of blindness, severe visual impairment and visual impairment in people with available correction- Brahmanbaria

	Bilateral Blindness (VA < 3/60)	**Bilateral severe visual impairment (VA<6/60 - ≥3/60)**	**Bilateral visual impairment (VA < 6/18 - ≥6/60)**
	n=14	n=107	n=580
Refractive error	0	5(4.7%)	379(65.3%)
Cataract, untreated	8(57.1%)	92(86.0%)	192(33.1%)
Aphakia, uncorrected	1(7.1%)	8(7.5%)	2(0.3%)
Surgical complications	1(7.1%)	2(1.9%)	2(0.3%)
Phthysis	0	0	0
Other corneal scar	1(7.1%)	0	0
Posterior segment	**3(21.4%)**	**0**	**5(0.9%)**
Globe abnormalities	1(7.1%)	0(0%)	0(0%)
Avoidable blindness	**11(78.6%)**	**107(100%)**	**575(99.1%)**

Table-4: Cataract surgical coverage (CSC) by person and eyes in people aged ≥50 years (best correction)- Brahmanbaria

	CSC – Persons (95% CI)	CSC – Eyes (95% CI)
VA < 3/60		
Male	94.1%	89.7%
Female	88.4%	82.5%
Total	90.9%	88.7%
VA < 6/60		
Male	52.3%	42.0%
Female	50.0%	39.1%
Total	51.0%	40.4%
VA < 6/18		
Male	30.2%	22.5%
Female	28.2%	21.0%
Total	29.1%	21.7%

Table-5: Post-operative visual acuity in 186 eyes following cataract surgery, by IOL status-Brahmanbaria

	IOL eyes (n =155)	Non-**IOL eyes (n =31)**	**All eyes (n =186)**
Available correction			
Can see 6/18	130(83.9%)	0	130(69.9%)
Cannot see 6/18, can see 6/60	18(11.6%)	7(22.6%)	25(13.4%)
Cannot see 6/60	7 (4.5%)	24(77.4%)	31(16.7%)
Best correction			
Can see 6/18	143(92.3%)	10(32.3%)	153(82.3%)
Cannot see 6/18, can see 6/60	5(3.2%)	13(41.9%)	18(9.7%)
Cannot see 6/60	7(4.5%)	8(25.8%)	15(8.1%)

Figure-1: Brahmanbaria

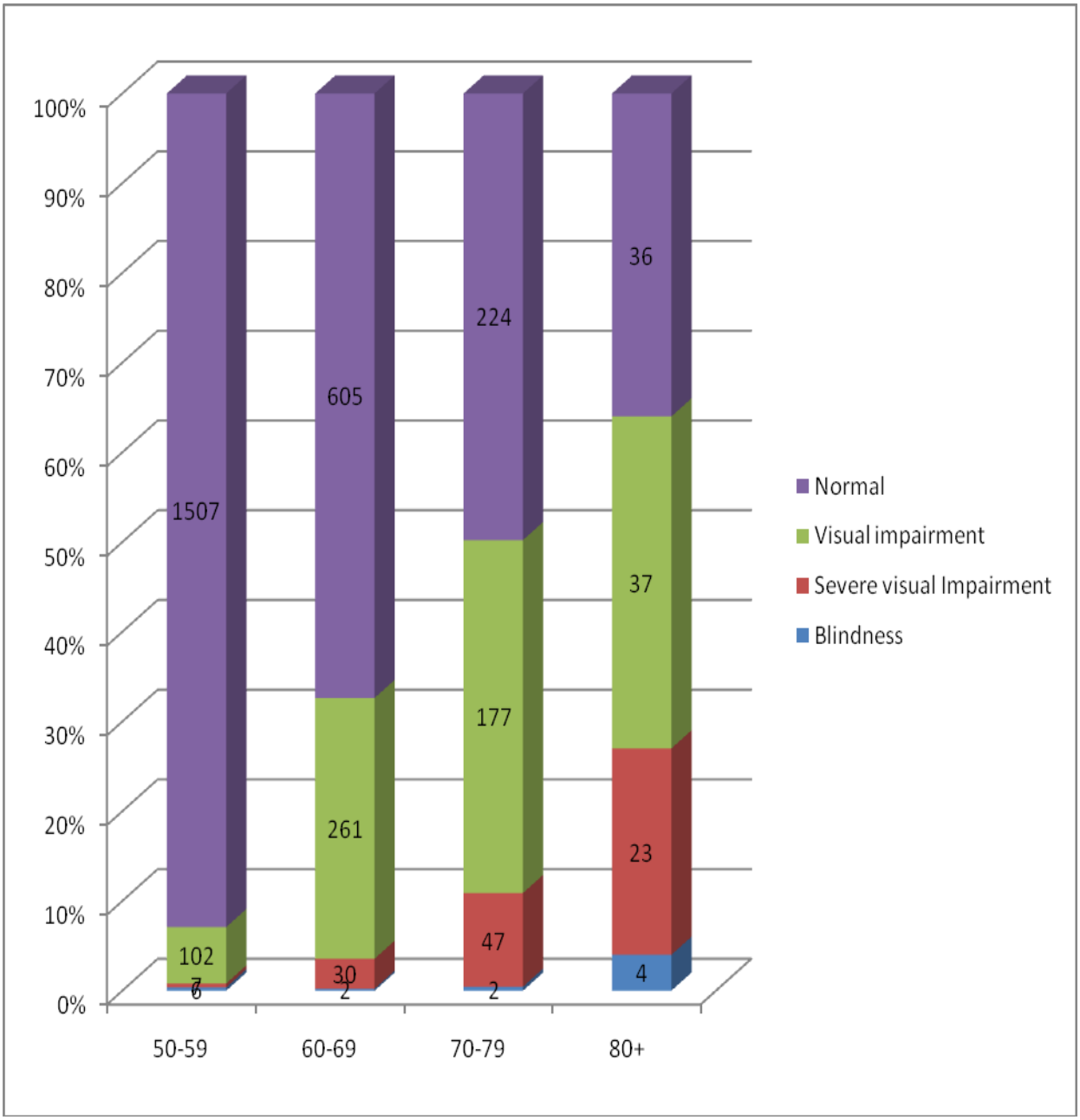


Table-6 : Age and Gender composition of district and sample population- Satkhira

	Male		Female	
Age group	**District**	**Sample**	**District**	**Sample**
50-54	38,887(29.4%)	239(21.9%)	32,693(29.6%)	821(33.0%)
55-59	24,916(18.8%)	278(25.5%)	21,255(19.2%)	583(23.5%)
60-64	23,874(18.0%)	205(18.8%)	20,344(18.4%)	432(17.4%)
65-69	16,055(12.1%)	132(12.1%)	13,158(11.9%)	244(9.8%)
70-74	13,344(10.1%)	122(11.2%)	10,931(9.9%)	199(8.0%)
75-79	6,463(4.9%)	42(3.9%)	4,858(4.4%)	74(3.0%)
80+	8,861(6.7%)	72(6.6%)	7,287(6.6%)	132(5.3%)

Table -7: Distribution by visual acuity with available correction in the better eye in adults aged 50 years and older- Satkhira.

VA with available correction	Male (n= 1,090)	Female (n= 1,395)	Total (n= 2,485)
VA < 3/60			
Bilateral blindness	29(2.66%)	70(5.02%)	99(3.98%)
Blind eyes	103(4.72%)	204(7.31%)	307(6.18%)
VA < 6/60 and VA ≥3/60 Bilateral severe visual impairment	37(3.39%)	55(3.94%)	92(3.70%)
Severe visually impaired eyes	85(3.90%)	124(4.44%)	209(4.21%)
VA < 6/18 and VA≥6/60 Bilateral visual impairment	205(18.81%)	245(17.56%)	450(18.11%)
Unilateral visual impairment	436(20.00%)	517(18.53%)	953(19.18%)
Bilateral aphakia	20(1.83%)	15(1.08%)	35(1.41%)
Unilateral aphakia	33(3.03%)	48(3.44%)	81(3.26%)
Aphakic eyes	73(3.35%)	78(2.80%)	151(3.04%)

Table-8: Cause of blindness, severe visual impairment and visual impairment in people with available correction- Satkhira

	Bilateral Blindness (VA < 3/60)	**Bilateral severe visual impairment (VA<6/60 - ≥3/60)**	**Bilateral visual impairment (VA < 6/18 - ≥6/60)**
	n=99	n=92	n=450
Refractive error	3(3.0%)	14(15.2%)	197(43.8%)
Cataract, untreated	85(85.9%)	75(81.5%)	246(54.7%)
Aphakia, uncorrected	0	0	0
Surgical complications	2(2.0%)	0	1(0.2%)
Phthysis	0	0	0
Other corneal scar	1(1.0%)	0	2(0.4%)
Posterior segment	**2(2.0%)**	**3(3.3%)**	**3(0.7%)**
Globe abnormalities	0(0%)	1(1.1%)	1(1.1%)
Avoidable blindness	**91(91.9%)**	**89(96.7%)**	**447(99.3%)**

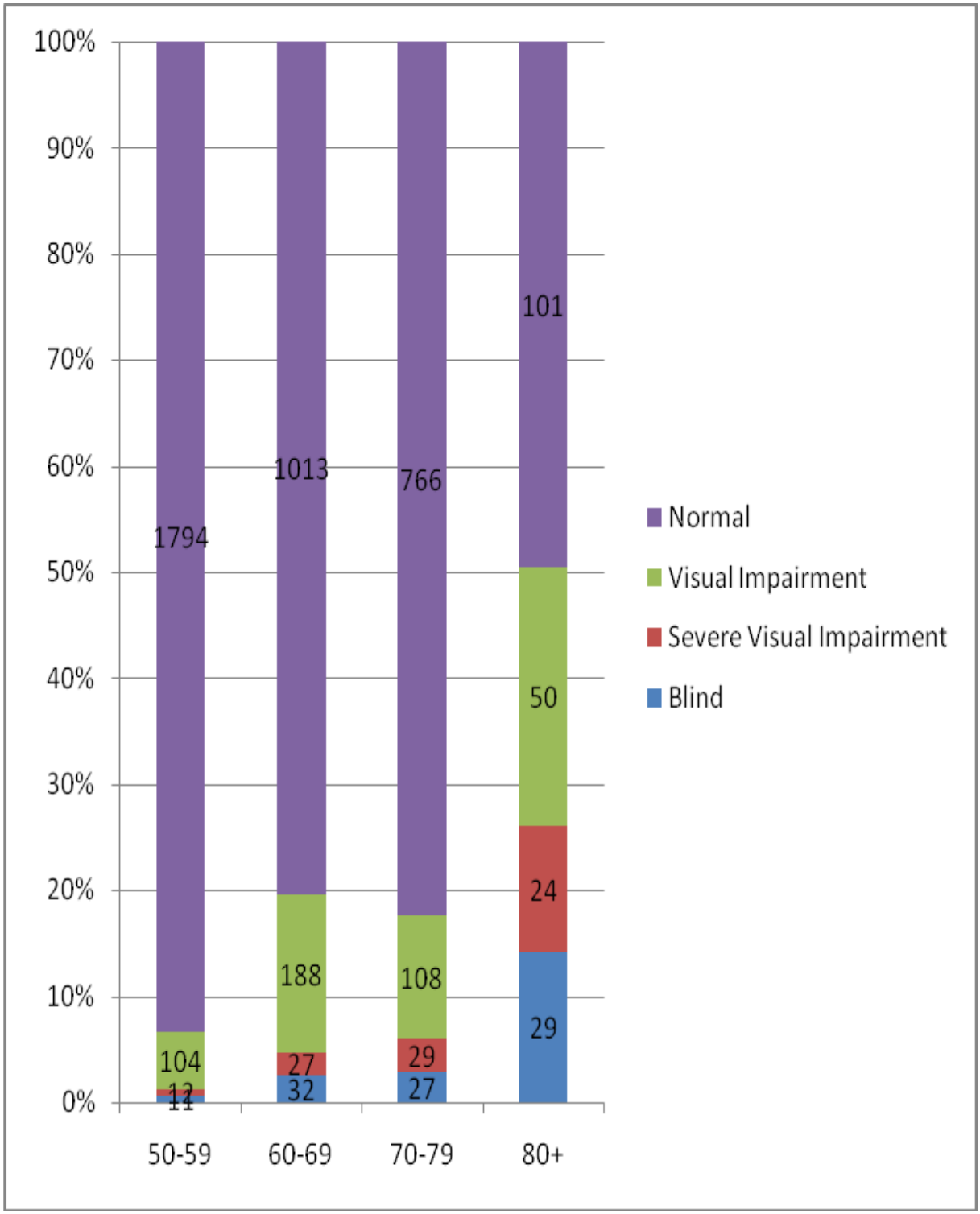
Table-9: Cataract surgical coverage (CSC) by person and eyes in people aged ≥50 years (best correction)- Satkhira

	CSC – Persons (95% CI)	CSC – Eyes (95% CI)
VA < 3/60		
Male	69.0%	61.3%
Female	51.4%	41.1%
Total	57.9%	48.9%
VA < 6/60		
Male	44.0%	38.8%
Female	35.5%	26.5%
Total	38.8%	31.3%
VA < 6/18		
Male	24.1%	17.5%
Female	20.0%	12.6%
Total	21.6%	14.6%

Table-10: Post-operative visual acuity in 151 eyes following cataract surgery, by IOL status- Satkhira

	IOL eyes (n =145)	Non-**IOL eyes (n =6)**	**All eyes (n =151)**
Available correction			
Can see 6/18	110(75.9%)	1(16.7%)	111(73.5%)
Cannot see 6/18, can see 6/60	23(15.9%)	0	23(15.2%)
Cannot see 6/60	12 (8.3%)	5(83.3%)	17(11.3%)
Best correction			
Can see 6/18	128(88.3%)	1(16.7%)	129(85.4%)
Cannot see 6/18, can see 6/60	11(7.6%)	0	11(7.3%)
Cannot see 6/60	6(4.1%)	5(83.3%)	11(7.3%)

Figure-2: Satkhira



SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 12/31/2012 8:54:57PM

This report is for the survey area: Sathkhira

Year and month when survey was conducted: 2012-11 until 2012-11

The sample size of the RAAB is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral blindness (best corrected VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals for prevalence of various conditions can be calculated with menu Reports / Sampling error & Design Effect.

1. Eligible persons, coverage, absentees and refusals in survey

	Total eligible		Examined		Not available		Refused		Not capable		Coverage
	n	%	n	%	n	%	n	%	n	%	
Males	1,101	44.0%	1,090	43.9%	11	78.6%	0	0.0%	0	0.0%	99.0%
Females	1,399	56.0%	1,395	56.1%	3	21.4%	1	100.0%	0	0.0%	99.7%
Total	2,500	100.0%	2,485	99.4%	14	0.6%	1	0.0%	0	0.0%	99.4%

1a. Average age of sample population, by examination status and by sex

	Examined	Not available	Refused	Total
Males	61.4	65.6	0.0	61.5
Females	57.9	65.0	99.0	57.9
Total	59.4	65.5	99.0	59.5

2. Prevalence of blindness, severe visual impairment (SVI) and visual impairment (VI) - all causes

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with best correction or pinhole (WHO definition)						
All bilateral blindness	15	1.38	44	3.15	59	2.37
All blind eyes	74	3.39	148	5.30	222	4.47
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	29	2.66	70	5.02	99	3.98
All blind eyes	103	4.72	204	7.31	307	6.18
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in the better eye, with available correction						
All bilateral SVI	37	3.39	55	3.94	92	3.70
All SVI eyes	85	3.90	124	4.44	209	4.21
Visual Impairment (VI) - VA<6/18 - 6/60 in the better eye, with available correction						
All bilateral VI	205	18.81	245	17.56	450	18.11
All VI eyes	436	20.00	517	18.53	953	19.18

3. Prevalence of presenting VA<3/60, VA<6/60 and VA<6/18 - all causes (cumulative categories)

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	29	2.66	70	5.02	99	3.98
All blind eyes	103	4.72	204	7.31	307	6.18
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	66	6.06	125	8.96	191	7.69
All eyes	188	8.62	328	11.76	516	10.38
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	271	24.86	370	26.52	641	25.79
All eyes	624	28.62	845	30.29	1,469	29.56

4. Principal cause of blindness in persons: VA<3/60 in better eye with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	0	0.0%	0	0.0%
Cataract, untreated	2	66.7%	6	54.5%	8	57.1%
Aphakia, uncorrected	0	0.0%	1	9.1%	1	7.1%
Total curable	**2**	**66.7%**	**7**	**63.6%**	**9**	**64.3%**
Surgical complications	1	33.3%	0	0.0%	1	7.1%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	1	9.1%	1	7.1%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**33.3%**	**1**	**9.1%**	**2**	**14.3%**
Total avoidable	**3**	**100.0%**	**8**	**72.7%**	**11**	**78.6%**
Glaucoma	0	0.0%	1	9.1%	1	7.1%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**1**	**9.1%**	**1**	**7.1%**
Globe abnormality	0	0.0%	1	9.1%	1	7.1%
ARMD	0	0.0%	0	0.0%	0	0.0%
Other post. segment / CNS	0	0.0%	1	9.1%	1	7.1%
Total posterior segment	**0**	**0.0%**	**3**	**27.3%**	**3**	**21.4%**
	3	**100.0%**	**11**	**100.0%**	**14**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

5. Main cause of blindness in eyes - VA<3/60 with available correction, no pinhole

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	0	0.0%	0	0.0%
Cataract, untreated	10	34.5%	20	46.5%	30	41.7%
Aphakia, uncorrected	0	0.0%	4	9.3%	4	5.6%
Total curable	**10**	**34.5%**	**24**	**55.8%**	**34**	**47.2%**
Surgical complications	6	20.7%	2	4.7%	8	11.1%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	1	3.4%	1	2.3%	2	2.8%
Other corneal scar	10	34.5%	7	16.3%	17	23.6%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**17**	**58.6%**	**10**	**23.3%**	**27**	**37.5%**
Total avoidable	**27**	**93.1%**	**34**	**79.1%**	**61**	**84.7%**
Glaucoma	0	0.0%	3	7.0%	3	4.2%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**3**	**7.0%**	**3**	**4.2%**
Globe abnormality	2	6.9%	4	9.3%	6	8.3%
ARMD	0	0.0%	0	0.0%	0	0.0%
Other post. segment / CNS	0	0.0%	2	4.7%	2	2.8%
Total posterior segment	**2**	**6.9%**	**9**	**20.9%**	**11**	**15.3%**
	29	**100.0%**	**43**	**100.0%**	**72**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

6. Principal cause severe visual impairment in persons: VA<6/60 - 3/60 with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	3	6.0%	2	3.5%	5	4.7%
Cataract, untreated	41	82.0%	51	89.5%	92	86.0%
Aphakia, uncorrected	5	10.0%	3	5.3%	8	7.5%
Total curable	**49**	**98.0%**	**56**	**98.2%**	**105**	**98.1%**
Surgical complications	1	2.0%	1	1.8%	2	1.9%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	0	0.0%	0	0.0%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**2.0%**	**1**	**1.8%**	**2**	**1.9%**
Total avoidable	**50**	**100.0%**	**57**	**100.0%**	**107**	**100.0%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	0	0.0%	0	0.0%	0	0.0%
Other post. segment / CNS	0	0.0%	0	0.0%	0	0.0%
Total posterior segment	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
	50	**100.0%**	**57**	**100.0%**	**107**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

7. Main cause of severe visual impairment in eyes - VA<6/60 - 3/60 with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	17	12.0%	8	5.3%	25	8.5%
Cataract, untreated	112	78.9%	133	87.5%	245	83.3%
Aphakia, uncorrected	9	6.3%	6	3.9%	15	5.1%
Total curable	**138**	**97.2%**	**147**	**96.7%**	**285**	**96.9%**
Surgical complications	2	1.4%	3	2.0%	5	1.7%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	2	1.4%	0	0.0%	2	0.7%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**4**	**2.8%**	**3**	**2.0%**	**7**	**2.4%**
Total avoidable	**142**	**100.0%**	**150**	**98.7%**	**292**	**99.3%**
Glaucoma	0	0.0%	1	0.7%	1	0.3%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**1**	**0.7%**	**1**	**0.3%**
Globe abnormality	0	0.0%	1	0.7%	1	0.3%
ARMD	0	0.0%	0	0.0%	0	0.0%
Other post. segment / CNS	0	0.0%	0	0.0%	0	0.0%
Total posterior segment	**0**	**0.0%**	**2**	**1.3%**	**2**	**0.7%**
	142	**100.0%**	**152**	**100.0%**	**294**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

8. Principal cause visual impairment in persons: VA<6/18 - 6/60 with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	200	69.7%	179	61.1%	379	65.3%
Cataract, untreated	84	29.3%	108	36.9%	192	33.1%
Aphakia, uncorrected	1	0.3%	1	0.3%	2	0.3%
Total curable	**285**	**99.3%**	**288**	**98.3%**	**573**	**98.8%**
Surgical complications	1	0.3%	1	0.3%	2	0.3%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	0	0.0%	0	0.0%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**0.3%**	**1**	**0.3%**	**2**	**0.3%**
Total avoidable	**286**	**99.7%**	**289**	**98.6%**	**575**	**99.1%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	1	0.3%	0	0.0%	1	0.2%
Other post. segment / CNS	0	0.0%	4	1.4%	4	0.7%
Total posterior segment	**1**	**0.3%**	**4**	**1.4%**	**5**	**0.9%**
	287	**100.0%**	**293**	**100.0%**	**580**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

9. Main cause of visual impairment in eyes - VA<6/18 - 6/60 with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	439	70.5%	381	61.9%	820	66.2%
Cataract, untreated	178	28.6%	218	35.4%	396	32.0%
Aphakia, uncorrected	2	0.3%	3	0.5%	5	0.4%
Total curable	**619**	**99.4%**	**602**	**97.7%**	**1,221**	**98.5%**
Surgical complications	2	0.3%	5	0.8%	7	0.6%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	1	0.2%	1	0.1%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**2**	**0.3%**	**6**	**1.0%**	**8**	**0.6%**
Total avoidable	**621**	**99.7%**	**608**	**98.7%**	**1,229**	**99.2%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	2	0.3%	0	0.0%	2	0.2%
Other post. segment / CNS	0	0.0%	8	1.3%	8	0.6%
Total posterior segment	**2**	**0.3%**	**8**	**1.3%**	**10**	**0.8%**
	623	**100.0%**	**616**	**100.0%**	**1,239**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

10. Prevalence of cataract with VA<3/60, VA<6/60 and VA<6/18 - best corrected VA or pinhole

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Cataract blindness with VA<3/60 with best correction or pinhole						
Bilateral cataract blind	2	0.14	5	0.30	7	0.23
Unilateral cataract blind	6	0.43	11	0.66	17	0.56
Cataract blind eyes	10	0.36	21	0.63	31	0.51
Cataract with VA<6/60 with best correction or pinhole						
Bilateral cataract	42	3.01	54	3.26	96	3.15
Cataract eyes	120	4.30	154	4.65	274	4.49
Cataract with VA<6/18 with best correction or pinhole						
Bilateral cataract	125	8.97	158	9.54	283	9.28
Cataract eyes	300	10.76	372	11.23	672	11.02

NB. This table lists people and eyes with cataract and different levels of visual impairment. However, the primary cause of the visual impairment could be other than cataract

11. Sample prevalence of (pseudo)aphakia

	Male		Female		Total	
	n	%	n	%	n	%
Bilateral (pseudo)aphakia	28	2.01	33	1.99	61	2.00
Unilateral (pseudo)aphakia	31	2.22	33	1.99	64	2.10
(Pseudo)aphakic eyes	87	3.12	99	2.99	186	3.05

12. Cataract Surgical Coverage

Cataract Surgical Coverage (eyes) - percentage

	Male	Female	Total
VA < 3/60	89.7	82.5	85.7
VA < 6/60	42.0	39.1	40.4
VA < 6/18	22.5	21.0	21.7

Cataract Surgical Coverage (persons) - percentage

	Male	Female	Total
VA < 3/60	94.1	88.4	90.9
VA < 6/60	52.3	50.0	51.0
VA < 6/18	30.2	28.2	29.1

13. Number and percentage of first eyes and second eyes operated

	Male		Female		Total	
	n	%	n	%	n	%
First eyes	59	67.8	66	66.7	125	67.2
Second eyes	28	32.2	33	33.3	61	32.8

14. Low Vision: people with VA<6/18 in the better eye with best correction.
not due to refractive error, cataract or uncorrected aphakia

	Male		Female		Total	
Age group	n	%	n	%	n	%
50 to 54 yrs	0	0.0	2	0.3	2	0.2
55 to 59 yrs	0	0.0	4	1.4	4	0.6
60 to 64 yrs	1	0.3	1	0.4	2	0.4
65 to 69 yrs	0	0.0	0	0.0	0	0.0
70 to 74 yrs	0	0.0	0	0.0	0	0.0
75 to 79 yrs	1	1.0	0	0.0	1	0.6
80 + yrs	2	3.6	1	2.3	3	3.0
Total	**4**	**0.3**	**8**	**0.5**	**12**	**0.4**

15. Comparison responders versus non-responders

	Non-responders		Responders	
	n	%	n	%
Not blind	0		5,842	95.8%
Blind due to cataract	0		31	0.5%
Blind due to other causes	0		41	0.7%
Operated for catara	0		186	3.0%
Total	0	100.0%	6,100	100.0%

REASONS WHY PEOPLE, BLIND DUE TO CATARACT, HAVE NOT BEEN OPERATED

For each patient, one or two reasons may be recorded. Therefore the number of barriers is higher than the number of people blind due to cataract.

