Rapid Assessment of Avoidable Blindness

in

Gazipur, Kishoreganj & Cox's Bazar Districts, Bangladesh

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

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Report on Rapid Assessment of Avoidable Blindness

in

Gazipur, Kishoreganj and Cox's Bazar Districts of Bangladesh

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SUMMARY OF THE REPORT

Rapid Assessment of Avoidable Blindness in Gazipur District of Bangladesh

Summary:

- The all-age prevalence of blindness for Gazipur is estimated to be 0.39%.
- The all-age magnitude of blindness for Gazipur is estimated to be 9,130 people out of a population of 2.36 million.
- Avoidable causes of blindness (operated and unoperated cataract, refractive error and corneal scar) accounted for 71.7% of blindness, 77.6% of severe visual impairment and 94.6% of visual impairment.
- Cataract (69.6%) and sequelae related to cataract extraction (4.6%) accounted for 78.4% of all causes of bilateral blindness.
- Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) is responsible for 28.3% of bilateral blindness.
- 73.8% of people with bilateral cataract VA<3/60 had had surgery and 49.3% at VA<6/18.

Subjects

- A total of 2,500 individuals aged 50 years and over were examined in the survey.
- The overall response rate for the survey was 96.7% (Women 98.4%, Men 95.0%).
- Of these 2, 500 subjects, 46 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 1.90% in people aged 50 years and above (95% CI: 1.11-2.69%).
- The distribution of visual acuity status of the examined subjects is shown in table 2.

Magnitude of Blindness in Gazipur district

- In people aged over 50 years in Gazipur district the magnitude of blindness is estimated to be 1,756 people.
- The all-age prevalence of blindness for Gazipur district is estimated to be 0.39%.
- The all-age magnitude of blindness for Gazipur district is estimated to be 9,130 people out of a population of 2.26 million.

Blindness and Visual Acuity by Age

- The prevalence of blindness was associated with increasing age ranging from 0.79% in those aged 50-59 years to 7.2% in those aged 80 years and above. (Figure 1).
- Increasing age was associated with higher levels of impaired vision. In those aged 50-59, 94.6% had normal vision, compared with 53.6% 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 unoperated cataract, refractive error and corneal scar) accounted for 71.7% of blindness, 77.6% of severe visual impairment and 94.6% of visual impairment.
- Cataract (69.6%) and sequelae related to cataract extraction (aphakia 0 % and cataract surgical complications 0 %) accounted for 69.6 % of all causes of bilateral blindness. (Table 3).
- Posterior segment disease (28.3%) (including glaucoma, diabetic retinopathy and age-related macular degeneration) is the second cause of bilateral blindness.(Table 2).

Cataract Surgical Coverage

- Cataract surgical coverage was relatively high; 73.8% of people with bilateral cataract VA<3/60 had had surgery and 49.3% at VA<6/18. (Table 4).
- 7.8% of the 154 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 Kishoreganj District of Bangladesh

Summary:

- The all-age prevalence of blindness for Kishoreganj is estimated to be 0.34%.
- The all-age magnitude of blindness for Kishoreganj is estimated to be 9,785 people out of a population of 2.85 million.
- Avoidable causes of blindness (operated and unoperated cataract, refractive error and corneal scar) accounted for 82.4% of blindness, 90.8% of severe visual impairment and 94.6% of visual impairment.
- Cataract (70.6%) and sequelae related to cataract extraction (5.3%) accounted for 57.9% of all causes of bilateral blindness.
- Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) is responsible for 17.6% of bilateral blindness.
- 69.3% of people with bilateral cataract VA<3/60 had had surgery and 33.5% at VA<6/18.

Subjects

- A total of 3,050 individuals aged 50 years and over were examined in the survey.
- The overall response rate for the survey was 99.1% (Women 98.7%, Men 99.5%).
- Of these 3,050 subjects, 68 were bilaterally blind (<3/60 in the better eye based on presenting visual acuity, with available correction).

Crude Prevalence 50 years and older

- This corresponds to a crude prevalence of blindness of 2.25% in people aged 50 years and above (95% CI: 1.52-2.98%).
- The distribution of visual acuity status of the examined subjects is shown in table 7.

