Rapid Assessment of Avoidable Blindness (RAAB) in Barisal Division of Bangladesh

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

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RESULT SUMMARY

Rapid Assessment of Avoidable Blindness in Bhola, Barguna, and Jhalokati Districts of Bangladesh

Summary:

- The all-age prevalence of blindness for above 3 districts is estimated to be 0.93%.
- The all-age magnitude of blindness for is estimated to be 30,193 people out of a population of 3.2 million.
- Avoidable causes of blindness (operated and un-operated cataract, refractive error and corneal scar, glaucoma) accounted for 98.6% of blindness,99.2% of severe visual impairment and 98.8% of moderate visual impairment.
- Cataract (91.5%) and sequelae related to cataract extraction (5.6%) accounted for 97.1% of all causes of bilateral blindness.
- Posterior segment disease **(**including glaucoma, diabetic retinopathy and age-related macular degeneration, other globe/CNS abnormality) is responsible for 2.9% of bilateral blindness.
- 48.7% of people with bilateral cataract VA<3/60 had had surgery and 22.9% at VA<6/18.

Subjects

- A total of 2493 individuals aged 50 years and over were examined in the survey.
- The overall response rate for the survey was 99.7% (99.8%Women, Men 99.6%).
- Of these 2493 subjects, 71 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 2.85% in people aged 50 years and above (95% CI: 1.89-3.81%).
- The distribution of visual acuity status of the examined subjects is shown in table 2.

Magnitude of Blindness

- In people aged over 50 years, the magnitude of blindness is estimated to be 27,136 people.
- The all-age prevalence of blindness for Bhola, Barguna, and Jhalokati district is estimated to be 0.93%.
- The all-age magnitude of blindness for Bhola, Barguna,and Jhalokati districts is estimated to be 30,193 people out of a population of 3.2 million.

Blindness and Visual Acuity by Age

- The prevalence of blindness was associated with increasing age ranging from 0.17% in those aged 50-59 years to 28.92% in those aged 80 years and above. (Figure 1).
- Increasing age was associated with higher levels of impaired vision. In those aged 50-59, 94.49% had normal vision, compared with 33.88% 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, glaucoma) accounted for 96.5% of blindness, 99.3% of severe visual impairment and 100% of moderate visual impairment.
- Cataract (91.5%) and sequelae related to cataract extraction (5.6%) accounted for 97.1% of all causes of bilateral blindness. (Table 3).
- Posterior segment disease **(**including glaucoma, diabetic retinopathy and age-related macular degeneration, other globe/CNS abnormality) is responsible for 2.9% of bilateral blindness (Table 3).

Cataract Surgical Coverage

- Cataract surgical coverage was relatively low; 48.7% of people with bilateral cataract VA<3/60 had had surgery and 22.9% at VA<6/18. (Table 4).
- 11.5% of the 122 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 Barisal, Potuakhali and Pirojpur Districts of Bangladesh

Summary:

- The all-age prevalence of blindness for above 3 districts is estimated to be 1.01%.
- The all-age magnitude of blindness for is estimated to be 49,409 people out of a population of 4.9 million.
- Avoidable causes of blindness (operated and un-operated cataract, refractive error and corneal scar, glaucoma) accounted for 98.6% of blindness,99.2% of severe visual impairment and 98.8% of moderate visual impairment.
- Cataract (85.2%) and sequelae related to cataract extraction(6.2%) accounted for 91.4% of all causes of bilateral blindness.
- Posterior segment disease **(**including glaucoma, diabetic retinopathy and age-related macular degeneration, other globe/CNS abnormality) is responsible for 5.6% of bilateral blindness.
- 59.6% of people with bilateral cataract VA<3/60 had had surgery and 26.6% at VA<6/18.

Subjects

- A total of 2498 individuals aged 50 years and over were examined in the survey.
- The overall response rate for the survey was 99.9% (100%Women, Men 99.8%).
- Of these 2498 subjects, 81 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 3.24% in people aged 50 years and above (95% CI: 2.19-4.29%).
- The distribution of visual acuity status of the examined subjects is shown in table 7.

Magnitude of Blindness

- In people aged over 50 years, the magnitude of blindness is estimated to be 43,484 people.
- The all-age prevalence of blindness for Barisal, Potuakhali and Pirojpur district is estimated to be 1.01%.
- The all-age magnitude of blindness for Barisal, Potuakhali and Pirojpur district is estimated to be 49,409 people out of a population of 4.9 million.

Blindness and Visual Acuity by Age

- The prevalence of blindness was associated with increasing age ranging from 0.23% in those aged 50-59 years to 15.97% in those aged 80 years and above. (Figure-2).
- Increasing age was associated with higher levels of impaired vision. In those aged 50-59, 95.94% had normal vision, compared with 38.89% 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, glaucoma) accounted for 96.5% of blindness, 99.3% of severe visual impairment and 100% of moderate visual impairment.
- Cataract (85.2%) and sequelae related to cataract extraction(6.2%) accounted for 91.4% of all causes of bilateral blindness. (Table 8).
- Posterior segment disease **(**including glaucoma, diabetic retinopathy and age-related macular degeneration, other globe/CNS abnormality) is responsible for 5.6% of bilateral blindness. (Table 8).

Cataract Surgical Coverage

- Cataract surgical coverage was relatively low; 59.6% of people with bilateral cataract VA<3/60 had had surgery and 26.6% at VA<6/18. (Table 9).
- 9.7% of the 186 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 Barisal division of Bangladesh

Districts	Total cluster	Adult pop Examined	All age mag.	Above 50 age meg.	Blind	Prev. of Blind %	Avoi. Cause of blindness %			Bi. blind due to Cataract %
							Blind	SVI	MVI	
Bhola, Barguna, and Jhalokati	50	2493	30,193	27,136	71	2.9	98.6%	99.2%	98.8%	91.5%
Barisal, Potuakhali, and Pirojpur	50	2,498	49,409	43,484	81	3.2	96.5%	99.3%	100%	85.2%

INTRODUCTION

The World Health Organization estimates 285 million people are estimated to be visually impaired worldwide. 39 million are blind and 246 have low vision. 82% among all blindness and 65% of all visual impairment has been estimated from the age-group of 50 years and above. Globally, the most common causes of visual impairment are: uncorrected refractive errors (43 %), un-operated cataract, (33%), and glaucoma(2%). 80% of all visual impairment can be treated or prevented. Approximately 90% of visually impaired people live in developing countries.

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. WHO suggested national and country-level effort to eliminate blindness and visual impairment.

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 has successfully been conducted in several districts in Bangladesh since 2005.

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

The present study the Barisal division was divided into two segments. Each segment consists of three districts and 50 clusters were covered within each segment. One of the segments included Bhola, Barguna, and Jhalokati district and the other one included Barisal, Potuakhali and Pirojpur district. According to census 2011, the estimated population of Barisal division 81,47,000. Total population of Bhola, Barguna, and Jhalokati district is 32,37,000. On the other hand, total population of Barisal, Potuakhali and Pirojpur district is 49,11,000. Total area of Barisal division is 13,644.85 km. The whole division is criss-crossed by a numerous rivers.

METHODS

Sample Selection:

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 7,61,985 adults aged ≥50 years in Bhola, Barguna and Jhalokati, 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 these 3 districts. Similarly, for Barisal, Potuakhali and Pirojpur districts with a population size of approximately adults aged ≥50 years11,59,792 aged ≥50 years considering 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 these 3 districts.

The clusters were selected through probability-proportionate to size sampling. Updated data from the 2011 national census was used as the sampling frame. We produced a list of all the enumeration areas in Bhola,

Barguna and Jhalokati 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.
- Moderate 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

The study 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. 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 ≥ 0.60). Team was accompanied by field supervisors to ensure that a high quality was maintained.

Statistical analysis

A software programme developed for this survey (RAAB english version 5) 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.cehjournal.org/resources/raab/.

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 – BHOLA, BARGUNA, JHALOKATI

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 the enumerated sample 99.6% males and 99.8% females were examined. The sampled population was relatively representative of the district population in terms of age and sex distribution (Table 1). There were 71 bilaterally blind people with available correction, giving a sample prevalence of blindness of 2.85 % (95% CI: 1.89-3.81%), with an observed DEFF of 2.16 (Table 2). The prevalence of bilateral severe visual impairment was 5.05% (95% CI: 3.93-6.18%; DEFF=1.72), and the prevalence of bilateral moderate visual impairment was 13.20% (95% CI: 11.11-15.28%; DEFF=2.47). The prevalence of visual impairment was higher in males (14.11%) than in females (11.95%). The prevalence of blindness increased rapidly with age (Figure 1). There were 33 people who were pseudophakic or aphakic in

both eyes and 56 had unilateral (pseudo) aphakia. Male were more likely to have unilateral (pseudo) aphakia (2.64%) than females (1.88%).

Uncorrected cataract was the primary cause of bilateral blindness (91.5%) and bilateral severe visual impairment (92.1%) while it was refractive error (68.1%) for moderate visual impairment. Refractive error(6.3%) was the second leading cause of severe visual impairment and it was uncorrected cataract(30.4%) for moderate visual impairment. Avoidable causes, that is, cataract (including unoperated and post-operative complications,) refractive error, corneal scar, glaucoma, and diabetic retinopathy were responsible for almost all cases of bilateral blindness (98.6%), bilateral severe visual impairment (99.2%) and bilateral moderate visual impairment (98.8%).

Extrapolating survey data to the age- and sex- distribution of Bhola, Barguna, and Jhalokati districts, in the people aged ≥50 years there were estimated to be 11,210 blind men and 15,926 blind women, 20,203 severely visually impaired men and 21,713 severely visually impaired women, and 50,670 moderate visually impaired men and 50,417 moderate visually impaired women. The age- and sex-adjusted prevalence of blindness was 3.6%, 5.5% for severe visual impairment and 13.3% for visual impairment. There are a total of 22,316 people (7433 men and 14,883 women) with best corrected bilateral VA<6/60 due to cataract who require surgery.

The cataract surgical coverage (CSC) was moderately low for people than eyes (Table 4). For people with VA < 3/60 the CSC was relatively low (48.7%) and for eyes with cataract at VA < 3/60 the CSC was 22.9%.

Information was available on 122 eyes operated for cataract. Most of the surgeries were undertaken in private hospital (55.7%) and govt. hospital (27%). Some were undertaken at voluntary/charitable hospitals (10.7%), and few were conducted in eye camp (6.6%). Outcome after surgery was relatively poor (Table 5). With available correction only 71.3% of eyes achieved a good outcome (VA≥6/18) after surgery, while 13.9% had a borderline outcome (<6/18-6/60), and 14.8% had a poor outcome (<6/60). This improved with best correction so that 83.6 % of eyes achieved a good outcome. 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 “cost of surgery” (42.8%), “need not felt” (25%), fear (23.2%) and only 4.5% % people were “unaware of treatment” .

Table-1 : Age and Gender composition of district and sample population- Bhola, Barguna and Jhalokati

	Male		Female	
Age group	**Districts**	**Sample**	**Districts**	**Sample**
50-59	198,104(48.5%)	426(35.1%)	172,532(48.8%)	745(58.2%)
60-69	123,976(30.3%)	497(41%)	107,144(30.3%)	392(30.6%)
70-79	58,913(14.4%)	210(17.3%)	50496(14.3%)	102(8%)
80-99	27,514(6.7%)	80(6.6%)	23,306(6.6%)	41(3.2%)

Table -2: Distribution by visual acuity with available correction in the better eye in adults aged 50 years and older- Bhola, Barguna and Jhalokati

VA with available correction	Male (n= 1,213)	Female (n= 1,280)	Total (n= 2,493)
VA < 3/60			
Bilateral blindness	35(2.9%)	36(2.8%)	71(2.9%)
Blind eyes	125(5.2%)	113(4.4%)	238(4.8%)
VA < 6/60 and VA ≥3/60			
Bilateral severe visual impairment	70(5.8%)	56(4.4%)	126(5.1%)
Severe visually impaired eyes	182(7.5%)	148(5.8%)	330(6.6%)
VA < 6/18 and VA≥6/60			
Bilateral moderate visual impairment	176(14.5%)	135(11.9%)	329(13.2%)
Bilateral moderate visual impaired eyes	352(14.5%)	300(11.7%)	652(13.1%)
Bilateral aphakia	17(1.4%)	16(1.3%)	33(1.3%)
Unilateral aphakia	32(2.6%)	24(1.9%)	64(2.3%)
Aphakic eyes	66(2.7%)	56(2.2%)	122(2.5%)

Table-3: Cause of blindness, severe visual impairment and moderate visual impairment in people with available correction- Bhola, Barguna and Jhalokati

	Bilateral Blindness (VA < 3/60)	**Bilateral severe visual impairment (VA<6/60 - ≥3/60)**	**Bilateral moderate visual impairment (VA < 6/18 - ≥6/60)**
	n=71	n=126	n=329
Refractive error	0	8(6.3%)	224(68.1%)
Cataract, untreated	65(91.5%)	116(92.1%)	100(30.4%)
Aphakia, uncorrected	1(1.4%)	0	2(0.3%)
Surgical complications	2(2.8%)	1(0.8%)	2(0.3%)
Non-Trachomatous corneal opacity	2(2.8%)	0	1(0.3%)
phythisis	0	0	0
All other globe/CNS abnormality	0	0	0
Posterior segment cause	1(2.9%)	1(1.4%)	4(1.6%)
Treatable cause	66(93%)	124(98.4%)	324(98.5%)
Preventable cause(PHC/PEC services)	2(5.7%)	0	1(0.7%)
Preventable cause(Ophthalmic services)	2(5.6%)	1(1.4%)	0
Avoidable cause	70 (98.6%)	125(99.2%)	325(98.8)

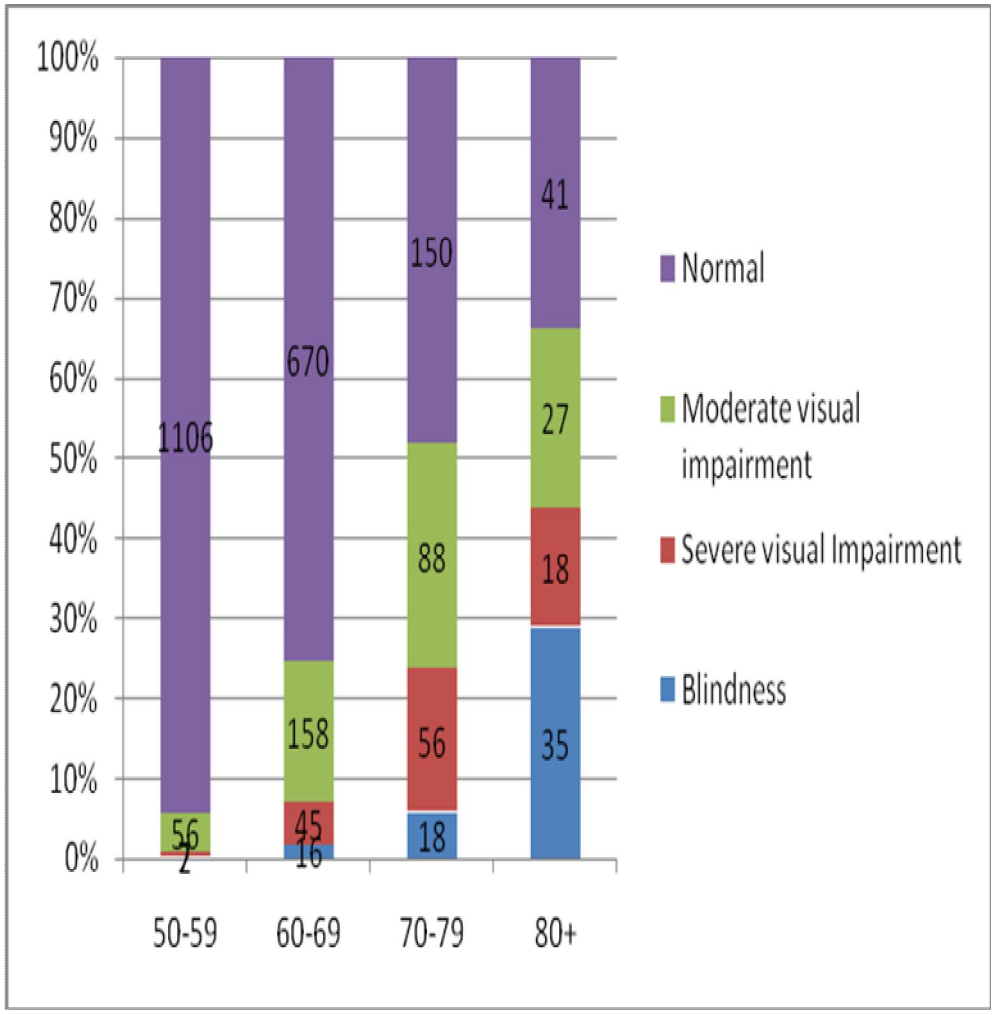
Table-4: Cataract surgical coverage (CSC) by person and eyes in people aged ≥50 years (best correction)- Bhola, Barguna and Jhalokati

	CSC – Persons (95% CI)	CSC – Eyes (95% CI)
VA < 3/60		
Male	52.9%	43.1%
Female	45%	35.2%
Total	48.7%	39.1%
VA < 6/60		
Male	31.7%	20.3%
Female	28.5%	18.9%
Total	30.1%	19.6%
VA < 6/18		
Male	24%	15.2%
Female	21.8%	14.5%
Total	22.9%	14.8%

Table-5: Post-operative visual acuity in 122 eyes following cataract surgery, by IOL status- Bhola, Barguna and Jhalokati

	IOL eyes (n =116)	Non-**IOL eyes (n =6)**	**All eyes (n =122)**
Available correction			
Good: Can see 6/18	87(75%)	0	87(71.3%)
Borderline: Can see 6/60	17(14.7%)	0	17(13.9%)
Poor: Cannot see 6/60	12 (10.3%)	6(100%)	18(14.8%)
Best correction			
Good: Can see 6/18	100(86.2%)	2(33.3%)	102(83.6%)
Borderline: Can see 6/60	6(5.2%)	0	6(4.9%)
Poor: Cannot see 6/60	10(8.6%)	4(66.7%)	14(11.5%)

Figure-1: Bhola, Barguna and Jhalokati



RESULTS – BARISAL, POTUAKHALI, PIROJPUR

The study population consisted of 2500 people. only 2 (0.1%) of them were available and no one was refused so that 2498 people were included in the survey (99.9%). Among the enumerated sample 99.8% males and 100% females were examined. The sampled population was relatively representative of the district population in terms of age and sex distribution (Table 6). There were 81 bilaterally blind people with available correction, giving a sample prevalence of blindness of 3.2 % (95% CI: 2.2-4.3%), with an observed DEFF of 2.29 (Table 7). The prevalence of bilateral severe visual impairment was 5.96% (95% CI: 4.80-7.13%; DEFF=1.58), and the prevalence of bilateral moderate visual impairment was 110.01 (95% CI: 8.52-11.49%; DEFF=1.59). The prevalence of moderate visual impairment was higher in males (11.93%) than in females (8.33%). The prevalence of blindness increased rapidly with age (Figure-2). There were 51 people who were pseudophakic or aphakic in both eyes and 84 had unilateral (pseudo) aphakia. Male were more likely to have unilateral (pseudo) aphakia (2.9%) than females (1.3%).

Uncorrected cataract was the primary cause of bilateral blindness (85.2%) , bilateral severe visual impairment (87.2%) and moderate severe visual impairment (60.8%). Both refractive error (3.7%) and Non-trachomatous conrneal opacity(3.7%) were the second leading cause for blindness. One the other hand refractive error was the second leading cause of bilateral severe visual impairment (10.7%) and moderate severe visual impairment (34.4%). Avoidable causes, that is, cataract (including un-operated and post-operative complications,) refractive error, corneal scar, glaucoma, and diabetic retinopathy were responsible for almost all cases of bilateral blindness (96.5%), bilateral severe visual impairment (99.3%) and bilateral moderate visual impairment (100%).

Extrapolating survey data to the age- and sex- distribution of Barisal, Potuakhali, and Pirojpur districts, in the people aged ≥50 years there were estimated to be 17,738 blind men and 25,746 blind women, 34,880 severely visually impaired men and 42,135 severely visually impaired women, and 68,162 moderate visually impaired

men and 54,061 moderate visually impaired women. The age- and sex-adjusted prevalence of blindness was 3.7%, 6.6% for severe visual impairment and 10.5% for visual impairment. There are a total of 33,228 people (10,303 men and 22,925 women) with best corrected bilateral VA<6/60 due to cataract who require surgery.

The cataract surgical coverage (CSC) was moderately low for eyes than people (Table 9). For eyes with VA < 3/60 the CSC was relatively low (46.5%) and for eyes with cataract at VA < 3/60 the CSC was 59.6%.

Information was available on 186 eyes operated for cataract. Most of the surgeries were undertaken in private hospital (69.9%) and govt. hospital (17.7%). Some were undertaken at voluntary/charitable hospitals (10.8%), and very few were conducted in eye camp (1.6%). Outcome after surgery was relatively poor (Table 10). With available correction only 75.3% of eyes achieved a good outcome (VA≥6/18) after surgery, while 6.5% had a borderline outcome (<6/18-6/60), and 18.3% had a poor outcome (<6/60). This improved with best correction so that 83.9 % of eyes achieved a good outcome. 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 "need not felt" (46.7%) "cost of surgery" (30.6%), "unaware of treatment" (15.6%), and only few people cannot access treatment (4.9%)

Table-6 : Age and Gender composition of district and sample population- Barisal, Potuakhali and Pirojpur

	Male		Female	
Age group	**Districts**	**Sample**	**Districts**	**Sample**
50-59	300,552(48.2%)	473(40.6%)	261,756(48.8%)	808(60.6%)
60-69	188,090(30.2%)	420(36.1%)	162,554(30.3%)	351(26.3%)
70-79	93,128(14.9%)	187(16.1%)	76,610(14.3%)	118(8.9%)
80-99	41,743(6.7%)	85(7.3%)	35,359(6.6%)	56(4.2%)

Table -7: Distribution by visual acuity with available correction in the better eye in adults aged 50 years and older- Barisal, Potuakhali and Pirojpur

VA with available correction	Male (n= 1,165)	Female (n= 1,333)	Total (n= 2,498)
VA < 3/60			
Bilateral blindness	36(3.1%)	45(3.4%)	81(3.2%)
Blind eyes	136(5.8%)	146(5.5%)	282(5.6%)
VA < 6/60 and VA ≥3/60			
Bilateral severe visual impairment	72(6.2%)	77(5.8%)	149(6%)
Severe visually impaired eyes	151(6.5%)	169(6.3%)	320(6.4%)
VA < 6/18 and VA≥6/60			
Bilateral moderate visual impairment	139(12%)	111(8.4%)	250(10.1%)
Bilateral moderate visual impaired eyes	287(12.4%)	250(9.4%)	537(10.8%)
Bilateral aphakia	34(2.9%)	17(1.3%)	51(2%)
Unilateral aphakia	42(3.6%)	42(3.2%)	84(3.4%)
Aphakic eyes	110(4.7%)	76(2.9%)	186(3.7%)

Table-8: Cause of blindness, severe visual impairment and moderate visual impairment in people with available correction- Barisal, Potuakhali and Pirojpur

	Bilateral Blindness (VA < 3/60)	**Bilateral severe visual impairment (VA<6/60 - ≥3/60)**	**Bilateral moderate visual impairment (VA < 6/18 - ≥6/60)**
	n=81	n=149	n=250
Refractive error	3(3.7%)	16(10.7%)	96(38.4%)
Cataract, untreated	69(85.2%)	130(87.2%)	152(60.8%)
Aphakia, uncorrected	1(1.2%)	0	0
Surgical complications	2(2.5%)	1(0.7%)	1(0.4%)
Non-Trachomatous corneal opacity	3(3.7%)	0	1(0.4%)
phythisis	0	0	0
All other globe/CNS abnormality	1(1.2%)	0	0
Posterior segment cause	2(2.6%)	2(2.6%)	0
Treatable cause	73(90.9%)	146(98%)	248(99.2%)
Preventable cause(PHC/PEC services)	3(4.4%)	0	1(0.7%)
Preventable cause(Ophthalmic services)	2(5.6%)	2(1.3%)	1(0.9%)
Avoidable cause	78 (96.5%)	148(99.3%)	250(100%)

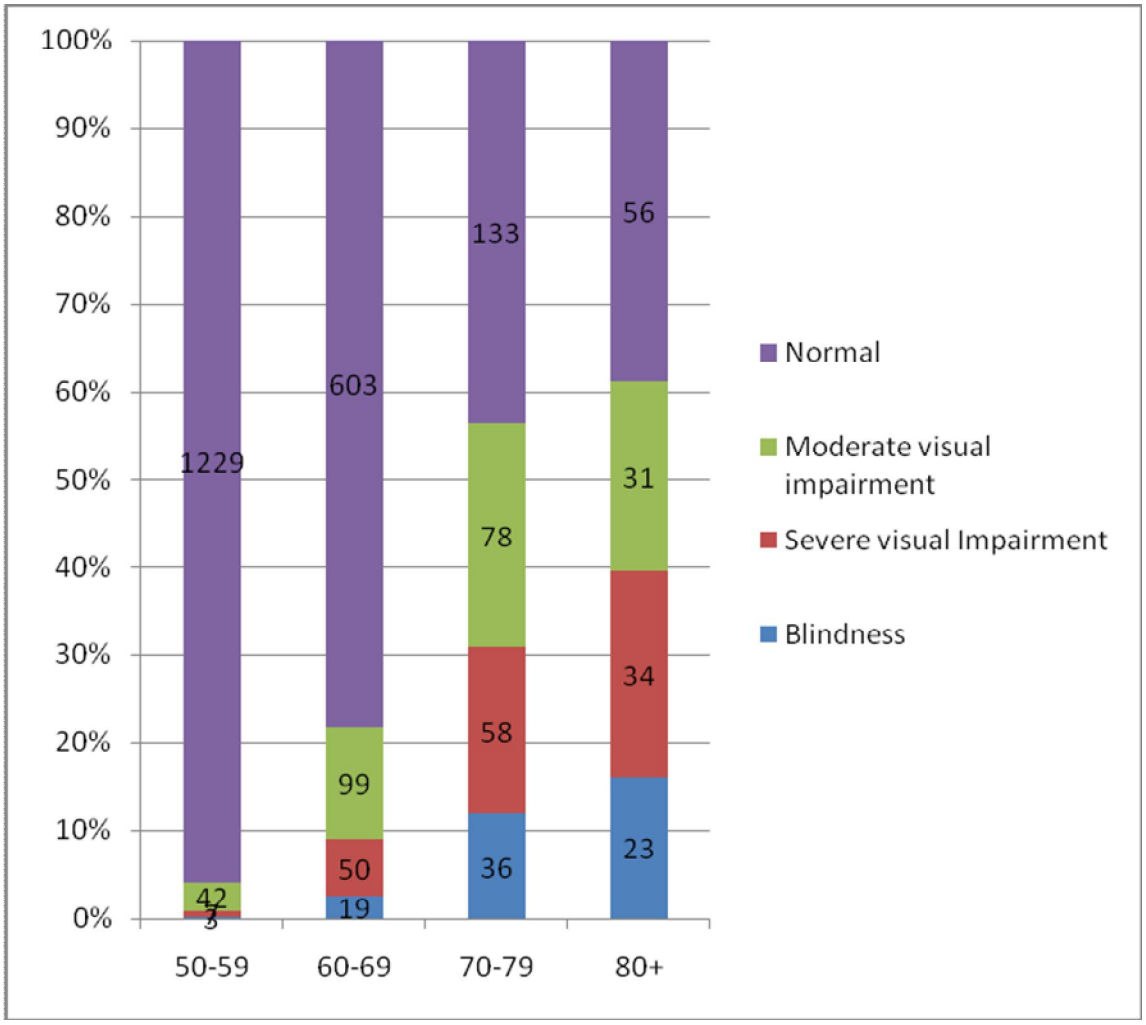
Table-9: Cataract surgical coverage (CSC) by person and eyes in people aged ≥50 years (best correction)- Barisal, Potuakhali and Pirojpur

	CSC – Persons (95% CI)	CSC – Eyes (95% CI)
VA < 3/60		
Male	72%	55.8%
Female	47.4%	37.4%
Total	59.6%	46.5%
VA < 6/60		
Male	44.4%	33.5%
Female	30.2%	21.9%
Total	37.1%	27.6%
VA < 6/18		
Male	28.8%	21.6%
Female	24.3%	15.8%
Total	26.6%	18.8%

Table-10: Post-operative visual acuity in 186 eyes following cataract surgery, by IOL status- Barisal, Potuakhali and Pirojpur

	IOL eyes (n =167)	Non-**IOL eyes (n =19)**	**All eyes (n =186)**
Available correction			
Good: Can see 6/18	140(83.8%)	0	140(75.3%)
Borderline: Can see 6/60	11(6.6%)	1(5.3%)	12(6.5%)
Poor: Cannot see 6/60	16(9.6%)	18(94.7%)	34(18.3%)
Best correction			
Good: Can see 6/18	150(89.8%)	6(31.6%)	156(83.9%)
Borderline: Can see 6/60	7(4.2%)	5(26.3%)	12(6.5%)
Poor: Cannot see 6/60	10(6%)	8(42.2%)	18(9.7%)

Barisal, Potuakhali and Pirojpur



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 12/15/2013 11:41:13AM

This report is for the survey area: barisal

Year and month when survey was conducted: 1414- 9 until 2013-10

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.