Date and time of report: 12/31/2012 9:08:06PM

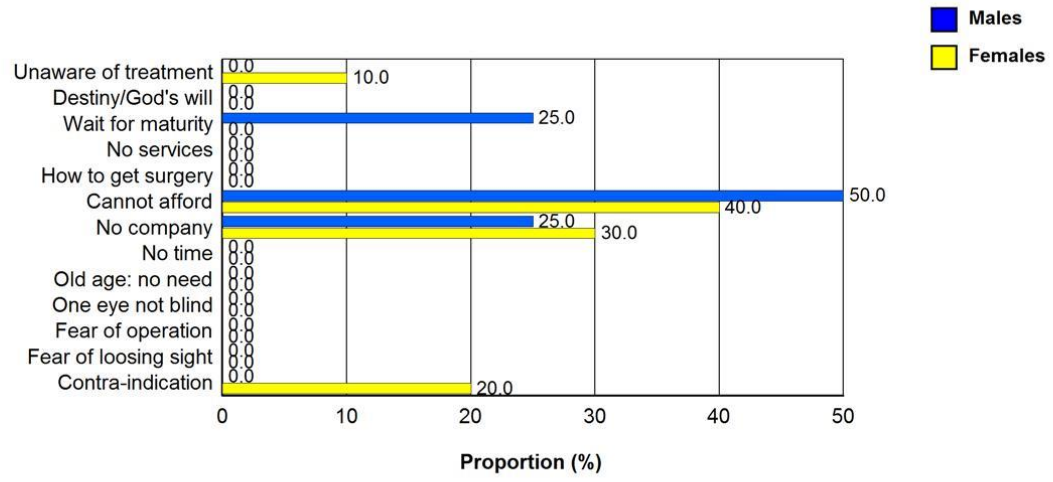
This report is for the survey area: BRAHMMANBARIA

Year and month when the survey was conducted: 2012- 2 until 2012- 6

RAAB is designed as a rapid procedure and there is not enough time during the RAAB to hold in-dept interviews why people blind from cataract have not yet been operated. Hence, the data on barriers should be regarded as an indication whether more detailed qualitative studies are required.

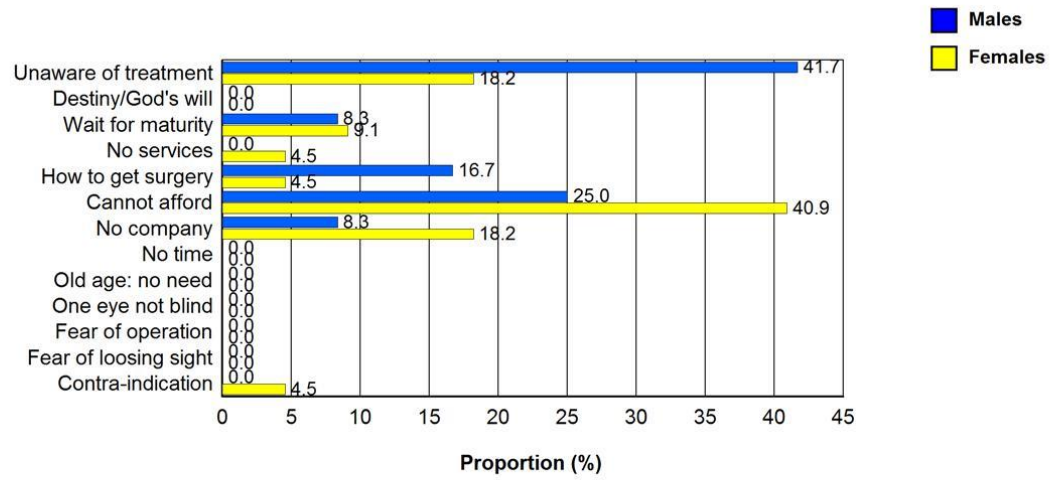
1. Barriers to cataract surgery, as indicated by persons in sample, bilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	0	0.0	1	10.0	1	7.1
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	1	25.0	0	0.0	1	7.1
No services	0	0.0	0	0.0	0	0.0
How to get surgery	0	0.0	0	0.0	0	0.0
Cannot afford	2	50.0	4	40.0	6	42.9
No company	1	25.0	3	30.0	4	28.6
No time	0	0.0	0	0.0	0	0.0
Old age: no need	0	0.0	0	0.0	0	0.0
One eye not blind	0	0.0	0	0.0	0	0.0
Fear of operation	0	0.0	0	0.0	0	0.0
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	0	0.0	2	20.0	2	14.3
All barriers	**4**	**100.0 %**	**10**	**100.0 %**	**14**	**100.0 %**



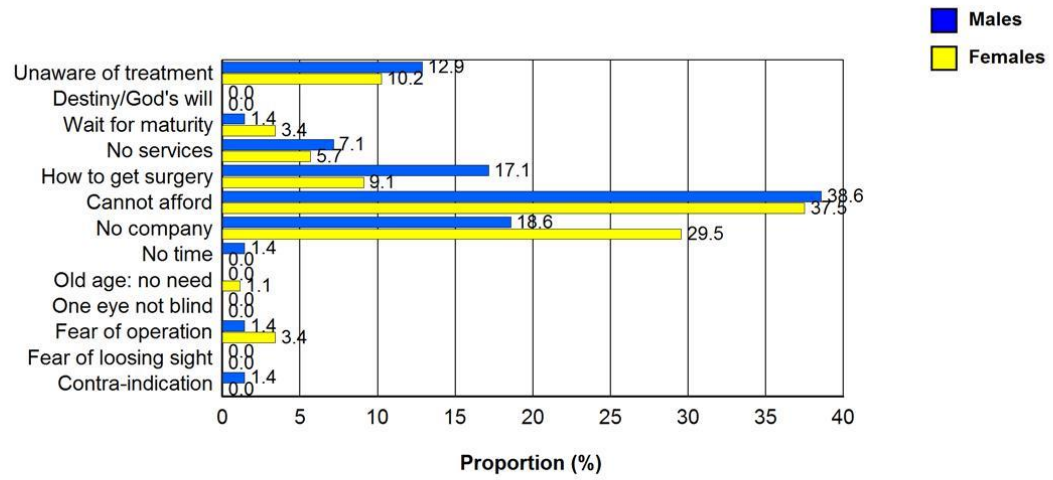
2. Barriers to cataract surgery, as indicated by persons in sample, unilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	5	41.7	4	18.2	9	26.5
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	1	8.3	2	9.1	3	8.8
No services	0	0.0	1	4.5	1	2.9
How to get surgery	2	16.7	1	4.5	3	8.8
Cannot afford	3	25.0	9	40.9	12	35.3
No company	1	8.3	4	18.2	5	14.7
No time	0	0.0	0	0.0	0	0.0
Old age: no need	0	0.0	0	0.0	0	0.0
One eye not blind	0	0.0	0	0.0	0	0.0
Fear of operation	0	0.0	0	0.0	0	0.0
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	0	0.0	1	4.5	1	2.9
All barriers	**12**	**100.0 %**	**22**	**100.0 %**	**34**	**100.0 %**



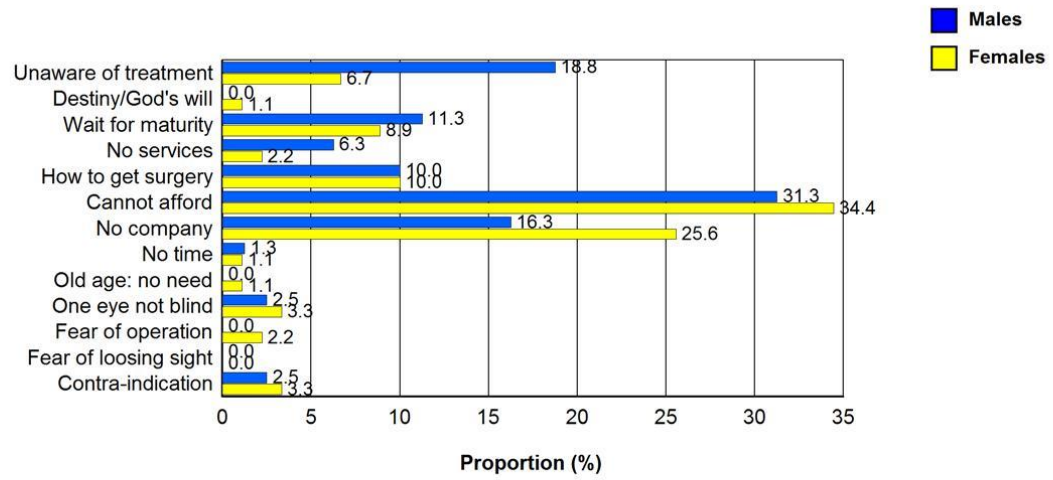
3. Barriers to cataract surgery, as indicated by persons in sample, with bilateral severe visual impairment due to cataract (VA<6/60 - 3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	9	12.9	9	10.2	18	11.4
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	1	1.4	3	3.4	4	2.5
No services	5	7.1	5	5.7	10	6.3
How to get surgery	12	17.1	8	9.1	20	12.7
Cannot afford	27	38.6	33	37.5	60	38.0
No company	13	18.6	26	29.5	39	24.7
No time	1	1.4	0	0.0	1	0.6
Old age: no need	0	0.0	1	1.1	1	0.6
One eye not blind	0	0.0	0	0.0	0	0.0
Fear of operation	1	1.4	3	3.4	4	2.5
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	1	1.4	0	0.0	1	0.6
All barriers	**70**	**100.0 %**	**88**	**100.0 %**	**158**	**100.0 %**



4. Barriers to cataract surgery, as indicated by persons in sample, with unilateral severe visual impairment due to cataract (VA<6/60 - 3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	15	18.8	6	6.7	21	12.4
Destiny/God's will	0	0.0	1	1.1	1	0.6
Wait for maturity	9	11.3	8	8.9	17	10.0
No services	5	6.3	2	2.2	7	4.1
How to get surgery	8	10.0	9	10.0	17	10.0
Cannot afford	25	31.3	31	34.4	56	32.9
No company	13	16.3	23	25.6	36	21.2
No time	1	1.3	1	1.1	2	1.2
Old age: no need	0	0.0	1	1.1	1	0.6
One eye not blind	2	2.5	3	3.3	5	2.9
Fear of operation	0	0.0	2	2.2	2	1.2
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	2	2.5	3	3.3	5	2.9
All barriers	**80**	**100.0 %**	**90**	**100.0 %**	**170**	**100.0 %**



VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

1. Visual outcome after cataract surgery
2. Causes of poor visual outcome after cataract surgery
3. Data on cataract surgical services in survey area
4. Patient satisfaction after cataract surgery

Date and time of the repor 12/31/2012 9:09:30PM

This report is for the survey area BRAHMMANBARIA

Year and month when survey was completed: 2012- 2 until 2012- 6

The visual acuity of all subjects operated earlier is measured with available correction and with a pinhole. This report gives population based data on visual outcome, not specific for one surgeon or one hospital and with follow-up periods ranging from one month to several decades. When cataract surgery took place several years earlier, the chance of visio loss due to other causes than cataract increases. If the proportion of eyes with a visual outcome less than 6/60 is higher than 10%, research into the possible causes of poor visual outcome is indicated.

1. Visual acuity of operated eyes in sample with available correction (PVA)

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	130	83.9%	0	0.0%	0	0.0%	130	69.9%
Cannot see 6/18, can see 6/60	18	11.6%	7	22.6%	0	0.0%	25	13.4%
Cannot see 6/60	7	4.5%	24	77.4%	0	0.0%	31	16.7%
Total	**155**	**100.0%**	**31**	**100.0%**	**0**	**100.0%**	**186**	**100.0%**

2. Visual acuity of operated eyes in sample with best correction (BCVA)

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	143	92.3%	10	32.3%	0	0.0%	153	82.3%
Cannot see 6/18, can see 6/60	5	3.2%	13	41.9%	0	0.0%	18	9.7%
Cannot see 6/60	7	4.5%	8	25.8%	0	0.0%	15	8.1%
Total	**155**	**100.0%**	**31**	**100.0%**	**0**	**100.0%**	**186**	**100.0%**

3. Visual acuity with available correction in eyes operated less than 5 years ago

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	73	78.5%	0	0.0%	0	0.0%	73	76.8%
Cannot see 6/18, can see 6/60	16	17.2%	1	50.0%	0	0.0%	17	17.9%
Cannot see 6/60	4	4.3%	1	50.0%	0	0.0%	5	5.3%
Total	**93**	**100.0%**	**2**	**100.0%**	**0**	**100.0%**	**95**	**100.0%**

4. Visual acuity with best correction in eyes operated less than 5 years ago

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	86	92.5%	0	0.0%	0	0.0%	86	90.5%
Cannot see 6/18, can see 6/60	3	3.2%	1	50.0%	0	0.0%	4	4.2%
Cannot see 6/60	4	4.3%	1	50.0%	0	0.0%	5	5.3%
Total	**93**	**100.0%**	**2**	**100.0%**	**0**	**100.0%**	**95**	**100.0%**

5. Visual acuity with available correction in eyes operated 5 or more years ago

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	57	91.9%	0	0.0%	0	0.0%	57	62.6%
Cannot see 6/18, can see 6/60	2	3.2%	6	20.7%	0	0.0%	8	8.8%
Cannot see 6/60	3	4.8%	23	79.3%	0	0.0%	26	28.6%
Total	**62**	**100.0%**	**29**	**100.0%**	**0**	**100.0%**	**91**	**100.0%**

6. Visual acuity with best correction in eyes operated 5 or more years ago

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	57	91.9%	10	34.5%	0	0.0%	67	73.6%
Cannot see 6/18, can see 6/60	2	3.2%	12	41.4%	0	0.0%	14	15.4%
Cannot see 6/60	3	4.8%	7	24.1%	0	0.0%	10	11.0%
Total	**62**	**100.0%**	**29**	**100.0%**	**0**	**100.0%**	**91**	**100.0%**

7. Age at time of surgery & type of surgery in males

Age group	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
50 to 54	4	5.6%	0	0.0%	0	0.0%	4	4.6%
55 to 59	6	8.3%	2	13.3%	0	0.0%	8	9.2%
60 to 64	11	15.3%	1	6.7%	0	0.0%	12	13.8%
65 to 69	15	20.8%	9	60.0%	0	0.0%	24	27.6%
70 to 74	16	22.2%	2	13.3%	0	0.0%	18	20.7%
75 to 79	12	16.7%	0	0.0%	0	0.0%	12	13.8%
80 and older	8	11.1%	1	6.7%	0	0.0%	9	10.3%
Total	**72**	**100.0%**	**15**	**100.0%**	**0**	**100.0%**	**87**	**100.0%**

8. Age at time of surgery & type of surgery in females

Age group	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
50 to 54	11	13.3%	1	6.3%	0	0.0%	12	12.1%
55 to 59	10	12.0%	1	6.3%	0	0.0%	11	11.1%
60 to 64	14	16.9%	6	37.5%	0	0.0%	20	20.2%
65 to 69	14	16.9%	5	31.3%	0	0.0%	19	19.2%
70 to 74	17	20.5%	2	12.5%	0	0.0%	19	19.2%
75 to 79	14	16.9%	1	6.3%	0	0.0%	15	15.2%
80 and older	3	3.6%	0	0.0%	0	0.0%	3	3.0%
Total	**83**	**100.0%**	**16**	**100.0%**	**0**	**100.0%**	**99**	**100.0%**

9. Place of surgery by sex

	Males n	Males %	Females n	Females %	Total n	Total %
Government hospital	17	19.5%	29	29.3%	46	24.7%
Voluntary/Charitable hospital	3	3.4%	3	3.0%	6	3.2%
Private hospital	30	34.5%	33	33.3%	63	33.9%
Eye camp/Improvised setting	37	42.5%	34	34.3%	71	38.2%
Total	**87**	**100.0%**	**99**	**100.0%**	**186**	**100.0%**

10. Post-op VA with available correction by place of surgery

Top: with IOL Bottom: without IOL	Govt. Hosp.		Vol. Hosp.		Pvt. Hosp.		Eye camp		Traditional	
	eyes	%	eyes	%	eyes	%	eyes	%	eyes	%
Can see 6/18	36	87.8%	4	100.0%	46	82.1%	44	81.5%	0	
Cannot see 6/18, can see 6/60	3	7.3%	0	0.0%	8	14.3%	7	13.0%	0	
Cannot see 6/60	2	4.9%	0	0.0%	2	3.6%	3	5.6%	0	
Total	**41**	**100.0%**	**4**	**100.0%**	**56**	**100.0%**	**54**	**100.0%**	**0**	**100.0%**
Cannot see 6/18, can see 6/60	0	0.0%	0	0.0%	3	42.9%	4	23.5%	0	
Cannot see 6/60	5	100.0%	2	100.0%	4	57.1%	13	76.5%	0	
Total	**5**	**100.0%**	**2**	**100.0%**	**7**	**100.0%**	**17**	**100.0%**	**0**	**100.0%**

11. Use of spectacles by sex

	Males		Females		Total	
	n	%	n	%	n	%
Without glasses	82	94.3%	97	98.0%	179	96.2%
With glasses	5	5.7%	2	2.0%	7	3.8%
Total	**87**	**100.0%**	**99**	**100.0%**	**186**	**100.0%**

12. Are you satisfied with results of cataract surgery?

	Males		Females		Total	
	n	%	n	%	n	%
Very satisfied	59	67.8%	74	74.7%	133	71.5%
Partially satisfied	10	11.5%	12	12.1%	22	11.8%
Indifferent	7	8.0%	2	2.0%	9	4.8%
Partially dissatisfied	5	5.7%	4	4.0%	9	4.8%
very dissatisfied	6	6.9%	7	7.1%	13	7.0%
Total	**87**	**100.0%**	**99**	**100.0%**	**186**	**100.0%**

13. Post-op presenting VA and satisfaction with results of surgery

Top: with IOL Bottom: without IOL	Very satisfied		Part. satisfied		Indifferent		Part. unsat.		Very unsat.	
	eyes	%	eyes	%	eyes	%	eyes	%	eyes	%
Can see 6/18	125	96.9%	5	41.7%	0	0.0%	0	0.0%	0	0.0%
Cannot see 6/18, can see 6/60	4	3.1%	7	58.3%	1	100.0%	4	66.7%	2	28.6%
Cannot see 6/60	0	0.0%	0	0.0%	0	0.0%	2	33.3%	5	71.4%
Total	**129**	**100.0%**	**12**	**100.0%**	**1**	**100.0%**	**6**	**100.0%**	**7**	**100.0%**
Cannot see 6/18, can see 6/60	2	50.0%	1	10.0%	0	0.0%	3	100.0%	1	16.7%
Cannot see 6/60	2	50.0%	9	90.0%	8	100.0%	0	0.0%	5	83.3%
Total	**4**	**100.0%**	**10**	**100.0%**	**8**	**100.0%**	**3**	**100.0%**	**6**	**100.0%**

14. Post-op presenting VA and causes of poor outcome in eyes operated less than 3 years ago

Top: with IOL Bottom: without IOL	Selection eyes	 %	Surgery eyes	 %	Spectacles eyes	 %	Sequelae eyes	 %	No relation eyes	 %
Can see 6/18	0		3	42.9%	0	0.0%	0	0.0%	60	92.3%
Cannot see 6/18, can see 6/60	0		1	14.3%	4	100.0%	2	66.7%	5	7.7%
Cannot see 6/60	0		3	42.9%	0	0.0%	1	33.3%	0	0.0%
Total	**0**	**100.0%**	**7**	**100.0%**	**4**	**100.0%**	**3**	**100.0%**	**65**	**100.0%**
Cannot see 6/18, can see 6/60	0		1	100.0%	0		0		0	
Total	**0**	**100.0%**	**1**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**

15. Post-op presenting VA and causes of poor outcome in eyes operated 3 or more years ago

Top: with IOL Bottom: without IOL	Selection eyes	 %	Surgery eyes	 %	Spectacles eyes	 %	Sequelae eyes	 %	No relation eyes	 %
Can see 6/18	0		0	0.0%	0	0.0%	0		67	98.5%
Cannot see 6/18, can see 6/60	0		2	40.0%	3	100.0%	0		1	1.5%
Cannot see 6/60	0		3	60.0%	0	0.0%	0		0	0.0%
Total	**0**	**100.0%**	**5**	**100.0%**	**3**	**100.0%**	**0**	**100.0%**	**68**	**100.0%**
Cannot see 6/18, can see 6/60	0		5	45.5%	1	5.3%	0		0	
Cannot see 6/60	0		6	54.5%	18	94.7%	0		0	
Total	**0**	**100.0%**	**11**	**100.0%**	**19**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**

16. Proportion and type of surgery

	Males n	 %	Females n	 %	Total n	 %
With IOL	72	82.8%	83	83.8%	155	83.3%
Without IOL	15	17.2%	16	16.2%	31	16.7%
Total	**87**	**100.0%**	**99**	**100.0%**	**186**	**100.0%**

INDICATORS BY SEX AND BY AGE GROUP - NOT ADJUSTED FOR AGE AND SEX

Date and time of report:	12/31/2012 9:11:04PM
This report is for the survey are	BRAHMMANBARIA
Year and month when survey was conducted:	2012- 2 until 2012- 6

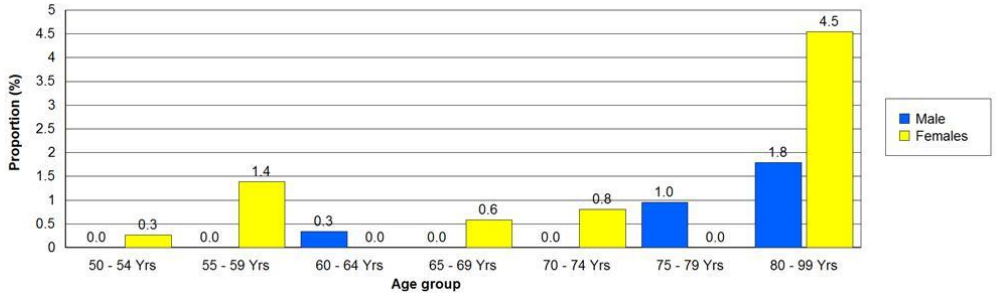
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral cataract blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals for prevalence of various conditions can be calculated with menu Reports / Sampling error & Design Effect.

1. Age and sex distribution of people examined in the sample

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	186	13.3	748	45.2	934	30.6
	400	28.7	288	17.4	688	22.6
	298	21.4	230	13.9	528	17.3
	198	14.2	172	10.4	370	12.1
	151	10.8	124	7.5	275	9.0
	105	7.5	50	3.0	155	5.1
	56	4.0	44	2.7	100	3.3
All ages	**1,394**	**100.0%**	**1,656**	**100.0%**	**3,050**	**100.0%**

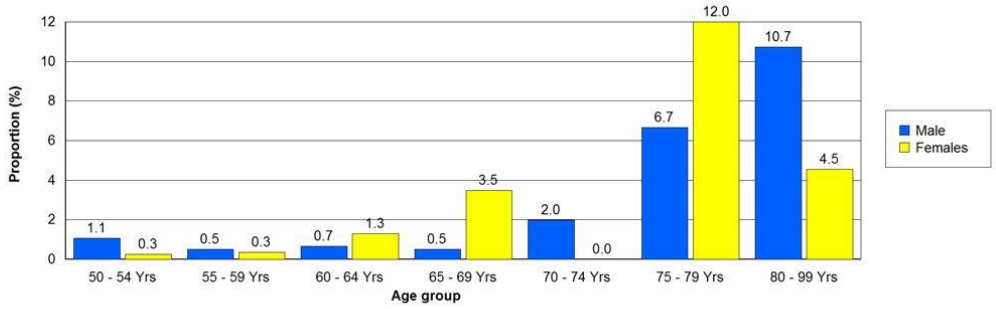
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction (WHO definition of blindne

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.3	2	0.2
	0	0.0	4	1.4	4	0.6
	1	0.3	0	0.0	1	0.2
	0	0.0	1	0.6	1	0.3
	0	0.0	1	0.8	1	0.4
	1	1.0	0	0.0	1	0.6
	1	1.8	2	4.5	3	3.0
All ages	**3**	**0.2**	**10**	**0.6**	**13**	**0.4**



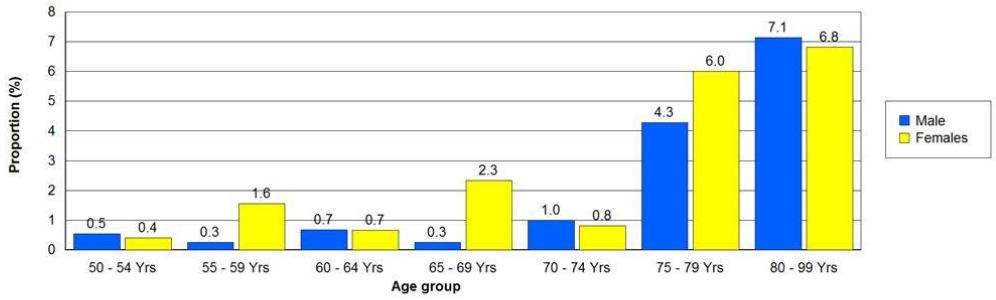
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	1.1	2	0.3	4	0.4
	2	0.5	1	0.3	3	0.4
	2	0.7	3	1.3	5	0.9
	1	0.5	6	3.5	7	1.9
	3	2.0	0	0.0	3	1.1
	7	6.7	6	12.0	13	8.4
	6	10.7	2	4.5	8	8.0
All ages	**23**	**1.6**	**20**	**1.2**	**43**	**1.4**



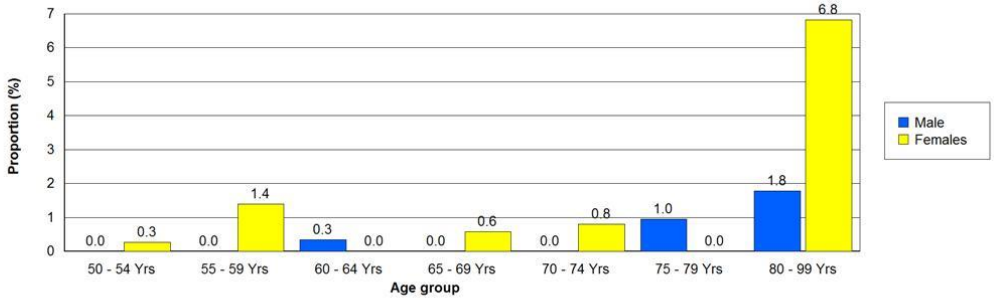
4. Prevalence of blind eyes - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.5	6	0.4	8	0.4
	2	0.3	9	1.6	11	0.8
	4	0.7	3	0.7	7	0.7
	1	0.3	8	2.3	9	1.2
	3	1.0	2	0.8	5	0.9
	9	4.3	6	6.0	15	4.8
	8	7.1	6	6.8	14	7.0
All ages	**29**	**1.0**	**40**	**1.2**	**69**	**1.1**



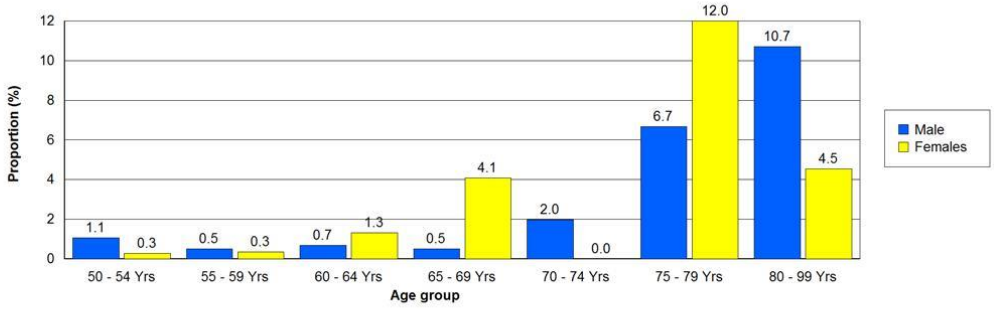
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.3	2	0.2
	0	0.0	4	1.4	4	0.6
	1	0.3	0	0.0	1	0.2
	0	0.0	1	0.6	1	0.3
	0	0.0	1	0.8	1	0.4
	1	1.0	0	0.0	1	0.6
	1	1.8	3	6.8	4	4.0
All ages	**3**	**0.2**	**11**	**0.7**	**14**	**0.5**



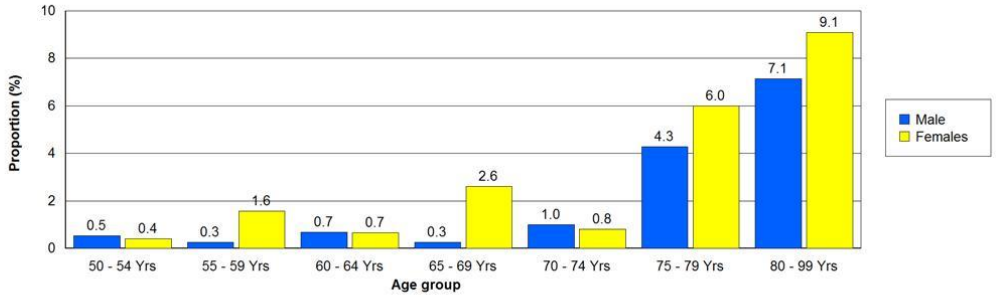
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	1.1	2	0.3	4	0.4
	2	0.5	1	0.3	3	0.4
	2	0.7	3	1.3	5	0.9
	1	0.5	7	4.1	8	2.2
	3	2.0	0	0.0	3	1.1
	7	6.7	6	12.0	13	8.4
	6	10.7	2	4.5	8	8.0
All ages	**23**	**1.6**	**21**	**1.3**	**44**	**1.4**



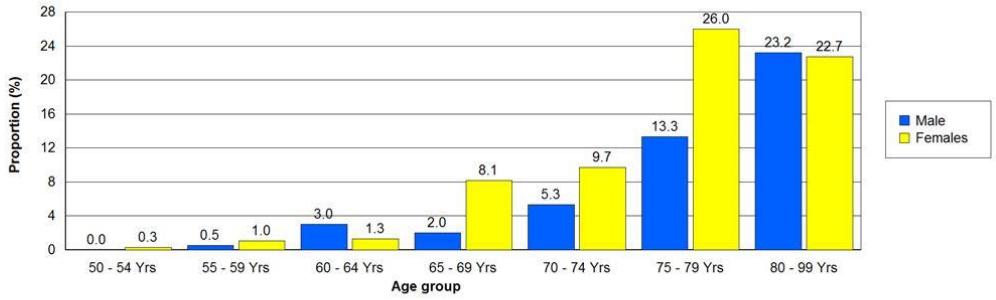
7. Prevalence of blind eyes - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.5	6	0.4	8	0.4
	2	0.3	9	1.6	11	0.8
	4	0.7	3	0.7	7	0.7
	1	0.3	9	2.6	10	1.4
	3	1.0	2	0.8	5	0.9
	9	4.3	6	6.0	15	4.8
	8	7.1	8	9.1	16	8.0
All ages	**29**	**1.0**	**43**	**1.3**	**72**	**1.2**



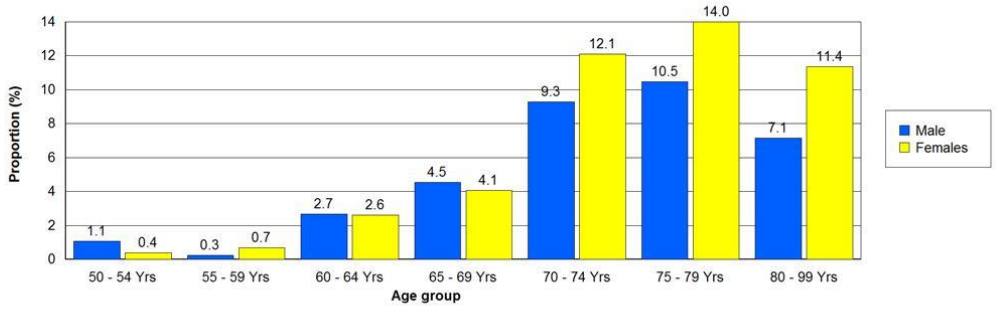
8. Prevalence of people with bilateral severe visual impairment - VA <6/60-3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.3	2	0.2
	2	0.5	3	1.0	5	0.7
	9	3.0	3	1.3	12	2.3
	4	2.0	14	8.1	18	4.9
	8	5.3	12	9.7	20	7.3
	14	13.3	13	26.0	27	17.4
	13	23.2	10	22.7	23	23.0
All ages	**50**	**3.6**	**57**	**3.4**	**107**	**3.5**



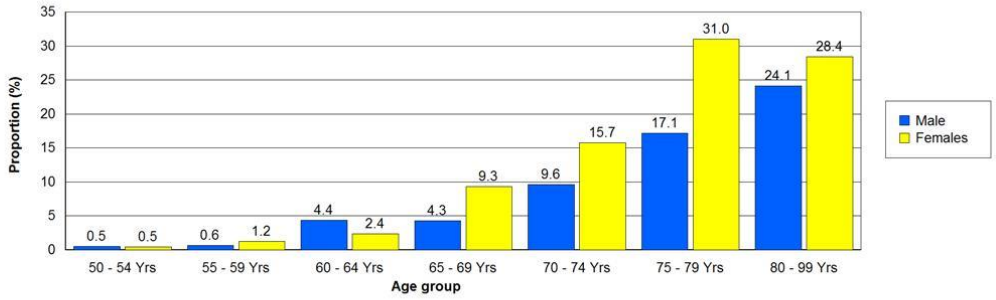
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	1.1	3	0.4	5	0.5
	1	0.3	2	0.7	3	0.4
	8	2.7	6	2.6	14	2.7
	9	4.5	7	4.1	16	4.3
	14	9.3	15	12.1	29	10.5
	11	10.5	7	14.0	18	11.6
	4	7.1	5	11.4	9	9.0
All ages	**49**	**3.5**	**45**	**2.7**	**94**	**3.1**



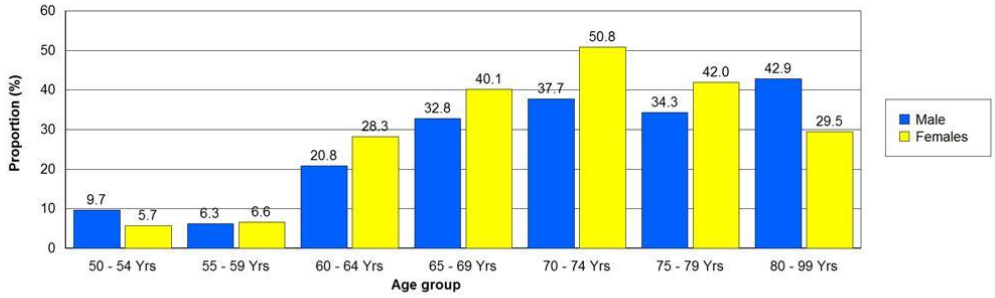
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.5	7	0.5	9	0.5
	5	0.6	7	1.2	12	0.9
	26	4.4	11	2.4	37	3.5
	17	4.3	32	9.3	49	6.6
	29	9.6	39	15.7	68	12.4
	36	17.1	31	31.0	67	21.6
	27	24.1	25	28.4	52	26.0
All ages	**142**	**5.1**	**152**	**4.6**	**294**	**4.8**



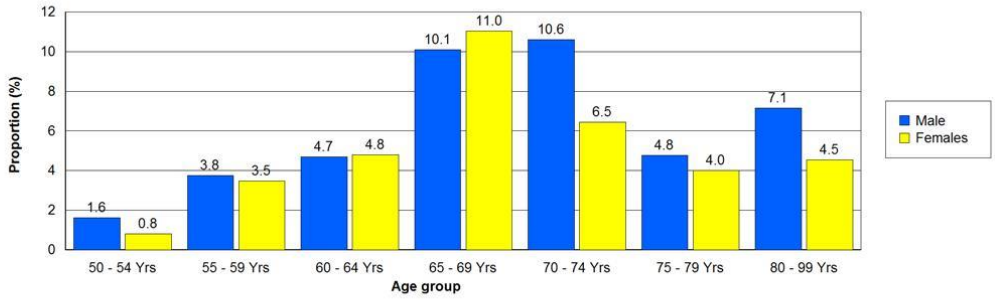
11. Prevalence of people with bilateral visual impairment - VA <6/18-6/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	18	9.7	43	5.7	61	6.5
	25	6.3	19	6.6	44	6.4
	62	20.8	65	28.3	127	24.1
	65	32.8	69	40.1	134	36.2
	57	37.7	63	50.8	120	43.6
	36	34.3	21	42.0	57	36.8
	24	42.9	13	29.5	37	37.0
All ages	**287**	**20.6**	**293**	**17.7**	**580**	**19.0**



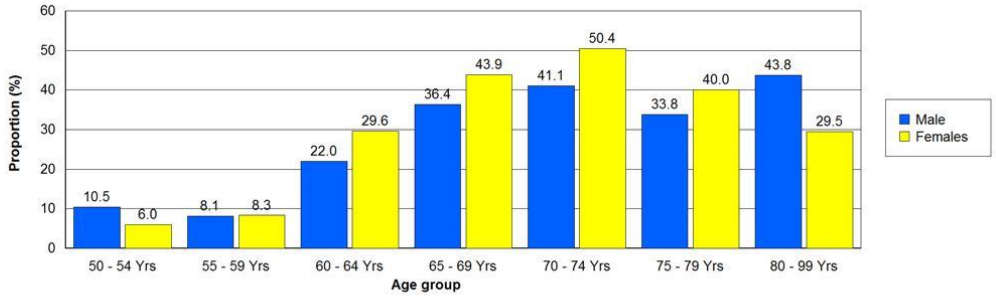
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	1.6	6	0.8	9	1.0
	15	3.8	10	3.5	25	3.6
	14	4.7	11	4.8	25	4.7
	20	10.1	19	11.0	39	10.5
	16	10.6	8	6.5	24	8.7
	5	4.8	2	4.0	7	4.5
	4	7.1	2	4.5	6	6.0
All ages	**77**	**5.5**	**58**	**3.5**	**135**	**4.4**



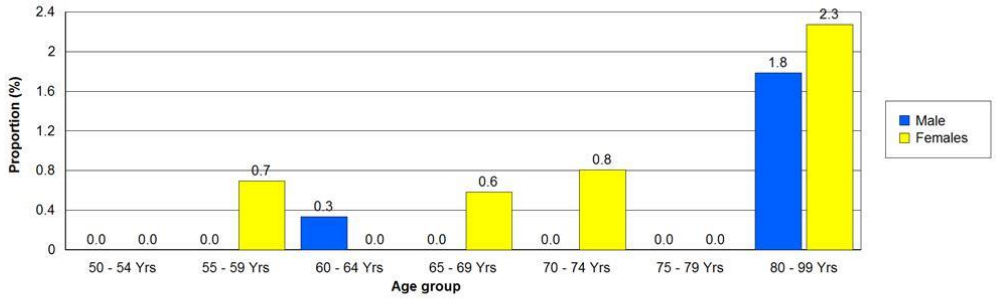
13. Prevalence of VI eyes - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	39	10.5	90	6.0	129	6.9
	65	8.1	48	8.3	113	8.2
	131	22.0	136	29.6	267	25.3
	144	36.4	151	43.9	295	39.9
	124	41.1	125	50.4	249	45.3
	71	33.8	40	40.0	111	35.8
	49	43.8	26	29.5	75	37.5
All ages	**623**	**22.3**	**616**	**18.6**	**1,239**	**20.3**



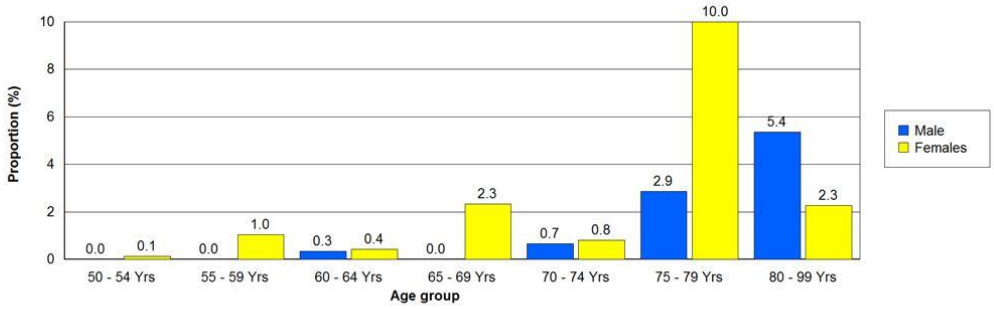
14. Prevalence of people bilateral blind due to cataract - VA <3/60 in better eye with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	0	0.0	0	0.0
	0	0.0	2	0.7	2	0.3
	1	0.3	0	0.0	1	0.2
	0	0.0	1	0.6	1	0.3
	0	0.0	1	0.8	1	0.4
	0	0.0	0	0.0	0	0.0
	1	1.8	1	2.3	2	2.0
All ages	**2**	**0.1**	**5**	**0.3**	**7**	**0.2**



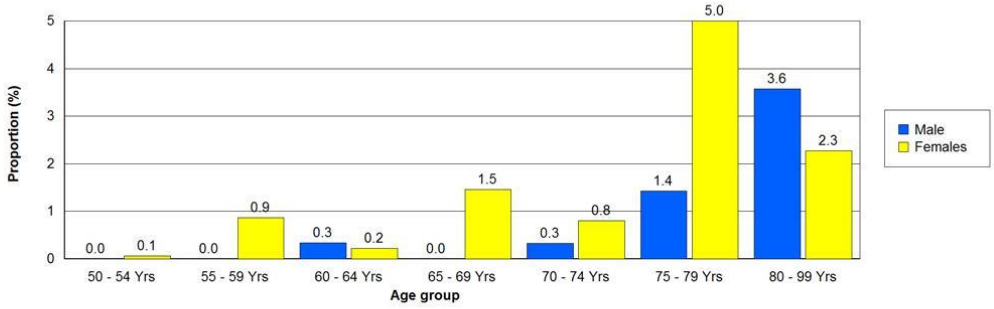
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.1	1	0.1
	0	0.0	3	1.0	3	0.4
	1	0.3	1	0.4	2	0.4
	0	0.0	4	2.3	4	1.1
	1	0.7	1	0.8	2	0.7
	3	2.9	5	10.0	8	5.2
	3	5.4	1	2.3	4	4.0
All ages	**8**	**0.6**	**16**	**1.0**	**24**	**0.8**



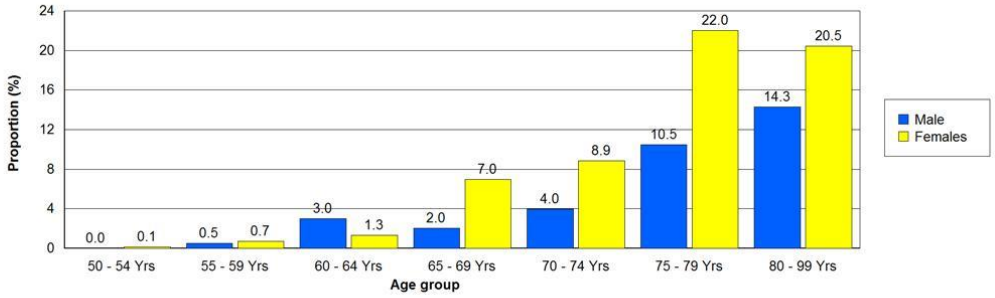
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.1	1	0.1
	0	0.0	5	0.9	5	0.4
	2	0.3	1	0.2	3	0.3
	0	0.0	5	1.5	5	0.7
	1	0.3	2	0.8	3	0.5
	3	1.4	5	5.0	8	2.6
	4	3.6	2	2.3	6	3.0
All ages	**10**	**0.4**	**21**	**0.6**	**31**	**0.5**