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

	Examined		Not available		Refused		Not capable		Total	
	n	%	n	%	n	%	n	%	n	%
Males	1,213	99.6%	5	0.4%	0	0.0%	0	0.0%	**1,218**	**100.0%**
Females	1,280	99.8%	2	0.2%	0	0.0%	0	0.0%	**1,282**	**100.0%**
Total	**2,493**	**99.7%**	**7**	**0.3%**	**0**	**0.0%**	**0**	**0.0%**	2,500	**100.0%**

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

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with best correction or pinhole						
All bilateral blindness	34	2.8% (1.5-4.1)	36	2.8% (1.8-3.9)	**70**	**2.8% (1.9-3.8)**
All blind eyes	122	5.0% (3.5-6.6)	113	4.4% (3.2-5.6)	**235**	**4.7% (3.6-5.8)**
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	35	2.9% (1.5-4.2)	36	2.8% (1.8-3.9)	**71**	**2.9% (1.9-3.8)**
All blind eyes	125	5.2% (3.6-6.8)	113	4.4% (3.2-5.6)	**238**	**4.8% (3.6-5.9)**
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral SVI	70	5.8% (4.0-7.5)	56	4.4% (3.3-5.4)	**126**	**5.1% (3.9-6.2)**
All SVI eyes	182	7.5% (5.6-9.4)	148	5.8% (4.6-6.9)	**330**	**6.6% (5.4-7.9)**
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral MVI	176	14.5% (11.9-17.1)	153	12.0% (9.8-14.2)	**329**	**13.2% (11.1-15.3)**
All MVI eyes	352	14.5% (11.8-17.2)	300	11.7% (9.4-14.0)	**652**	**13.1% (10.9-15.2)**

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

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	35	2.9% (1.5-4.2)	36	2.8% (1.8-3.9)	**71**	**2.9% (1.9-3.8)**
All blind eyes	125	5.2% (3.6-6.8)	113	4.4% (3.2-5.6)	**238**	**4.8% (3.6-5.9)**
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	105	8.7% (6.2-11.1)	92	7.2% (5.8-8.6)	**197**	**7.9% (6.4-9.5)**
All eyes	307	12.7% (9.9-15.4)	261	10.2% (8.7-11.7)	**568**	**11.4% (9.6-13.2)**
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	281	23.2% (19.6-26.8)	245	19.1% (16.6-21.6)	**526**	**21.1% (18.5-23.7)**
All eyes	659	27.2% (23.5-30.8)	561	21.9% (19.4-24.4)	**1,220**	**24.5% (21.8-27.1)**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	**0**	**0.0%**
2. Aphakia uncorrected	1	2.9%	0	0.0%	**1**	**1.4%**
3. Cataract untreated	31	88.6%	34	94.4%	**65**	**91.5%**
4. Cataract surgical complications	0	0.0%	2	5.6%	**2**	**2.8%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	2	5.7%	0	0.0%	**2**	**2.8%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	1	2.9%	0	0.0%	**1**	**1.4%**
12. Other posterior segment disease	0	0.0%	0	0.0%	**0**	**0.0%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**35**	**100.0%**	**36**	**100.0%**	**71**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	32	91.4%	34	94.4%	**66**	**93.0%**
B. Preventable (PHC/PEC services) (5,6,7,8)	2	5.7%	0		**2**	**5.7%**
C. Preventable (Ophthalmic services) (4,9,10)	0		2	5.6%	**2**	**5.6%**
D. Avoidable (A+B+C)	34	97.1%	36	100.0%	**70**	**98.6%**
E. Posterior segment causes (8,9,10,11,12)	1	2.9%	0		**1**	**2.9%**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	**0**	**0.0%**
2. Aphakia uncorrected	2	1.6%	0	0.0%	**2**	**0.8%**
3. Cataract untreated	82	65.6%	103	91.2%	**185**	**77.7%**
4. Cataract surgical complications	5	4.0%	5	4.4%	**10**	**4.2%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	15	12.0%	1	0.9%	**16**	**6.7%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	1	0.9%	**1**	**0.4%**
10. Diabetic retinopathy	1	0.8%	0	0.0%	**1**	**0.4%**
11. ARMD	5	4.0%	1	0.9%	**6**	**2.5%**
12. Other posterior segment disease	3	2.4%	0	0.0%	**3**	**1.3%**
13. All other globe/CNS abnormalities	12	9.6%	2	1.8%	**14**	**5.9%**
Total	**125**	**100.0%**	**113**	**100.0%**	**238**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	84	67.2%	103	91.2%	**187**	**80.4%**
B. Preventable (PHC/PEC services) (5,6,7,8)	15	12.0%	1	0.9%	**16**	**11.3%**
C. Preventable (Ophthalmic services) (4,9,10)	6	4.8%	6	5.3%	**12**	**5.1%**
D. Avoidable (A+B+C)	105	84.0%	110	97.3%	**215**	**90.8%**
E. Posterior segment causes (8,9,10,11,12)	9	7.2%	2	1.8%	**11**	**6.2%**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	5	7.1%	3	5.4%	**8**	**6.3%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	63	90.0%	53	94.6%	**116**	**92.1%**
4. Cataract surgical complications	1	1.4%	0	0.0%	**1**	**0.8%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	1	1.4%	0	0.0%	**1**	**0.8%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**70**	**100.0%**	**56**	**100.0%**	**126**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	68	97.1%	56	100.0%	**124**	**98.4%**
B. Preventable (PHC/PEC services) (5,6,7,8)	0		0		**0**	
C. Preventable (Ophthalmic services) (4,9,10)	1	1.4%	0		**1**	**1.4%**
D. Avoidable (A+B+C)	69	98.6%	56	100.0%	**125**	**99.2%**
E. Posterior segment causes (8,9,10,11,12)	1	1.4%	0		**1**	**1.4%**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	9	4.9%	6	4.1%	**15**	**4.5%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	172	94.5%	140	94.6%	**312**	**94.5%**
4. Cataract surgical complications	0	0.0%	0	0.0%	**0**	**0.0%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	1	0.5%	2	1.4%	**3**	**0.9%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**182**	**100.0%**	**148**	**100.0%**	**330**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	181	99.5%	146	98.6%	**327**	**99.1%**
B. Preventable (PHC/PEC services) (5,6,7,8)	0		0		**0**	
C. Preventable (Ophthalmic services) (4,9,10)	0		0		**0**	
D. Avoidable (A+B+C)	181	99.5%	146	98.6%	**327**	**99.1%**
E. Posterior segment causes (8,9,10,11,12)	1	0.5%	2	1.4%	**3**	**1.1%**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	119	67.6%	105	68.6%	**224**	**68.1%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	56	31.8%	44	28.8%	**100**	**30.4%**
4. Cataract surgical complications	0	0.0%	0	0.0%	**0**	**0.0%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	0	0.0%	1	0.7%	**1**	**0.3%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	1	0.6%	3	2.0%	**4**	**1.2%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**176**	**100.0%**	**153**	**100.0%**	**329**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	175	99.4%	149	97.4%	**324**	**98.5%**
B. Preventable (PHC/PEC services) (5,6,7,8)	0		1	0.7%	**1**	**0.7%**
C. Preventable (Ophthalmic services) (4,9,10)	0		0		**0**	
D. Avoidable (A+B+C)	175	99.4%	150	98.0%	**325**	**98.8%**
E. Posterior segment causes (8,9,10,11,12)	1	0.6%	3	2.0%	**4**	**1.6%**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	241	68.5%	205	68.3%	**446**	**68.4%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	110	31.3%	88	29.3%	**198**	**30.4%**
4. Cataract surgical complications	0	0.0%	0	0.0%	**0**	**0.0%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	0	0.0%	2	0.7%	**2**	**0.3%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	1	0.3%	5	1.7%	**6**	**0.9%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**352**	**100.0%**	**300**	**100.0%**	**652**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	351	99.7%	293	97.7%	**644**	**98.8%**
B. Preventable (PHC/PEC services) (5,6,7,8)	0		2	0.7%	**2**	**0.7%**
C. Preventable (Ophthalmic services) (4,9,10)	0		0		**0**	
D. Avoidable (A+B+C)	351	99.7%	295	98.3%	**646**	**99.1%**
E. Posterior segment causes (8,9,10,11,12)	1	0.3%	5	1.7%	**6**	**1.4%**

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

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	24	2.0% (0.9-3.1)	33	2.6% (1.6-3.6)	**57**	**2.3% (1.4-3.1)**
Unilateral cataract	39	3.2% (2.2-4.3)	37	2.9% (2.0-3.7)	**76**	**3.1% (2.3-3.8)**
Cataract eyes	87	3.6% (2.2-5.0)	103	4.0% (2.9-5.1)	**190**	**3.8% (2.8-4.8)**
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	84	6.9% (4.7-9.2)	83	6.5% (5.1-7.9)	**167**	**6.7% (5.2-8.2)**
Unilateral cataract	91	7.5% (8.7-14.0)	75	5.9% (7.9-11.2)	**166**	**6.7% (8.7-12.1)**
Cataract eyes	259	10.7% (8.1-13.2)	241	9.4% (7.9-10.9)	**500**	**10.0% (8.4-11.7)**
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	133	11.0% (7.9-14.1)	129	10.1% (7.8-12.4)	**262**	**10.5% (8.2-12.8)**
Unilateral cataract	103	8.5% (6.9-10.1)	73	5.7% (4.4-7.0)	**176**	**7.1% (5.9-8.2)**
Cataract eyes	369	15.2% (12.0-18.4)	331	12.9% (10.7-15.1)	**700**	**14.0% (11.7-16.3)**

11. Sample prevalence of (pseudo)aphakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	17	1.4% (0.7-2.1)	16	1.3% (0.7-1.8)	**33**	**1.3% (0.9-1.8)**
Unilateral (pseudo)aphakia	32	2.6% (1.5-3.7)	24	1.9% (1.1-2.6)	**56**	**2.3% (1.5-3.0)**
(Pseudo)aphakic eyes	66	2.7% (1.9-3.6)	56	2.2% (1.5-2.9)	**122**	**2.5% (1.9-3.0)**

12. Cataract Surgical Coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	43.1	35.2	39.1
VA < 6/60	20.3	18.9	19.6
VA < 6/18	15.2	14.5	14.8
Cataract Surgical Coverage (Persons) - percentage			
VA < 3/60	52.9	45.0	48.7
VA < 6/60	31.7	28.5	30.1
VA < 6/18	24.0	21.8	22.9

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

	Males		Females		Total	
	n	%	n	%	n	%
First eyes	49	74.2%	40	71.4%	**89**	**73.0%**
Second eyes	17	25.8%	16	28.6%	**33**	**27.1%**

14. Uncorrected refractive error and uncorrected presbyopia

	Males		Females		Total	
	n	%	n	%	n	%
Total refractive errors	142	11.7%	120	9.4%	**262**	**10.5%**
Uncorrected refractive errors	125	10.3%	108	8.4%	**233**	**9.4%**
Uncorrected presbyopia	1,118	92.2%	1,223	95.6%	**2,341**	**93.9%**

15. Persons with Functional Low Vision: BCVA<6/18 in the better eye; incurable

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59	1	0.2%	0	0.0%	**1**	**0.1%**
60 - 69	0	0.0%	2	0.5%	**2**	**0.2%**
70 - 79	1	0.5%	1	1.0%	**2**	**0.6%**
80+	1	1.3%	1	2.4%	**2**	**1.7%**
Total	3	0.3%	4	0.3%	**7**	**0.3%**

16. Principal cause of functional low vision in persons: BCVA<6/18 in better eye, incurable

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	**0**	**0.0%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	0	0.0%	0	0.0%	**0**	**0.0%**
4. Cataract surgical complications	0	0.0%	2	50.0%	**2**	**28.6%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	2	66.7%	1	25.0%	**3**	**42.9%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	1	33.3%	1	25.0%	**2**	**28.6%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**3**	**100.0%**	**4**	**100.0%**	**7**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	0		0		**0**	
B. Preventable (PHC/PEC services) (5,6,7,8)	2	66.7%	1	25.0%	**3**	**52.8%**
C. Preventable (Ophthalmic services) (4,9,10)	0		2	50.0%	**2**	**50.0%**
D. Avoidable (A+B+C)	2	66.7%	3	75.0%	**5**	**71.7%**
E. Posterior segment causes (8,9,10,11,12)	1	33.3%	1	25.0%	**2**	**29.2%**

17. Persons with FLV and proportion of all persons in corresponding category of visual impairment with available correction

	Males		Females		Total	
	n	%	n	%	n	%
BCVA<3/60 - LP+	2	5.7%	2	5.6%	**4**	**5.6%**
BCVA<6/60 - 3/60	1	1.4%	0	0.0%	**1**	**0.8%**
BCVA<6/18 - 6/60	0	0.0%	2	1.3%	**2**	**0.6%**
Total	3	1.1%	4	1.6%	**7**	**1.3%**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

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

Date and time of report: 12/15/2013 11:47:33AM

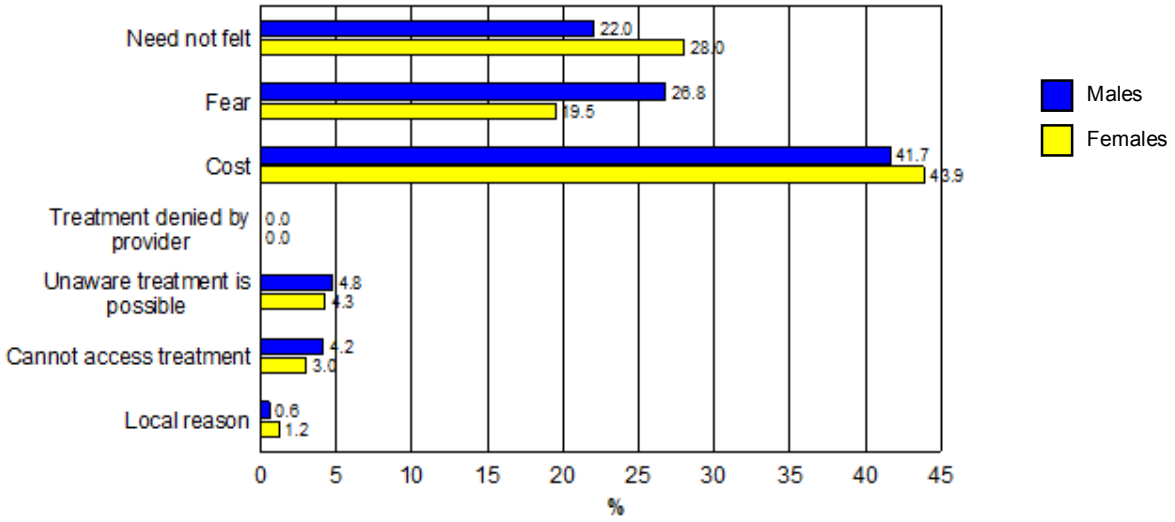
This report is for the survey area: barisal

Year and month when survey was conducted: 1414- 9 until 2013-10

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.

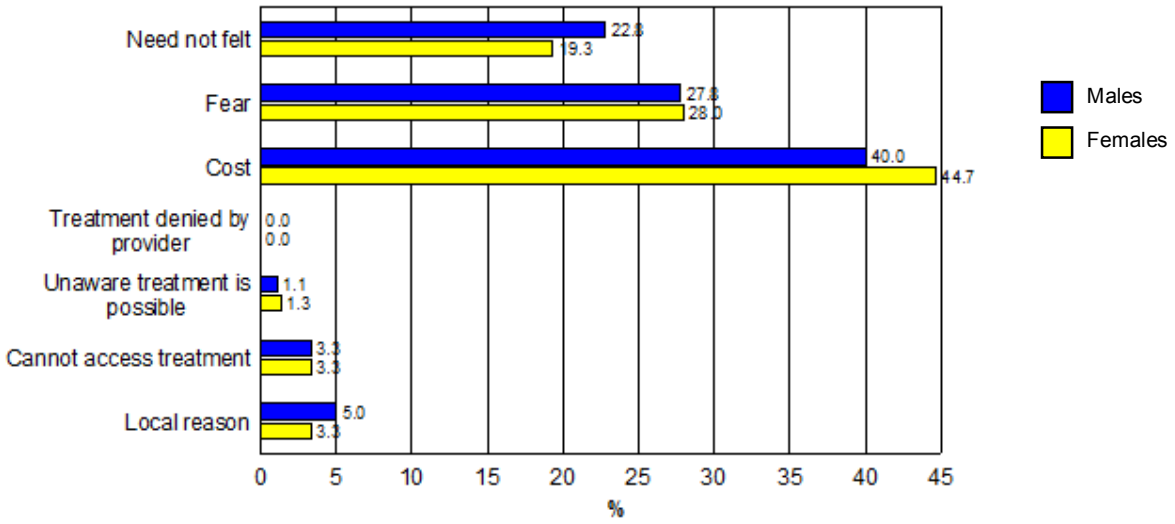
1. Barriers to cataract surgery in sample (bilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	37	22,0	46	28,0	83	25,0
Fear	45	26,8	32	19,5	77	23,2
Cost	70	41,7	72	43,9	142	42,8
Treatment denied by provider	0	0,0	0	0,0	0	0,0
Unaware treatment is possible	8	4,8	7	4,3	15	4,5
Cannot access treatment	7	4,2	5	3,0	12	3,6
Local reason	1	0,6	2	1,2	3	0,9
Total	**168**	**100.0**	**164**	**100.0**	**332**	**100.0**



2. Barriers to cataract surgery in sample (unilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	41	22,8	29	19,3	70	21,2
Fear	50	27,8	42	28,0	92	27,9
Cost	72	40,0	67	44,7	139	42,1
Treatment denied by provider	0	0,0	0	0,0	0	0,0
Unaware treatment is possible	2	1,1	2	1,3	4	1,2
Cannot access treatment	6	3,3	5	3,3	11	3,3
Local reason	9	5,0	5	3,3	14	4,2
Total	**180**	**100.0**	**150**	**100.0**	**330**	**100.0**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

Date and time of report: 12/15/2013 11:50:37AM

This report is for the survey area: barisal

Year and month when survey was conducted: 1414- 9 until 2013-10

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 vision 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. VA in operated eyes in sample with available correction (PVA)

	Non-IOL		IOL		Couching		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	0	0.0	87	75.0	0	0.0	**87**	**71.3**
Borderline: can see 6/60	0	0.0	17	14.7	0	0.0	**17**	**13.9**
Poor: cannot see 6/60	6	100.0	12	10.3	0	0.0	**18**	**14.8**
Total	**6**	**100.0**	**116**	**100.0**	**0**	**0.0**	**122**	**100.0**

2. VA in operated eyes in sample with best correction (BCVA)

	Non-IOL		IOL		Couching		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	2	33.3	100	86.2	0	0.0	**102**	**83.6**
Borderline: can see 6/60	0	0.0	6	5.2	0	0.0	**6**	**4.9**
Poor: cannot see 6/60	4	66.7	10	8.6	0	0.0	**14**	**11.5**
Total	**6**	**100.0**	**116**	**100.0**	**0**	**0.0**	**122**	**100.0**

3. VA in operated eyes in sample by years after surgery

	3 yrs postop		4 - 6 yrs postop.		7+ yrs postop		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	65	78.3	14	66.7	8	44.4	**87**	**71.3**
Borderline: can see 6/60	9	10.8	3	14.3	5	27.8	**17**	**13.9**
Poor: cannot see 6/60	9	10.8	4	19.0	5	27.8	**18**	**14.8**
Total	**83**	**100.0**	**21**	**100.0**	**18**	**100.0**	**122**	**100.0**

4. Age at time of surgery in males and females

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
1 - 29	0	0.0	0	0.0	**0**	**0.0**
30 - 39	0	0.0	0	0.0	**0**	**0.0**
40 - 49	2	3.0	2	3.6	**4**	**3.3**
50 - 59	11	16.7	22	39.3	**33**	**27.0**
60 - 69	21	31.8	22	39.3	**43**	**35.2**
70 - 79	27	40.9	10	17.9	**37**	**30.3**
80+	5	7.6	0	0.0	**5**	**4.1**
Total	**66**	**100.0**	**56**	**100.0**	**122**	**100.0**

5. Place of surgery by sex

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Government Hosp.	16	24.2	17	30.4	**33**	**27.0**
Voluntary/charitable hospital	7	10.6	6	10.7	**13**	**10.7**
Private hospital	35	53.0	33	58.9	**68**	**55.7**
Eyecamp	8	12.1	0	0.0	**8**	**6.6**
Total	**66**	**100.0**	**56**	**100.0**	**122**	**100.0**

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

	Gov. Hosp.		Vol. Hosp.		Priv. Hosp.		Eye camp		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	26	78.8	9	69.2	44	64.7	8	100.0	**87**	**71.3**
Borderline: can see 6/60	4	12.1	3	23.1	10	14.7	0	0.0	**17**	**13.9**
Poor: cannot see 6/60	3	9.1	1	7.7	14	20.6	0	0.0	**18**	**14.8**
Total	**33**	**100.0**	**13**	**100.0**	**68**	**100.0**	**8**	**100.0**	**122**	**100.0**

7. Post-op presenting VA and causes of borderline and poor outcome

	Selection		Surgery		Spectacles		Sequelae		Can see 6/18		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	0	0.0	0	0.0	0	0.0	0	0.0	87	100.0	**87**	**71.3**
Borderline: can see 6/60	3	42.9	0	0.0	12	80.0	2	28.6	0	0.0	**17**	**13.9**
Poor: cannot see 6/60	4	57.1	6	100.0	3	20.0	5	71.4	0	0.0	**18**	**14.8**
Total	**7**	**100.0**	**6**	**100.0**	**15**	**100.0**	**7**	**100.0**	**87**	**100.0**	**122**	**100.0**

8. Proportion and type of surgery

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Non-IOL	4	6.1	2	3.6	**6**	**4.9**
IOL	62	93.9	54	96.4	**116**	**95.1**
Couching	0	0.0	0	0.0	**0**	**0.0**
Total	**66**	**100.0**	**56**	**100.0**	**122**	**100.0**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