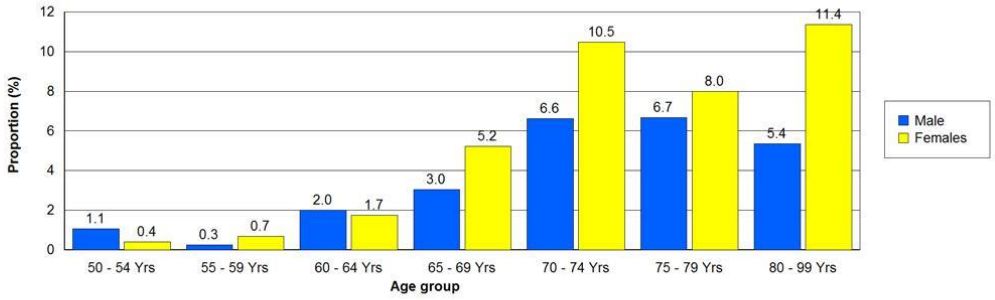
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correc

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.1	1	0.1
	2	0.5	2	0.7	4	0.6
	9	3.0	3	1.3	12	2.3
	4	2.0	12	7.0	16	4.3
	6	4.0	11	8.9	17	6.2
	11	10.5	11	22.0	22	14.2
	8	14.3	9	20.5	17	17.0
All ages	**40**	**2.9**	**49**	**3.0**	**89**	**2.9**



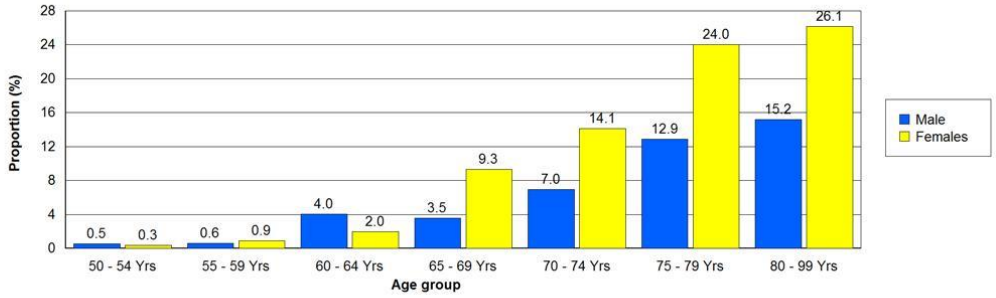
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA <3/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	1.1	3	0.4	5	0.5
	1	0.3	2	0.7	3	0.4
	6	2.0	4	1.7	10	1.9
	6	3.0	9	5.2	15	4.1
	10	6.6	13	10.5	23	8.4
	7	6.7	4	8.0	11	7.1
	3	5.4	5	11.4	8	8.0
All ages	**35**	**2.5**	**40**	**2.4**	**75**	**2.5**



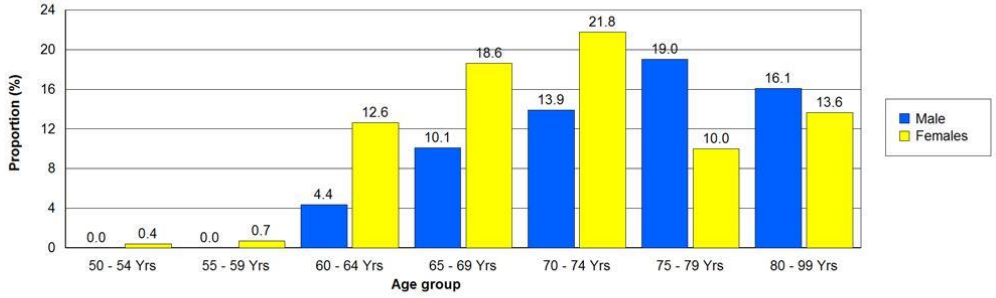
19. Prevalence of cataract SVI eyes - VA VA<6/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.5	5	0.3	7	0.4
	5	0.6	5	0.9	10	0.7
	24	4.0	9	2.0	33	3.1
	14	3.5	32	9.3	46	6.2
	21	7.0	35	14.1	56	10.2
	27	12.9	24	24.0	51	16.5
	17	15.2	23	26.1	40	20.0
All ages	**110**	**3.9**	**133**	**4.0**	**243**	**4.0**



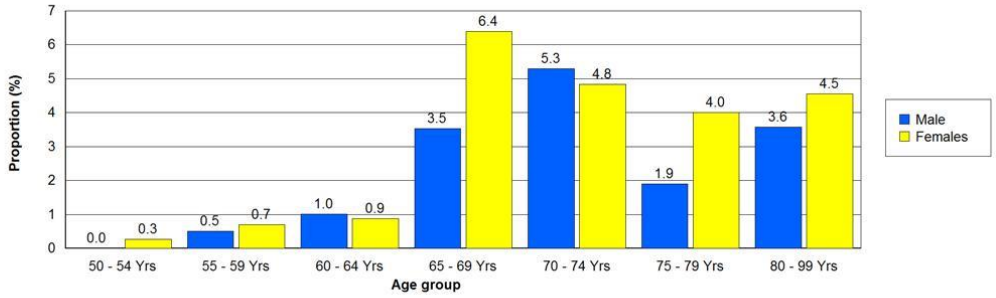
20. Prevalence of people with bilateral visual impairment due to cataract - VA <6/18-6/60 - best eye, best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	3	0.4	3	0.3
	0	0.0	2	0.7	2	0.3
	13	4.4	29	12.6	42	8.0
	20	10.1	32	18.6	52	14.1
	21	13.9	27	21.8	48	17.5
	20	19.0	5	10.0	25	16.1
	9	16.1	6	13.6	15	15.0
All ages	**83**	**6.0**	**104**	**6.3**	**187**	**6.1**



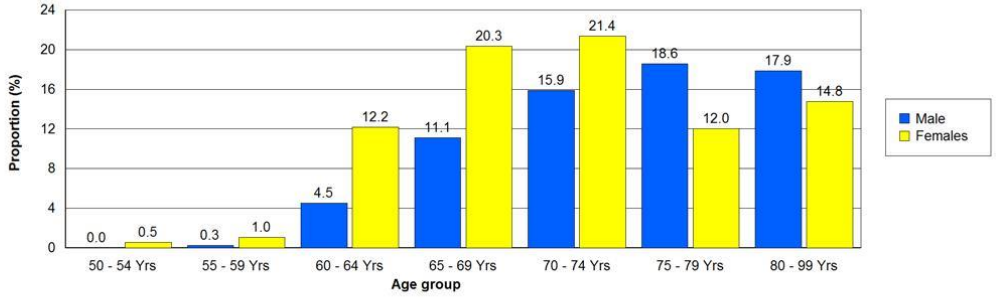
21. Prevalence of people with unilateral visual impairment due to cataract - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.3	2	0.2
	2	0.5	2	0.7	4	0.6
	3	1.0	2	0.9	5	0.9
	7	3.5	11	6.4	18	4.9
	8	5.3	6	4.8	14	5.1
	2	1.9	2	4.0	4	2.6
	2	3.6	2	4.5	4	4.0
All ages	**24**	**1.7**	**27**	**1.6**	**51**	**1.7**



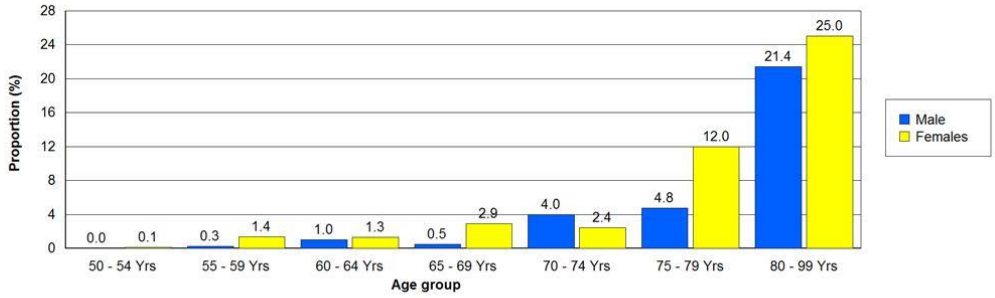
22. Prevalence of cataract VI eyes - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	8	0.5	8	0.4
	2	0.3	6	1.0	8	0.6
	27	4.5	56	12.2	83	7.9
	44	11.1	70	20.3	114	15.4
	48	15.9	53	21.4	101	18.4
	39	18.6	12	12.0	51	16.5
	20	17.9	13	14.8	33	16.5
All ages	**180**	**6.5**	**218**	**6.6**	**398**	**6.5**



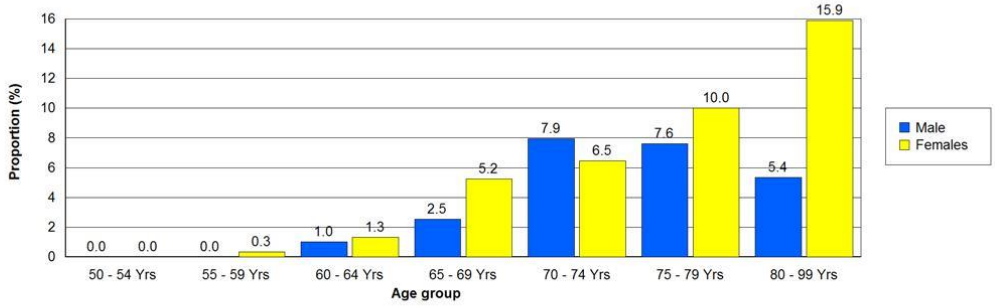
23. Prevalence of people with bilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.1	1	0.1
	1	0.3	4	1.4	5	0.7
	3	1.0	3	1.3	6	1.1
	1	0.5	5	2.9	6	1.6
	6	4.0	3	2.4	9	3.3
	5	4.8	6	12.0	11	7.1
	12	21.4	11	25.0	23	23.0
All ages	**28**	**2.0**	**33**	**2.0**	**61**	**2.0**



24. Prevalence of people with unilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	0	0.0	0	0.0
	0	0.0	1	0.3	1	0.1
	3	1.0	3	1.3	6	1.1
	5	2.5	9	5.2	14	3.8
	12	7.9	8	6.5	20	7.3
	8	7.6	5	10.0	13	8.4
	3	5.4	7	15.9	10	10.0
All ages	**31**	**2.2**	**33**	**2.0**	**64**	**2.1**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS
AGE AND SEX ADJUSTED

Date and time of the repor 12/31/2012 9:14:54PM

This report is for the survey area BRAHMMANBARIA

Year and month when survey was completed: 2012- 2 until 2012- 6

The prevalence of blindness and visual impairment increases strongly with age and in most communities, females are more affected than males. Normally, the people examined in the sample should have the same composition by age and by sex as the total population in the survey area. When there is a difference, the prevalence for the survey area will also differ. Table 2 and 3 compare the composition in the sample with that of the survey area. By combining the age and sex specific prevalence with the actual population, the age and sex adjusted prevalence and the actual number of people affected in the survey area can be calculated. The 95% confidence interval, based on the sample error in cluster sampling, is also given.

1. Total number of people aged 50+ in survey area

Male	314,953	53.8%
Female	270,809	46.2%
Total	**585,762**	**100.0%**

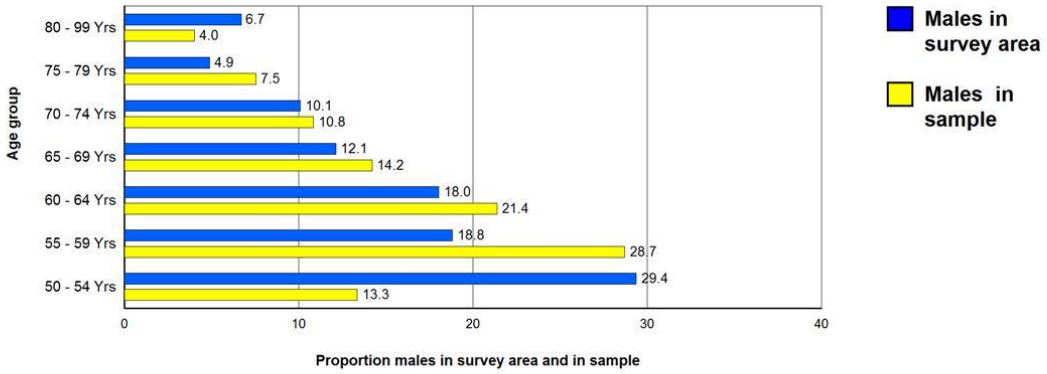
2a. Age and sex composition of population in sample

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	186	13.3%	748	45.2%	934	30.6%
55 - 59 Yrs	400	28.7%	288	17.4%	688	22.6%
60 - 64 Yrs	298	21.4%	230	13.9%	528	17.3%
65 - 69 Yrs	198	14.2%	172	10.4%	370	12.1%
70 - 74 Yrs	151	10.8%	124	7.5%	275	9.0%
75 - 79 Yrs	105	7.5%	50	3.0%	155	5.1%
80 - 99 Yrs	56	4.0%	44	2.7%	100	3.3%
Total	**1,394**	**100.0%**	**1,656**	**100.0%**	**3,050**	**100.0%**

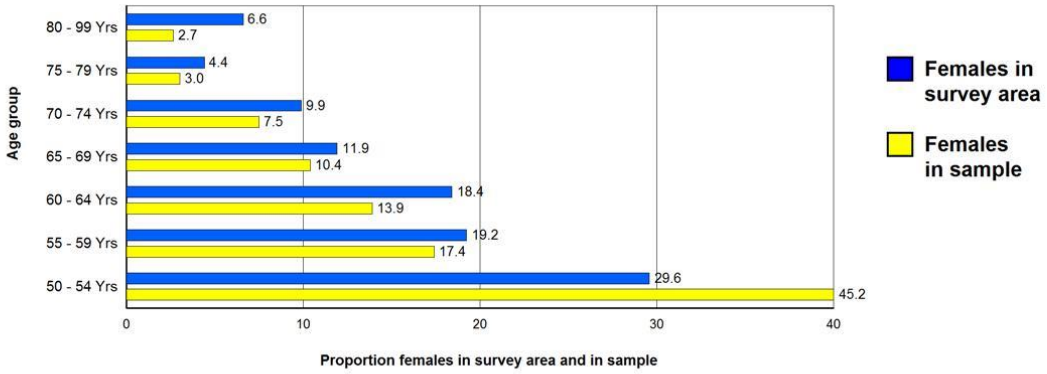
2b. Age and sex composition of population in entire survey area

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	92,503	29.4%	80,103	29.6%	172,606	29.5%
55 - 59 Yrs	59,271	18.8%	52,079	19.2%	111,350	19.0%
60 - 64 Yrs	56,791	18.0%	49,847	18.4%	106,638	18.2%
65 - 69 Yrs	38,191	12.1%	32,239	11.9%	70,430	12.0%
70 - 74 Yrs	31,743	10.1%	26,783	9.9%	58,526	10.0%
75 - 79 Yrs	15,375	4.9%	11,903	4.4%	27,278	4.7%
80 - 99 Yrs	21,079	6.7%	17,855	6.6%	38,934	6.6%
Total	**314,953**	**100.0%**	**270,809**	**100.0%**	**585,762**	**100.0%**

3a. Proportion of males in total survey area and in sample



3b. Proportion of females in total survey area and in sample



4. Adjusted results for all causes of blindness, SVI and VI

Estimated cases in people 50+ in survey area	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Blindness - VA<3/60 in better eye, best corrected or pinhole (WHO definition)									
Bilateral blind	713	0.23	±0.24	2,153	0.79	±0.38	2,866	0.49	±0.24
Blind eyes	7,206	1.14	±0.44	8,715	1.61	±0.45	15,921	1.36	±0.31
Blindness - VA<3/60 in better eye, with available correction									
Bilateral blind	713	0.23	±0.24	2,558	0.94	±0.40	3,272	0.56	±0.25
Blind eyes	7,206	1.14	±0.44	9,714	1.79	±0.47	16,920	1.44	±0.32
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in better eye with available correction									
Bilateral SVI	11,408	3.62	±1.25	13,776	5.09	±0.95	25,184	4.30	±0.85
SVI eyes	31,500	5.00	±1.34	36,346	6.71	±1.06	67,846	5.79	±0.98
Visual Impairment (VI) - VA<6/18 - 6/60 in better eye with available correction									
Bilateral VI	63,297	20.10	±2.75	58,943	21.77	±2.14	122,240	20.87	±1.89
VI eyes	136,675	21.70	±2.71	123,168	22.74	±2.17	259,843	22.18	±2.01

5. Adjusted results for all causes of blindness, VA<3/60, <6/60 and <6/18 with available correction

Estimated cases in people 50+ in survey area	Male n	Male %	Female n	Female %	Total n	Total %
Blindness - VA<3/60 in better eye, with available correction						
Bilateral blind	713	0.23	2,558	0.94	3,272	0.56
Blind eyes	7,206	1.14	9,714	1.79	16,920	1.44
VA<6/60 in better eye with available correction						
Bilateral <6/60	12,122	3.85	16,334	6.03	28,455	4.86
Eyes <6/60	38,706	6.14	46,060	8.50	84,766	7.24
VA<6/18 in better eye with available correction						
Bilateral <6/18	75,419	23.95	75,277	27.80	150,696	25.73
Eyes <6/18	175,382	27.84	169,227	31.24	344,609	29.42

6. Adjusted results for cataract and Blindness, SVI and VI with best correction or pinhole

	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Cataract and VA<3/60 in better eye with best correction or pinhole									
Bilateral cataract	567	0.18	±0.20	1,171	0.43	±0.31	1,738	0.30	±0.21
Unilateral cataract	1,969	0.63	±0.38	3,428	1.27	±0.43	5,397	0.92	±0.29
Cataract eyes	3,103	0.49	±0.27	5,770	1.07	±0.36	8,873	0.76	±0.25
Cataract and SVI in better eye with best correction or pinhole									
Bilateral cataract	8,666	2.75	±1.07	12,015	4.44	±0.76	20,681	3.53	±0.66
Unilateral cataract	7,700	2.44	±0.97	9,026	3.33	±1.07	16,726	2.86	±0.86
Cataract eyes	23,777	3.77	±1.29	31,995	5.91	±0.99	55,771	4.76	±0.92
Cataract and VI in better eye with best correction or pinhole									
Bilateral cataract	17,066	5.42	±1.41	22,423	8.28	±1.34	39,489	6.74	±1.19
Unilateral cataract	4,946	1.57	±0.79	5,655	2.09	±0.86	10,600	1.81	±0.67
Cataract eyes	37,258	5.91	±1.47	46,779	8.64	±1.37	84,037	7.17	±1.20

NB. This table lists people and eyes with cataract and different levels of visual impairment.
However, the primary cause of the visual impairment could be other than cataract

7. Adjusted results for cataract and VA<3/60, VA<6/60 and VA<6/18 with best correction or pinhole

	Male n	Male %	Female n	Female %	Total n	Total %
Cataract and VA<3/60 in better eye with best correction or pinhole						
Bilateral cataract	567	0.18	1,171	0.43	1,738	0.30
Unilateral cataract	1,969	0.63	3,428	1.27	5,397	0.92
Cataract eyes	3,103	0.49	5,770	1.07	8,873	0.76
Cataract and VA<6/60 in better eye with best correction or pinhole						
Bilateral cataract	9,233	2.93	13,186	4.87	22,419	3.83
Unilateral cataract	9,669	3.07	12,454	4.60	22,123	3.78
Cataract eyes	26,880	4.27	37,764	6.97	64,645	5.52
Cataract and VA<6/18 in better eye with best correction or pinhole						
Bilateral cataract	26,299	8.35	35,609	13.15	61,908	10.57
Unilateral cataract	14,615	4.64	18,109	6.69	32,724	5.59
Cataract eyes	64,138	10.18	84,543	15.61	148,681	12.69

NB. This table lists people and eyes with cataract and different levels of visual impairment.
However, the primary cause of the visual impairment could be other than cataract

8. Adjusted results for aphakia and pseudophakia

	Male			Female			Total		
	n	%	CI95%	n	%	CI95%	n	%	CI95%
Bilateral (pseudo)aphakia	7,423	2.36	±0.82	8,958	3.31	±0.75	16,381	2.80	±0.63
Unilateral (pseudo)aphakia	6,359	2.02	±0.70	8,277	3.06	±0.61	14,636	2.50	±0.52
(pseudo)aphakic eyes	21,206	3.37	±0.93	26,192	4.84	±0.82	47,398	4.05	±0.71

9. Adjusted results for cataract surgical coverage

Cataract Surgical Coverage (eyes)

	Males	Females	Total
VA <3/60	87.2	81.9	84.2
VA <6/60	44.1	41.0	42.3
VA <6/18	24.8	23.7	24.2

Cataract Surgical Coverage (persons)

	Males	Females	Total
VA <3/60	93.4	89.8	91.3
VA <6/60	54.6	52.2	53.2
VA <6/18	32.8	31.6	32.1

SAMPLING ERROR (CLUSTER SAMPLING) & DESIGN EFFECT

Date and time of the repor 12/31/2012 9:16:40PM

This report is for the survey area BRAHMMANBARIA

Year and month when survey was completed: 2012- 2 until 2012- 6

To assess the accuracy of the estimate of the prevalence of a condition in the RAAB survey, the sampling error for the prevalence estimate of that condition in cluster sampling (SEcrs) is calculated, using the formula's provided by:
Bennett S, Woods T, Liyanage WM, Smith DL.A simplified general method for cluster-sample surveys of health in developing countries. World Health Stat Q. 1991;44(3):98-106. The design effect (DEFF) is calculated by SEcrs^2 / SEsrs^2.