INDICATORS BY SEX AND BY AGE GROUP - FINDINGS FROM SAMPLE

Date and time of report: 12/15/2013 11:53:58AM

This report is for the survey area: barisal

Year and month when survey was conducted: 1414- 9 until 2013-10

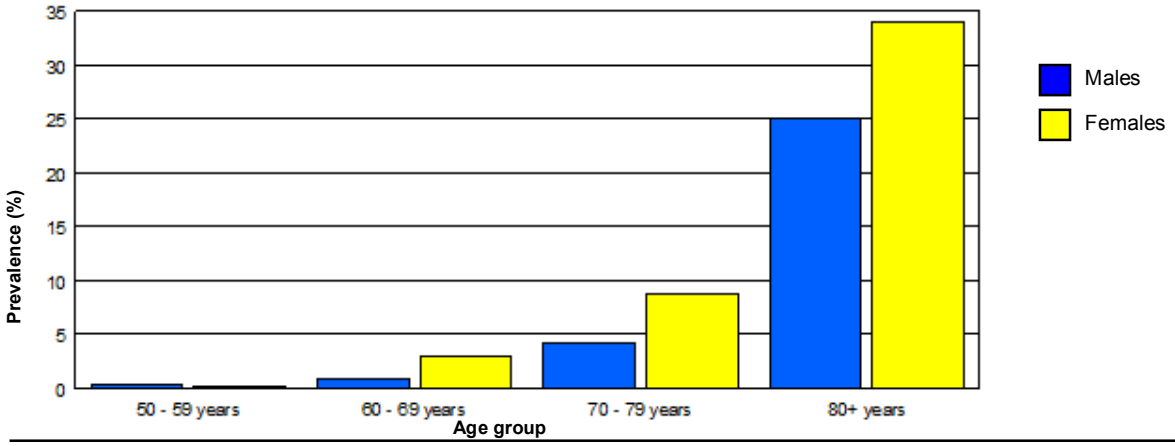
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral cataract blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals 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

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	426	35.1	745	58.2	1,171	46.7
60 - 69 years	497	41.0	392	30.6	889	35.8
70 - 79 years	210	17.3	102	8.0	312	12.6
80+ years	80	6.6	41	3.2	121	4.9
Total	**1,213**	**100.0**	**1,280**	**100.0**	**2,493**	**100.0**

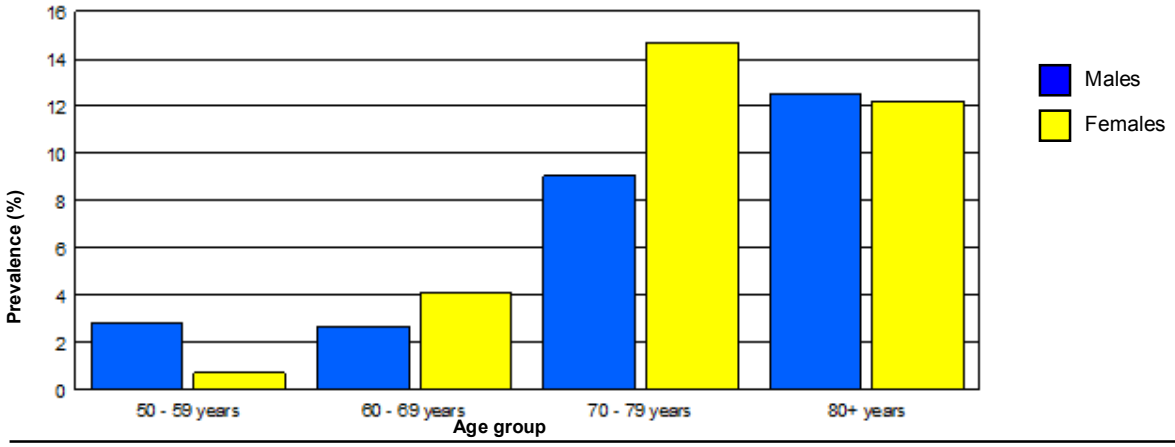
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2	1	0.1	2	0.2
60 - 69 years	4	0.8	12	3.1	16	1.8
70 - 79 years	9	4.3	9	8.8	18	5.8
80+ years	20	25.0	14	34.1	34	28.1
Total	**34**	**2.8**	**36**	**2.8**	**70**	**2.8**



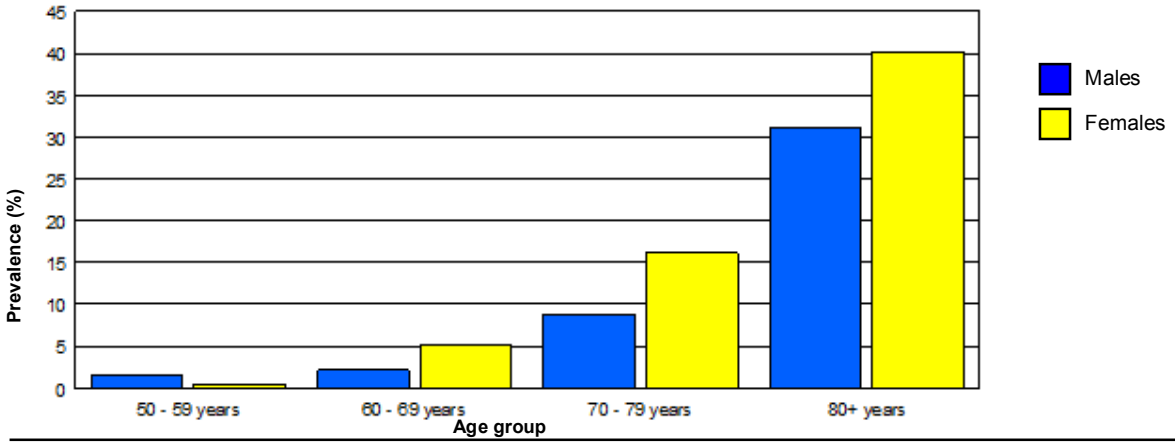
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	12	2.8	5	0.7	17	1.5
60 - 69 years	13	2.6	16	4.1	29	3.3
70 - 79 years	19	9.0	15	14.7	34	10.9
80+ years	10	12.5	5	12.2	15	12.4
Total	**54**	**4.5**	**41**	**3.2**	**95**	**3.8**



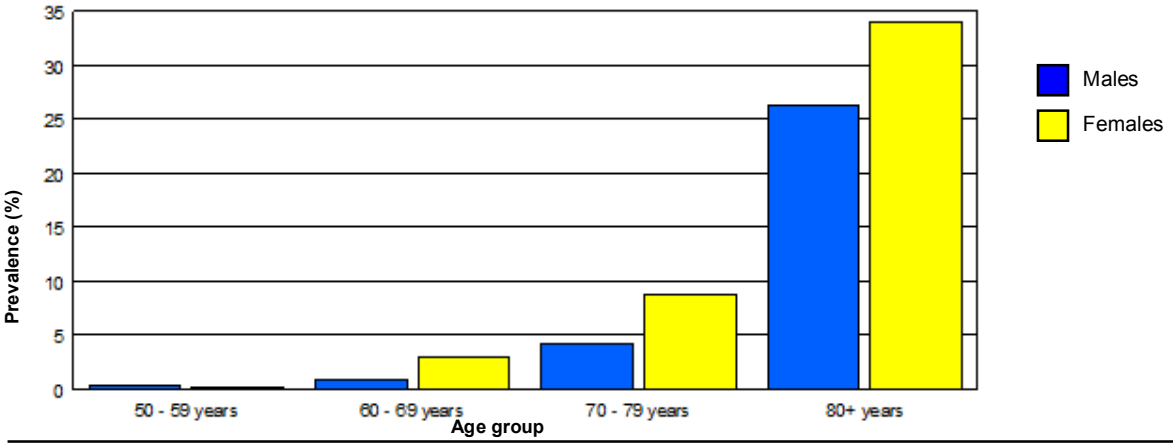
4. Prevalence of blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	14	1.6	7	0.5	21	0.9
60 - 69 years	21	2.1	40	5.1	61	3.4
70 - 79 years	37	8.8	33	16.2	70	11.2
80+ years	50	31.3	33	40.2	83	34.3
Total	**122**	**5.0**	**113**	**4.4**	**235**	**4.7**



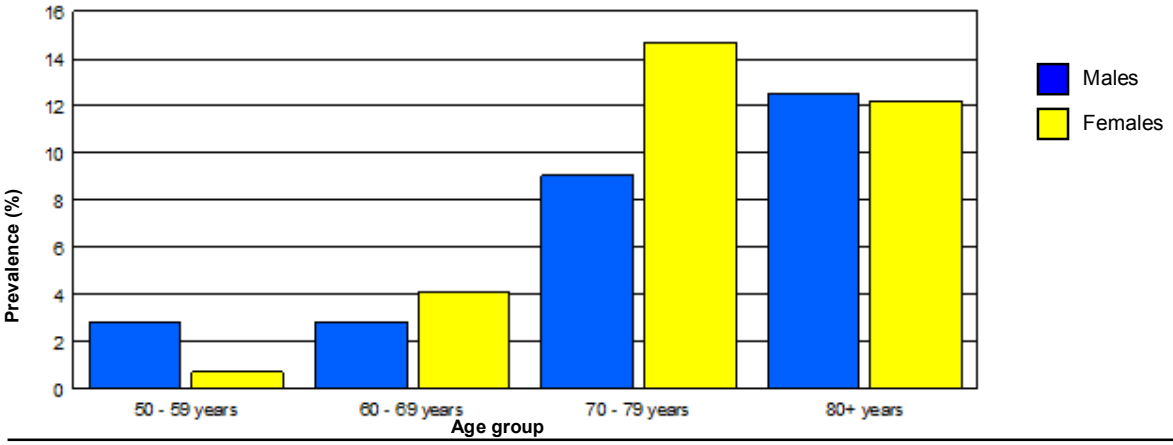
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2	1	0.1	2	0.2
60 - 69 years	4	0.8	12	3.1	16	1.8
70 - 79 years	9	4.3	9	8.8	18	5.8
80+ years	21	26.3	14	34.1	35	28.9
Total	**35**	**2.9**	**36**	**2.8**	**71**	**2.8**



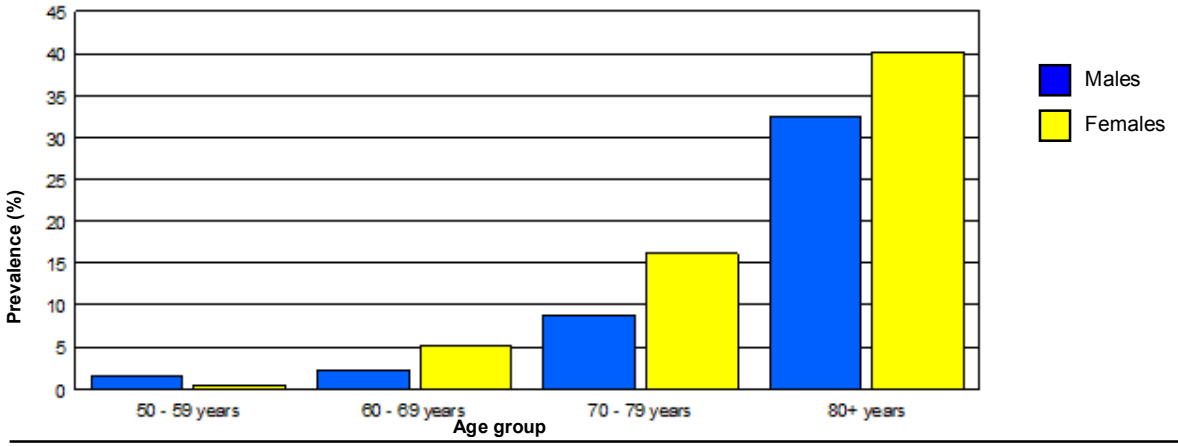
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	12	2.8	5	0.7	17	1.5
60 - 69 years	14	2.8	16	4.1	30	3.4
70 - 79 years	19	9.0	15	14.7	34	10.9
80+ years	10	12.5	5	12.2	15	12.4
Total	**55**	**4.5**	**41**	**3.2**	**96**	**3.9**



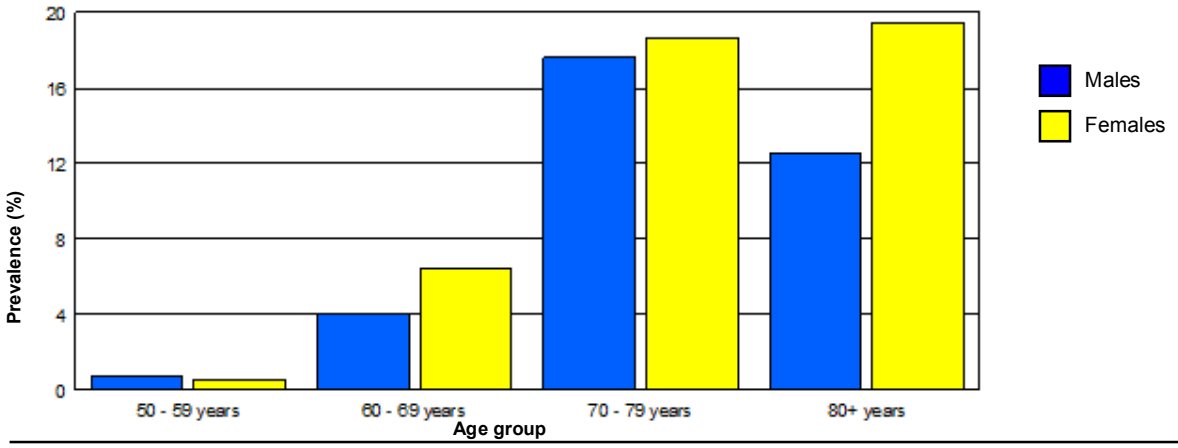
7. Prevalence of blind eyes - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	14	1.6	7	0.5	21	0.9
60 - 69 years	22	2.2	40	5.1	62	3.5
70 - 79 years	37	8.8	33	16.2	70	11.2
80+ years	52	32.5	33	40.2	85	35.1
Total	**125**	**5.2**	**113**	**4.4**	**238**	**4.8**



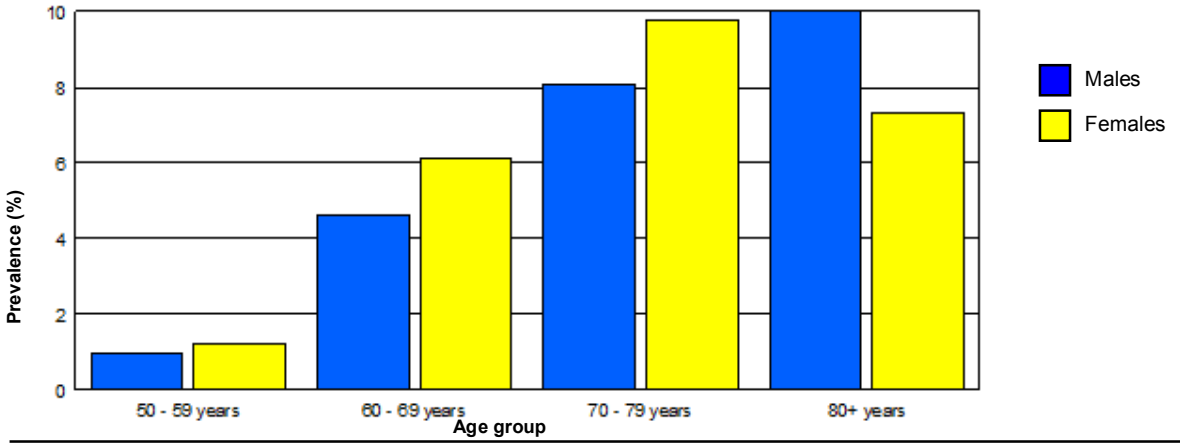
8. Prevalence of people with bilateral severe visual impairment - VA<6/60-3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.7	4	0.5	7	0.6
60 - 69 years	20	4.0	25	6.4	45	5.1
70 - 79 years	37	17.6	19	18.6	56	17.9
80+ years	10	12.5	8	19.5	18	14.9
Total	**70**	**5.8**	**56**	**4.4**	**126**	**5.1**



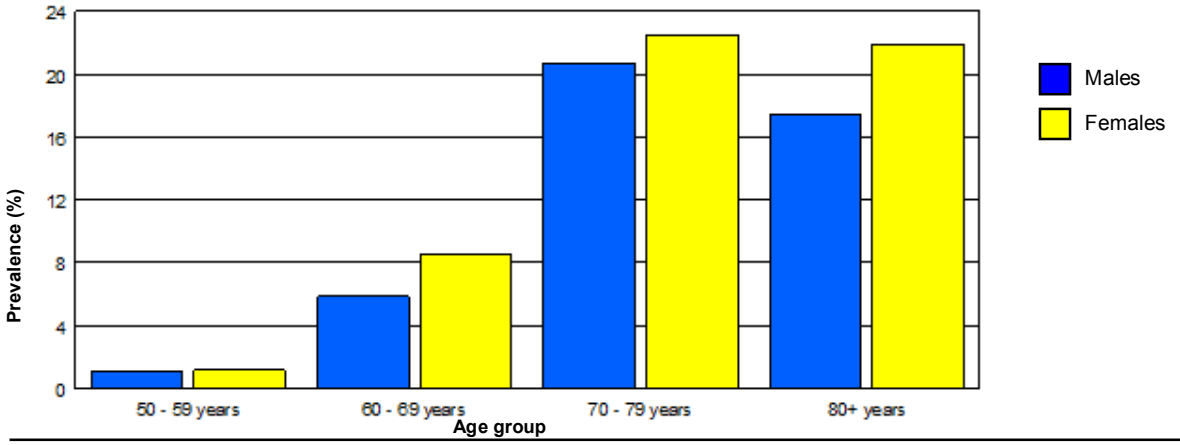
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	4	0.9	9	1.2	13	1.1
60 - 69 years	23	4.6	24	6.1	47	5.3
70 - 79 years	17	8.1	10	9.8	27	8.7
80+ years	8	10.0	3	7.3	11	9.1
Total	**52**	**4.3**	**46**	**3.6**	**98**	**3.9**



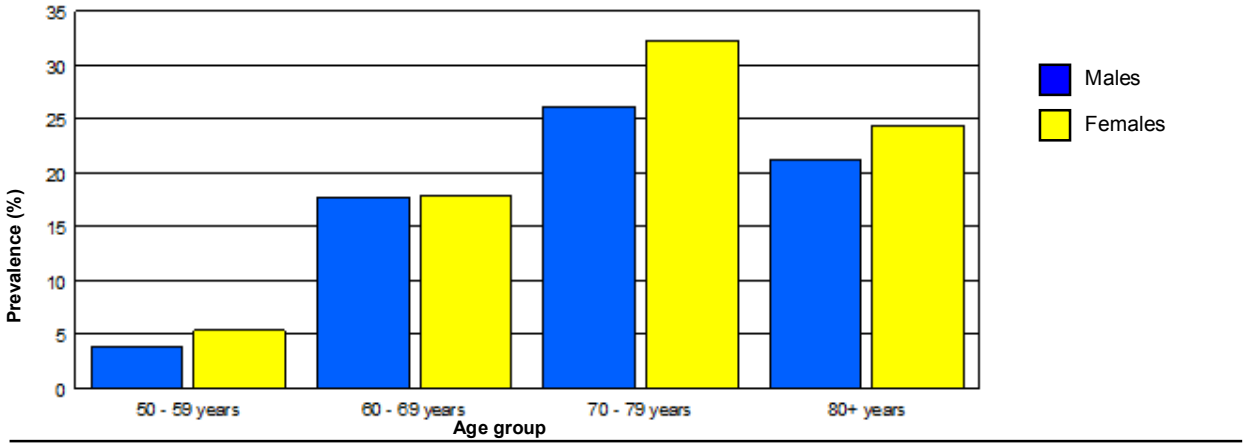
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	9	1.1	17	1.1	26	1.1
60 - 69 years	58	5.8	67	8.5	125	7.0
70 - 79 years	87	20.7	46	22.5	133	21.3
80+ years	28	17.5	18	22.0	46	19.0
Total	**182**	**7.5**	**148**	**5.8**	**330**	**6.6**



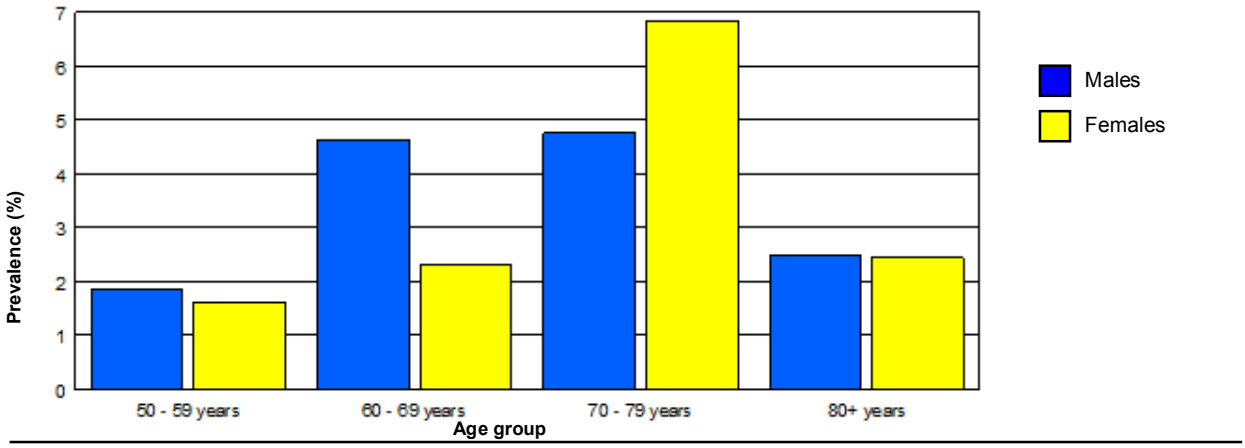
11. Prevalence of people with bilateral moderate visual impairment - VA <6/18-6/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	16	3.8	40	5.4	56	4.8
60 - 69 years	88	17.7	70	17.9	158	17.8
70 - 79 years	55	26.2	33	32.4	88	28.2
80+ years	17	21.3	10	24.4	27	22.3
Total	**176**	**14.5**	**153**	**12.0**	**329**	**13.2**



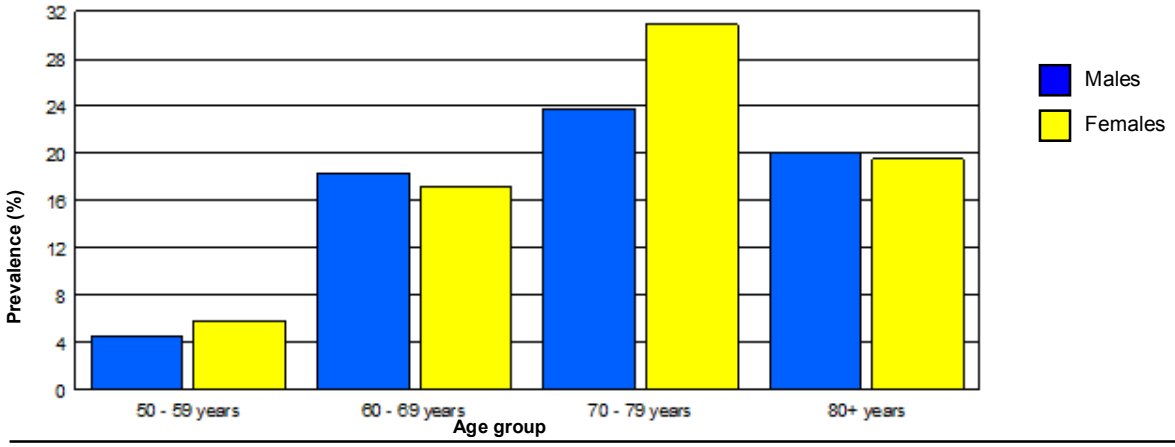
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	8	1.9	12	1.6	20	1.7
60 - 69 years	23	4.6	9	2.3	32	3.6
70 - 79 years	10	4.8	7	6.9	17	5.4
80+ years	2	2.5	1	2.4	3	2.5
Total	**43**	**3.5**	**29**	**2.3**	**72**	**2.9**



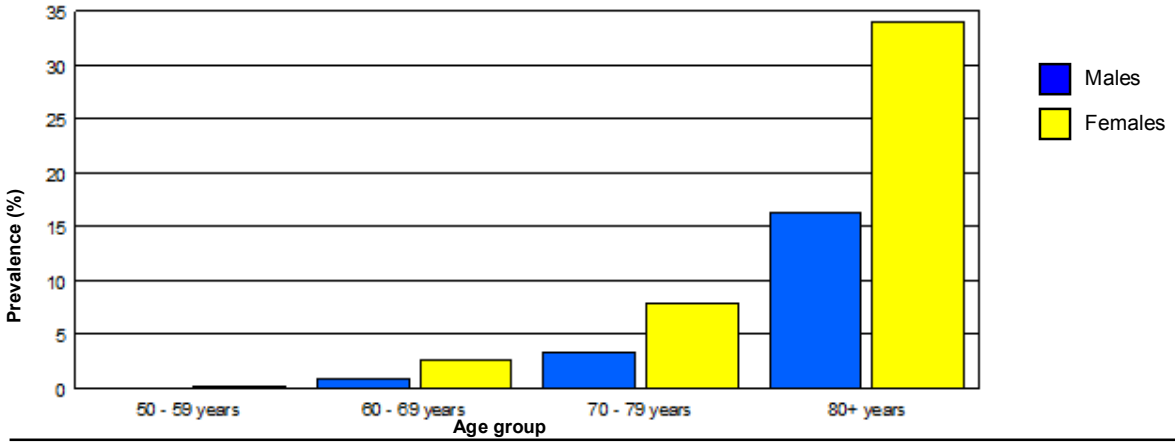
13. Prevalence of MVI eyes - VA<6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	38	4.5	86	5.8	124	5.3
60 - 69 years	182	18.3	135	17.2	317	17.8
70 - 79 years	100	23.8	63	30.9	163	26.1
80+ years	32	20.0	16	19.5	48	19.8
Total	**352**	**14.5**	**300**	**11.7**	**652**	**13.1**



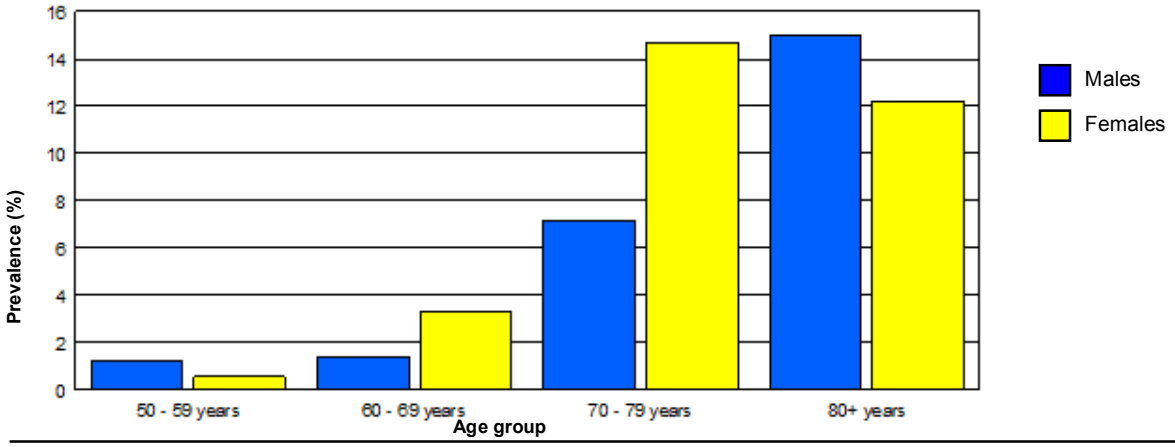
14. Prevalence of people bilateral blind due to cataract - VA<3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	0	0.0	1	0.1	1	0.1
60 - 69 years	4	0.8	10	2.6	14	1.6
70 - 79 years	7	3.3	8	7.8	15	4.8
80+ years	13	16.3	14	34.1	27	22.3
Total	**24**	**2.0**	**33**	**2.6**	**57**	**2.3**



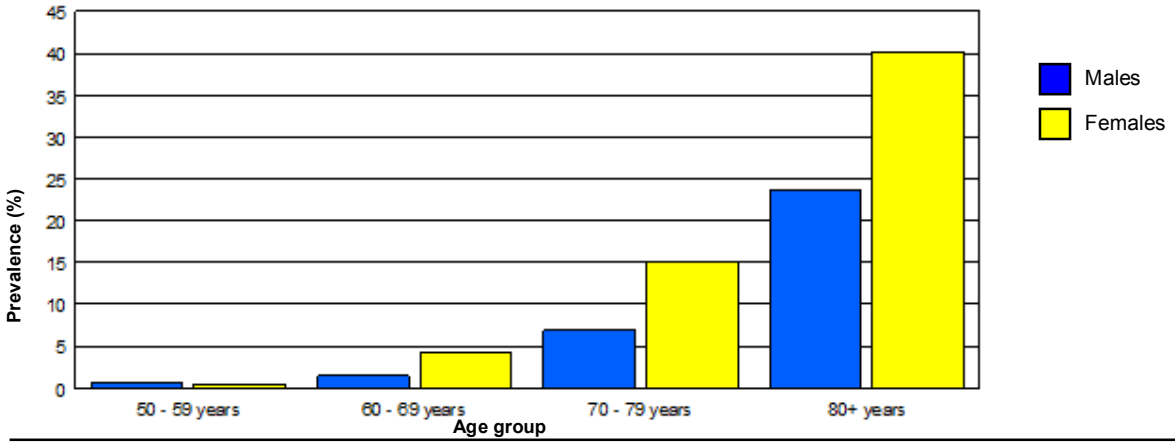
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	5	1.2	4	0.5	9	0.8
60 - 69 years	7	1.4	13	3.3	20	2.2
70 - 79 years	15	7.1	15	14.7	30	9.6
80+ years	12	15.0	5	12.2	17	14.0
Total	**39**	**3.2**	**37**	**2.9**	**76**	**3.0**



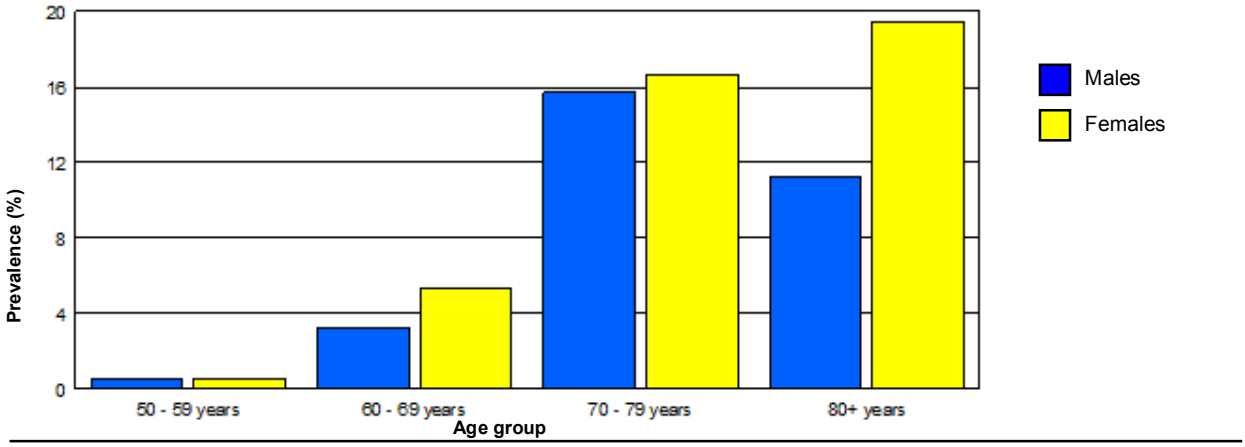
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	5	0.6	6	0.4	11	0.5
60 - 69 years	15	1.5	33	4.2	48	2.7
70 - 79 years	29	6.9	31	15.2	60	9.6
80+ years	38	23.8	33	40.2	71	29.3
Total	**87**	**3.6**	**103**	**4.0**	**190**	**3.8**



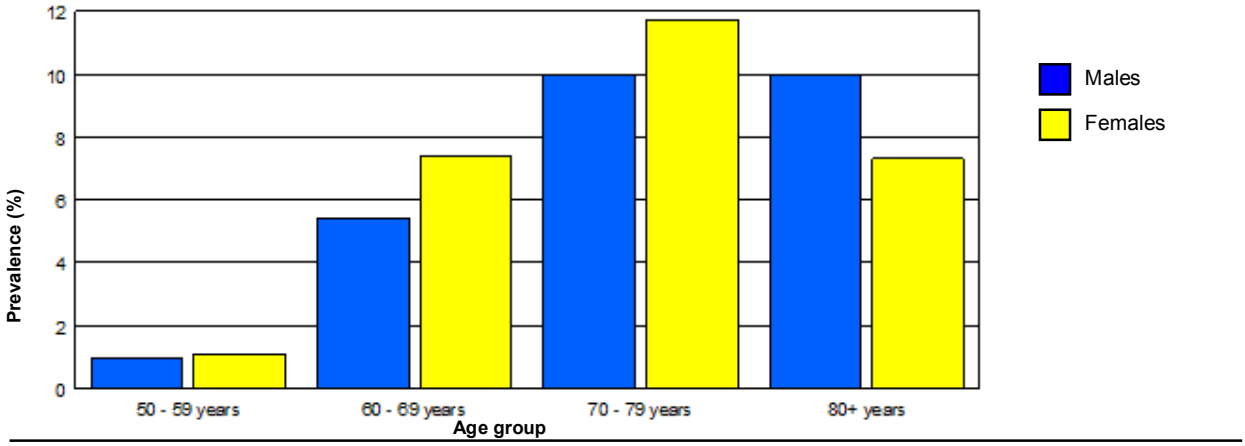
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	2	0.5	4	0.5	6	0.5
60 - 69 years	16	3.2	21	5.4	37	4.2
70 - 79 years	33	15.7	17	16.7	50	16.0
80+ years	9	11.3	8	19.5	17	14.0
Total	**60**	**4.9**	**50**	**3.9**	**110**	**4.4**



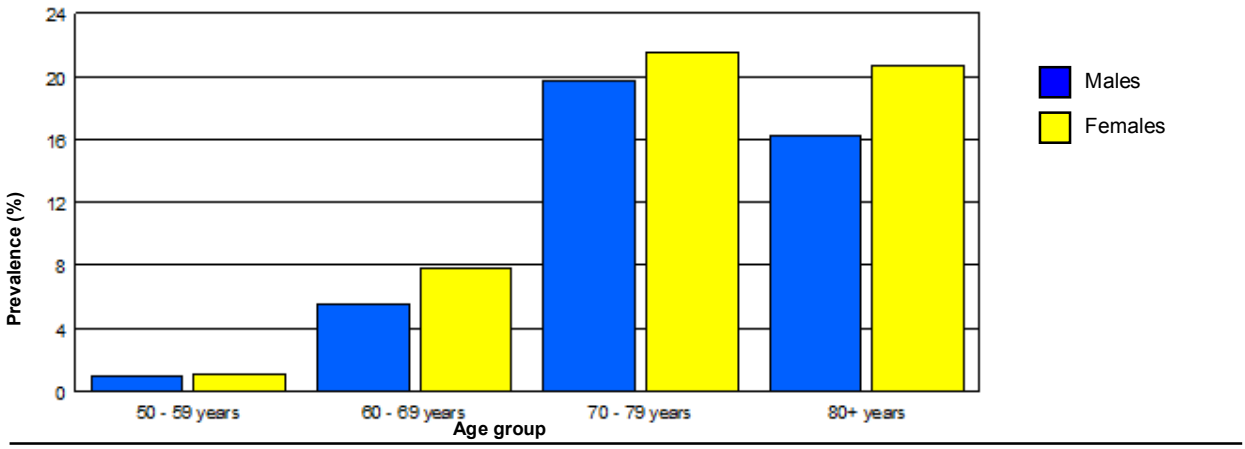
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA<3/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	4	0.9	8	1.1	12	1.0
60 - 69 years	27	5.4	29	7.4	56	6.3
70 - 79 years	21	10.0	12	11.8	33	10.6
80+ years	8	10.0	3	7.3	11	9.1
Total	**60**	**4.9**	**52**	**4.1**	**112**	**4.5**



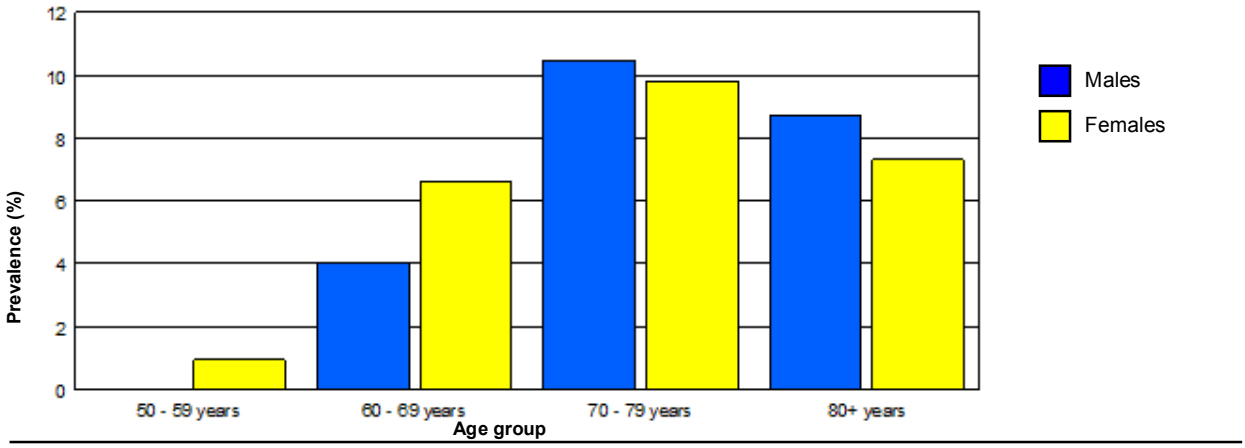
19. Prevalence of cataract SVI eyes - VA VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	8	0.9	16	1.1	24	1.0
60 - 69 years	55	5.5	61	7.8	116	6.5
70 - 79 years	83	19.8	44	21.6	127	20.4
80+ years	26	16.3	17	20.7	43	17.8
Total	**172**	**7.1**	**138**	**5.4**	**310**	**6.2**



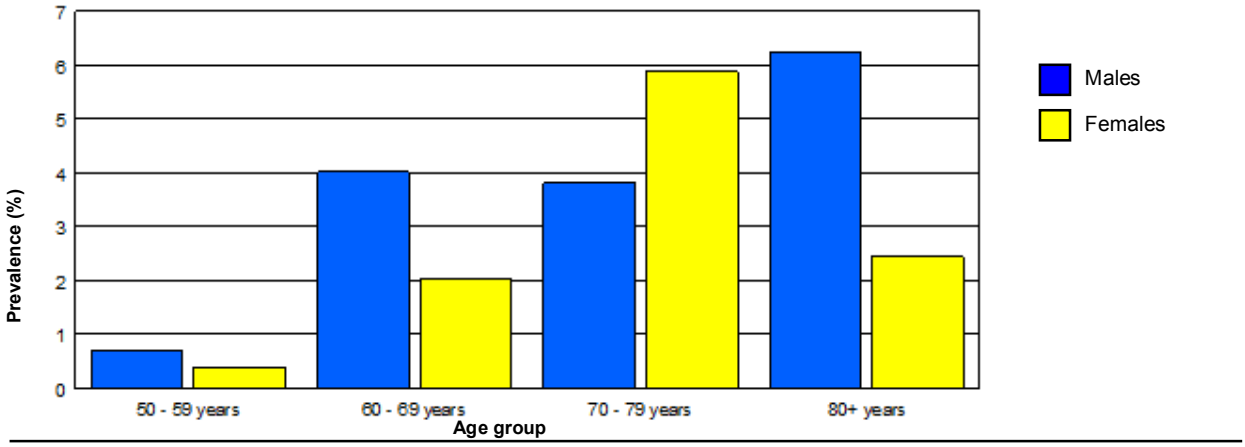
20. Prevalence of people with bilateral moderate visual impairment due to cataract - VA<6/18-6/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	0	0.0	7	0.9	7	0.6
60 - 69 years	20	4.0	26	6.6	46	5.2
70 - 79 years	22	10.5	10	9.8	32	10.3
80+ years	7	8.8	3	7.3	10	8.3
Total	**49**	**4.0**	**46**	**3.6**	**95**	**3.8**



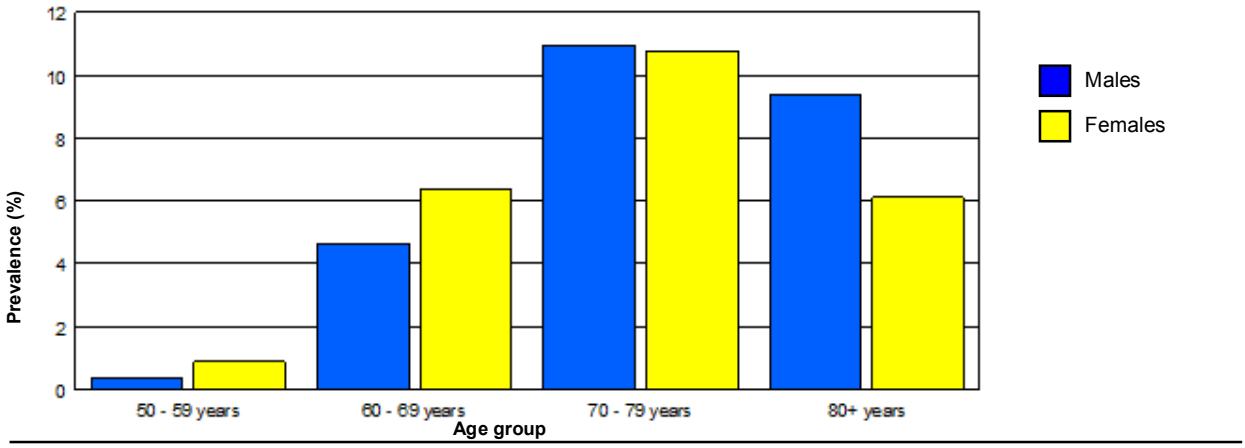
21. Prevalence of people with unilateral moderate visual impairment due to cataract - VA<6/18-6/60 best corrected

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.7	3	0.4	6	0.5
60 - 69 years	20	4.0	8	2.0	28	3.1
70 - 79 years	8	3.8	6	5.9	14	4.5
80+ years	5	6.3	1	2.4	6	5.0
Total	**36**	**3.0**	**18**	**1.4**	**54**	**2.2**



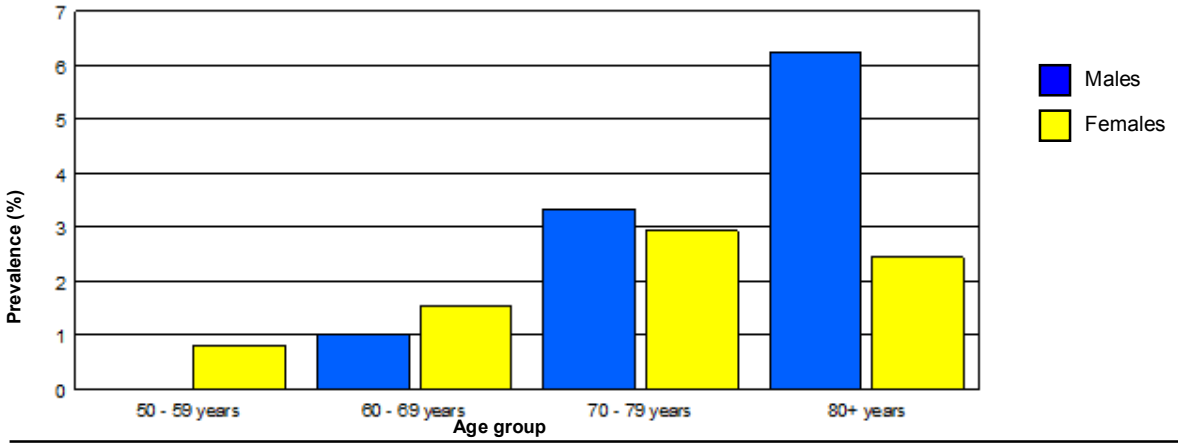
22. Prevalence of cataract MVI eyes - VA <6/18-6/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.4	13	0.9	16	0.7
60 - 69 years	46	4.6	50	6.4	96	5.4
70 - 79 years	46	11.0	22	10.8	68	10.9
80+ years	15	9.4	5	6.1	20	8.3
Total	**110**	**4.5**	**90**	**3.5**	**200**	**4.0**



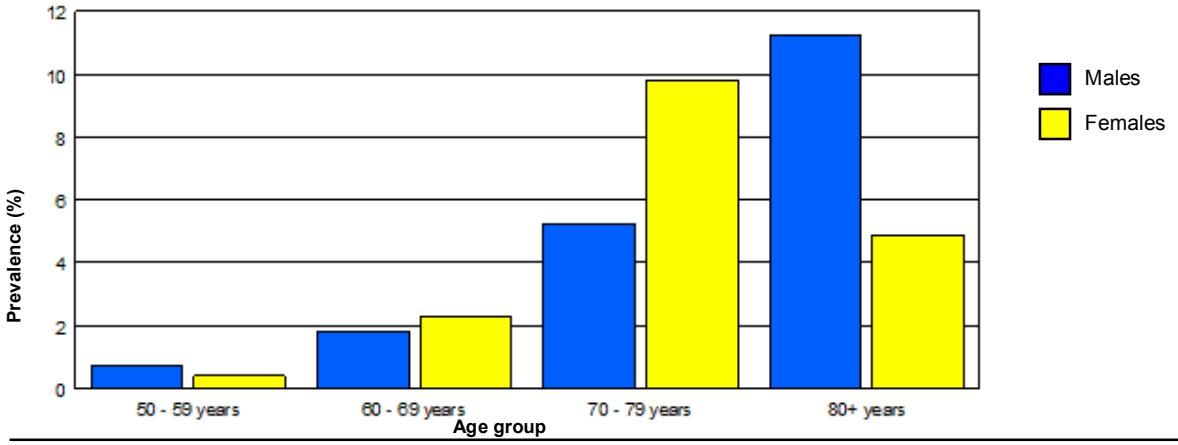
23. Prevalence of people with bilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	0	0.0	6	0.8	6	0.5
60 - 69 years	5	1.0	6	1.5	11	1.2
70 - 79 years	7	3.3	3	2.9	10	3.2
80+ years	5	6.3	1	2.4	6	5.0
Total	**17**	**1.4**	**16**	**1.3**	**33**	**1.3**



24. Prevalence of people with unilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.7	3	0.4	6	0.5
60 - 69 years	9	1.8	9	2.3	18	2.0
70 - 79 years	11	5.2	10	9.8	21	6.7
80+ years	9	11.3	2	4.9	11	9.1
Total	**32**	**2.6**	**24**	**1.9**	**56**	**2.2**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

AGE AND SEX ADJUSTED PREVALENCE AND ESTIMATED NUMBERS

Date and time of report: 12/15/2013 11:56:06AM

This report is for the survey area: barisal

Year and month when survey was conducted: 1414- 9 until 2013-10

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.

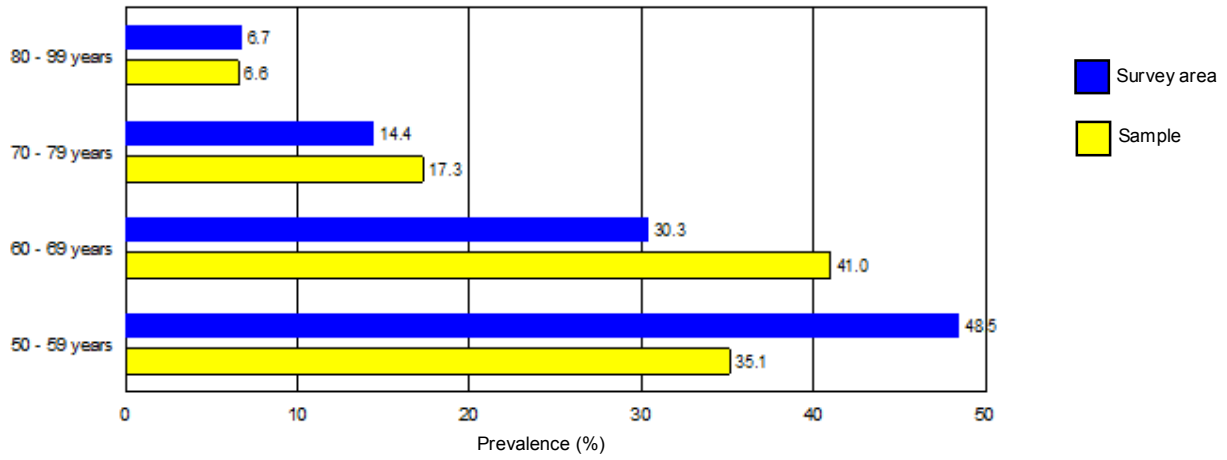
1. Age and sex distribution of people examined in the sample

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	426	35.1%	745	58.2%	**1,171**	**47.0%**
60 - 69 years	497	41.0%	392	30.6%	**889**	**35.7%**
70 - 79 years	210	17.3%	102	8.0%	**312**	**12.5%**
80 - 99 years	80	6.6%	41	3.2%	**121**	**4.9%**
Total	**1,213**	**100.0%**	**1,280**	**100.0%**	**2,493**	**100.0%**

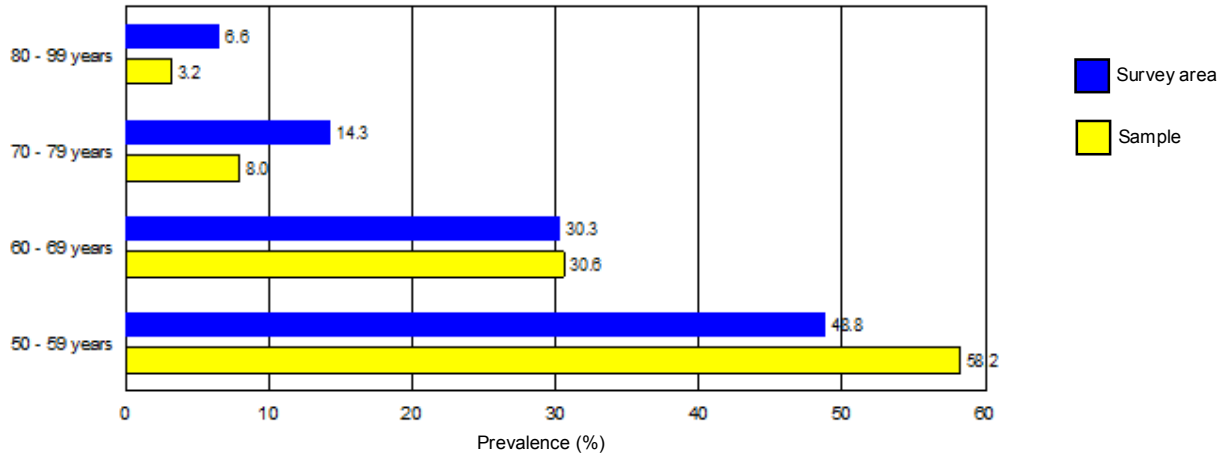
2. Total number of people aged 50+ in survey area

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	198,104	48.5%	172,532	48.8%	**370,636**	**48.6%**
60 - 69 years	123,976	30.3%	107,144	30.3%	**231,120**	**30.3%**
70 - 79 years	58,913	14.4%	50,496	14.3%	**109,409**	**14.4%**
80 - 99 years	27,514	6.7%	23,306	6.6%	**50,820**	**6.7%**
Total	**408,507**	**100.0%**	**353,478**	**100.0%**	**761,985**	**100.0%**