The table below shows the number of cases and the prevalence (sample prev.) of various conditions in the sample population, and the corresponding 95% confidence interval (CI 95%).
When the age and sex composition of the sample differs from that in the entire survey area, the actual prevalence may differ from that calculated in the sample. Run the report 'Age & sex adjusted results' to calculate the prevalence for and estimated number of people with the condition in the entire survey area. To calculate the prevalence interval at 95% confidence, take the age & sex adjusted prevalence from that report and subtract and add the Var. 95% to find the 95% lower confidence level and the 95% higher confidence level, respectively. Use the Var. 90% and the Var. 80% to calculate the prevalence intervals at 90% and 80% confidence. Var. 95% = 1.96 * SEcrs; Var. 90% = 1.65 * SEcrs; Var. 80% = 1.28 * SEcrs

Bilateral blind, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	3	0.22	-0.02 - 0.45	0.24	0.20	0.16	0.96	0.12
Female	10	0.60	0.22 - 0.99	0.38	0.32	0.25	1.06	0.20
Total	**13**	**0.43**	**0.18 - 0.67**	**0.24**	**0.21**	**0.16**	**1.12**	**0.12**

Blind eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	30	1.04	0.60 - 1.48	0.44	0.37	0.29	0.67	0.22
Female	40	1.21	0.76 - 1.66	0.45	0.38	0.29	0.73	0.23
Total	**70**	**1.13**	**0.82 - 1.44**	**0.31**	**0.26**	**0.20**	**0.69**	**0.16**

Bilateral SVI, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	41	2.94	1.74 - 4.14	1.20	1.01	0.79	1.84	0.61
Female	53	3.20	2.28 - 4.12	0.92	0.77	0.60	1.17	0.47
Total	**94**	**3.08**	**2.29 - 3.88**	**0.80**	**0.67**	**0.52**	**1.69**	**0.41**

SVI eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	114	4.09	2.81 - 5.37	1.28	1.07	0.83	1.51	0.65
Female	140	4.23	3.23 - 5.22	1.00	0.84	0.65	1.05	0.51
Total	**254**	**4.16**	**3.24 - 5.09**	**0.92**	**0.77**	**0.60**	**1.70**	**0.47**

Bilateral VI, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	90	6.46	5.03 - 7.88	1.42	1.19	0.93	1.22	0.73
Female	117	7.07	5.64 - 8.49	1.42	1.19	0.93	1.33	0.73
Total	**207**	**6.79**	**5.59 - 7.99**	**1.20**	**1.01**	**0.78**	**1.80**	**0.61**

VI eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	192	6.89	5.43 - 8.35	1.46	1.23	0.95	1.21	0.74
Female	242	7.31	5.94 - 8.67	1.36	1.14	0.89	1.18	0.70
Total	**434**	**7.11**	**5.92 - 8.31**	**1.19**	**1.00**	**0.78**	**1.71**	**0.61**

Bilateral blind, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	3	0.22	-0.02 - 0.45	0.24	0.20	0.16	0.96	0.12
Female	11	0.66	0.27 - 1.06	0.40	0.33	0.26	1.03	0.20
Total	**14**	**0.46**	**0.21 - 0.71**	**0.25**	**0.21**	**0.16**	**1.08**	**0.13**

Blind eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	30	1.04	0.60 - 1.48	0.44	0.37	0.29	0.67	0.22
Female	44	1.30	0.83 - 1.77	0.47	0.39	0.31	0.74	0.24
Total	**72**	**1.18**	**0.86 - 1.50**	**0.32**	**0.27**	**0.21**	**0.69**	**0.16**

Bilateral SVI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	50	3.59	2.33 - 4.84	1.25	1.05	0.82	1.65	0.64
Female	57	3.44	2.49 - 4.40	0.95	0.80	0.62	1.18	0.49
Total	**107**	**3.51**	**2.66 - 4.36**	**0.85**	**0.71**	**0.55**	**1.69**	**0.43**

SVI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	142	5.09	3.75 - 6.43	1.34	1.13	0.88	1.35	0.68
Female	152	4.59	3.53 - 5.65	1.06	0.89	0.69	1.10	0.54
Total	**294**	**4.82**	**3.84 - 5.80**	**0.98**	**0.83**	**0.64**	**1.67**	**0.50**

Bilateral VI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	287	20.59	17.84 - 23.33	2.75	2.30	1.80	1.67	1.40
Female	293	17.69	15.55 - 19.84	2.14	1.80	1.40	1.36	1.09
Total	**580**	**19.02**	**17.12 - 20.91**	**1.89**	**1.59**	**1.24**	**1.85**	**0.97**

VI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	624	22.35	19.64 - 25.05	2.71	2.27	1.77	1.53	1.38
Female	616	18.60	16.43 - 20.77	2.17	1.82	1.42	1.34	1.11
Total	**1,240**	**20.31**	**18.30 - 22.32**	**2.01**	**1.68**	**1.31**	**1.98**	**1.02**

Bilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	2	0.14	-0.05 - 0.34	0.20	0.16	0.13	0.98	0.10
Female	5	0.30	-0.01 - 0.61	0.31	0.26	0.20	1.35	0.16
Total	**7**	**0.23**	**0.02 - 0.44**	**0.21**	**0.17**	**0.14**	**1.48**	**0.11**

Unilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	6	0.43	0.05 - 0.81	0.38	0.32	0.25	1.24	0.20
Female	11	0.66	0.24 - 1.09	0.43	0.36	0.28	1.20	0.22
Total	**17**	**0.56**	**0.27 - 0.85**	**0.29**	**0.24**	**0.19**	**1.22**	**0.15**

Eyes cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	10	0.36	0.09 - 0.62	0.27	0.22	0.17	0.71	0.14
Female	22	0.63	0.28 - 0.99	0.36	0.30	0.23	0.87	0.18
Total	**32**	**0.51**	**0.25 - 0.76**	**0.25**	**0.21**	**0.17**	**1.01**	**0.13**

Bilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	35	2.51	1.44 - 3.58	1.07	0.89	0.70	1.68	0.54
Female	44	2.66	1.89 - 3.42	0.76	0.64	0.50	0.97	0.39
Total	**79**	**2.59**	**1.93 - 3.25**	**0.66**	**0.56**	**0.43**	**1.38**	**0.34**

Unilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	40	2.87	1.90 - 3.84	0.97	0.81	0.63	1.22	0.49
Female	45	2.72	1.65 - 3.79	1.07	0.90	0.70	1.87	0.55
Total	**85**	**2.79**	**1.93 - 3.65**	**0.86**	**0.72**	**0.56**	**2.17**	**0.44**

Eyes cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	110	3.95	2.66 - 5.23	1.29	1.08	0.84	1.58	0.66
Female	134	4.02	3.03 - 5.00	0.99	0.83	0.65	1.09	0.50
Total	**244**	**3.98**	**3.07 - 4.90**	**0.92**	**0.77**	**0.60**	**1.75**	**0.47**

Bilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	73	5.24	3.83 - 6.64	1.41	1.18	0.92	1.44	0.72
Female	87	5.25	3.92 - 6.59	1.34	1.12	0.87	1.55	0.68
Total	**160**	**5.25**	**4.05 - 6.44**	**1.19**	**1.00**	**0.78**	**2.27**	**0.61**

Unilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	34	2.44	1.65 - 3.23	0.79	0.66	0.51	0.95	0.40
Female	44	2.66	1.80 - 3.52	0.86	0.72	0.56	1.23	0.44
Total	**78**	**2.56**	**1.88 - 3.23**	**0.67**	**0.57**	**0.44**	**1.45**	**0.34**

Eyes cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	180	6.46	4.99 - 7.92	1.47	1.23	0.96	1.30	0.75
Female	218	6.58	5.22 - 7.95	1.37	1.15	0.89	1.31	0.70
Total	**398**	**6.52**	**5.32 - 7.73**	**1.20**	**1.01**	**0.79**	**1.88**	**0.61**

Bilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	28	2.01	1.19 - 2.83	0.82	0.69	0.54	1.24	0.42
Female	33	1.99	1.25 - 2.74	0.75	0.63	0.49	1.23	0.38
Total	**61**	**2.00**	**1.37 - 2.63**	**0.63**	**0.53**	**0.42**	**1.63**	**0.32**

Unilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	31	2.22	1.53 - 2.92	0.70	0.58	0.46	0.81	0.36
Female	33	1.99	1.38 - 2.60	0.61	0.51	0.40	0.82	0.31
Total	**64**	**2.10**	**1.58 - 2.62**	**0.52**	**0.44**	**0.34**	**1.05**	**0.27**

Eyes (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	88	3.12	2.19 - 4.05	0.93	0.78	0.61	1.03	0.47
Female	100	2.99	2.17 - 3.81	0.82	0.69	0.54	1.00	0.42
Total	**186**	**3.05**	**2.34 - 3.76**	**0.71**	**0.60**	**0.47**	**1.37**	**0.36**

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 12/31/2012 9:18:29PM

This report is for the survey area: Sathkhira

Year and month when survey was conducted: 2012-11 until 2012-11

The sample size of the RAAB is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral blindness (best corrected VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals for prevalence of various conditions can be calculated with menu Reports / Sampling error & Design Effect.

1. Eligible persons, coverage, absentees and refusals in survey

	Total eligible		Examined		Not available		Refused		Not capable		Coverage
	n	%	n	%	n	%	n	%	n	%	
Males	1,101	44.0%	1,090	43.9%	11	78.6%	0	0.0%	0	0.0%	99.0%
Females	1,399	56.0%	1,395	56.1%	3	21.4%	1	100.0%	0	0.0%	99.7%
Total	2,500	100.0%	2,485	99.4%	14	0.6%	1	0.0%	0	0.0%	99.4%

1a. Average age of sample population, by examination status and by sex

	Examined	Not available	Refused	Total
Males	61.4	65.6	0.0	61.5
Females	57.9	65.0	99.0	57.9
Total	59.4	65.5	99.0	59.5

2. Prevalence of blindness, severe visual impairment (SVI) and visual impairment (VI) - all causes

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with best correction or pinhole (WHO definition)						
All bilateral blindness	15	1.38	44	3.15	59	2.37
All blind eyes	74	3.39	148	5.30	222	4.47
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	29	2.66	70	5.02	99	3.98
All blind eyes	103	4.72	204	7.31	307	6.18
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in the better eye, with available correction						
All bilateral SVI	37	3.39	55	3.94	92	3.70
All SVI eyes	85	3.90	124	4.44	209	4.21
Visual Impairment (VI) - VA<6/18 - 6/60 in the better eye, with available correction						
All bilateral VI	205	18.81	245	17.56	450	18.11
All VI eyes	436	20.00	517	18.53	953	19.18

3. Prevalence of presenting VA<3/60, VA<6/60 and VA<6/18 - all causes (cumulative categories)

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	29	2.66	70	5.02	99	3.98
All blind eyes	103	4.72	204	7.31	307	6.18
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	66	6.06	125	8.96	191	7.69
All eyes	188	8.62	328	11.76	516	10.38
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	271	24.86	370	26.52	641	25.79
All eyes	624	28.62	845	30.29	1,469	29.56

4. Principal cause of blindness in persons: VA<3/60 in better eye with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	3	4.3%	3	3.0%
Cataract, untreated	25	86.2%	60	85.7%	85	85.9%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**25**	**86.2%**	**63**	**90.0%**	**88**	**88.9%**
Surgical complications	1	3.4%	1	1.4%	2	2.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	1	3.4%	0	0.0%	1	1.0%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**2**	**6.9%**	**1**	**1.4%**	**3**	**3.0%**
Total avoidable	**27**	**93.1%**	**64**	**91.4%**	**91**	**91.9%**
Glaucoma	2	6.9%	1	1.4%	3	3.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**2**	**6.9%**	**1**	**1.4%**	**3**	**3.0%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	0	0.0%	3	4.3%	3	3.0%
Other post. segment / CNS	0	0.0%	2	2.9%	2	2.0%
Total posterior segment	**2**	**6.9%**	**6**	**8.6%**	**8**	**8.1%**
	29	**100.0%**	**70**	**100.0%**	**99**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

5. Main cause of blindness in eyes - VA<3/60 with available correction, no pinhole

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	6	2.9%	6	2.0%
Cataract, untreated	70	68.0%	158	77.5%	228	74.3%
Aphakia, uncorrected	0	0.0%	1	0.5%	1	0.3%
Total curable	**70**	**68.0%**	**165**	**80.9%**	**235**	**76.5%**
Surgical complications	2	1.9%	4	2.0%	6	2.0%
Trachoma	1	1.0%	0	0.0%	1	0.3%
Phthysis	1	1.0%	8	3.9%	9	2.9%
Other corneal scar	14	13.6%	4	2.0%	18	5.9%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**18**	**17.5%**	**16**	**7.8%**	**34**	**11.1%**
Total avoidable	**88**	**85.4%**	**181**	**88.7%**	**269**	**87.6%**
Glaucoma	5	4.9%	3	1.5%	8	2.6%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**5**	**4.9%**	**3**	**1.5%**	**8**	**2.6%**
Globe abnormality	5	4.9%	5	2.5%	10	3.3%
ARMD	2	1.9%	7	3.4%	9	2.9%
Other post. segment / CNS	3	2.9%	8	3.9%	11	3.6%
Total posterior segment	**15**	**14.6%**	**23**	**11.3%**	**38**	**12.4%**
	103	**100.0%**	**204**	**100.0%**	**307**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

6. Principal cause severe visual impairment in persons: VA<6/60 - 3/60 with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	8	21.6%	6	10.9%	14	15.2%
Cataract, untreated	27	73.0%	48	87.3%	75	81.5%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**35**	**94.6%**	**54**	**98.2%**	**89**	**96.7%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	0	0.0%	0	0.0%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Total avoidable	**35**	**94.6%**	**54**	**98.2%**	**89**	**96.7%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Globe abnormality	1	2.7%	0	0.0%	1	1.1%
ARMD	0	0.0%	1	1.8%	1	1.1%
Other post. segment / CNS	1	2.7%	0	0.0%	1	1.1%
Total posterior segment	**2**	**5.4%**	**1**	**1.8%**	**3**	**3.3%**
	37	**100.0%**	**55**	**100.0%**	**92**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

7. Main cause of severe visual impairment in eyes - VA<6/60 - 3/60 with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	14	16.5%	15	12.1%	29	13.9%
Cataract, untreated	66	77.6%	101	81.5%	167	79.9%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**80**	**94.1%**	**116**	**93.5%**	**196**	**93.8%**
Surgical complications	1	1.2%	4	3.2%	5	2.4%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	1	0.8%	1	0.5%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**1.2%**	**5**	**4.0%**	**6**	**2.9%**
Total avoidable	**81**	**95.3%**	**121**	**97.6%**	**202**	**96.7%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Globe abnormality	1	1.2%	0	0.0%	1	0.5%
ARMD	1	1.2%	3	2.4%	4	1.9%
Other post. segment / CNS	2	2.4%	0	0.0%	2	1.0%
Total posterior segment	**4**	**4.7%**	**3**	**2.4%**	**7**	**3.3%**
	85	**100.0%**	**124**	**100.0%**	**209**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

8. Principal cause visual impairment in persons: VA<6/18 - 6/60 with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	101	49.3%	96	39.2%	197	43.8%
Cataract, untreated	102	49.8%	144	58.8%	246	54.7%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**203**	**99.0%**	**240**	**98.0%**	**443**	**98.4%**
Surgical complications	0	0.0%	1	0.4%	1	0.2%
Trachoma	1	0.5%	0	0.0%	1	0.2%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	2	0.8%	2	0.4%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**0.5%**	**3**	**1.2%**	**4**	**0.9%**
Total avoidable	**204**	**99.5%**	**243**	**99.2%**	**447**	**99.3%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Globe abnormality	0	0.0%	1	0.4%	1	0.2%
ARMD	0	0.0%	0	0.0%	0	0.0%
Other post. segment / CNS	1	0.5%	1	0.4%	2	0.4%
Total posterior segment	**1**	**0.5%**	**2**	**0.8%**	**3**	**0.7%**
	205	**100.0%**	**245**	**100.0%**	**450**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

9. Main cause of visual impairment in eyes - VA<6/18 - 6/60 with available correction

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	222	50.9%	222	42.9%	444	46.6%
Cataract, untreated	209	47.9%	280	54.2%	489	51.3%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**431**	**98.9%**	**502**	**97.1%**	**933**	**97.9%**
Surgical complications	1	0.2%	7	1.4%	8	0.8%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	2	0.5%	5	1.0%	7	0.7%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**3**	**0.7%**	**12**	**2.3%**	**15**	**1.6%**
Total avoidable	**434**	**99.5%**	**514**	**99.4%**	**948**	**99.5%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Globe abnormality	0	0.0%	1	0.2%	1	0.1%
ARMD	0	0.0%	0	0.0%	0	0.0%
Other post. segment / CNS	2	0.5%	2	0.4%	4	0.4%
Total posterior segment	**2**	**0.5%**	**3**	**0.6%**	**5**	**0.5%**
	436	**100.0%**	**517**	**100.0%**	**953**	**100.0%**

* Because an accurate diagnosis of glaucoma and diabetic retinopathy can be difficult with the limited facilities used in a Rapid Assessment, these potentially or partially preventable causes are listed separately.

10. Prevalence of cataract with VA<3/60, VA<6/60 and VA<6/18 - best corrected VA or pinhole

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Cataract blindness with VA<3/60 with best correction or pinhole						
Bilateral cataract blind	13	1.19	35	2.51	48	1.93
Unilateral cataract blind	20	1.83	42	3.01	62	2.49
Cataract blind eyes	46	2.11	112	4.01	158	3.18
Cataract with VA<6/60 with best correction or pinhole						
Bilateral cataract	42	3.85	78	5.59	120	4.83
Cataract eyes	115	5.28	216	7.74	331	6.66
Cataract with VA<6/18 with best correction or pinhole						
Bilateral cataract	145	13.30	232	16.63	377	15.17
Cataract eyes	343	15.73	543	19.46	886	17.83

NB. This table lists people and eyes with cataract and different levels of visual impairment. However, the primary cause of the visual impairment could be other than cataract

11. Sample prevalence of (pseudo)aphakia

	Male		Female		Total	
	n	%	n	%	n	%
Bilateral (pseudo)aphakia	20	1.83	15	1.08	35	1.41
Unilateral (pseudo)aphakia	33	3.03	48	3.44	81	3.26
(Pseudo)aphakic eyes	73	3.35	78	2.80	151	3.04

12. Cataract Surgical Coverage

Cataract Surgical Coverage (eyes) - percentage

	Male	Female	Total
VA < 3/60	61.3	41.1	48.9
VA < 6/60	38.8	26.5	31.3
VA < 6/18	17.5	12.6	14.6

Cataract Surgical Coverage (persons) - percentage

	Male	Female	Total
VA < 3/60	69.0	51.4	57.9
VA < 6/60	44.0	35.5	38.8
VA < 6/18	24.1	20.0	21.6

13. Number and percentage of first eyes and second eyes operated

	Male		Female		Total	
	n	%	n	%	n	%
First eyes	53	72.6	63	80.8	116	76.8
Second eyes	20	27.4	15	19.2	35	23.2

14. Low Vision: people with VA<6/18 in the better eye with best correction.
not due to refractive error, cataract or uncorrected aphakia

	Male		Female		Total	
Age group	n	%	n	%	n	%
50 to 54 yrs	0	0.0	2	0.3	2	0.2
55 to 59 yrs	0	0.0	2	0.7	2	0.3
60 to 64 yrs	1	0.5	1	0.4	2	0.5
65 to 69 yrs	2	1.5	1	0.9	3	1.2
70 to 74 yrs	1	0.8	0	0.0	1	0.5
75 to 79 yrs	0	0.0	0	0.0	0	0.0
80 + yrs	0	0.0	1	1.7	1	0.8
Total	**4**	**0.4**	**7**	**0.5**	**11**	**0.4**

15. Comparison responders versus non-responders

	Non-responders		Responders	
	n	%	n	%
Not blind	24	80.0%	4,512	90.8%
Blind due to cataract	6	20.0%	158	3.2%
Blind due to other causes	0	0.0%	149	3.0%
Operated for catara	0	0.0%	151	3.0%
Total	30	100.0%	4,970	100.0%

REASONS WHY PEOPLE, BLIND DUE TO CATARACT, HAVE NOT BEEN OPERATED

For each patient, one or two reasons may be recorded. Therefore the number of barriers is higher than the number of people blind due to cataract.

Date and time of report: 12/31/2012 9:20:33PM

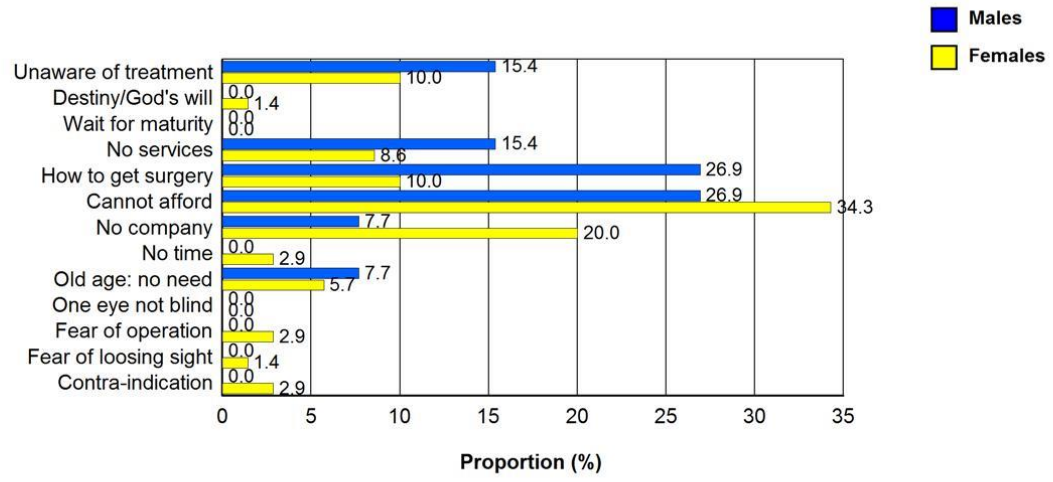
This report is for the survey area: Sathkhira

Year and month when the survey was conducted: 2012-11 until 2012-11

RAAB is designed as a rapid procedure and there is not enough time during the RAAB to hold in-dept interviews why people blind from cataract have not yet been operated. Hence, the data on barriers should be regarded as an indication whether more detailed qualitative studies are required.

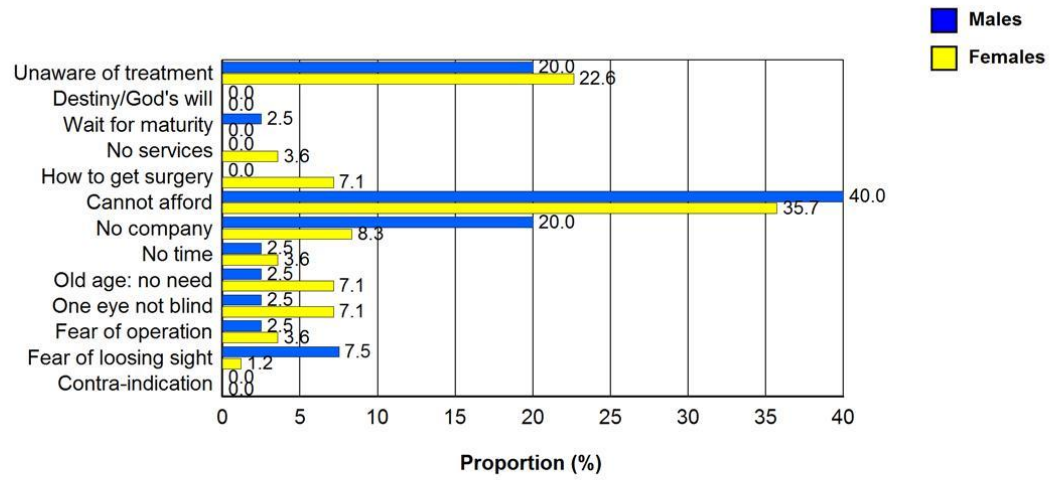
1. Barriers to cataract surgery, as indicated by persons in sample, bilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	4	15.4	7	10.0	11	11.5
Destiny/God's will	0	0.0	1	1.4	1	1.0
Wait for maturity	0	0.0	0	0.0	0	0.0
No services	4	15.4	6	8.6	10	10.4
How to get surgery	7	26.9	7	10.0	14	14.6
Cannot afford	7	26.9	24	34.3	31	32.3
No company	2	7.7	14	20.0	16	16.7
No time	0	0.0	2	2.9	2	2.1
Old age: no need	2	7.7	4	5.7	6	6.3
One eye not blind	0	0.0	0	0.0	0	0.0
Fear of operation	0	0.0	2	2.9	2	2.1
Fear of loosing sight	0	0.0	1	1.4	1	1.0
Contra-indication	0	0.0	2	2.9	2	2.1
All barriers	**26**	**100.0 %**	**70**	**100.0 %**	**96**	**100.0 %**



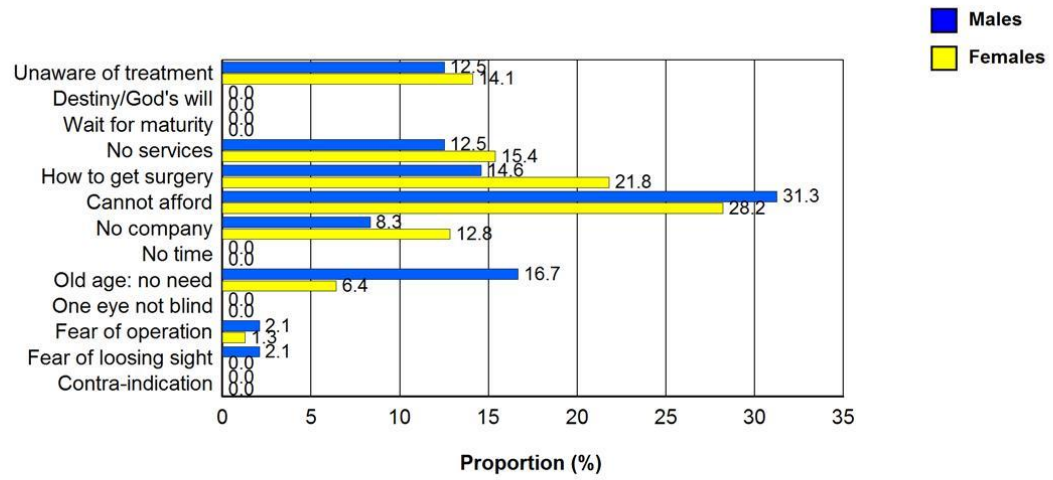
2. Barriers to cataract surgery, as indicated by persons in sample, unilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	8	20.0	19	22.6	27	21.8
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	1	2.5	0	0.0	1	0.8
No services	0	0.0	3	3.6	3	2.4
How to get surgery	0	0.0	6	7.1	6	4.8
Cannot afford	16	40.0	30	35.7	46	37.1
No company	8	20.0	7	8.3	15	12.1
No time	1	2.5	3	3.6	4	3.2
Old age: no need	1	2.5	6	7.1	7	5.6
One eye not blind	1	2.5	6	7.1	7	5.6
Fear of operation	1	2.5	3	3.6	4	3.2
Fear of loosing sight	3	7.5	1	1.2	4	3.2
Contra-indication	0	0.0	0	0.0	0	0.0
All barriers	**40**	**100.0 %**	**84**	**100.0 %**	**124**	**100.0 %**



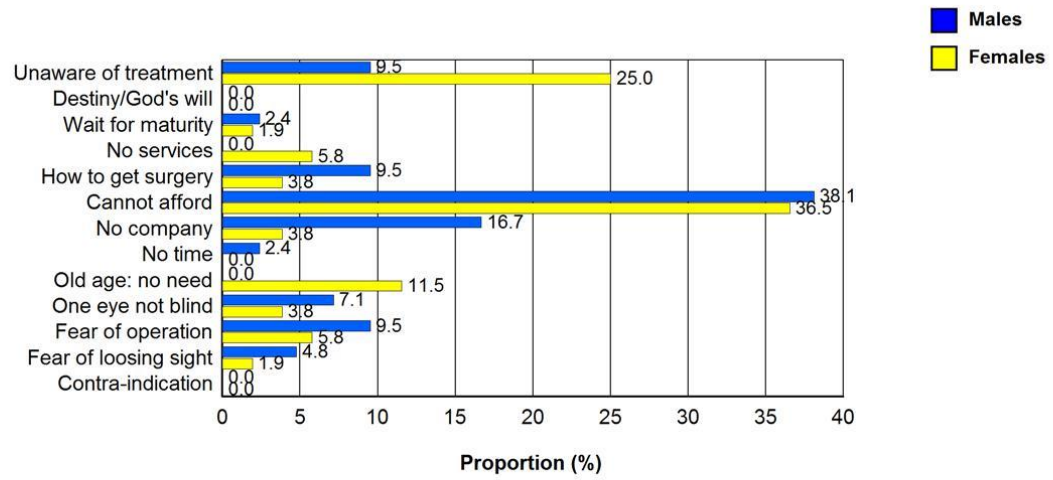
3. Barriers to cataract surgery, as indicated by persons in sample, with bilateral severe visual impairment due to cataract (VA<6/60 - 3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	6	12.5	11	14.1	17	13.5
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	0	0.0	0	0.0	0	0.0
No services	6	12.5	12	15.4	18	14.3
How to get surgery	7	14.6	17	21.8	24	19.0
Cannot afford	15	31.3	22	28.2	37	29.4
No company	4	8.3	10	12.8	14	11.1
No time	0	0.0	0	0.0	0	0.0
Old age: no need	8	16.7	5	6.4	13	10.3
One eye not blind	0	0.0	0	0.0	0	0.0
Fear of operation	1	2.1	1	1.3	2	1.6
Fear of loosing sight	1	2.1	0	0.0	1	0.8
Contra-indication	0	0.0	0	0.0	0	0.0
All barriers	**48**	**100.0 %**	**78**	**100.0 %**	**126**	**100.0 %**



4. Barriers to cataract surgery, as indicated by persons in sample, with unilateral severe visual impairment due to cataract (VA<6/60 - 3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	4	9.5	13	25.0	17	18.1
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	1	2.4	1	1.9	2	2.1
No services	0	0.0	3	5.8	3	3.2
How to get surgery	4	9.5	2	3.8	6	6.4
Cannot afford	16	38.1	19	36.5	35	37.2
No company	7	16.7	2	3.8	9	9.6
No time	1	2.4	0	0.0	1	1.1
Old age: no need	0	0.0	6	11.5	6	6.4
One eye not blind	3	7.1	2	3.8	5	5.3
Fear of operation	4	9.5	3	5.8	7	7.4
Fear of loosing sight	2	4.8	1	1.9	3	3.2
Contra-indication	0	0.0	0	0.0	0	0.0
All barriers	**42**	**100.0 %**	**52**	**100.0 %**	**94**	**100.0 %**



VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

1. Visual outcome after cataract surgery
2. Causes of poor visual outcome after cataract surgery
3. Data on cataract surgical services in survey area
4. Patient satisfaction after cataract surgery

Date and time of the repor 12/31/2012 9:21:48PM

This report is for the survey area Sathkhira

Year and month when survey was completed: 2012-11 until 2012-11

The visual acuity of all subjects operated earlier is measured with available correction and with a pinhole. This report gives population based data on visual outcome, not specific for one surgeon or one hospital and with follow-up periods ranging from one month to several decades. When cataract surgery took place several years earlier, the chance of visio loss due to other causes than cataract increases. If the proportion of eyes with a visual outcome less than 6/60 is higher than 10%, research into the possible causes of poor visual outcome is indicated.

1. Visual acuity of operated eyes in sample with available correction (PVA)

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	110	75.9%	1	16.7%	0	0.0%	111	73.5%
Cannot see 6/18, can see 6/60	23	15.9%	0	0.0%	0	0.0%	23	15.2%
Cannot see 6/60	12	8.3%	5	83.3%	0	0.0%	17	11.3%
Total	**145**	**100.0%**	**6**	**100.0%**	**0**	**100.0%**	**151**	**100.0%**

2. Visual acuity of operated eyes in sample with best correction (BCVA)

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	128	88.3%	1	16.7%	0	0.0%	129	85.4%
Cannot see 6/18, can see 6/60	11	7.6%	0	0.0%	0	0.0%	11	7.3%
Cannot see 6/60	6	4.1%	5	83.3%	0	0.0%	11	7.3%
Total	**145**	**100.0%**	**6**	**100.0%**	**0**	**100.0%**	**151**	**100.0%**

3. Visual acuity with available correction in eyes operated less than 5 years ago

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	83	79.0%	0	0.0%	0	0.0%	83	78.3%
Cannot see 6/18, can see 6/60	15	14.3%	0	0.0%	0	0.0%	15	14.2%
Cannot see 6/60	7	6.7%	1	100.0%	0	0.0%	8	7.5%
Total	**105**	**100.0%**	**1**	**100.0%**	**0**	**100.0%**	**106**	**100.0%**

4. Visual acuity with best correction in eyes operated less than 5 years ago

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	93	88.6%	0	0.0%	0	0.0%	93	87.7%
Cannot see 6/18, can see 6/60	8	7.6%	0	0.0%	0	0.0%	8	7.5%
Cannot see 6/60	4	3.8%	1	100.0%	0	0.0%	5	4.7%
Total	**105**	**100.0%**	**1**	**100.0%**	**0**	**100.0%**	**106**	**100.0%**

5. Visual acuity with available correction in eyes operated 5 or more years ago

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	27	67.5%	1	20.0%	0	0.0%	28	62.2%
Cannot see 6/18, can see 6/60	8	20.0%	0	0.0%	0	0.0%	8	17.8%
Cannot see 6/60	5	12.5%	4	80.0%	0	0.0%	9	20.0%
Total	**40**	**100.0%**	**5**	**100.0%**	**0**	**100.0%**	**45**	**100.0%**

6. Visual acuity with best correction in eyes operated 5 or more years ago

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	35	87.5%	1	20.0%	0	0.0%	36	80.0%
Cannot see 6/18, can see 6/60	3	7.5%	0	0.0%	0	0.0%	3	6.7%
Cannot see 6/60	2	5.0%	4	80.0%	0	0.0%	6	13.3%
Total	**40**	**100.0%**	**5**	**100.0%**	**0**	**100.0%**	**45**	**100.0%**

7. Age at time of surgery & type of surgery in males

Age group	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
50 to 54	5	7.1%	1	33.3%	0	0.0%	6	8.2%
55 to 59	6	8.6%	1	33.3%	0	0.0%	7	9.6%
60 to 64	20	28.6%	0	0.0%	0	0.0%	20	27.4%
65 to 69	16	22.9%	0	0.0%	0	0.0%	16	21.9%
70 to 74	9	12.9%	0	0.0%	0	0.0%	9	12.3%
75 to 79	11	15.7%	1	33.3%	0	0.0%	12	16.4%
80 and older	3	4.3%	0	0.0%	0	0.0%	3	4.1%
Total	**70**	**100.0%**	**3**	**100.0%**	**0**	**100.0%**	**73**	**100.0%**

8. Age at time of surgery & type of surgery in females

Age group	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
45 to 49	6	8.0%	0	0.0%	0	0.0%	6	7.7%
50 to 54	7	9.3%	1	33.3%	0	0.0%	8	10.3%
55 to 59	24	32.0%	1	33.3%	0	0.0%	25	32.1%
60 to 64	15	20.0%	0	0.0%	0	0.0%	15	19.2%
65 to 69	15	20.0%	1	33.3%	0	0.0%	16	20.5%
70 to 74	4	5.3%	0	0.0%	0	0.0%	4	5.1%
75 to 79	4	5.3%	0	0.0%	0	0.0%	4	5.1%
Total	**75**	**100.0%**	**3**	**100.0%**	**0**	**100.0%**	**78**	**100.0%**

9. Place of surgery by sex

	Males n	Males %	Females n	Females %	Total n	Total %
Government hospital	19	26.0%	27	34.6%	46	30.5%
Voluntary/Charitable hospital	18	24.7%	14	17.9%	32	21.2%
Private hospital	31	42.5%	35	44.9%	66	43.7%
Eye camp/Improvised setting	5	6.8%	2	2.6%	7	4.6%
Total	**73**	**100.0%**	**78**	**100.0%**	**151**	**100.0%**

10. Post-op VA with available correction by place of surgery

Top: with IOL Bottom: without IOL	Govt. Hosp.		Vol. Hosp.		Pvt. Hosp.		Eye camp		Traditional	
	eyes	%	eyes	%	eyes	%	eyes	%	eyes	%
Can see 6/18	39	86.7%	26	83.9%	44	67.7%	1	25.0%	0	
Cannot see 6/18, can see 6/60	5	11.1%	3	9.7%	14	21.5%	1	25.0%	0	
Cannot see 6/60	1	2.2%	2	6.5%	7	10.8%	2	50.0%	0	
Total	**45**	**100.0%**	**31**	**100.0%**	**65**	**100.0%**	**4**	**100.0%**	**0**	**100.0%**
Can see 6/18	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	
Cannot see 6/60	0	0.0%	1	100.0%	1	100.0%	3	100.0%	0	
Total	**1**	**100.0%**	**1**	**100.0%**	**1**	**100.0%**	**3**	**100.0%**	**0**	**100.0%**

11. Use of spectacles by sex

	Males		Females		Total	
	n	%	n	%	n	%
Without glasses	61	83.6%	65	83.3%	126	83.4%
With glasses	12	16.4%	13	16.7%	25	16.6%
Total	**73**	**100.0%**	**78**	**100.0%**	**151**	**100.0%**

12. Are you satisfied with results of cataract surgery?

	Males		Females		Total	
	n	%	n	%	n	%
Very satisfied	59	80.8%	55	70.5%	114	75.5%
Partially satisfied	12	16.4%	14	17.9%	26	17.2%
Indifferent	0	0.0%	1	1.3%	1	0.7%
Partially dissatisfied	2	2.7%	5	6.4%	7	4.6%
very dissatisfied	0	0.0%	3	3.8%	3	2.0%
Total	**73**	**100.0%**	**78**	**100.0%**	**151**	**100.0%**

13. Post-op presenting VA and satisfaction with results of surgery

Top: with IOL Bottom: without IOL	Very satisfied		Part. satisfied		Indifferent		Part. unsat.		Very unsat.	
	eyes	%	eyes	%	eyes	%	eyes	%	eyes	%
Can see 6/18	102	90.3%	7	26.9%	0		1	25.0%	0	0.0%
Cannot see 6/18, can see 6/60	8	7.1%	14	53.8%	0		1	25.0%	0	0.0%
Cannot see 6/60	3	2.7%	5	19.2%	0		2	50.0%	2	100.0%
Total	**113**	**100.0%**	**26**	**100.0%**	**0**	**100.0%**	**4**	**100.0%**	**2**	**100.0%**
Can see 6/18	1	100.0%	0		0	0.0%	0	0.0%	0	0.0%
Cannot see 6/60	0	0.0%	0		1	100.0%	3	100.0%	1	100.0%
Total	**1**	**100.0%**	**0**	**100.0%**	**1**	**100.0%**	**3**	**100.0%**	**1**	**100.0%**

14. Post-op presenting VA and causes of poor outcome in eyes operated less than 3 years ago

Top: with IOL Bottom: without IOL	Selection eyes	 %	Surgery eyes	 %	Spectacles eyes	 %	Sequelae eyes	 %	No relation eyes	 %
Can see 6/18	0	0.0%	0	0.0%	0	0.0%	0	0.0%	66	93.0%
Cannot see 6/18, can see 6/60	0	0.0%	6	66.7%	1	100.0%	0	0.0%	5	7.0%
Cannot see 6/60	1	100.0%	3	33.3%	0	0.0%	1	100.0%	0	0.0%
Total	**1**	**100.0%**	**9**	**100.0%**	**1**	**100.0%**	**1**	**100.0%**	**71**	**100.0%**
Cannot see 6/60	0		1	100.0%	0		0		0	
Total	**0**	**100.0%**	**1**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**

15. Post-op presenting VA and causes of poor outcome in eyes operated 3 or more years ago

Top: with IOL Bottom: without IOL	Selection eyes	 %	Surgery eyes	 %	Spectacles eyes	 %	Sequelae eyes	 %	No relation eyes	 %
Can see 6/18	0		0	0.0%	1	14.3%	0		43	87.8%
Cannot see 6/18, can see 6/60	0		3	50.0%	5	71.4%	0		3	6.1%
Cannot see 6/60	0		3	50.0%	1	14.3%	0		3	6.1%
Total	**0**	**100.0%**	**6**	**100.0%**	**7**	**100.0%**	**0**	**100.0%**	**49**	**100.0%**
Can see 6/18	0		0	0.0%	0		0		1	100.0%
Cannot see 6/60	0		4	100.0%	0		0		0	0.0%
Total	**0**	**100.0%**	**4**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	**1**	**100.0%**

16. Proportion and type of surgery

	Males n	 %	Females n	 %	Total n	 %
With IOL	70	95.9%	75	96.2%	145	96.0%
Without IOL	3	4.1%	3	3.8%	6	4.0%
Total	**73**	**100.0%**	**78**	**100.0%**	**151**	**100.0%**

INDICATORS BY SEX AND BY AGE GROUP - NOT ADJUSTED FOR AGE AND SEX

Date and time of report:	12/31/2012 9:23:19PM
This report is for the survey are	Sathkhira
Year and month when survey was conducted:	2012-11 until 2012-11

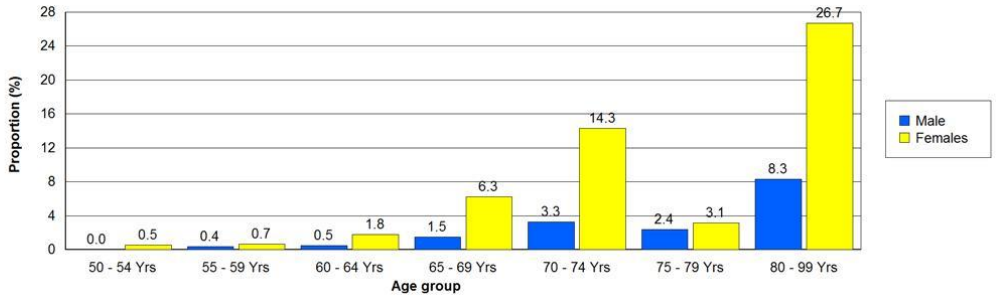
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral cataract blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals for prevalence of various conditions can be calculated with menu Reports / Sampling error & Design Effect.

1. Age and sex distribution of people examined in the sample

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	239	21.9	582	41.7	821	33.0
	278	25.5	305	21.9	583	23.5
	205	18.8	227	16.3	432	17.4
	132	12.1	112	8.0	244	9.8
	122	11.2	77	5.5	199	8.0
	42	3.9	32	2.3	74	3.0
	72	6.6	60	4.3	132	5.3
All ages	**1,090**	**100.0%**	**1,395**	**100.0%**	**2,485**	**100.0%**

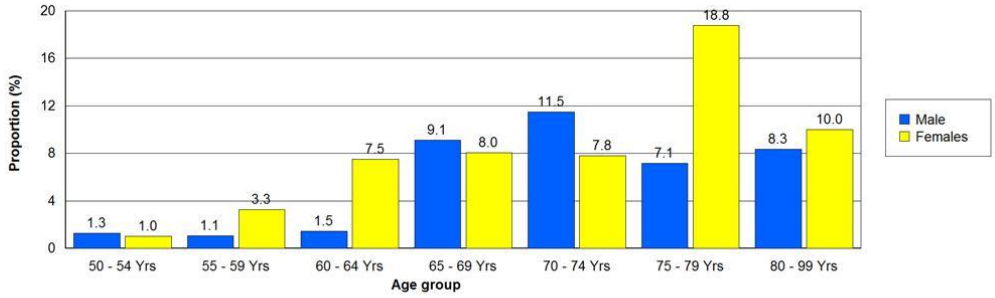
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction (WHO definition of blindne

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	3	0.5	3	0.4
	1	0.4	2	0.7	3	0.5
	1	0.5	4	1.8	5	1.2
	2	1.5	7	6.3	9	3.7
	4	3.3	11	14.3	15	7.5
	1	2.4	1	3.1	2	2.7
	6	8.3	16	26.7	22	16.7
All ages	**15**	**1.4**	**44**	**3.2**	**59**	**2.4**



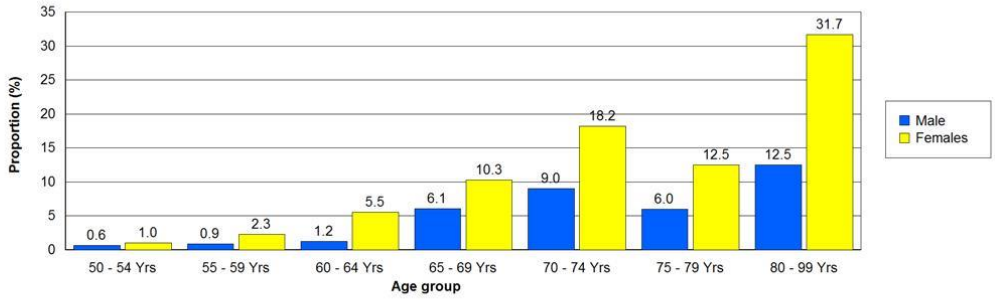
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	1.3	6	1.0	9	1.1
	3	1.1	10	3.3	13	2.2
	3	1.5	17	7.5	20	4.6
	12	9.1	9	8.0	21	8.6
	14	11.5	6	7.8	20	10.1
	3	7.1	6	18.8	9	12.2
	6	8.3	6	10.0	12	9.1
All ages	**44**	**4.0**	**60**	**4.3**	**104**	**4.2**



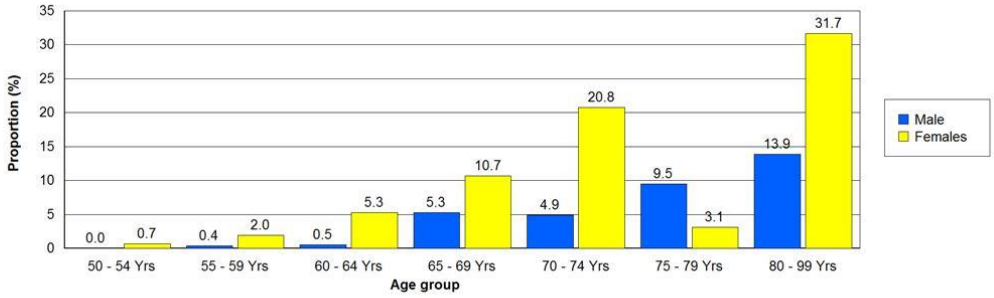
4. Prevalence of blind eyes - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	0.6	12	1.0	15	0.9
	5	0.9	14	2.3	19	1.6
	5	1.2	25	5.5	30	3.5
	16	6.1	23	10.3	39	8.0
	22	9.0	28	18.2	50	12.6
	5	6.0	8	12.5	13	8.8
	18	12.5	38	31.7	56	21.2
All ages	**74**	**3.4**	**148**	**5.3**	**222**	**4.5**



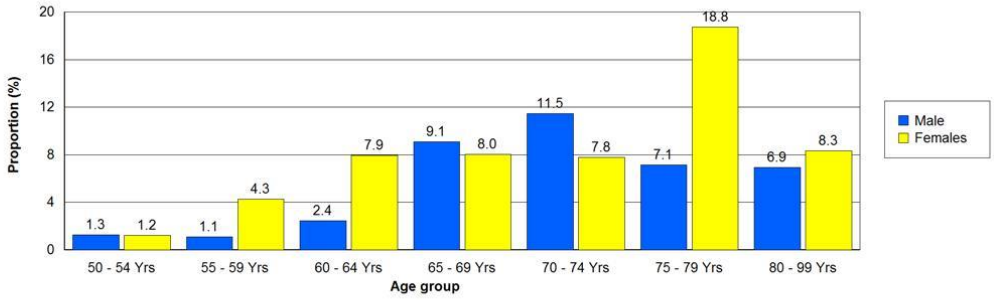
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	4	0.7	4	0.5
	1	0.4	6	2.0	7	1.2
	1	0.5	12	5.3	13	3.0
	7	5.3	12	10.7	19	7.8
	6	4.9	16	20.8	22	11.1
	4	9.5	1	3.1	5	6.8
	10	13.9	19	31.7	29	22.0
All ages	**29**	**2.7**	**70**	**5.0**	**99**	**4.0**