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



4. Proportion of females in total survey area and in sample



5. Adjusted results for all causes of blindness, SVI and MVI

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with best correction or pinhole						
All bilateral cases	10,86	2.7 (1.3 - 4.0)	15,92	4.5 (3.5 - 5.6)	26,79	3.5 (2.6 - 4.5)
All eyes	39,32	4.8 (3.3 - 6.4)	47,64	6.7 (5.6 - 7.9)	86,97	5.7 (4.6 - 6.8)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	11,21	2.7 (1.4 - 4.1)	15,92	4.5 (3.5 - 5.6)	27,13	3.6 (2.6 - 4.5)
All eyes	40,26	4.9 (3.3 - 6.5)	47,64	6.7 (5.6 - 7.9)	87,91	5.8 (4.6 - 6.9)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral cases	20,20	4.9 (3.2 - 6.7)	21,71	6.1 (5.1 - 7.2)	41,91	5.5 (4.4 - 6.6)
All eyes	52,69	6.4 (4.6 - 8.3)	55,25	7.8 (6.7 - 9.0)	107,9	7.1 (5.8 - 8.3)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral cases	50,67	12.4 (9.8 - 15.0)	50,41	14.3 (12.1 - 16.5)	101,0	13.3 (11.2 - 15.4)
All eyes	102,1	12.5 (9.8 - 15.2)	97,09	13.7 (11.5 - 16.0)	199,2	13.1 (10.9 - 15.2)

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

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	11,21	2.7 (1.4 - 4.1)	15,92	4.5 (3.5 - 5.6)	27,13	3.6 (2.6 - 4.5)
All eyes	40,26	4.9 (3.3 - 6.5)	47,64	6.7 (5.6 - 7.9)	87,91	5.8 (4.6 - 6.9)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	31,41	7.7 (5.2 - 10.1)	37,63	10.6 (9.3 - 12.0)	69,05	9.1 (7.5 - 10.6)
All eyes	92,95	11.4 (8.6 - 14.2)	102,9	14.6 (13.0 - 16.1)	195,8	12.9 (11.1 - 14.7)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	82,08	20.1 (16.5 - 23.7)	88,05	24.9 (22.4 - 27.4)	170,1	22.3 (19.8 - 24.9)
All eyes	195,0	23.9 (20.2 - 27.5)	200,0	28.3 (25.8 - 30.8)	395,0	25.9 (23.3 - 28.6)

7. Adjusted results for cataract and blindness, SVI and VI (best corrected VA)

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	7,433	1.8 (0.7 - 2.9)	14,88	4.2 (3.2 - 5.2)	22,31	2.9 (2.1 - 3.8)
Unilateral cataract	12,40	3.0 (2.0 - 4.1)	14,74	4.2 (3.3 - 5.0)	27,15	3.6 (2.8 - 4.3)
Cataract eyes	27,27	3.3 (2.0 - 4.7)	44,51	6.3 (5.2 - 7.4)	71,78	4.7 (3.7 - 5.7)
Cataract and SVI in better eye with best correction or pinhole						
Bilateral cataract	17,27	4.2 (2.6 - 5.9)	19,63	5.6 (4.5 - 6.6)	36,90	4.8 (3.7 - 6.0)
Unilateral cataract	16,17	4.0 (2.6 - 5.3)	14,99	4.2 (3.1 - 5.4)	31,17	4.1 (3.1 - 5.1)
Cataract eyes	49,66	6.1 (4.2 - 7.9)	51,82	7.3 (6.2 - 8.4)	101,4	6.7 (5.4 - 7.9)
Cataract and MVI in better eye with best correction or pinhole						
Bilateral cataract	13,56	3.3 (1.8 - 4.8)	15,38	4.4 (2.9 - 5.8)	28,95	3.8 (2.5 - 5.1)
Unilateral cataract	7,073	1.7 (0.6 - 2.9)	3,032	0.9 (0.1 - 1.6)	10,10	1.3 (0.6 - 2.1)
Cataract eyes	30,93	3.8 (2.0 - 5.6)	30,41	4.3 (2.8 - 5.8)	61,34	4.0 (2.5 - 5.5)

8. Adjusted results for cataract and VA<3/60, VA<6/60 and VA<6/18

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	7,433	1.8 (0.7 - 2.9)	14,88	4.2 (3.2 - 5.2)	22,31	2.9 (2.1 - 3.8)
Unilateral cataract	12,40	3.0 (2.0 - 4.1)	14,74	4.2 (3.3 - 5.0)	27,15	3.6 (2.8 - 4.3)
Cataract eyes	27,27	3.3 (2.0 - 4.7)	44,51	6.3 (5.2 - 7.4)	71,78	4.7 (3.7 - 5.7)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	24,70	6.0 (3.9 - 8.2)	34,51	9.8 (8.4 - 11.1)	59,22	7.8 (6.3 - 9.3)
Unilateral cataract	28,58	7.0 (5.2 - 8.8)	29,74	8.4 (6.9 - 9.9)	58,32	7.7 (6.3 - 9.0)
Cataract eyes	76,93	9.4 (6.9 - 12.0)	96,33	13.6 (12.2 - 15.1)	173,2	11.4 (9.7 - 13.0)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	38,27	9.4 (6.6 - 12.1)	49,89	14.1 (12.0 - 16.2)	88,17	11.6 (9.5 - 13.6)
Unilateral cataract	35,65	8.7 (6.6 - 10.8)	32,77	9.3 (7.4 - 11.1)	68,43	9.0 (7.5 - 10.5)
Cataract eyes	107,8	13.2 (10.0 - 16.4)	126,7	17.9 (15.7 - 20.1)	234,6	15.4 (13.1 - 17.7)

9. Adjusted results for aphakia and pseudophakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	4,931	1.2 (0.5 - 1.9)	5,083	1.4 (0.8 - 2.0)	10,01	1.3 (0.9 - 1.7)
Unilateral (pseudo)aphakia	9,821	2.4 (1.3 - 3.5)	9,243	2.6 (1.9 - 3.4)	19,06	2.5 (1.7 - 3.3)
Eyes (pseudo)aphakia	19,68	2.4 (1.5 - 3.3)	19,40	2.7 (2.1 - 3.4)	39,09	2.6 (2.0 - 3.1)

10. Adjusted results for cataract surgical coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	41.9	30.4	35.3
VA < 6/60	20.4	16.8	18.4
VA < 6/18	15.4	13.3	14.3
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	51.9	40.2	44.7
VA < 6/60	32.0	26.2	28.8
VA < 6/18	24.5	21.4	22.8

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLING ERROR (CLUSTER SAMPLING) & DESIGN EFFECT

Date and time of report: 12/15/2013 11:57:59AM

This report is for the survey area: barisal

Year and month when survey was conducted: 1414- 9 until 2013-10

The accuracy of the estimate of the prevalence of a condition in the RAAB survey is calculated for sampling (SEcrs) specifically, 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. The prevalence interval at 95% confidence and the corresponding sampling error are shown. 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**
Males	34	2.80	1.48 - 4.13	1.32	1.11	0.87	2.03	0.67
Females	36	2.81	1.76 - 3.86	1.05	0.88	0.69	1.34	0.54
Total	70	2.81	1.85 - 3.76	0.95	0.80	0.62	2.16	0.49

Blind eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	122	5.03	3.47 - 6.59	1.56	1.31	1.02	1.60	0.79
Females	114	4.41	3.24 - 5.59	1.17	0.98	0.77	1.08	0.60
Total	236	4.71	3.59 - 5.84	1.12	0.94	0.73	1.82	0.57

Bilateral SVI, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	65	5.36	3.65 - 7.07	1.71	1.43	1.12	1.82	0.87
Females	51	3.98	2.98 - 4.98	1.00	0.84	0.65	0.87	0.51
Total	116	4.65	3.52 - 5.78	1.13	0.95	0.74	1.86	0.58

SVI eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	174	7.17	5.32 - 9.02	1.85	1.55	1.21	1.63	0.95
Females	140	5.43	4.34 - 6.52	1.09	0.92	0.71	0.77	0.56
Total	314	6.28	5.04 - 7.51	1.24	1.04	0.81	1.68	0.63

Bilateral MVI, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	52	4.29	2.43 - 6.14	1.86	1.56	1.21	2.65	0.95
Females	52	4.06	2.43 - 5.70	1.64	1.37	1.07	2.29	0.83
Total	104	4.17	2.60 - 5.74	1.57	1.32	1.03	4.01	0.80

MVI eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	112	4.58	2.77 - 6.38	1.80	1.51	1.18	2.36	0.92
Females	100	3.91	2.38 - 5.44	1.53	1.28	1.00	2.08	0.78
Total	212	4.23	2.74 - 5.73	1.50	1.26	0.98	3.59	0.76

Bilateral blind, available correction			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	35	2.89	1.55 - 4.22	1.34	1.12	0.87	2.01	0.68
Females	36	2.81	1.76 - 3.86	1.05	0.88	0.69	1.34	0.54
Total	71	2.85	1.89 - 3.81	0.96	0.81	0.63	2.16	0.49

Blind eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	126	5.15	3.55 - 6.75	1.60	1.34	1.05	1.66	0.82
Females	114	4.41	3.24 - 5.59	1.17	0.98	0.77	1.08	0.60
Total	238	4.77	3.63 - 5.92	1.15	0.96	0.75	1.88	0.59

Bilateral SVI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	70	5.77	4.04 - 7.50	1.73	1.45	1.13	1.75	0.88
Females	56	4.38	3.31 - 5.44	1.07	0.90	0.70	0.91	0.55
Total	126	5.05	3.93 - 6.18	1.13	0.95	0.74	1.72	0.58

SVI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	182	7.50	5.61 - 9.39	1.89	1.58	1.23	1.62	0.96
Females	148	5.78	4.64 - 6.92	1.14	0.95	0.74	0.79	0.58
Total	330	6.62	5.36 - 7.88	1.26	1.06	0.82	1.66	0.64

Bilateral MVI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	176	14.51	11.89 - 17.13	2.62	2.20	1.72	1.75	1.34
Females	153	11.95	9.75 - 14.15	2.20	1.84	1.44	1.53	1.12
Total	329	13.20	11.11 - 15.28	2.09	1.75	1.36	2.47	1.06

MVI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	352	14.51	11.81 - 17.21	2.70	2.26	1.76	1.85	1.38
Females	300	11.72	9.44 - 14.00	2.28	1.91	1.49	1.67	1.16
Total	652	13.08	10.92 - 15.24	2.16	1.81	1.41	2.67	1.10

Bilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	24	1.98	0.88 - 3.08	1.10	0.92	0.72	1.97	0.56
Females	33	2.58	1.56 - 3.60	1.02	0.85	0.67	1.37	0.52
Total	57	2.29	1.42 - 3.15	0.86	0.72	0.56	2.16	0.44

Unilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	39	3.22	2.15 - 4.28	1.06	0.89	0.69	1.14	0.54
Females	37	2.89	2.03 - 3.75	0.86	0.72	0.56	0.87	0.44
Total	76	3.05	2.32 - 3.78	0.73	0.61	0.48	1.17	0.37

Eyes cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	88	3.59	2.20 - 4.97	1.39	1.16	0.91	1.75	0.71
Females	104	4.02	2.91 - 5.14	1.12	0.94	0.73	1.08	0.57
Total	190	3.81	2.79 - 4.83	1.02	0.86	0.67	1.85	0.52

Bilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	60	4.95	3.28 - 6.62	1.67	1.40	1.09	1.87	0.85
Females	50	3.91	2.92 - 4.89	0.99	0.83	0.65	0.87	0.50
Total	110	4.41	3.29 - 5.54	1.13	0.95	0.74	1.95	0.57

Unilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	60	4.95	3.60 - 6.29	1.35	1.13	0.88	1.22	0.69
Females	52	4.06	2.91 - 5.21	1.15	0.96	0.75	1.13	0.59
Total	112	4.49	3.48 - 5.51	1.01	0.85	0.66	1.56	0.52

Eyes cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	172	7.09	5.23 - 8.95	1.86	1.56	1.21	1.65	0.95
Females	138	5.39	4.31 - 6.47	1.08	0.91	0.71	0.76	0.55
Total	310	6.22	4.98 - 7.45	1.24	1.04	0.81	1.70	0.63

Bilateral cataract MVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	49	4.04	2.27 - 5.81	1.77	1.49	1.16	2.56	0.90
Females	46	3.59	2.01 - 5.18	1.58	1.33	1.04	2.42	0.81
Total	95	3.81	2.32 - 5.30	1.49	1.25	0.98	3.94	0.76

Unilateral cataract MVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	36	2.97	1.80 - 4.14	1.17	0.98	0.77	1.51	0.60
Females	18	1.41	0.69 - 2.12	0.72	0.60	0.47	1.24	0.37
Total	54	2.17	1.42 - 2.91	0.74	0.62	0.49	1.69	0.38

Eyes cataract MVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	110	4.53	2.73 - 6.34	1.80	1.51	1.18	2.37	0.92
Females	90	3.52	2.00 - 5.03	1.52	1.27	0.99	2.26	0.77
Total	200	4.01	2.52 - 5.50	1.49	1.25	0.97	3.75	0.76

Bilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	17	1.40	0.73 - 2.07	0.67	0.56	0.44	1.02	0.34
Females	16	1.25	0.66 - 1.84	0.59	0.50	0.39	0.94	0.30
Total	33	1.32	0.90 - 1.75	0.43	0.36	0.28	0.91	0.22

Unilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	32	2.64	1.53 - 3.74	1.10	0.93	0.72	1.50	0.56
Females	24	1.88	1.12 - 2.63	0.76	0.64	0.50	1.04	0.39
Total	56	2.25	1.46 - 3.03	0.78	0.66	0.51	1.81	0.40

Eyes (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	66	2.72	1.86 - 3.59	0.87	0.73	0.57	0.89	0.44
Females	56	2.19	1.52 - 2.85	0.67	0.56	0.44	0.69	0.34
Total	122	2.45	1.88 - 3.01	0.56	0.47	0.37	0.86	0.29

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report:

This report is for the survey area:

Year and month when survey was conducted:

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.

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

	Examined		Not available		Refused		Not capable		Total	
	n	%	n	%	n	%	n	%	n	%
Males	1,165	99.8%	2	0.2%	0	0.0%	0	0.0%	**1,167**	**100.0%**
Females	1,333	100.0%	0	0.0%	0	0.0%	0	0.0%	**1,333**	**100.0%**
Total	**2,498**	**99.9%**	**2**	**0.1%**	**0**	**0.0%**	**0**	**0.0%**	2,500	100.0%

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

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with best correction or pinhole						
All bilateral blindness	33	2.8% (1.8-3.8)	44	3.3% (1.9-4.7)	**77**	**3.1% (2.1-4.1)**
All blind eyes	129	5.5% (4.4-6.7)	141	5.3% (3.8-6.8)	**270**	**5.4% (4.3-6.5)**
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	36	3.1% (2.1-4.1)	45	3.4% (2.0-4.8)	**81**	**3.2% (2.2-4.3)**
All blind eyes	136	5.8% (4.6-7.1)	146	5.5% (4.0-7.0)	**282**	**5.6% (4.5-6.8)**
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral SVI	72	6.2% (4.3-8.0)	77	5.8% (4.5-7.1)	**149**	**6.0% (4.8-7.1)**
All SVI eyes	151	6.5% (4.6-8.4)	169	6.3% (5.0-7.6)	**320**	**6.4% (5.2-7.6)**
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral MVI	139	11.9% (9.8-14.1)	111	8.3% (6.8-9.8)	**250**	**10.0% (8.5-11.5)**
All MVI eyes	287	12.3% (10.1-14.5)	250	9.4% (7.7-11.0)	**537**	**10.8% (9.2-12.3)**

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

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	36	3.1% (2.1-4.1)	45	3.4% (2.0-4.8)	**81**	**3.2% (2.2-4.3)**
All blind eyes	136	5.8% (4.6-7.1)	146	5.5% (4.0-7.0)	**282**	**5.6% (4.5-6.8)**
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	108	9.3% (7.1-11.4)	122	9.2% (7.6-10.7)	**230**	**9.2% (7.9-10.5)**
All eyes	287	12.3% (10.1-14.5)	315	11.8% (10.1-13.5)	**602**	**12.1% (10.6-13.5)**
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	247	21.2% (18.4-24.0)	233	17.5% (15.2-19.8)	**480**	**19.2% (17.2-21.2)**
All eyes	574	24.6% (21.8-27.5)	565	21.2% (18.6-23.8)	**1,139**	**22.8% (20.6-25.0)**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	2	5.6%	1	2.2%	**3**	**3.7%**
2. Aphakia uncorrected	1	2.8%	0	0.0%	**1**	**1.2%**
3. Cataract untreated	26	72.2%	43	95.6%	**69**	**85.2%**
4. Cataract surgical complications	2	5.6%	0	0.0%	**2**	**2.5%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	2	5.6%	1	2.2%	**3**	**3.7%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	1	2.8%	0	0.0%	**1**	**1.2%**
12. Other posterior segment disease	1	2.8%	0	0.0%	**1**	**1.2%**
13. All other globe/CNS abnormalities	1	2.8%	0	0.0%	**1**	**1.2%**
Total	**36**	**100.0%**	**45**	**100.0%**	**81**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	29	80.6%	44	97.8%	**73**	**90.9%**
B. Preventable (PHC/PEC services) (5,6,7,8)	2	5.6%	1	2.2%	**3**	**4.4%**
C. Preventable (Ophthalmic services) (4,9,10)	2	5.6%	0		**2**	**5.6%**
D. Avoidable (A+B+C)	33	91.7%	45	100.0%	**78**	**96.5%**
E. Posterior segment causes (8,9,10,11,12)	2	5.6%	0		**2**	**5.6%**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	4	2.9%	3	2.1%	**7**	**2.5%**
2. Aphakia uncorrected	2	1.5%	0	0.0%	**2**	**0.7%**
3. Cataract untreated	87	64.0%	123	84.2%	**210**	**74.5%**
4. Cataract surgical complications	7	5.1%	1	0.7%	**8**	**2.8%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	13	9.6%	6	4.1%	**19**	**6.7%**
7. Phthisis	2	1.5%	0	0.0%	**2**	**0.7%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	2	1.4%	**2**	**0.7%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	2	1.5%	1	0.7%	**3**	**1.1%**
12. Other posterior segment disease	7	5.1%	5	3.4%	**12**	**4.3%**
13. All other globe/CNS abnormalities	12	8.8%	5	3.4%	**17**	**6.0%**
Total	**136**	**100.0%**	**146**	**100.0%**	**282**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	93	68.4%	126	86.3%	**219**	**78.7%**
B. Preventable (PHC/PEC services) (5,6,7,8)	15	11.0%	6	4.1%	**21**	**9.1%**
C. Preventable (Ophthalmic services) (4,9,10)	7	5.1%	3	2.1%	**10**	**4.2%**
D. Avoidable (A+B+C)	115	84.6%	135	92.5%	**250**	**88.8%**
E. Posterior segment causes (8,9,10,11,12)	9	6.6%	8	5.5%	**17**	**6.1%**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	11	15.3%	5	6.5%	**16**	**10.7%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	60	83.3%	70	90.9%	**130**	**87.2%**
4. Cataract surgical complications	1	1.4%	0	0.0%	**1**	**0.7%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	1	1.3%	**1**	**0.7%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	0	0.0%	1	1.3%	**1**	**0.7%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**72**	**100.0%**	**77**	**100.0%**	**149**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	71	98.6%	75	97.4%	**146**	**98.0%**
B. Preventable (PHC/PEC services) (5,6,7,8)	0		0		**0**	
C. Preventable (Ophthalmic services) (4,9,10)	1	1.4%	1	1.3%	**2**	**1.3%**
D. Avoidable (A+B+C)	72	100.0%	76	98.7%	**148**	**99.3%**
E. Posterior segment causes (8,9,10,11,12)	0		2	2.6%	**2**	**2.6%**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	19	12.6%	11	6.5%	**30**	**9.4%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	131	86.8%	152	89.9%	**283**	**88.4%**
4. Cataract surgical complications	1	0.7%	1	0.6%	**2**	**0.6%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	1	0.6%	**1**	**0.3%**
12. Other posterior segment disease	0	0.0%	4	2.4%	**4**	**1.3%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**151**	**100.0%**	**169**	**100.0%**	**320**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	150	99.3%	163	96.4%	**313**	**97.8%**
B. Preventable (PHC/PEC services) (5,6,7,8)	0		0		**0**	
C. Preventable (Ophthalmic services) (4,9,10)	1	0.7%	1	0.6%	**2**	**0.6%**
D. Avoidable (A+B+C)	151	100.0%	164	97.0%	**315**	**98.5%**
E. Posterior segment causes (8,9,10,11,12)	0		5	3.0%	**5**	**3.0%**

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	44	31.7%	52	46.8%	**96**	**38.4%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	94	67.6%	58	52.3%	**152**	**60.8%**
4. Cataract surgical complications	0	0.0%	1	0.9%	**1**	**0.4%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	1	0.7%	0	0.0%	**1**	**0.4%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	0	0.0%	0	0.0%	**0**	**0.0%**
12. Other posterior segment disease	0	0.0%	0	0.0%	**0**	**0.0%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**139**	**100.0%**	**111**	**100.0%**	**250**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	138	99.3%	110	99.1%	**248**	**99.2%**
B. Preventable (PHC/PEC services) (5,6,7,8)	1	0.7%	0		**1**	**0.7%**
C. Preventable (Ophthalmic services) (4,9,10)	0		1	0.9%	**1**	**0.9%**
D. Avoidable (A+B+C)	139	100.0%	111	100.0%	**250**	**100.0%**
E. Posterior segment causes (8,9,10,11,12)	0		0		**0**	

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	104	36.2%	118	47.2%	**222**	**41.3%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	181	63.1%	126	50.4%	**307**	**57.2%**
4. Cataract surgical complications	1	0.3%	3	1.2%	**4**	**0.7%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	1	0.3%	0	0.0%	**1**	**0.2%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	0	0.0%	**0**	**0.0%**
10. Diabetic retinopathy	0	0.0%	1	0.4%	**1**	**0.2%**
11. ARMD	0	0.0%	1	0.4%	**1**	**0.2%**
12. Other posterior segment disease	0	0.0%	1	0.4%	**1**	**0.2%**
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	**0**	**0.0%**
Total	**287**	**100.0%**	**250**	**100.0%**	**537**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	285	99.3%	244	97.6%	**529**	**98.5%**
B. Preventable (PHC/PEC services) (5,6,7,8)	1	0.3%	0		**1**	**0.3%**
C. Preventable (Ophthalmic services) (4,9,10)	1	0.3%	4	1.6%	**5**	**1.3%**
D. Avoidable (A+B+C)	287	100.0%	248	99.2%	**535**	**99.6%**
E. Posterior segment causes (8,9,10,11,12)	0		3	1.2%	**3**	**1.2%**

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

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	21	1.8% (1.1-2.6)	40	3.0% (1.7-4.3)	**61**	**2.4% (1.5-3.4)**
Unilateral cataract	45	3.9% (2.9-4.8)	47	3.5% (2.4-4.7)	**92**	**3.7% (2.8-4.6)**
Cataract eyes	87	3.7% (2.9-4.6)	127	4.8% (3.3-6.2)	**214**	**4.3% (3.2-5.3)**
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	79	6.8% (4.7-8.8)	104	7.8% (6.2-9.4)	**183**	**7.3% (6.0-8.6)**
Unilateral cataract	60	5.2% (7.7-12.2)	63	4.7% (8.3-12.4)	**123**	**4.9% (8.5-11.8)**
Cataract eyes	218	9.4% (7.2-11.5)	271	10.2% (8.4-11.9)	**489**	**9.8% (8.4-11.2)**
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	171	14.7% (11.6-17.8)	165	12.4% (9.9-14.8)	**336**	**13.5% (11.1-15.8)**
Unilateral cataract	58	5.0% (3.6-6.3)	75	5.6% (4.2-7.1)	**133**	**5.3% (4.2-6.5)**
Cataract eyes	400	17.2% (14.2-20.2)	405	15.2% (12.7-17.7)	**805**	**16.1% (13.8-18.5)**

11. Sample prevalence of (pseudo)aphakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	34	2.9% (1.9-4.0)	17	1.3% (0.6-1.9)	**51**	**2.0% (1.4-2.6)**
Unilateral (pseudo)aphakia	42	3.6% (2.4-4.8)	42	3.2% (2.1-4.2)	**84**	**3.4% (2.6-4.1)**
(Pseudo)aphakic eyes	110	4.7% (3.5-5.9)	76	2.9% (2.0-3.7)	**186**	**3.7% (3.0-4.4)**

12. Cataract Surgical Coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	55.8	37.4	46.5
VA < 6/60	33.5	21.9	27.6
VA < 6/18	21.6	15.8	18.8
Cataract Surgical Coverage (Persons) - percentage			
VA < 3/60	72.0	47.4	59.6
VA < 6/60	44.4	30.2	37.1
VA < 6/18	28.8	24.3	26.6

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

	Males		Females		Total	
	n	%	n	%	n	%
First eyes	76	69.1%	59	77.6%	**135**	**72.6%**
Second eyes	34	30.9%	17	22.4%	**51**	**27.4%**

14. Uncorrected refractive error and uncorrected presbyopia

	Males		Females		Total	
	n	%	n	%	n	%
Total refractive errors	86	7.4%	82	6.2%	**168**	**6.7%**
Uncorrected refractive errors	58	5.0%	58	4.4%	**116**	**4.6%**
Uncorrected presbyopia	957	82.2%	1,181	88.6%	**2,138**	**85.6%**

15. Persons with Functional Low Vision: BCVA<6/18 in the better eye; incurable

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59	1	0.2%	1	0.1%	**2**	**0.2%**
60 - 69	1	0.2%	2	0.6%	**3**	**0.4%**
70 - 79	1	0.5%	0	0.0%	**1**	**0.3%**
80+	3	3.5%	0	0.0%	**3**	**2.1%**
Total	6	0.5%	3	0.2%	**9**	**0.4%**