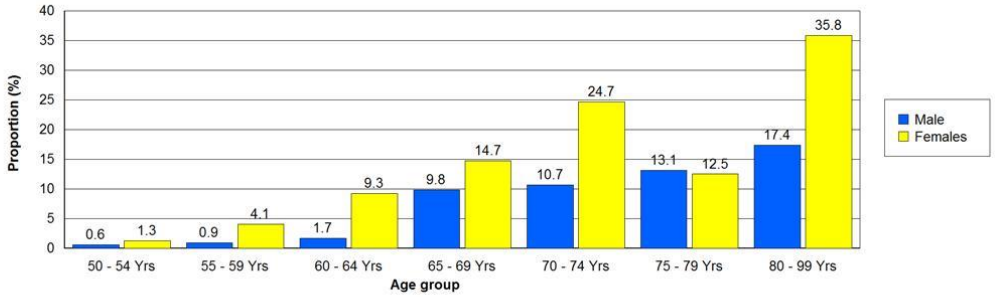
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	1.3	7	1.2	10	1.2
	3	1.1	13	4.3	16	2.7
	5	2.4	18	7.9	23	5.3
	12	9.1	9	8.0	21	8.6
	14	11.5	6	7.8	20	10.1
	3	7.1	6	18.8	9	12.2
	5	6.9	5	8.3	10	7.6
All ages	**45**	**4.1**	**64**	**4.6**	**109**	**4.4**



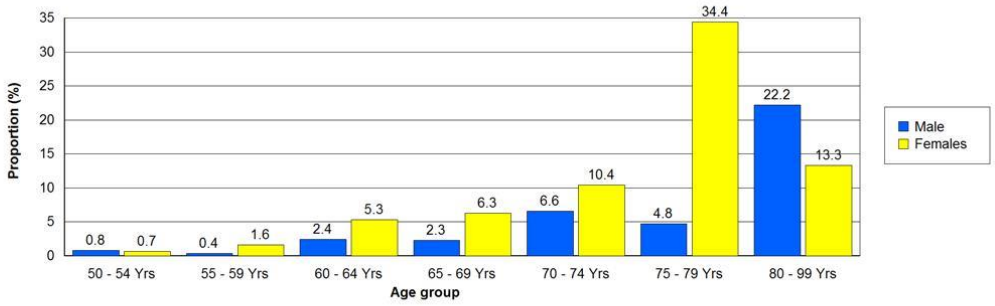
7. Prevalence of blind eyes - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	0.6	15	1.3	18	1.1
	5	0.9	25	4.1	30	2.6
	7	1.7	42	9.3	49	5.7
	26	9.8	33	14.7	59	12.1
	26	10.7	38	24.7	64	16.1
	11	13.1	8	12.5	19	12.8
	25	17.4	43	35.8	68	25.8
All ages	**103**	**4.7**	**204**	**7.3**	**307**	**6.2**



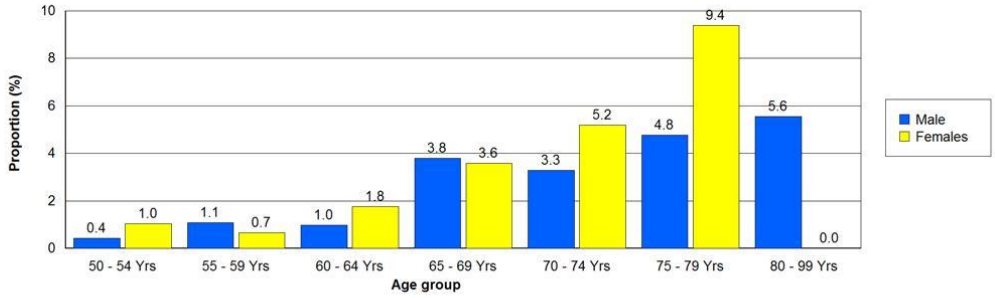
8. Prevalence of people with bilateral severe visual impairment - VA <6/60-3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	4	0.7	6	0.7
	1	0.4	5	1.6	6	1.0
	5	2.4	12	5.3	17	3.9
	3	2.3	7	6.3	10	4.1
	8	6.6	8	10.4	16	8.0
	2	4.8	11	34.4	13	17.6
	16	22.2	8	13.3	24	18.2
All ages	**37**	**3.4**	**55**	**3.9**	**92**	**3.7**



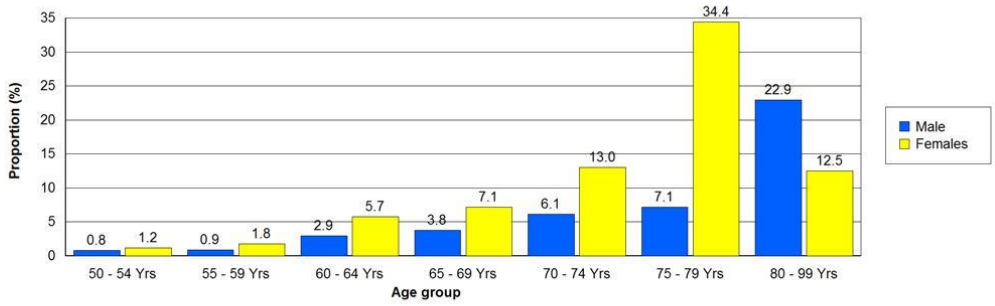
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.4	6	1.0	7	0.9
	3	1.1	2	0.7	5	0.9
	2	1.0	4	1.8	6	1.4
	5	3.8	4	3.6	9	3.7
	4	3.3	4	5.2	8	4.0
	2	4.8	3	9.4	5	6.8
	4	5.6	0	0.0	4	3.0
All ages	**21**	**1.9**	**23**	**1.6**	**44**	**1.8**



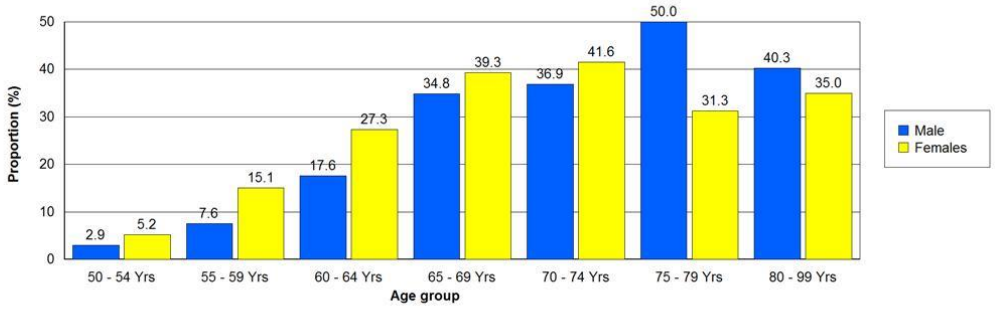
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	4	0.8	14	1.2	18	1.1
	5	0.9	11	1.8	16	1.4
	12	2.9	26	5.7	38	4.4
	10	3.8	16	7.1	26	5.3
	15	6.1	20	13.0	35	8.8
	6	7.1	22	34.4	28	18.9
	33	22.9	15	12.5	48	18.2
All ages	**85**	**3.9**	**124**	**4.4**	**209**	**4.2**



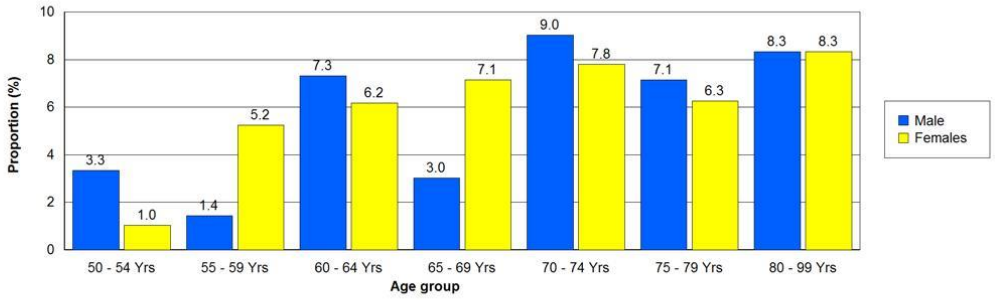
11. Prevalence of people with bilateral visual impairment - VA <6/18-6/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	7	2.9	30	5.2	37	4.5
	21	7.6	46	15.1	67	11.5
	36	17.6	62	27.3	98	22.7
	46	34.8	44	39.3	90	36.9
	45	36.9	32	41.6	77	38.7
	21	50.0	10	31.3	31	41.9
	29	40.3	21	35.0	50	37.9
All ages	**205**	**18.8**	**245**	**17.6**	**450**	**18.1**



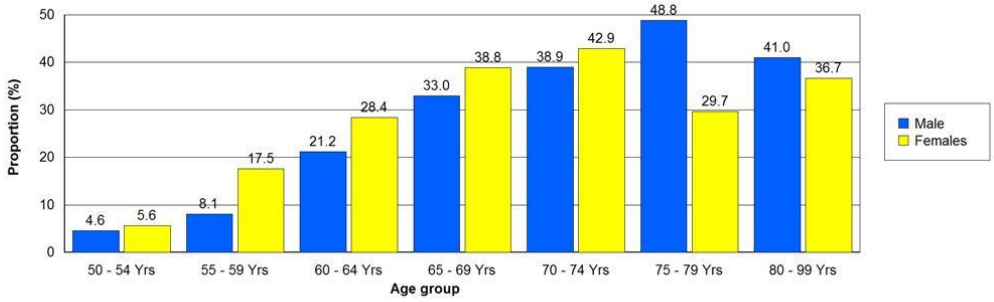
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	8	3.3	6	1.0	14	1.7
	4	1.4	16	5.2	20	3.4
	15	7.3	14	6.2	29	6.7
	4	3.0	8	7.1	12	4.9
	11	9.0	6	7.8	17	8.5
	3	7.1	2	6.3	5	6.8
	6	8.3	5	8.3	11	8.3
All ages	**51**	**4.7**	**57**	**4.1**	**108**	**4.3**



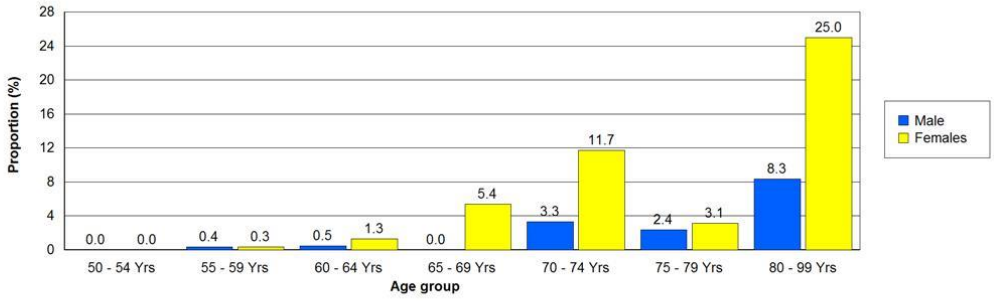
13. Prevalence of VI eyes - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	22	4.6	65	5.6	87	5.3
	45	8.1	107	17.5	152	13.0
	87	21.2	129	28.4	216	25.0
	87	33.0	87	38.8	174	35.7
	95	38.9	66	42.9	161	40.5
	41	48.8	19	29.7	60	40.5
	59	41.0	44	36.7	103	39.0
All ages	**436**	**20.0**	**517**	**18.5**	**953**	**19.2**



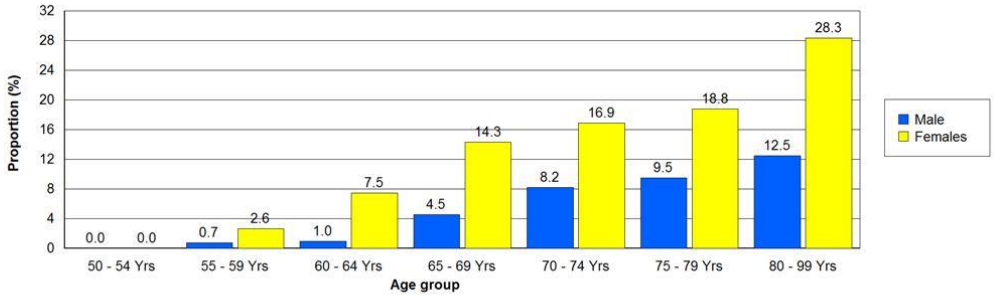
14. Prevalence of people bilateral blind due to cataract - VA <3/60 in better eye with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	0	0.0	0	0.0
	1	0.4	1	0.3	2	0.3
	1	0.5	3	1.3	4	0.9
	0	0.0	6	5.4	6	2.5
	4	3.3	9	11.7	13	6.5
	1	2.4	1	3.1	2	2.7
	6	8.3	15	25.0	21	15.9
All ages	**13**	**1.2**	**35**	**2.5**	**48**	**1.9**



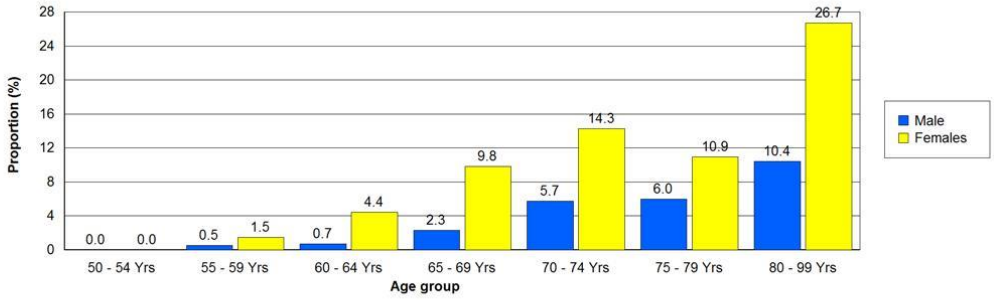
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	0	0.0	0	0.0
	2	0.7	8	2.6	10	1.7
	2	1.0	17	7.5	19	4.4
	6	4.5	16	14.3	22	9.0
	10	8.2	13	16.9	23	11.6
	4	9.5	6	18.8	10	13.5
	9	12.5	17	28.3	26	19.7
All ages	**33**	**3.0**	**77**	**5.5**	**110**	**4.4**



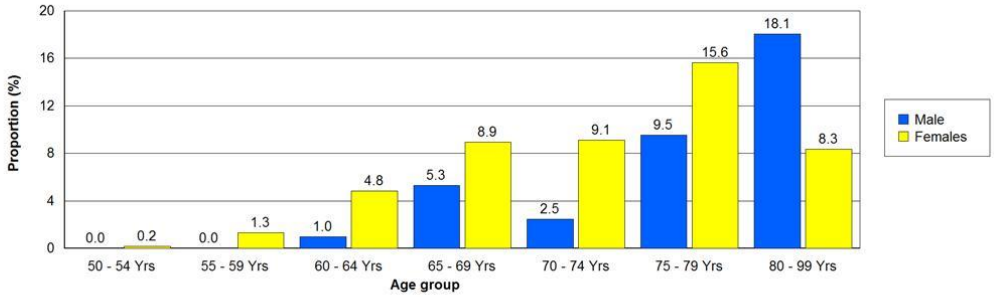
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	0	0.0	0	0.0
	3	0.5	9	1.5	12	1.0
	3	0.7	20	4.4	23	2.7
	6	2.3	22	9.8	28	5.7
	14	5.7	22	14.3	36	9.0
	5	6.0	7	10.9	12	8.1
	15	10.4	32	26.7	47	17.8
All ages	**46**	**2.1**	**112**	**4.0**	**158**	**3.2**



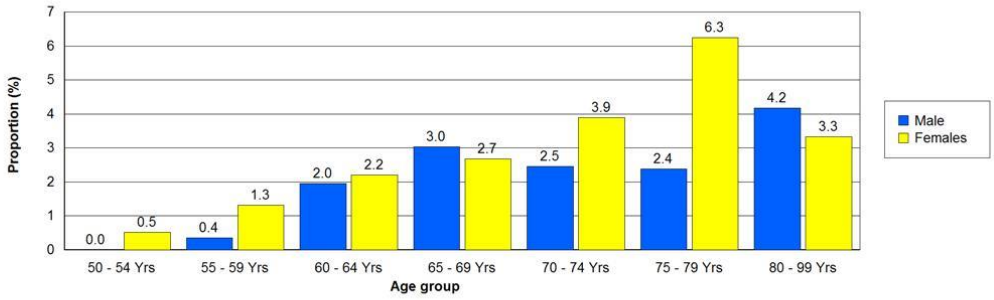
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correc

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.2	1	0.1
	0	0.0	4	1.3	4	0.7
	2	1.0	11	4.8	13	3.0
	7	5.3	10	8.9	17	7.0
	3	2.5	7	9.1	10	5.0
	4	9.5	5	15.6	9	12.2
	13	18.1	5	8.3	18	13.6
All ages	**29**	**2.7**	**43**	**3.1**	**72**	**2.9**



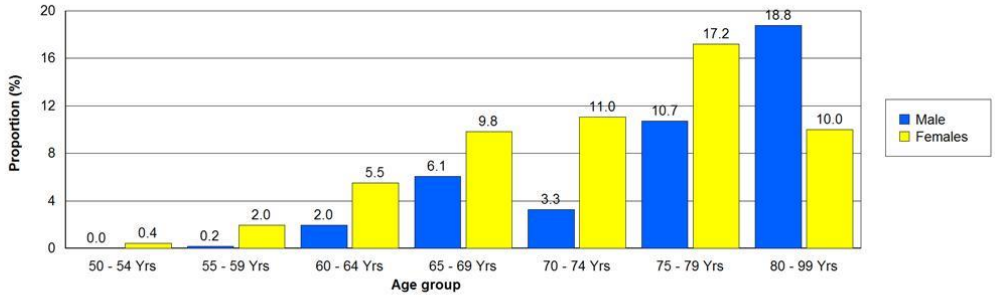
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA <3/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	3	0.5	3	0.4
	1	0.4	4	1.3	5	0.9
	4	2.0	5	2.2	9	2.1
	4	3.0	3	2.7	7	2.9
	3	2.5	3	3.9	6	3.0
	1	2.4	2	6.3	3	4.1
	3	4.2	2	3.3	5	3.8
All ages	**16**	**1.5**	**22**	**1.6**	**38**	**1.5**



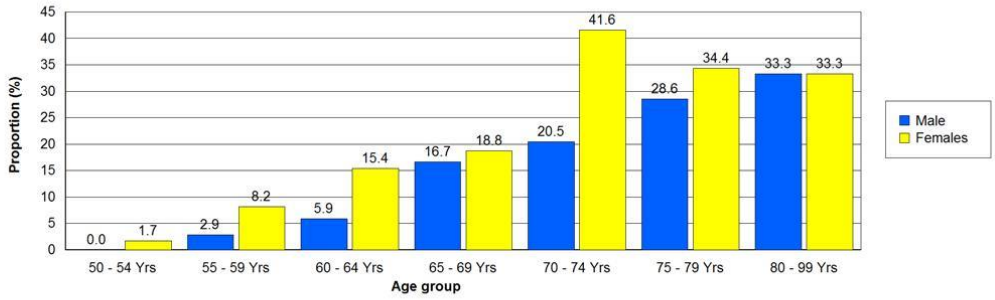
19. Prevalence of cataract SVI eyes - VA VA<6/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	5	0.4	5	0.3
	1	0.2	12	2.0	13	1.1
	8	2.0	25	5.5	33	3.8
	16	6.1	22	9.8	38	7.8
	8	3.3	17	11.0	25	6.3
	9	10.7	11	17.2	20	13.5
	27	18.8	12	10.0	39	14.8
All ages	**69**	**3.2**	**104**	**3.7**	**173**	**3.5**



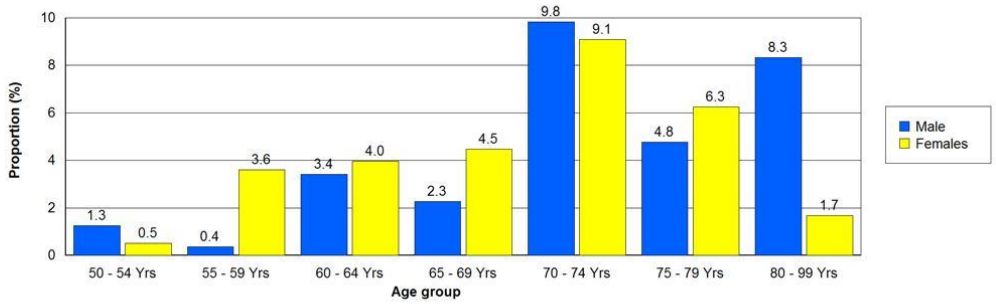
20. Prevalence of people with bilateral visual impairment due to cataract - VA <6/18-6/60 - best eye, best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	10	1.7	10	1.2
	8	2.9	25	8.2	33	5.7
	12	5.9	35	15.4	47	10.9
	22	16.7	21	18.8	43	17.6
	25	20.5	32	41.6	57	28.6
	12	28.6	11	34.4	23	31.1
	24	33.3	20	33.3	44	33.3
All ages	**103**	**9.4**	**154**	**11.0**	**257**	**10.3**



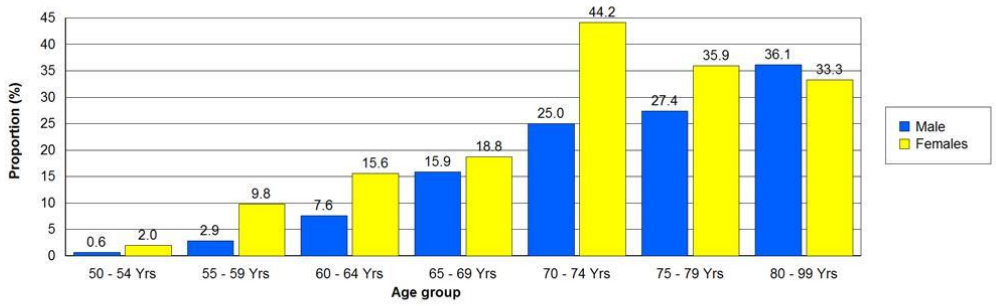
21. Prevalence of people with unilateral visual impairment due to cataract - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	1.3	3	0.5	6	0.7
	1	0.4	11	3.6	12	2.1
	7	3.4	9	4.0	16	3.7
	3	2.3	5	4.5	8	3.3
	12	9.8	7	9.1	19	9.5
	2	4.8	2	6.3	4	5.4
	6	8.3	1	1.7	7	5.3
All ages	**34**	**3.1**	**38**	**2.7**	**72**	**2.9**



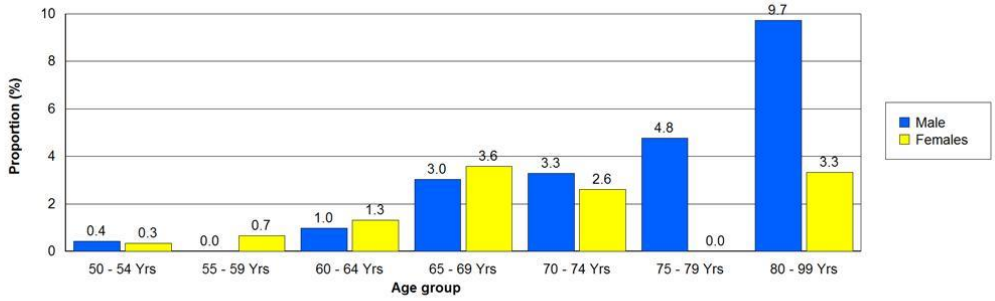
22. Prevalence of cataract VI eyes - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	0.6	23	2.0	26	1.6
	16	2.9	60	9.8	76	6.5
	31	7.6	71	15.6	102	11.8
	42	15.9	42	18.8	84	17.2
	61	25.0	68	44.2	129	32.4
	23	27.4	23	35.9	46	31.1
	52	36.1	40	33.3	92	34.8
All ages	**228**	**10.5**	**327**	**11.7**	**555**	**11.2**



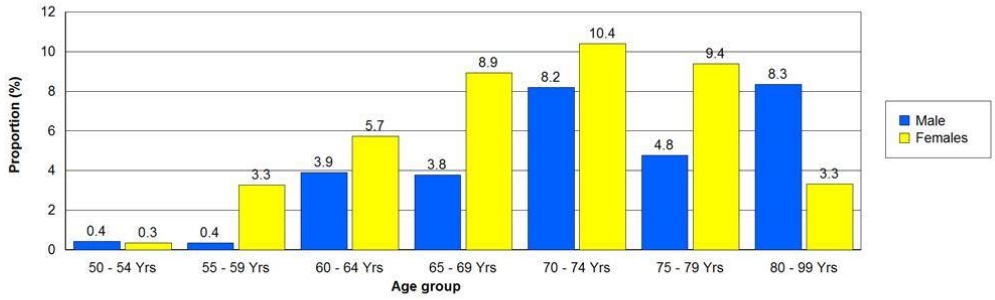
23. Prevalence of people with bilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.4	2	0.3	3	0.4
	0	0.0	2	0.7	2	0.3
	2	1.0	3	1.3	5	1.2
	4	3.0	4	3.6	8	3.3
	4	3.3	2	2.6	6	3.0
	2	4.8	0	0.0	2	2.7
	7	9.7	2	3.3	9	6.8
All ages	**20**	**1.8**	**15**	**1.1**	**35**	**1.4**



24. Prevalence of people with unilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.4	2	0.3	3	0.4
	1	0.4	10	3.3	11	1.9
	8	3.9	13	5.7	21	4.9
	5	3.8	10	8.9	15	6.1
	10	8.2	8	10.4	18	9.0
	2	4.8	3	9.4	5	6.8
	6	8.3	2	3.3	8	6.1
All ages	**33**	**3.0**	**48**	**3.4**	**81**	**3.3**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS
AGE AND SEX ADJUSTED

Date and time of the repor 12/31/2012 9:27:06PM

This report is for the survey area Sathkhira

Year and month when survey was completed: 2012-11 until 2012-11

The prevalence of blindness and visual impairment increases strongly with age and in most communities, females are more affected than males. Normally, the people examined in the sample should have the same composition by age and by sex as the total population in the survey area. When there is a difference, the prevalence for the survey area will also differ. Table 2 and 3 compare the composition in the sample with that of the survey area. By combining the age and sex specific prevalence with the actual population, the age and sex adjusted prevalence and the actual number of people affected in the survey area can be calculated. The 95% confidence interval, based on the sample error in cluster sampling, is also given.

1. Total number of people aged 50+ in survey area

Male	132,400	54.5%
Female	110,526	45.5%
Total	**242,926**	**100.0%**

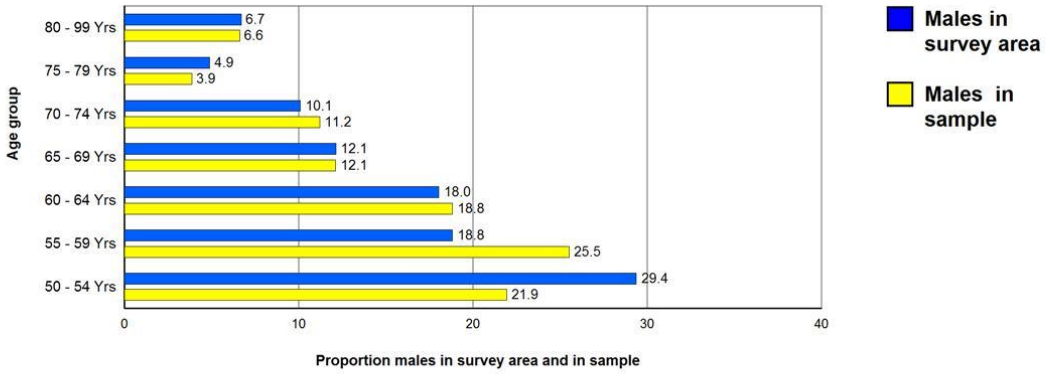
2a. Age and sex composition of population in sample

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	239	21.9%	582	41.7%	821	33.0%
55 - 59 Yrs	278	25.5%	305	21.9%	583	23.5%
60 - 64 Yrs	205	18.8%	227	16.3%	432	17.4%
65 - 69 Yrs	132	12.1%	112	8.0%	244	9.8%
70 - 74 Yrs	122	11.2%	77	5.5%	199	8.0%
75 - 79 Yrs	42	3.9%	32	2.3%	74	3.0%
80 - 99 Yrs	72	6.6%	60	4.3%	132	5.3%
Total	**1,090**	**100.0%**	**1,395**	**100.0%**	**2,485**	**100.0%**

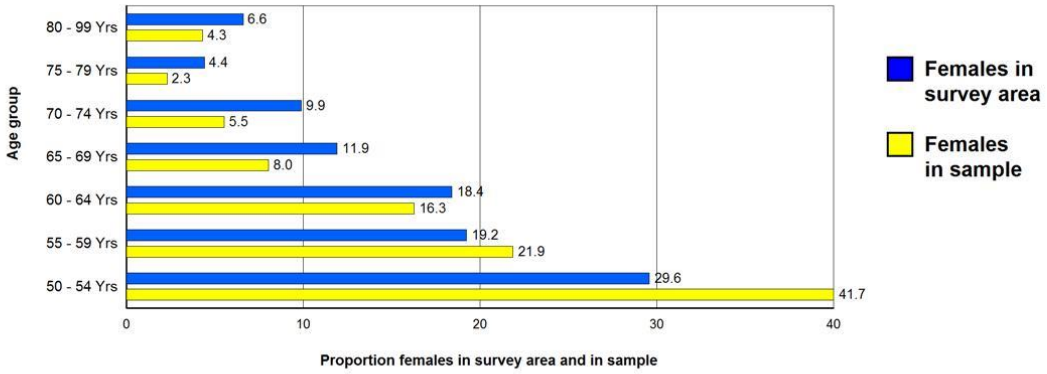
2b. Age and sex composition of population in entire survey area

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	38,887	29.4%	32,693	29.6%	71,580	29.5%
55 - 59 Yrs	24,916	18.8%	21,255	19.2%	46,171	19.0%
60 - 64 Yrs	23,874	18.0%	20,344	18.4%	44,218	18.2%
65 - 69 Yrs	16,055	12.1%	13,158	11.9%	29,213	12.0%
70 - 74 Yrs	13,344	10.1%	10,931	9.9%	24,275	10.0%
75 - 79 Yrs	6,463	4.9%	4,858	4.4%	11,321	4.7%
80 - 99 Yrs	8,861	6.7%	7,287	6.6%	16,148	6.6%
Total	**132,400**	**100.0%**	**110,526**	**100.0%**	**242,926**	**100.0%**

3a. Proportion of males in total survey area and in sample



3b. Proportion of females in total survey area and in sample



4. Adjusted results for all causes of blindness, SVI and VI

Estimated cases in people 50+ in survey area	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Blindness - VA<3/60 in better eye, best corrected or pinhole (WHO definition)									
Bilateral blind	1,779	1.34	±0.75	5,145	4.66	±0.99	6,924	2.85	±0.74
Blind eyes	8,856	3.34	±0.89	16,397	7.42	±1.09	25,252	5.20	±0.82
Blindness - VA<3/60 in better eye, with available correction									
Bilateral blind	3,560	2.69	±1.55	7,859	7.11	±1.89	11,419	4.70	±1.60
Blind eyes	12,527	4.73	±1.58	22,057	9.98	±1.99	34,584	7.12	±1.64
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in better eye with available correction									
Bilateral SVI	4,514	3.41	±1.10	6,248	5.65	±1.22	10,762	4.43	±0.89
SVI eyes	10,338	3.90	±1.04	13,764	6.23	±1.15	24,102	4.96	±0.84
Visual Impairment (VI) - VA<6/18 - 6/60 in better eye with available correction									
Bilateral VI	24,531	18.53	±3.30	24,228	21.92	±2.98	48,759	20.07	±2.90
VI eyes	52,287	19.75	±3.19	50,488	22.84	±2.88	102,775	21.15	±2.77

5. Adjusted results for all causes of blindness, VA<3/60, <6/60 and <6/18 with available correction

Estimated cases in people 50+ in survey area	Male n	Male %	Female n	Female %	Total n	Total %
Blindness - VA<3/60 in better eye, with available correction						
Bilateral blind	3,560	2.69	7,859	7.11	11,419	4.70
Blind eyes	12,527	4.73	22,057	9.98	34,584	7.12
VA<6/60 in better eye with available correction						
Bilateral <6/60	8,074	6.10	14,107	12.76	22,181	9.13
Eyes <6/60	22,865	8.63	35,821	16.20	58,686	12.08
VA<6/18 in better eye with available correction						
Bilateral <6/18	32,605	24.63	38,335	34.68	70,940	29.20
Eyes <6/18	75,152	28.38	86,309	39.04	161,461	33.23

6. Adjusted results for cataract and Blindness, SVI and VI with best correction or pinhole

	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Cataract and VA<3/60 in better eye with best correction or pinhole									
Bilateral cataract	1,536	1.16	±0.73	4,295	3.89	±0.90	5,831	2.40	±0.72
Unilateral cataract	3,959	2.99	±1.11	8,782	7.95	±0.87	12,741	5.24	±0.78
Cataract eyes	7,031	2.66	±0.89	17,371	7.86	±1.06	24,402	5.02	±0.85
Cataract and SVI in better eye with best correction or pinhole									
Bilateral cataract	3,628	2.74	±1.05	4,856	4.39	±1.25	8,483	3.49	±1.05
Unilateral cataract	1,893	1.43	±0.86	2,220	2.01	±0.76	4,113	1.69	±0.58
Cataract eyes	8,550	3.23	±1.17	11,483	5.19	±1.36	20,033	4.12	±1.11
Cataract and VI in better eye with best correction or pinhole									
Bilateral cataract	12,325	9.31	±2.54	16,550	14.97	±2.49	28,875	11.89	±2.33
Unilateral cataract	4,117	3.11	±1.39	3,748	3.39	±1.24	7,864	3.24	±1.04
Cataract eyes	27,252	10.29	±2.84	34,774	15.73	±2.58	62,025	12.77	±2.53

NB. This table lists people and eyes with cataract and different levels of visual impairment.
However, the primary cause of the visual impairment could be other than cataract

7. Adjusted results for cataract and VA<3/60, VA<6/60 and VA<6/18 with best correction or pinhole

	Male n	Male %	Female n	Female %	Total n	Total %
Cataract and VA<3/60 in better eye with best correction or pinhole						
Bilateral cataract	1,536	1.16	4,295	3.89	5,831	2.40
Unilateral cataract	3,959	2.99	8,782	7.95	12,741	5.24
Cataract eyes	7,031	2.66	17,371	7.86	24,402	5.02
Cataract and VA<6/60 in better eye with best correction or pinhole						
Bilateral cataract	5,164	3.90	9,150	8.28	14,314	5.89
Unilateral cataract	5,852	4.42	11,002	9.95	16,854	6.94
Cataract eyes	15,581	5.88	28,854	13.05	44,435	9.15
Cataract and VA<6/18 in better eye with best correction or pinhole						
Bilateral cataract	17,489	13.21	25,700	23.25	43,189	17.78
Unilateral cataract	9,969	7.53	14,750	13.35	24,719	10.18
Cataract eyes	42,832	16.18	63,628	28.78	106,460	21.91

NB. This table lists people and eyes with cataract and different levels of visual impairment.
However, the primary cause of the visual impairment could be other than cataract

8. Adjusted results for aphakia and pseudophakia

	Male			Female			Total		
	n	%	CI95%	n	%	CI95%	n	%	CI95%
Bilateral (pseudo)aphakia	2,489	1.88	±0.87	1,517	1.37	±0.60	4,006	1.65	±0.51
Unilateral (pseudo)aphakia	3,932	2.97	±1.23	4,983	4.51	±1.03	8,915	3.67	±0.80
(pseudo)aphakic eyes	8,910	3.36	±1.18	8,018	3.63	±0.84	16,928	3.48	±0.78

9. Adjusted results for cataract surgical coverage

Cataract Surgical Coverage (eyes)

	Males	Females	Total
VA <3/60	55.9	31.6	41.0
VA <6/60	36.4	21.7	27.6
VA <6/18	17.2	11.2	13.7

Cataract Surgical Coverage (persons)

	Males	Females	Total
VA <3/60	69.9	48.5	56.6
VA <6/60	43.9	32.8	37.3
VA <6/18	24.2	18.9	21.2

SAMPLING ERROR (CLUSTER SAMPLING) & DESIGN EFFECT

Date and time of the repor 12/31/2012 9:28:40PM

This report is for the survey area Sathkhira

Year and month when survey was completed: 2012-11 until 2012-11

To assess the accuracy of the estimate of the prevalence of a condition in the RAAB survey, the sampling error for the prevalence estimate of that condition in cluster sampling (SEcrs) is calculated, using the formula's provided by:
Bennett S, Woods T, Liyanage WM, Smith DL.A simplified general method for cluster-sample surveys of health in developing countries. World Health Stat Q. 1991;44(3):98-106. The design effect (DEFF) is calculated by SEcrs^2 / SEsrs^2.

The table below shows the number of cases and the prevalence (sample prev.) of various conditions in the sample population, and the corresponding 95% confidence interval (CI 95%).
When the age and sex composition of the sample differs from that in the entire survey area, the actual prevalence may differ from that calculated in the sample. Run the report 'Age & sex adjusted results' to calculate the prevalence for and estimated number of people with the condition in the entire survey area. To calculate the prevalence interval at 95% confidence, take the age & sex adjusted prevalence from that report and subtract and add the Var. 95% to find the 95% lower confidence level and the 95% higher confidence level, respectively. Use the Var. 90% and the Var. 80% to calculate the prevalence intervals at 90% and 80% confidence. Var. 95% = 1.96 * SEcrs; Var. 90% = 1.65 * SEcrs; Var. 80% = 1.28 * SEcrs

Bilateral blind, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	15	1.38	0.63 - 2.12	0.75	0.63	0.49	1.16	0.38
Female	44	3.15	2.16 - 4.15	0.99	0.83	0.65	1.17	0.51
Total	**59**	**2.37**	**1.64 - 3.11**	**0.74**	**0.62**	**0.48**	**1.51**	**0.38**

Blind eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	74	3.39	2.50 - 4.29	0.89	0.75	0.58	0.69	0.46
Female	148	5.30	4.22 - 6.39	1.09	0.91	0.71	0.85	0.55
Total	**222**	**4.47**	**3.65 - 5.28**	**0.82**	**0.69**	**0.53**	**1.01**	**0.42**

Bilateral SVI, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	34	3.12	1.79 - 4.45	1.33	1.11	0.87	1.66	0.68
Female	48	3.44	2.15 - 4.73	1.29	1.09	0.85	1.83	0.66
Total	**82**	**3.30**	**2.19 - 4.40**	**1.10**	**0.93**	**0.72**	**2.47**	**0.56**

SVI eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	74	3.35	2.10 - 4.60	1.25	1.05	0.82	1.38	0.64
Female	110	3.94	2.59 - 5.29	1.35	1.13	0.88	1.75	0.69
Total	**184**	**3.68**	**2.56 - 4.80**	**1.12**	**0.94**	**0.73**	**2.29**	**0.57**

Bilateral VI, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	111	10.18	7.33 - 13.04	2.85	2.39	1.87	2.53	1.46
Female	168	12.04	9.46 - 14.63	2.59	2.17	1.69	2.29	1.32
Total	**279**	**11.23**	**8.69 - 13.76**	**2.53**	**2.13**	**1.66**	**4.17**	**1.29**

VI eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	240	11.01	8.13 - 13.89	2.88	2.41	1.88	2.40	1.47
Female	352	12.62	9.97 - 15.27	2.65	2.23	1.73	2.32	1.35
Total	**592**	**11.91**	**9.33 - 14.50**	**2.59**	**2.17**	**1.69**	**4.12**	**1.32**

Bilateral blind, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	29	2.66	1.11 - 4.21	1.55	1.30	1.01	2.62	0.79
Female	70	5.02	3.12 - 6.91	1.89	1.59	1.24	2.73	0.97
Total	**99**	**3.98**	**2.38 - 5.59**	**1.60**	**1.34**	**1.05**	**4.34**	**0.82**

Blind eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	104	4.72	3.15 - 6.30	1.58	1.32	1.03	1.56	0.80
Female	204	7.31	5.32 - 9.30	1.99	1.67	1.30	2.12	1.02
Total	**308**	**6.18**	**4.54 - 7.81**	**1.64**	**1.37**	**1.07**	**2.98**	**0.83**

Bilateral SVI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	37	3.39	2.30 - 4.49	1.10	0.92	0.72	1.04	0.56
Female	55	3.94	2.72 - 5.17	1.22	1.03	0.80	1.43	0.62
Total	**92**	**3.70**	**2.81 - 4.59**	**0.89**	**0.75**	**0.58**	**1.44**	**0.45**

SVI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	86	3.90	2.86 - 4.94	1.04	0.87	0.68	0.82	0.53
Female	124	4.44	3.29 - 5.60	1.15	0.97	0.75	1.14	0.59
Total	**210**	**4.21**	**3.36 - 5.05**	**0.84**	**0.71**	**0.55**	**1.14**	**0.43**

Bilateral VI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	205	18.81	15.51 - 22.10	3.30	2.77	2.16	2.02	1.68
Female	245	17.56	14.58 - 20.54	2.98	2.50	1.95	2.23	1.52
Total	**450**	**18.11**	**15.21 - 21.00**	**2.90**	**2.43**	**1.89**	**3.66**	**1.48**

VI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	436	20.00	16.81 - 23.19	3.19	2.68	2.09	1.81	1.63
Female	518	18.53	15.65 - 21.41	2.88	2.42	1.88	1.99	1.47
Total	**954**	**19.18**	**16.41 - 21.94**	**2.77**	**2.32**	**1.81**	**3.20**	**1.41**

Bilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	13	1.19	0.47 - 1.92	0.73	0.61	0.47	1.27	0.37
Female	35	2.51	1.61 - 3.40	0.90	0.75	0.59	1.19	0.46
Total	**48**	**1.93**	**1.21 - 2.65**	**0.72**	**0.60**	**0.47**	**1.77**	**0.37**

Unilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	20	1.83	0.73 - 2.94	1.11	0.93	0.72	1.93	0.56
Female	42	3.01	2.14 - 3.88	0.87	0.73	0.57	0.95	0.45
Total	**62**	**2.49**	**1.72 - 3.27**	**0.78**	**0.65**	**0.51**	**1.60**	**0.40**

Eyes cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	46	2.11	1.22 - 3.00	0.89	0.75	0.58	1.09	0.45
Female	112	4.01	2.96 - 5.07	1.06	0.89	0.69	1.05	0.54
Total	**158**	**3.18**	**2.33 - 4.03**	**0.85**	**0.71**	**0.55**	**1.51**	**0.43**

Bilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	24	2.20	1.15 - 3.25	1.05	0.88	0.69	1.45	0.54
Female	39	2.80	1.55 - 4.04	1.25	1.05	0.82	2.08	0.64
Total	**63**	**2.54**	**1.49 - 3.58**	**1.05**	**0.88**	**0.68**	**2.87**	**0.53**

Unilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	21	1.93	1.07 - 2.79	0.86	0.72	0.56	1.11	0.44
Female	26	1.86	1.11 - 2.62	0.76	0.64	0.50	1.14	0.39
Total	**47**	**1.89**	**1.31 - 2.47**	**0.58**	**0.49**	**0.38**	**1.17**	**0.30**

Eyes cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	70	3.17	1.99 - 4.34	1.17	0.98	0.77	1.27	0.60
Female	104	3.73	2.36 - 5.09	1.36	1.15	0.89	1.88	0.70
Total	**174**	**3.48**	**2.37 - 4.59**	**1.11**	**0.93**	**0.73**	**2.38**	**0.57**

Bilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	91	8.35	5.80 - 10.89	2.54	2.14	1.66	2.40	1.30
Female	135	9.68	7.19 - 12.17	2.49	2.09	1.63	2.58	1.27
Total	**226**	**9.09**	**6.76 - 11.43**	**2.33**	**1.96**	**1.53**	**4.26**	**1.19**

Unilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	46	4.22	2.83 - 5.61	1.39	1.17	0.91	1.35	0.71
Female	57	4.09	2.85 - 5.32	1.24	1.04	0.81	1.41	0.63
Total	**103**	**4.14**	**3.11 - 5.18**	**1.04**	**0.87**	**0.68**	**1.74**	**0.53**

Eyes cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	228	10.46	7.62 - 13.30	2.84	2.39	1.86	2.45	1.45
Female	328	11.72	9.14 - 14.30	2.58	2.17	1.69	2.34	1.32
Total	**556**	**11.17**	**8.64 - 13.70**	**2.53**	**2.12**	**1.65**	**4.18**	**1.29**

Bilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	20	1.83	0.96 - 2.71	0.87	0.73	0.57	1.20	0.45
Female	15	1.08	0.47 - 1.68	0.60	0.50	0.39	1.23	0.31
Total	**35**	**1.41**	**0.90 - 1.92**	**0.51**	**0.43**	**0.33**	**1.20**	**0.26**

Unilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	33	3.03	1.80 - 4.26	1.23	1.03	0.80	1.46	0.63
Female	48	3.44	2.41 - 4.47	1.03	0.86	0.67	1.15	0.52
Total	**81**	**3.26**	**2.46 - 4.05**	**0.80**	**0.67**	**0.52**	**1.30**	**0.41**

Eyes (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	74	3.35	2.17 - 4.53	1.18	0.99	0.77	1.22	0.60
Female	78	2.80	1.96 - 3.63	0.84	0.70	0.55	0.93	0.43
Total	**152**	**3.04**	**2.26 - 3.81**	**0.78**	**0.65**	**0.51**	**1.32**	**0.40**