16. Principal cause of functional low vision in persons: BCVA<6/18 in better eye, incurable

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	**0**	**0.0%**
2. Aphakia uncorrected	0	0.0%	0	0.0%	**0**	**0.0%**
3. Cataract untreated	0	0.0%	0	0.0%	**0**	**0.0%**
4. Cataract surgical complications	2	33.3%	0	0.0%	**2**	**22.2%**
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	**0**	**0.0%**
6. Non Trachomatous corneal opacity	1	16.7%	1	33.3%	**2**	**22.2%**
7. Phthisis	0	0.0%	0	0.0%	**0**	**0.0%**
8. Onchocerciasis	0	0.0%	0	0.0%	**0**	**0.0%**
9. Glaucoma	0	0.0%	1	33.3%	**1**	**11.1%**
10. Diabetic retinopathy	0	0.0%	0	0.0%	**0**	**0.0%**
11. ARMD	1	16.7%	0	0.0%	**1**	**11.1%**
12. Other posterior segment disease	1	16.7%	1	33.3%	**2**	**22.2%**
13. All other globe/CNS abnormalities	1	16.7%	0	0.0%	**1**	**11.1%**
Total	**6**	**100.0%**	**3**	**100.0%**	**9**	**100.0%**
Intervention by this visual impairment						
A. Treatable (1,2,3)	0		0		**0**	
B. Preventable (PHC/PEC services) (5,6,7,8)	1	16.7%	1	33.3%	**2**	**25.0%**
C. Preventable (Ophthalmic services) (4,9,10)	2	33.3%	1	33.3%	**3**	**33.3%**
D. Avoidable (A+B+C)	3	50.0%	2	66.7%	**5**	**56.7%**
E. Posterior segment causes (8,9,10,11,12)	2	33.3%	2	66.7%	**4**	**50.0%**

17. Persons with FLV and proportion of all persons in corresponding category of visual impairment with available correction

	Males		Females		Total	
	n	%	n	%	n	%
BCVA<3/60 - LP+	5	13.9%	1	2.2%	**6**	**7.4%**
BCVA<6/60 - 3/60	0	0.0%	2	2.6%	**2**	**1.3%**
BCVA<6/18 - 6/60	1	0.7%	0	0.0%	**1**	**0.4%**
Total	6	2.4%	3	1.3%	**9**	**1.9%**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

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

Date and time of report: 12/15/2013 12:11:46PM

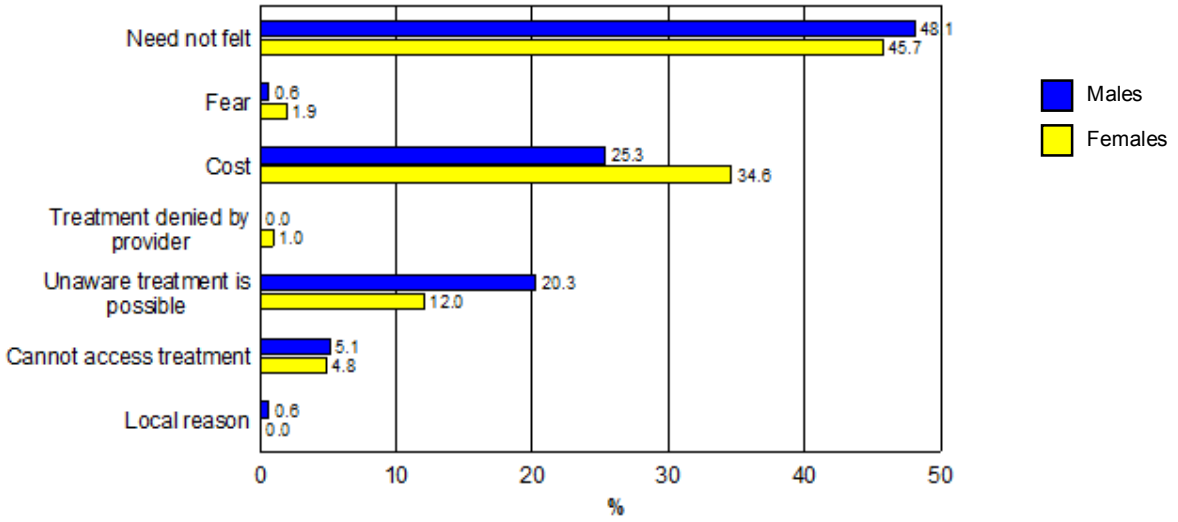
This report is for the survey area: barisal1

Year and month when survey was conducted: 2013- 6 until 2013- 8

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.

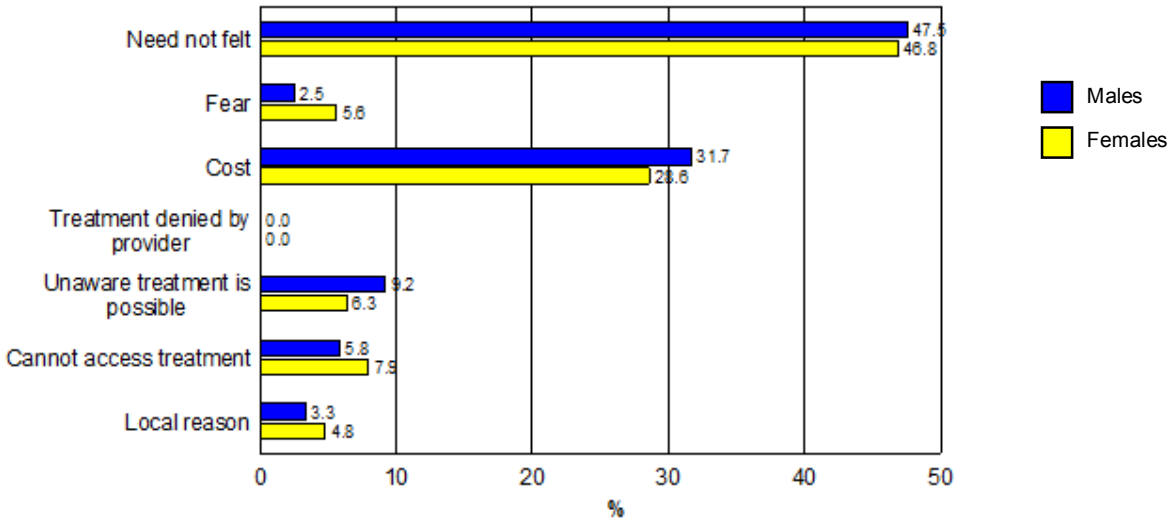
1. Barriers to cataract surgery in sample (bilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	76	48,1	95	45,7	171	46,7
Fear	1	0,6	4	1,9	5	1,4
Cost	40	25,3	72	34,6	112	30,6
Treatment denied by provider	0	0,0	2	1,0	2	0,5
Unaware treatment is possible	32	20,3	25	12,0	57	15,6
Cannot access treatment	8	5,1	10	4,8	18	4,9
Local reason	1	0,6	0	0,0	1	0,3
Total	**158**	**100.0**	**208**	**100.0**	**366**	**100.0**



2. Barriers to cataract surgery in sample (unilateral BCVA<6/60 due to cataract)

	Males		Females		Total	
	n	%	n	%	n	%
Need not felt	57	47,5	59	46,8	116	47,2
Fear	3	2,5	7	5,6	10	4,1
Cost	38	31,7	36	28,6	74	30,1
Treatment denied by provider	0	0,0	0	0,0	0	0,0
Unaware treatment is possible	11	9,2	8	6,3	19	7,7
Cannot access treatment	7	5,8	10	7,9	17	6,9
Local reason	4	3,3	6	4,8	10	4,1
Total	**120**	**100.0**	**126**	**100.0**	**246**	**100.0**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

Date and time of report: 12/15/2013 12:13:29PM

This report is for the survey area: barisal1

Year and month when survey was conducted: 2013- 6 until 2013- 8

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 vision 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. VA in operated eyes in sample with available correction (PVA)

	Non-IOL		IOL		Couching		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	0	0.0	140	83.8	0	0.0	**140**	**75.3**
Borderline: can see 6/60	1	5.3	11	6.6	0	0.0	**12**	**6.5**
Poor: cannot see 6/60	18	94.7	16	9.6	0	0.0	**34**	**18.3**
Total	**19**	**100.0**	**167**	**100.0**	**0**	**0.0**	**186**	**100.0**

2. VA in operated eyes in sample with best correction (BCVA)

	Non-IOL		IOL		Couching		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	6	31.6	150	89.8	0	0.0	**156**	**83.9**
Borderline: can see 6/60	5	26.3	7	4.2	0	0.0	**12**	**6.5**
Poor: cannot see 6/60	8	42.1	10	6.0	0	0.0	**18**	**9.7**
Total	**19**	**100.0**	**167**	**100.0**	**0**	**0.0**	**186**	**100.0**

3. VA in operated eyes in sample by years after surgery

	3 yrs postop		4 - 6 yrs postop.		7+ yrs postop		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	76	80.9	33	86.8	31	57.4	**140**	**75.3**
Borderline: can see 6/60	8	8.5	1	2.6	3	5.6	**12**	**6.5**
Poor: cannot see 6/60	10	10.6	4	10.5	20	37.0	**34**	**18.3**
Total	**94**	**100.0**	**38**	**100.0**	**54**	**100.0**	**186**	**100.0**

4. Age at time of surgery in males and females

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
1 - 29	0	0.0	0	0.0	**0**	**0.0**
30 - 39	0	0.0	0	0.0	**0**	**0.0**
40 - 49	0	0.0	4	5.3	**4**	**2.2**
50 - 59	32	29.1	26	34.2	**58**	**31.2**
60 - 69	45	40.9	31	40.8	**76**	**40.9**
70 - 79	28	25.5	13	17.1	**41**	**22.0**
80+	5	4.5	2	2.6	**7**	**3.8**
Total	**110**	**100.0**	**76**	**100.0**	**186**	**100.0**

5. Place of surgery by sex

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Government Hosp.	15	13.6	18	23.7	**33**	**17.7**
Voluntary/charitable hospital	11	10.0	9	11.8	**20**	**10.8**
Private hospital	81	73.6	49	64.5	**130**	**69.9**
Eyecamp	3	2.7	0	0.0	**3**	**1.6**
Total	**110**	**100.0**	**76**	**100.0**	**186**	**100.0**

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

	Gov. Hosp.		Vol. Hosp.		Priv. Hosp.		Eye camp		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	20	60.6	16	80.0	101	77.7	3	100.0	**140**	**75.3**
Borderline: can see 6/60	6	18.2	1	5.0	5	3.8	0	0.0	**12**	**6.5**
Poor: cannot see 6/60	7	21.2	3	15.0	24	18.5	0	0.0	**34**	**18.3**
Total	**33**	**100.0**	**20**	**100.0**	**130**	**100.0**	**3**	**100.0**	**186**	**100.0**

7. Post-op presenting VA and causes of borderline and poor outcome

	Selection		Surgery		Spectacles		Sequelae		Can see 6/18		Total	
	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%	Eyes	%
Good: can see 6/18	0	0.0	0	0.0	0	0.0	0	0.0	140	100.0	**140**	**75.3**
Borderline: can see 6/60	0	0.0	4	36.4	8	38.1	0	0.0	0	0.0	**12**	**6.5**
Poor: cannot see 6/60	3	100.0	7	63.6	13	61.9	11	100.0	0	0.0	**34**	**18.3**
Total	**3**	**100.0**	**11**	**100.0**	**21**	**100.0**	**11**	**100.0**	**140**	**100.0**	**186**	**100.0**

8. Proportion and type of surgery

	Males		Females		Total	
	Eyes	%	Eyes	%	Eyes	%
Non-IOL	14	12.7	5	6.6	**19**	**10.2**
IOL	96	87.3	71	93.4	**167**	**89.8**
Couching	0	0.0	0	0.0	**0**	**0.0**
Total	**110**	**100.0**	**76**	**100.0**	**186**	**100.0**

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

INDICATORS BY SEX AND BY AGE GROUP - FINDINGS FROM SAMPLE

Date and time of report: 12/15/2013 12:15:29PM

This report is for the survey area: barisal1

Year and month when survey was conducted: 2013- 6 until 2013- 8

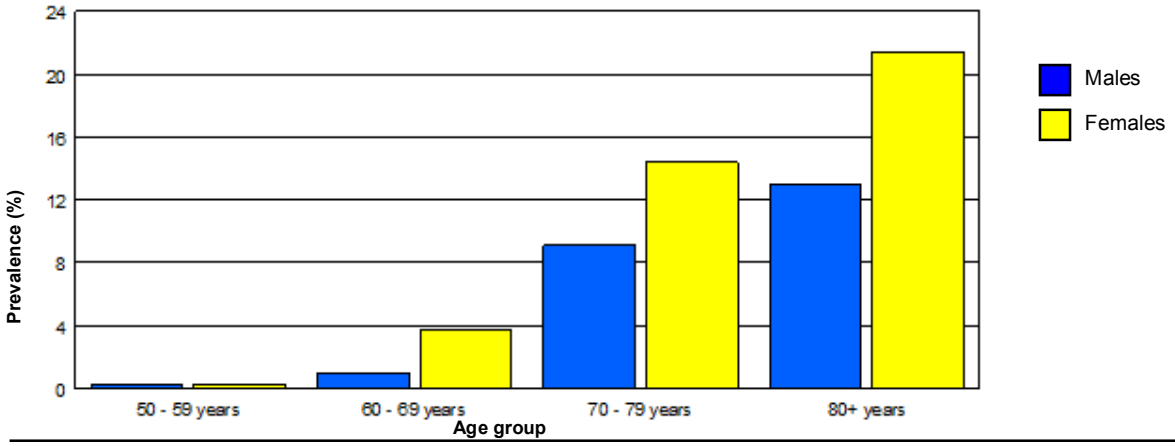
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral cataract blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals 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

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	473	40.6	808	60.6	1,281	50.6
60 - 69 years	420	36.1	351	26.3	771	31.2
70 - 79 years	187	16.1	118	8.9	305	12.5
80+ years	85	7.3	56	4.2	141	5.7
Total	**1,165**	**100.0**	**1,333**	**100.0**	**2,498**	**100.0**

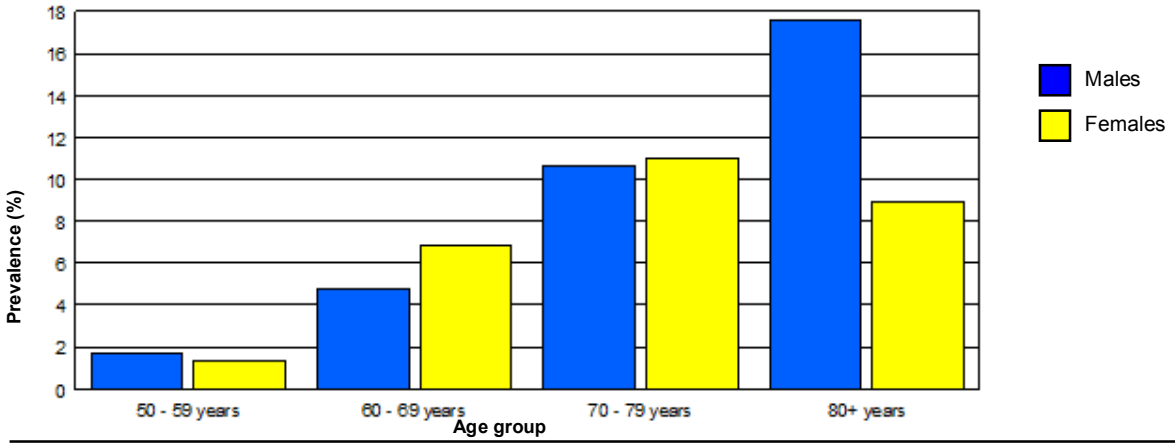
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2	2	0.2	3	0.2
60 - 69 years	4	1.0	13	3.7	17	2.2
70 - 79 years	17	9.1	17	14.4	34	11.1
80+ years	11	12.9	12	21.4	23	16.3
Total	**33**	**2.8**	**44**	**3.3**	**77**	**3.1**



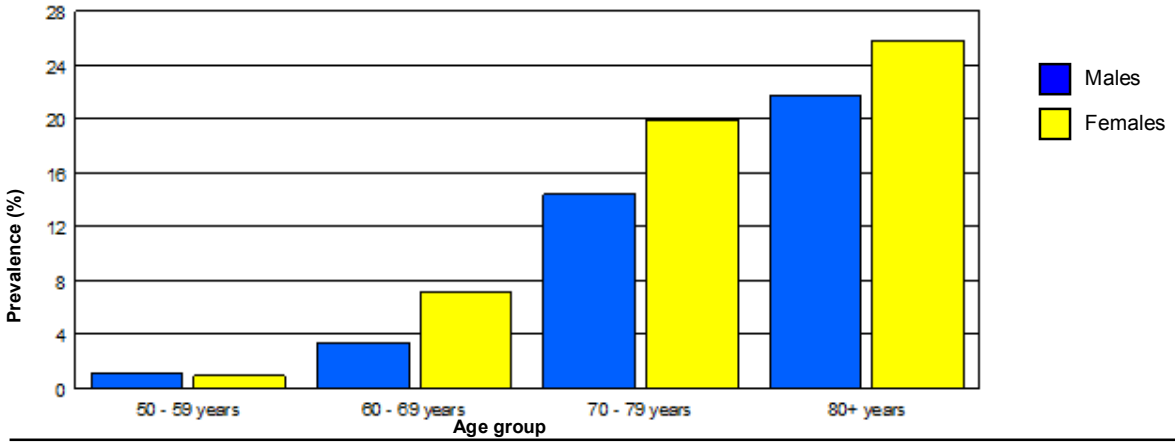
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	8	1.7	11	1.4	19	1.5
60 - 69 years	20	4.8	24	6.8	44	5.7
70 - 79 years	20	10.7	13	11.0	33	10.8
80+ years	15	17.6	5	8.9	20	14.2
Total	**63**	**5.4**	**53**	**4.0**	**116**	**4.6**



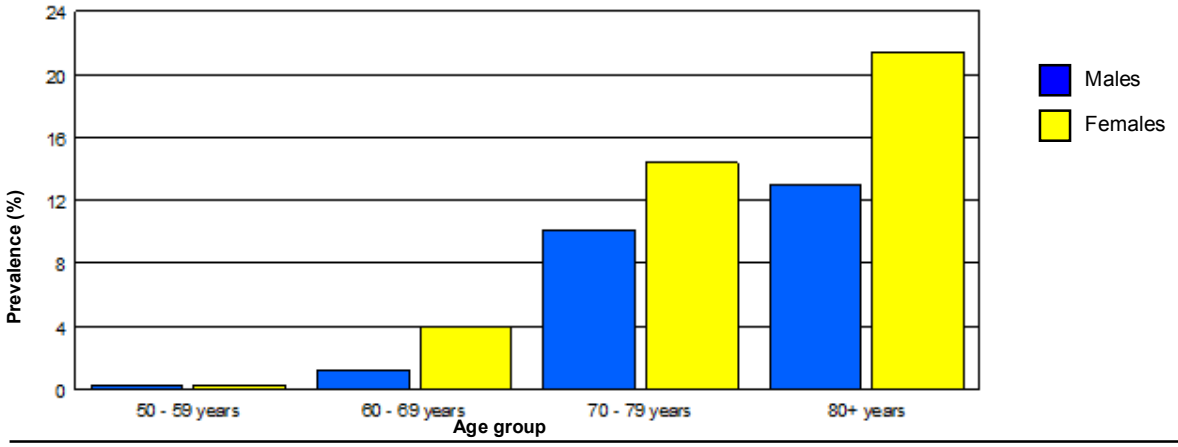
4. Prevalence of blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	10	1.1	15	0.9	25	1.0
60 - 69 years	28	3.3	50	7.1	78	5.1
70 - 79 years	54	14.4	47	19.9	101	16.6
80+ years	37	21.8	29	25.9	66	23.4
Total	**129**	**5.5**	**141**	**5.3**	**270**	**5.4**



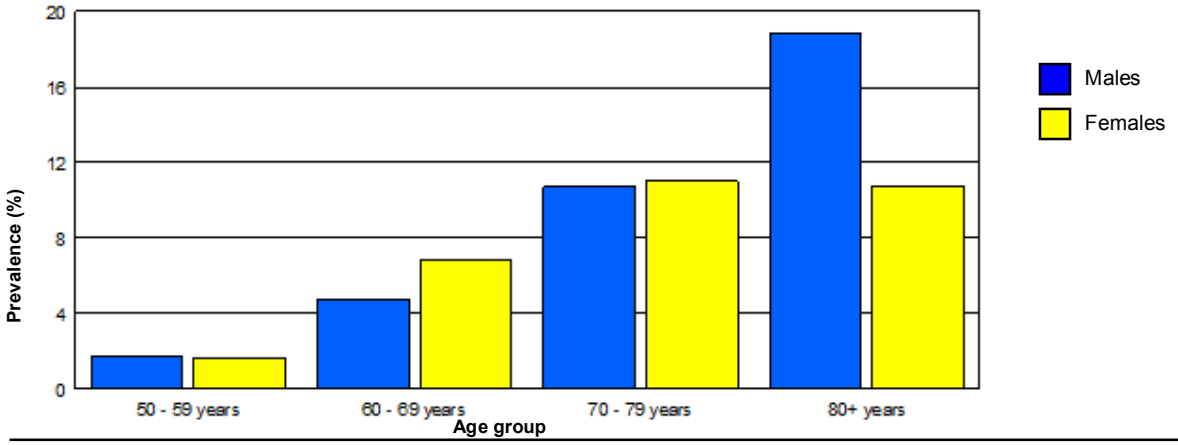
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2	2	0.2	3	0.2
60 - 69 years	5	1.2	14	4.0	19	2.5
70 - 79 years	19	10.2	17	14.4	36	11.8
80+ years	11	12.9	12	21.4	23	16.3
Total	**36**	**3.1**	**45**	**3.4**	**81**	**3.2**



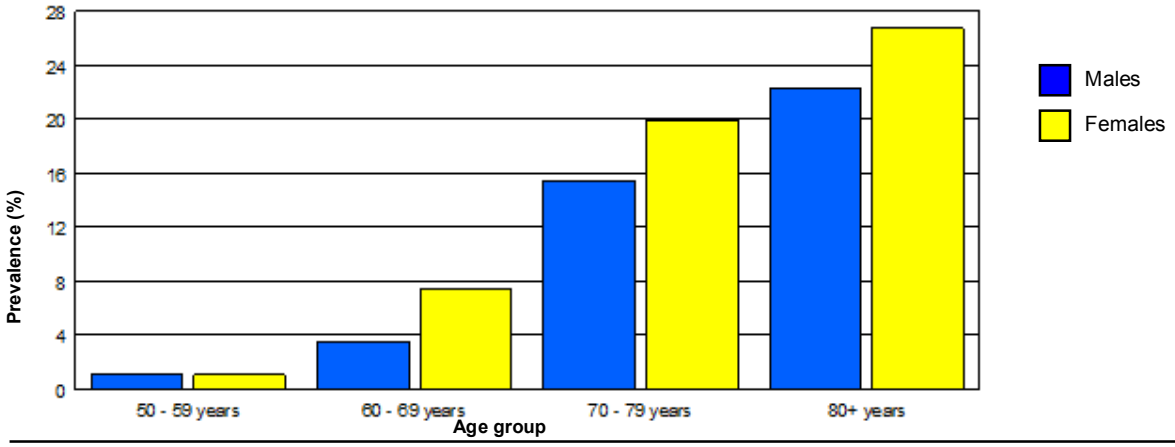
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	8	1.7	13	1.6	21	1.6
60 - 69 years	20	4.8	24	6.8	44	5.7
70 - 79 years	20	10.7	13	11.0	33	10.8
80+ years	16	18.8	6	10.7	22	15.6
Total	**64**	**5.5**	**56**	**4.2**	**120**	**4.8**



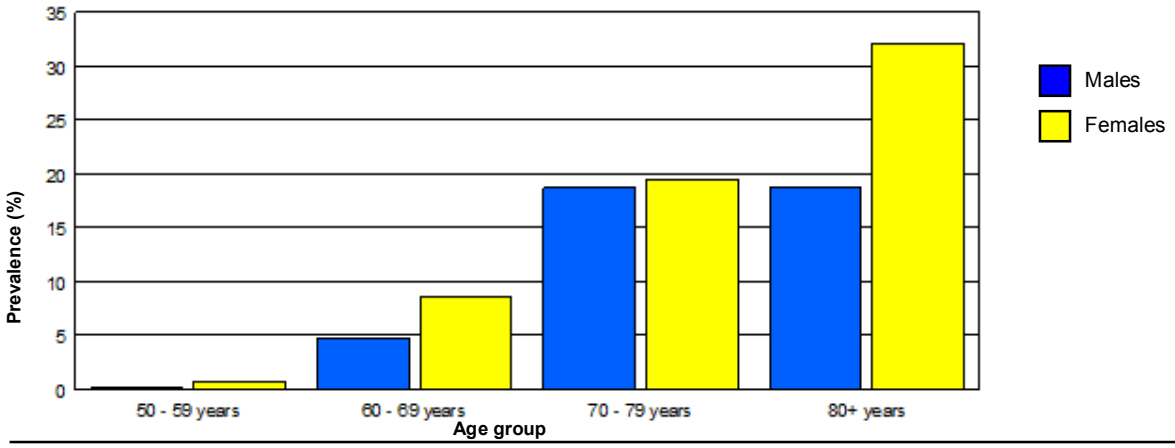
7. Prevalence of blind eyes - VA <3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	10	1.1	17	1.1	27	1.1
60 - 69 years	30	3.6	52	7.4	82	5.3
70 - 79 years	58	15.5	47	19.9	105	17.2
80+ years	38	22.4	30	26.8	68	24.1
Total	**136**	**5.8**	**146**	**5.5**	**282**	**5.6**



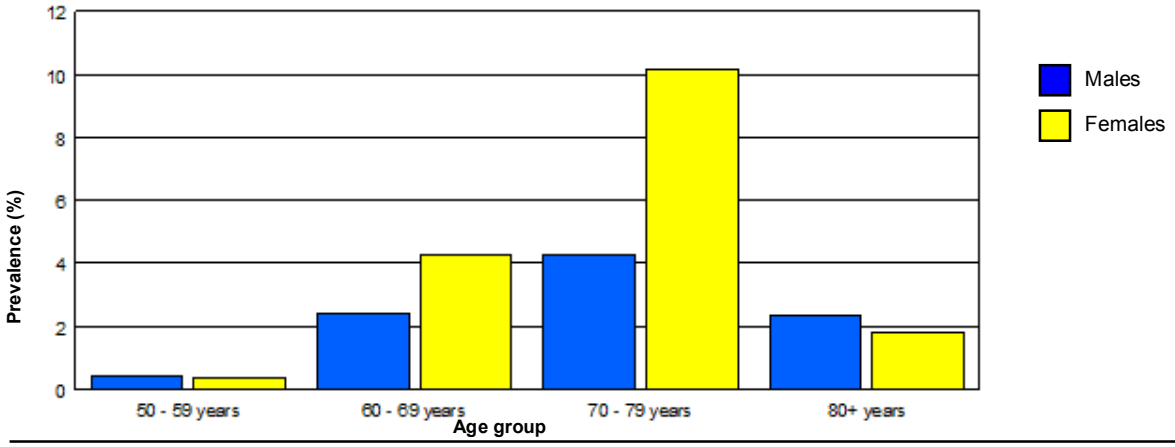
8. Prevalence of people with bilateral severe visual impairment - VA<6/60-3/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2	6	0.7	7	0.5
60 - 69 years	20	4.8	30	8.5	50	6.5
70 - 79 years	35	18.7	23	19.5	58	19.0
80+ years	16	18.8	18	32.1	34	24.1
Total	**72**	**6.2**	**77**	**5.8**	**149**	**6.0**



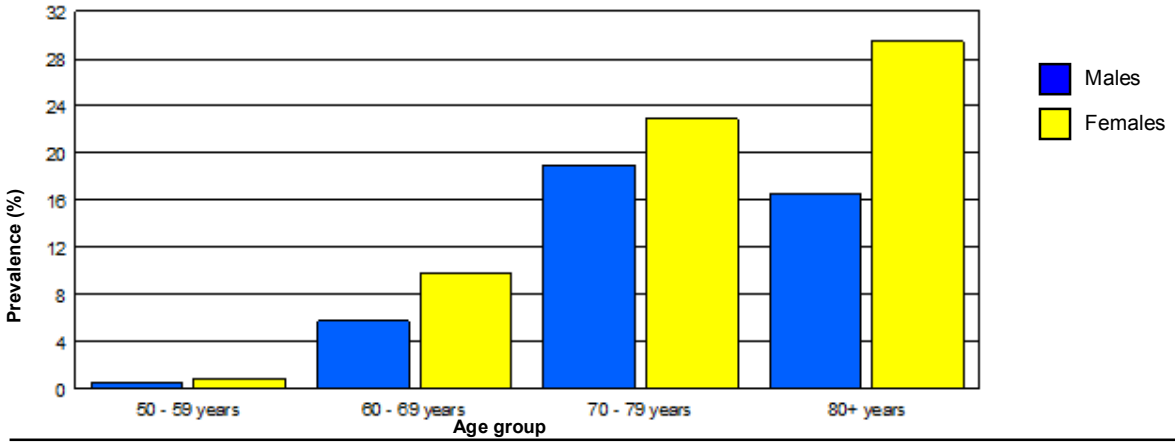
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	2	0.4	3	0.4	5	0.4
60 - 69 years	10	2.4	15	4.3	25	3.2
70 - 79 years	8	4.3	12	10.2	20	6.6
80+ years	2	2.4	1	1.8	3	2.1
Total	**22**	**1.9**	**31**	**2.3**	**53**	**2.1**



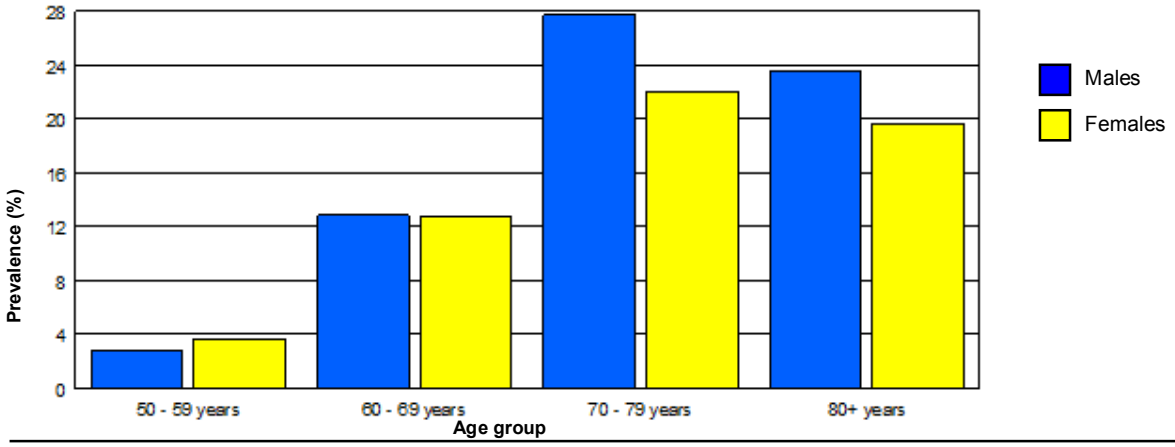
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	4	0.4	13	0.8	17	0.7
60 - 69 years	48	5.7	69	9.8	117	7.6
70 - 79 years	71	19.0	54	22.9	125	20.5
80+ years	28	16.5	33	29.5	61	21.6
Total	**151**	**6.5**	**169**	**6.3**	**320**	**6.4**



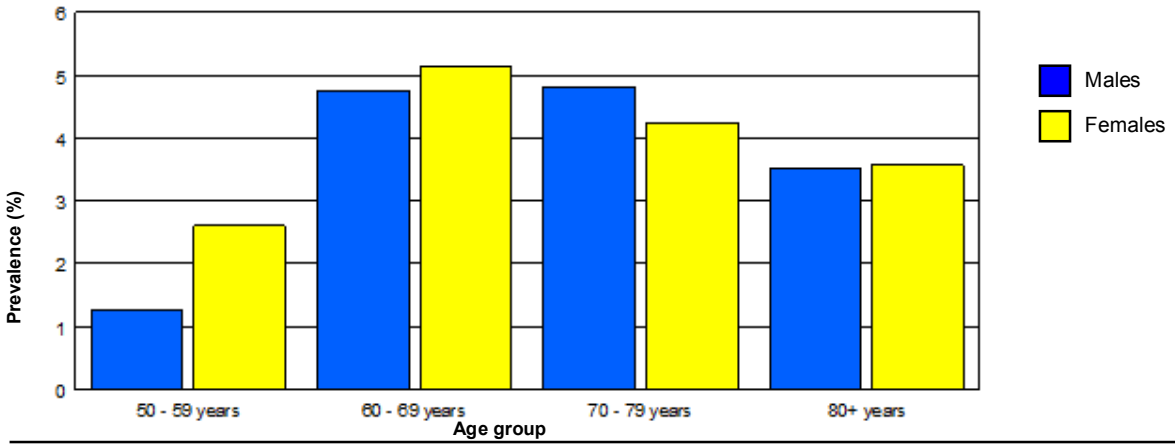
11. Prevalence of people with bilateral moderate visual impairment - VA <6/18-6/60 in better eye with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	13	2.7	29	3.6	42	3.3
60 - 69 years	54	12.9	45	12.8	99	12.8
70 - 79 years	52	27.8	26	22.0	78	25.6
80+ years	20	23.5	11	19.6	31	22.0
Total	**139**	**11.9**	**111**	**8.3**	**250**	**10.0**



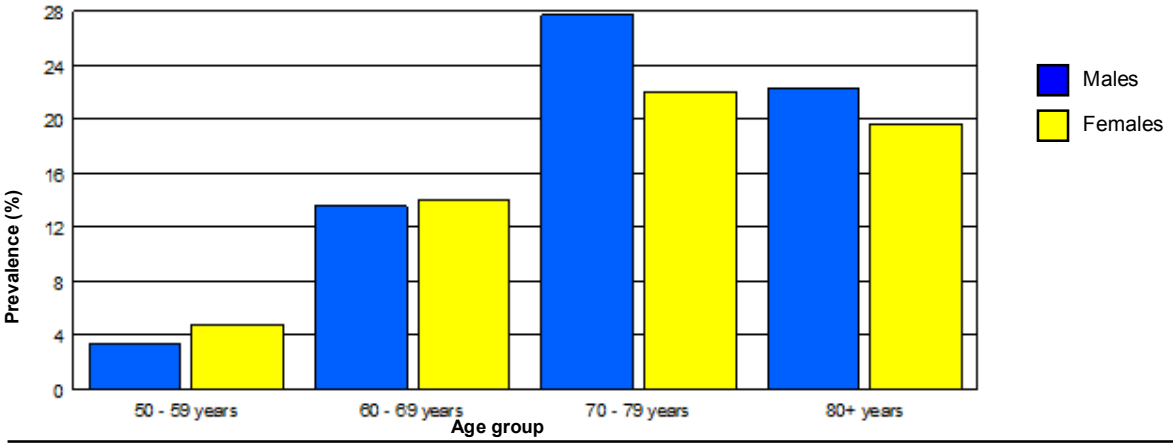
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	6	1.3	21	2.6	27	2.1
60 - 69 years	20	4.8	18	5.1	38	4.9
70 - 79 years	9	4.8	5	4.2	14	4.6
80+ years	3	3.5	2	3.6	5	3.5
Total	**38**	**3.3**	**46**	**3.5**	**84**	**3.4**



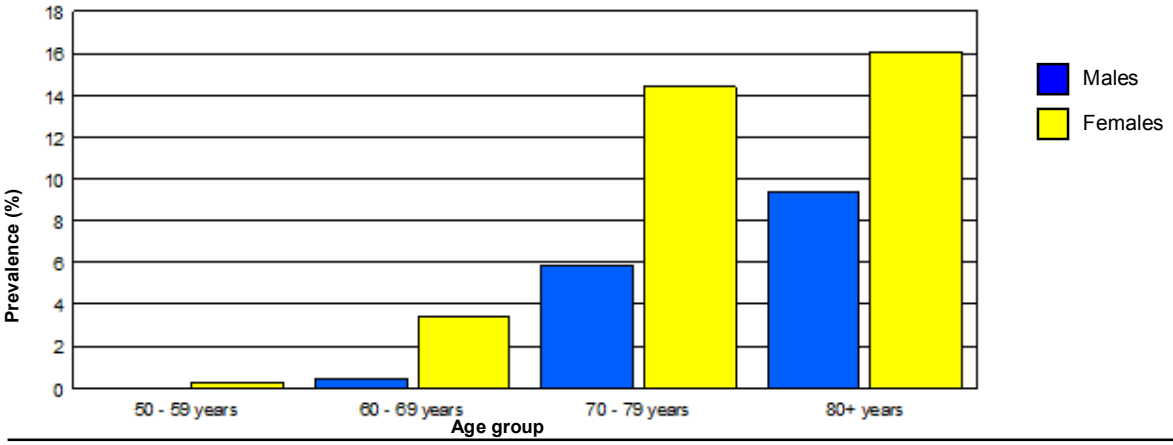
13. Prevalence of MVI eyes - VA<6/18-6/60 with available correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	31	3.3	78	4.8	109	4.3
60 - 69 years	114	13.6	98	14.0	212	13.7
70 - 79 years	104	27.8	52	22.0	156	25.6
80+ years	38	22.4	22	19.6	60	21.3
Total	**287**	**12.3**	**250**	**9.4**	**537**	**10.7**



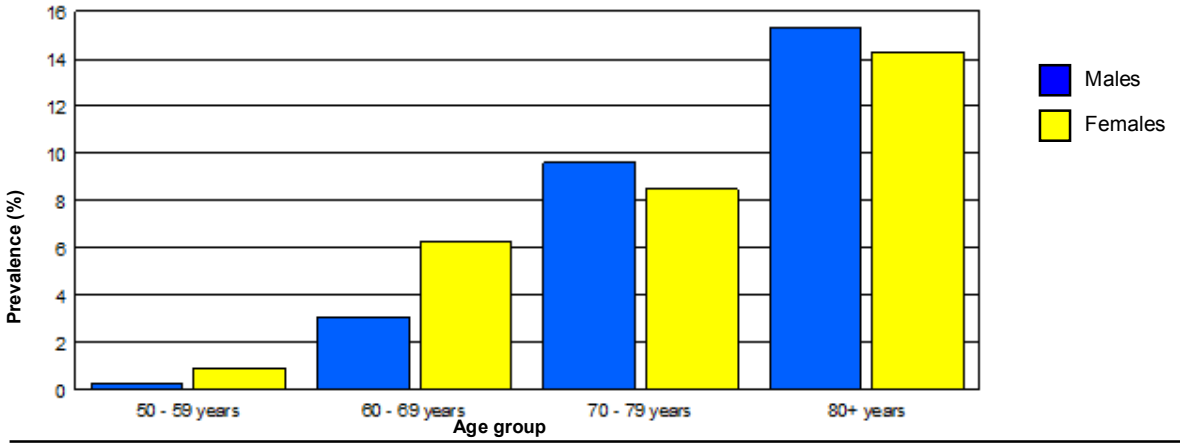
14. Prevalence of people bilateral blind due to cataract - VA<3/60 in better eye with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	0	0.0	2	0.2	2	0.2
60 - 69 years	2	0.5	12	3.4	14	1.8
70 - 79 years	11	5.9	17	14.4	28	9.2
80+ years	8	9.4	9	16.1	17	12.1
Total	**21**	**1.8**	**40**	**3.0**	**61**	**2.4**



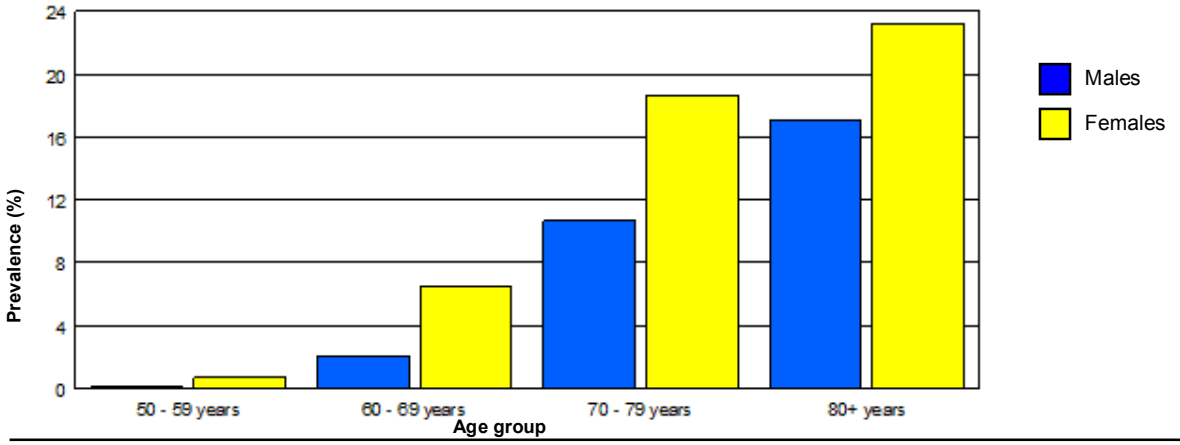
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2	7	0.9	8	0.6
60 - 69 years	13	3.1	22	6.3	35	4.5
70 - 79 years	18	9.6	10	8.5	28	9.2
80+ years	13	15.3	8	14.3	21	14.9
Total	**45**	**3.9**	**47**	**3.5**	**92**	**3.7**



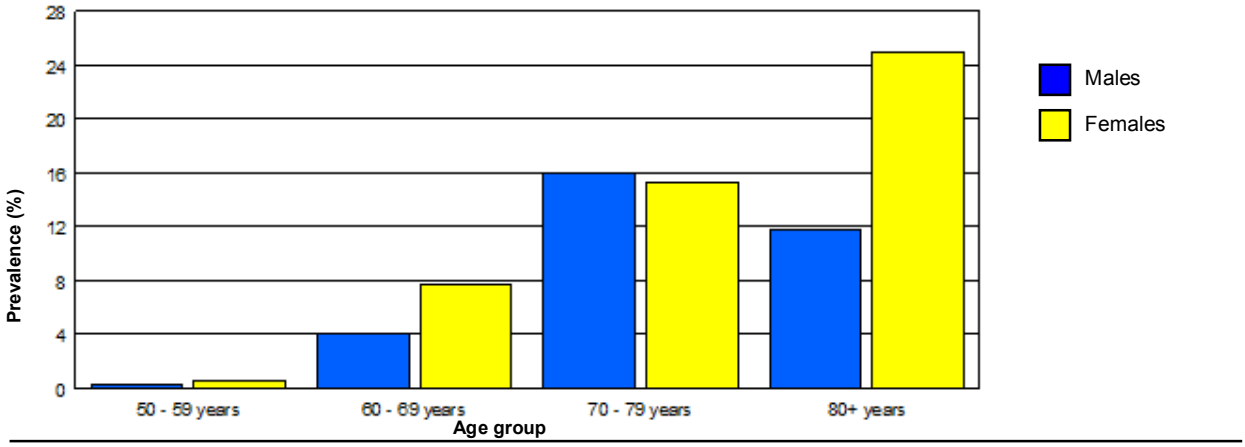
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.1	11	0.7	12	0.5
60 - 69 years	17	2.0	46	6.6	63	4.1
70 - 79 years	40	10.7	44	18.6	84	13.8
80+ years	29	17.1	26	23.2	55	19.5
Total	**87**	**3.7**	**127**	**4.8**	**214**	**4.3**



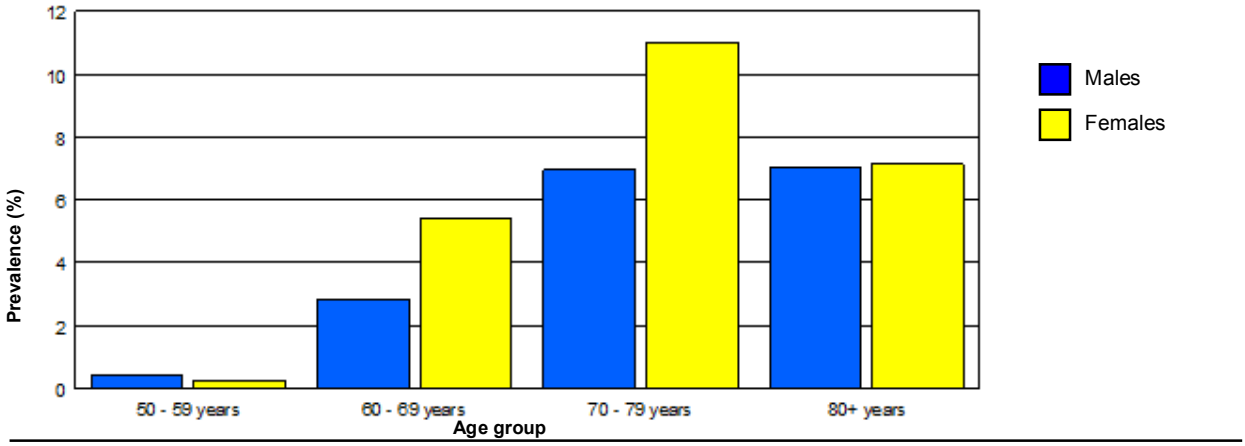
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	1	0.2	5	0.6	6	0.5
60 - 69 years	17	4.0	27	7.7	44	5.7
70 - 79 years	30	16.0	18	15.3	48	15.7
80+ years	10	11.8	14	25.0	24	17.0
Total	**58**	**5.0**	**64**	**4.8**	**122**	**4.9**



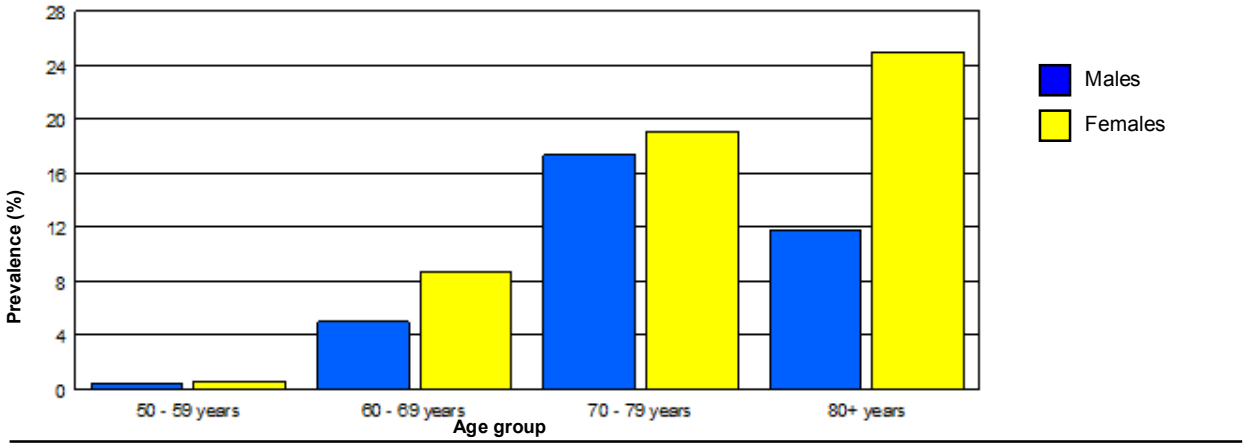
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA<3/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	2	0.4	2	0.2	4	0.3
60 - 69 years	12	2.9	19	5.4	31	4.0
70 - 79 years	13	7.0	13	11.0	26	8.5
80+ years	6	7.1	4	7.1	10	7.1
Total	**33**	**2.8**	**38**	**2.9**	**71**	**2.8**



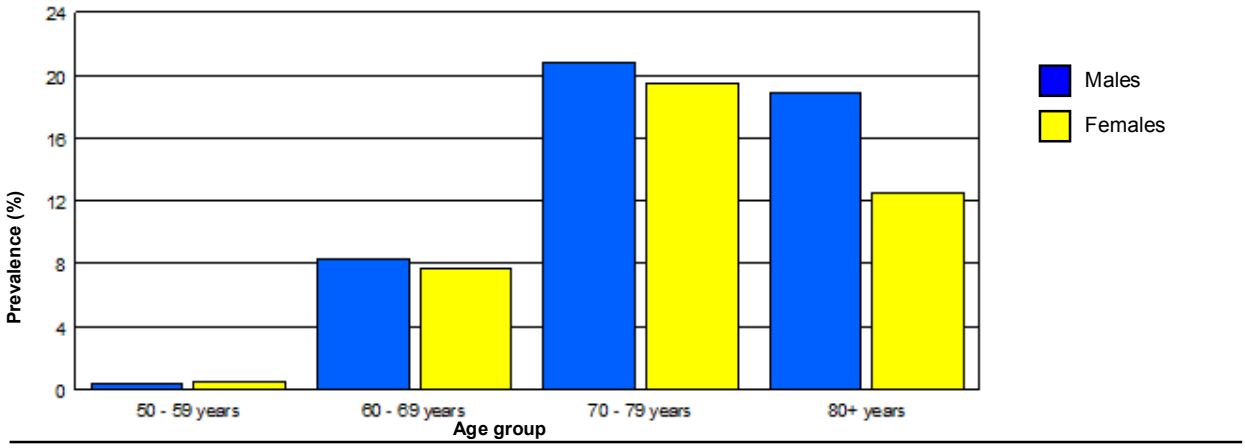
19. Prevalence of cataract SVI eyes - VA VA<6/60-3/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	4	0.4	10	0.6	14	0.5
60 - 69 years	42	5.0	61	8.7	103	6.7
70 - 79 years	65	17.4	45	19.1	110	18.0
80+ years	20	11.8	28	25.0	48	17.0
Total	**131**	**5.6**	**144**	**5.4**	**275**	**5.5**



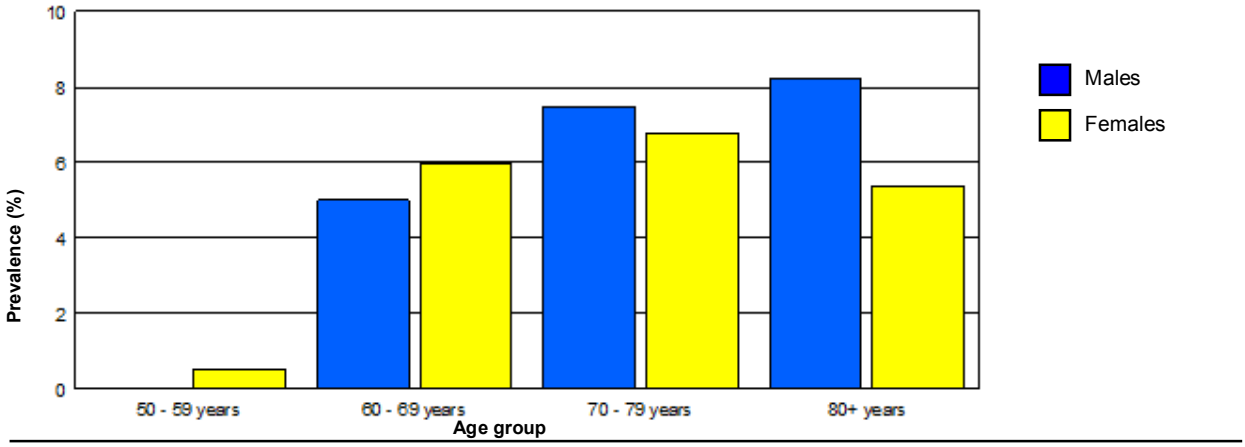
20. Prevalence of people with bilateral moderate visual impairment due to cataract - VA<6/18-6/60 - best eye, best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	2	0.4	4	0.5	6	0.5
60 - 69 years	35	8.3	27	7.7	62	8.0
70 - 79 years	39	20.9	23	19.5	62	20.3
80+ years	16	18.8	7	12.5	23	16.3
Total	**92**	**7.9**	**61**	**4.6**	**153**	**6.1**



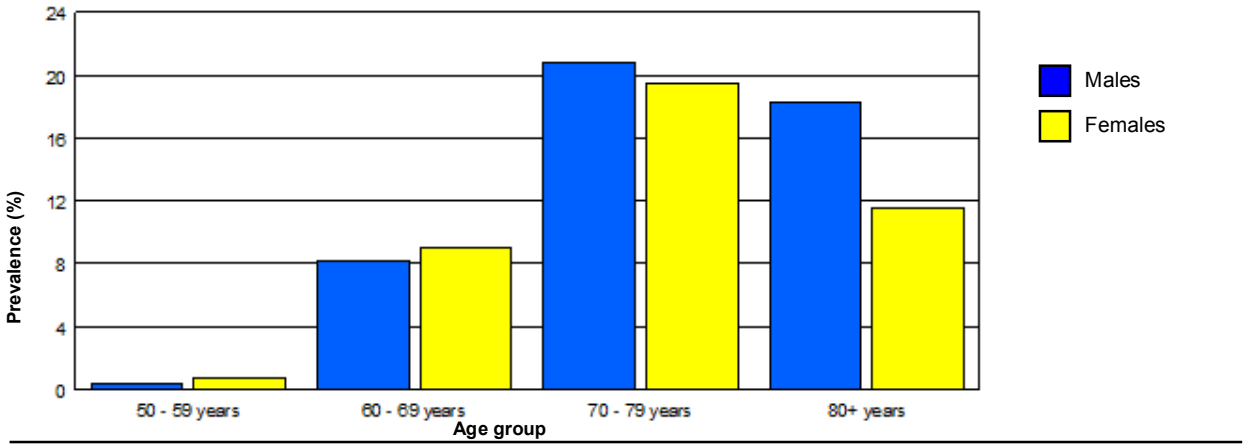
21. Prevalence of people with unilateral moderate visual impairment due to cataract - VA<6/18-6/60 best corrected

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	0	0.0	4	0.5	4	0.3
60 - 69 years	21	5.0	21	6.0	42	5.4
70 - 79 years	14	7.5	8	6.8	22	7.2
80+ years	7	8.2	3	5.4	10	7.1
Total	**42**	**3.6**	**36**	**2.7**	**78**	**3.1**



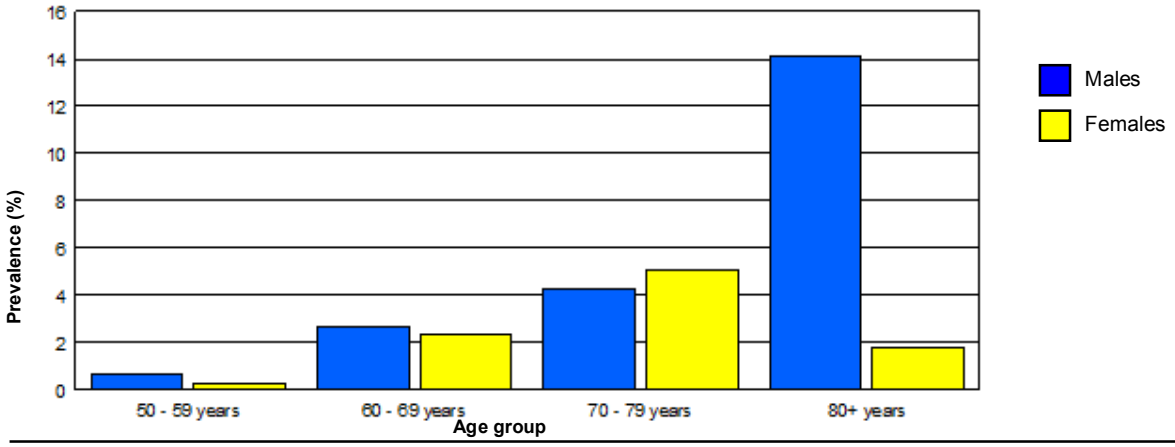
22. Prevalence of cataract MVI eyes - VA <6/18-6/60 with best correction

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	4	0.4	12	0.7	16	0.6
60 - 69 years	69	8.2	63	9.0	132	8.6
70 - 79 years	78	20.9	46	19.5	124	20.3
80+ years	31	18.2	13	11.6	44	15.6
Total	**182**	**7.8**	**134**	**5.0**	**316**	**6.3**



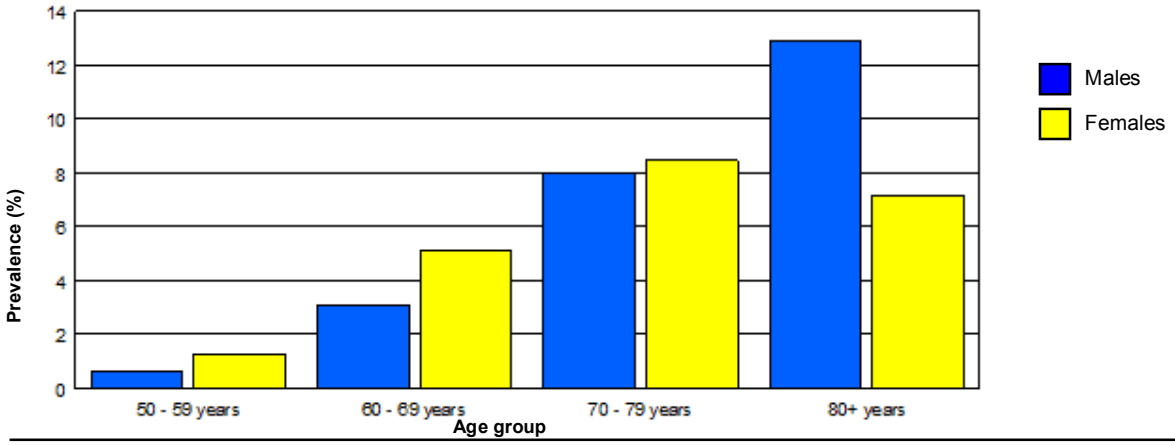
23. Prevalence of people with bilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.6	2	0.2	5	0.4
60 - 69 years	11	2.6	8	2.3	19	2.5
70 - 79 years	8	4.3	6	5.1	14	4.6
80+ years	12	14.1	1	1.8	13	9.2
Total	**34**	**2.9**	**17**	**1.3**	**51**	**2.0**



24. Prevalence of people with unilateral (pseudo)aphakia

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	3	0.6	10	1.2	13	1.0
60 - 69 years	13	3.1	18	5.1	31	4.0
70 - 79 years	15	8.0	10	8.5	25	8.2
80+ years	11	12.9	4	7.1	15	10.6
Total	**42**	**3.6**	**42**	**3.2**	**84**	**3.4**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

AGE AND SEX ADJUSTED PREVALENCE AND ESTIMATED NUMBERS

Date and time of report: 12/15/2013 12:17:33PM

This report is for the survey area: barisal1

Year and month when survey was conducted: 2013- 6 until 2013- 8

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.

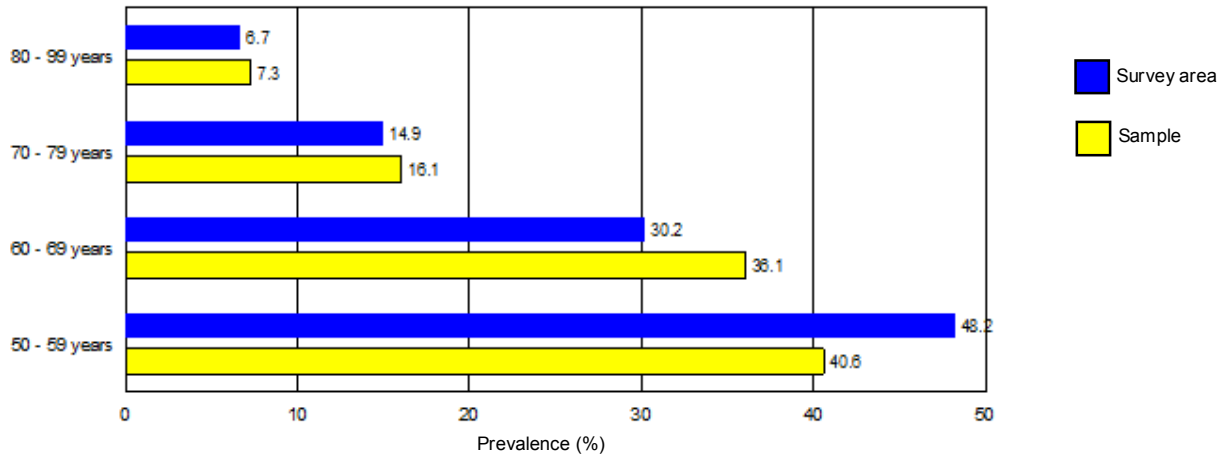
1. Age and sex distribution of people examined in the sample

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	473	40.6%	808	60.6%	**1,281**	**51.3%**
60 - 69 years	420	36.1%	351	26.3%	**771**	**30.9%**
70 - 79 years	187	16.1%	118	8.9%	**305**	**12.2%**
80 - 99 years	85	7.3%	56	4.2%	**141**	**5.6%**
Total	**1,165**	**100.0%**	**1,333**	**100.0%**	**2,498**	**100.0%**

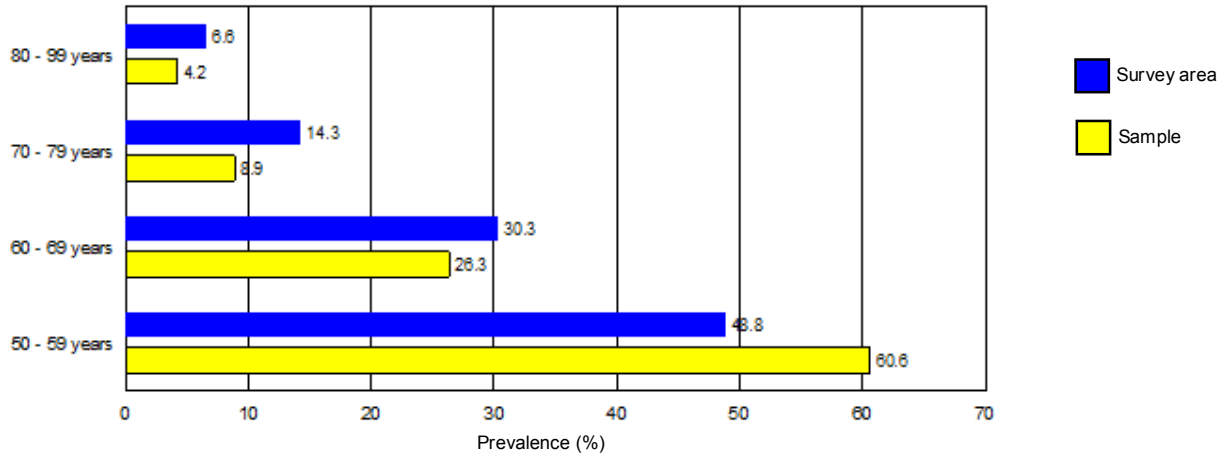
2. Total number of people aged 50+ in survey area

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59 years	300,552	48.2%	261,756	48.8%	**562,308**	**48.5%**
60 - 69 years	188,090	30.2%	162,554	30.3%	**350,644**	**30.2%**
70 - 79 years	93,128	14.9%	76,610	14.3%	**169,738**	**14.6%**
80 - 99 years	41,743	6.7%	35,359	6.6%	**77,102**	**6.6%**
Total	**623,513**	**100.0%**	**536,279**	**100.0%**	**1,159,792**	**100.0%**

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



4. Proportion of females in total survey area and in sample



5. Adjusted results for all causes of blindness, SVI and MVI

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with best correction or pinhole						
All bilateral cases	16,29	2.6 (1.6 - 3.6)	25,28	4.7 (3.3 - 6.1)	41,57	3.6 (2.6 - 4.6)
All eyes	63,95	5.1 (3.9 - 6.3)	76,84	7.2 (5.7 - 8.6)	140,7	6.1 (4.9 - 7.2)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	17,73	2.8 (1.8 - 3.9)	25,74	4.8 (3.4 - 6.2)	43,48	3.7 (2.7 - 4.8)
All eyes	67,33	5.4 (4.2 - 6.6)	79,04	7.4 (5.9 - 8.9)	146,3	6.3 (5.1 - 7.5)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral cases	34,88	5.6 (3.7 - 7.5)	42,13	7.9 (6.6 - 9.2)	77,01	6.6 (5.5 - 7.8)
All eyes	73,14	5.9 (4.0 - 7.7)	92,06	8.6 (7.3 - 9.9)	165,2	7.1 (6.0 - 8.3)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral cases	68,16	10.9 (8.8 - 13.1)	54,06	10.1 (8.6 - 11.6)	122,2	10.5 (9.1 - 12.0)
All eyes	141,2	11.3 (9.1 - 13.5)	118,3	11.0 (9.4 - 12.7)	259,5	11.2 (9.6 - 12.8)

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

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral cases	17,73	2.8 (1.8 - 3.9)	25,74	4.8 (3.4 - 6.2)	43,48	3.7 (2.7 - 4.8)
All eyes	67,33	5.4 (4.2 - 6.6)	79,04	7.4 (5.9 - 8.9)	146,3	6.3 (5.1 - 7.5)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	52,62	8.4 (6.3 - 10.6)	67,88	12.7 (11.1 - 14.2)	120,5	10.4 (9.1 - 11.7)
All eyes	140,4	11.3 (9.1 - 13.4)	171,1	16.0 (14.2 - 17.7)	311,5	13.4 (12.0 - 14.9)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	120,7	19.4 (16.6 - 22.2)	121,9	22.7 (20.4 - 25.1)	242,7	20.9 (18.9 - 22.9)
All eyes	281,6	22.6 (19.7 - 25.4)	289,4	27.0 (24.4 - 29.6)	571,1	24.6 (22.4 - 26.8)

7. Adjusted results for cataract and blindness, SVI and VI (best corrected VA)

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	10,30	1.7 (0.9 - 2.4)	22,92	4.3 (2.9 - 5.6)	33,22	2.9 (1.9 - 3.8)
Unilateral cataract	21,80	3.5 (2.5 - 4.5)	24,00	4.5 (3.3 - 5.6)	45,80	3.9 (3.1 - 4.8)
Cataract eyes	42,41	3.4 (2.5 - 4.3)	69,85	6.5 (5.0 - 8.0)	112,2	4.8 (3.8 - 5.9)
Cataract and SVI in better eye with best correction or pinhole						
Bilateral cataract	28,09	4.5 (2.8 - 6.2)	34,65	6.5 (5.4 - 7.5)	62,74	5.4 (4.4 - 6.5)
Unilateral cataract	11,70	1.9 (0.8 - 3.0)	14,75	2.8 (1.9 - 3.6)	26,45	2.3 (1.5 - 3.1)
Cataract eyes	63,54	5.1 (3.2 - 7.0)	78,38	7.3 (6.0 - 8.6)	141,9	6.1 (4.9 - 7.3)
Cataract and MVI in better eye with best correction or pinhole						
Bilateral cataract	44,22	7.1 (5.0 - 9.2)	33,15	6.2 (4.9 - 7.5)	77,37	6.7 (5.2 - 8.1)
Unilateral cataract	9,437	1.5 (0.4 - 2.6)	11,47	2.1 (1.2 - 3.0)	20,90	1.8 (1.0 - 2.6)
Cataract eyes	87,51	7.0 (4.9 - 9.1)	71,13	6.6 (5.2 - 8.1)	158,6	6.8 (5.3 - 8.4)

8. Adjusted results for cataract and VA<3/60, VA<6/60 and VA<6/18

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	10,30	1.7 (0.9 - 2.4)	22,92	4.3 (2.9 - 5.6)	33,22	2.9 (1.9 - 3.8)
Unilateral cataract	21,80	3.5 (2.5 - 4.5)	24,00	4.5 (3.3 - 5.6)	45,80	3.9 (3.1 - 4.8)
Cataract eyes	42,41	3.4 (2.5 - 4.3)	69,85	6.5 (5.0 - 8.0)	112,2	4.8 (3.8 - 5.9)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	38,40	6.2 (4.2 - 8.1)	57,57	10.7 (9.3 - 12.2)	95,97	8.3 (7.1 - 9.5)
Unilateral cataract	33,51	5.4 (3.7 - 7.0)	38,74	7.2 (5.5 - 9.0)	72,25	6.2 (4.7 - 7.7)
Cataract eyes	105,9	8.5 (6.4 - 10.6)	148,2	13.8 (12.1 - 15.5)	254,1	11.0 (9.5 - 12.4)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	82,62	13.3 (10.4 - 16.1)	90,72	16.9 (14.8 - 19.0)	173,3	14.9 (13.0 - 16.9)
Unilateral cataract	42,94	6.9 (4.6 - 9.1)	50,22	9.4 (7.1 - 11.7)	93,16	8.0 (6.1 - 10.0)
Cataract eyes	193,4	15.5 (12.5 - 18.5)	219,3	20.5 (17.9 - 23.0)	412,8	17.8 (15.4 - 20.1)

9. Adjusted results for aphakia and pseudophakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	16,70	2.7 (1.6 - 3.7)	8,879	1.7 (1.0 - 2.3)	25,58	2.2 (1.6 - 2.8)
Unilateral (pseudo)aphakia	20,60	3.3 (2.1 - 4.5)	20,59	3.8 (2.8 - 4.9)	41,19	3.6 (2.8 - 4.3)
Eyes (pseudo)aphakia	54,01	4.3 (3.1 - 5.6)	38,35	3.6 (2.7 - 4.4)	92,37	4.0 (3.3 - 4.7)

10. Adjusted results for cataract surgical coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	56.0	35.4	45.1
VA < 6/60	33.8	20.6	26.7
VA < 6/18	21.8	14.9	18.3
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	72.1	44.4	57.5
VA < 6/60	44.6	28.9	36.2
VA < 6/18	29.0	23.2	26.1

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLING ERROR (CLUSTER SAMPLING) & DESIGN EFFECT

Date and time of report: 12/15/2013 12:19:00PM

This report is for the survey area: barisal1

Year and month when survey was conducted: 2013- 6 until 2013- 8

The accuracy of the estimate of the prevalence of a condition in the RAAB survey is calculated for sampling (SEcrs) specifically, 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. The prevalence interval at 95% confidence and the corresponding sampling error are shown. 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**
Males	33	2.83	1.83 - 3.83	1.00	0.84	0.65	1.10	0.51
Females	44	3.30	1.93 - 4.67	1.37	1.15	0.89	2.03	0.70
Total	77	3.08	2.06 - 4.10	1.02	0.86	0.67	2.27	0.52

Blind eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	130	5.54	4.36 - 6.72	1.18	0.99	0.77	0.81	0.60
Females	142	5.29	3.81 - 6.77	1.48	1.24	0.97	1.51	0.75
Total	270	5.40	4.27 - 6.53	1.13	0.95	0.74	1.62	0.58

Bilateral SVI, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	61	5.24	3.42 - 7.06	1.82	1.53	1.19	2.02	0.93
Females	68	5.10	3.84 - 6.36	1.26	1.05	0.82	1.13	0.64
Total	129	5.16	4.03 - 6.30	1.14	0.96	0.74	1.72	0.58

SVI eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	134	5.75	3.90 - 7.60	1.85	1.55	1.21	1.91	0.94
Females	152	5.70	4.45 - 6.95	1.25	1.05	0.82	1.01	0.64
Total	286	5.72	4.56 - 6.88	1.16	0.97	0.76	1.62	0.59

Bilateral MVI, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	98	8.41	6.23 - 10.60	2.18	1.83	1.43	1.88	1.11
Females	65	4.88	3.52 - 6.24	1.36	1.14	0.89	1.38	0.69
Total	163	6.53	4.97 - 8.09	1.56	1.31	1.02	2.59	0.80

MVI eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	188	8.03	5.93 - 10.12	2.10	1.76	1.37	1.80	1.07
Females	144	5.40	3.94 - 6.86	1.46	1.23	0.96	1.45	0.75
Total	332	6.63	5.08 - 8.17	1.55	1.30	1.01	2.52	0.79

Bilateral blind, available correction			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Males	36	3.09	2.07 - 4.11	1.02	0.85	0.66	1.04	0.52
Females	45	3.38	2.00 - 4.75	1.38	1.15	0.90	2.01	0.70
Total	81	3.24	2.19 - 4.29	1.05	0.88	0.69	2.29	0.54

Blind eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	136	5.84	4.62 - 7.06	1.22	1.03	0.80	0.82	0.62
Females	146	5.48	3.99 - 6.97	1.49	1.25	0.97	1.49	0.76
Total	282	5.64	4.47 - 6.82	1.18	0.99	0.77	1.69	0.60

Bilateral SVI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	72	6.18	4.32 - 8.04	1.86	1.56	1.22	1.81	0.95
Females	77	5.78	4.48 - 7.08	1.30	1.09	0.85	1.08	0.66
Total	149	5.96	4.80 - 7.13	1.17	0.98	0.76	1.58	0.60

SVI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	152	6.48	4.60 - 8.36	1.88	1.58	1.23	1.78	0.96
Females	170	6.34	5.05 - 7.63	1.29	1.09	0.85	0.98	0.66
Total	320	6.41	5.24 - 7.57	1.16	0.97	0.76	1.46	0.59

Bilateral MVI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	139	11.93	9.78 - 14.08	2.15	1.80	1.40	1.33	1.10
Females	111	8.33	6.82 - 9.83	1.51	1.26	0.98	1.03	0.77
Total	250	10.01	8.52 - 11.49	1.49	1.25	0.97	1.59	0.76

MVI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	288	12.32	10.11 - 14.52	2.21	1.85	1.44	1.37	1.13
Females	250	9.38	7.71 - 11.05	1.67	1.40	1.09	1.14	0.85
Total	538	10.75	9.18 - 12.32	1.57	1.32	1.03	1.68	0.80

Bilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	21	1.80	1.05 - 2.55	0.75	0.63	0.49	0.96	0.38
Females	40	3.00	1.66 - 4.34	1.34	1.13	0.88	2.15	0.69
Total	61	2.44	1.50 - 3.38	0.94	0.79	0.61	2.41	0.48

Unilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	45	3.86	2.89 - 4.83	0.97	0.81	0.63	0.77	0.50
Females	47	3.53	2.36 - 4.69	1.16	0.98	0.76	1.38	0.59
Total	92	3.68	2.80 - 4.57	0.88	0.74	0.58	1.43	0.45

Eyes cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	88	3.73	2.86 - 4.61	0.87	0.73	0.57	0.65	0.45
Females	128	4.76	3.29 - 6.24	1.48	1.24	0.96	1.67	0.75
Total	214	4.28	3.25 - 5.32	1.04	0.87	0.68	1.71	0.53

Bilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	58	4.98	3.14 - 6.81	1.84	1.54	1.20	2.16	0.94
Females	64	4.80	3.49 - 6.11	1.31	1.10	0.86	1.30	0.67
Total	122	4.88	3.70 - 6.07	1.19	1.00	0.78	1.97	0.61

Unilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	33	2.83	1.76 - 3.91	1.08	0.90	0.70	1.28	0.55
Females	38	2.85	1.98 - 3.72	0.87	0.73	0.57	0.95	0.44
Total	71	2.84	2.03 - 3.65	0.81	0.68	0.53	1.54	0.41

Eyes cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	132	5.62	3.76 - 7.49	1.86	1.56	1.22	1.99	0.95
Females	144	5.40	4.12 - 6.68	1.28	1.07	0.83	1.11	0.65
Total	276	5.50	4.31 - 6.70	1.19	1.00	0.78	1.78	0.61

Bilateral cataract MVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	92	7.90	5.66 - 10.13	2.23	1.88	1.46	2.08	1.14
Females	61	4.58	3.18 - 5.98	1.40	1.18	0.92	1.56	0.71
Total	153	6.12	4.53 - 7.72	1.59	1.34	1.04	2.87	0.81

Unilateral cataract MVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	42	3.61	2.54 - 4.67	1.07	0.90	0.70	1.00	0.55
Females	36	2.70	1.79 - 3.61	0.91	0.76	0.59	1.09	0.46
Total	78	3.12	2.35 - 3.89	0.77	0.65	0.50	1.27	0.39

Eyes cataract MVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	182	7.81	5.68 - 9.94	2.13	1.79	1.39	1.91	1.09
Females	134	5.03	3.57 - 6.48	1.46	1.22	0.95	1.54	0.74
Total	316	6.33	4.76 - 7.89	1.56	1.31	1.02	2.68	0.80

Bilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	34	2.92	1.88 - 3.96	1.04	0.87	0.68	1.16	0.53
Females	17	1.28	0.64 - 1.91	0.64	0.54	0.42	1.12	0.33
Total	51	2.04	1.44 - 2.64	0.60	0.50	0.39	1.16	0.31

Unilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	42	3.61	2.40 - 4.81	1.21	1.01	0.79	1.27	0.62
Females	42	3.15	2.10 - 4.20	1.05	0.88	0.69	1.26	0.54
Total	84	3.36	2.58 - 4.14	0.78	0.65	0.51	1.22	0.40

Eyes (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Males	110	4.72	3.50 - 5.94	1.22	1.03	0.80	1.01	0.62
Females	76	2.85	2.02 - 3.68	0.83	0.70	0.54	0.87	0.42
Total	186	3.72	3.00 - 4.44	0.72	0.60	0.47	0.94	0.37