Magnitude of Blindness in Kishoreganj district

- In people aged over 50 years in Kishoreganj district the magnitude of blindness is estimated to be 7,175 people.
- The all-age prevalence of blindness for Kishoreganj district is estimated to be 0.34%.
- The all-age magnitude of blindness for Kishoreganj district is estimated to be 9,785people out of a population of 2.85 million.

Blindness and Visual Acuity by Age

- The prevalence of blindness was associated with increasing age ranging from 0.49% in those aged 50-59 years to 12.33% in those aged 80 years and above. (Figure 2).
- Increasing age was associated with higher levels of impaired vision. In those aged 50-59, 93.1% had normal vision, compared with 50.7% in those aged 80 years and above (Figure 2).

Causes of Blindness in adults aged 50 years and older

- Avoidable causes of blindness (operated and un-operated cataract, refractive error and corneal scar) accounted for 82.4% of blindness, 90.8% of severe visual impairment and 94.6% of visual impairment.
- Cataract (70.6%) and sequelae related to cataract extraction (5.3%) accounted for 57.9% of all causes of bilateral blindness. (Table 8).
- Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) is responsible for 17.6% of bilateral blindness.(Table 8).

Cataract Surgical Coverage

- Cataract surgical coverage was relatively high; 69.3% of people with bilateral cataract VA<3/60 had had surgery and 33.5% at VA<6/18. (Table 9).
- 10.9% of the 165 eyes that had undergone cataract surgery had a poor outcome with best correction (i.e VA<6/60). (Table 10).

Rapid Assessment of Avoidable Blindness in Cox's Bazar District of Bangladesh

Summary:

- The all-age prevalence of blindness for Cox's Bazar is estimated to be 0.46%.
- The all-age magnitude of blindness for Cox's Bazar is estimated to be 9,464 people out of a population of 1.95 million.
- Avoidable causes of blindness (operated and unoperated cataract, refractive error and corneal scar) accounted for 92.2% of blindness, 96.9% of severe visual impairment and 99.7% of visual impairment.
- Cataract (76.6%) and sequelae related to cataract extraction (5.3%) accounted for 57.9% of all causes of bilateral blindness.
- Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) is responsible for 7.8% of bilateral blindness.
- 73.3% of people with bilateral cataract VA<3/60 had had surgery and 49.7% at VA<6/18.

Subjects

- A total of 2,500 individuals aged 50 years and over were examined in the survey.
- The overall response rate for the survey was 99.4% (Women 99.8%, Men 98.9%).
- Of these 2,500 subjects, 77 were bilaterally blind (<3/60 in the better eye based on presenting visual acuity, with available correction).

Crude Prevalence 50 years and older

- This corresponds to a crude prevalence of blindness of 3.02% in people aged 50 years and above (95% CI: 2.09-3.95%).
- The distribution of visual acuity status of the examined subjects is shown in table 12.

Magnitude of Blindness in Cox's Bazar district

- In people aged over 50 years in Cox's Bazar district the magnitude of blindness is estimated to be 11,195 people.
- The all-age prevalence of blindness for Cox's Bazar district is estimated to be 0.46%.

- The all-age magnitude of blindness for Cox's Bazar district is estimated to be 9,464 people out of a population of 1.95 million.

Blindness and Visual Acuity by Age

- The prevalence of blindness was associated with increasing age ranging from 0.49% in those aged 50-59 years to 33.33% in those aged 80 years and above. (Figure 3).
- Increasing age was associated with higher levels of impaired vision. In those aged 50-59, 95.52% had normal vision, compared with 45.45% in those aged 80 years and above (Figure 3).

Causes of Blindness in adults aged 50 years and older

- Avoidable causes of blindness (operated and un-operated cataract, refractive error and corneal scar) accounted for 92.2% of blindness, 96.9% of severe visual impairment and 99.7% of visual impairment.
- Cataract (76.6%) and sequelae related to cataract extraction (5.3%) accounted for 57.9% of all causes of bilateral blindness. (Table 8).
- Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) is responsible for 7.8% of bilateral blindness.(Table 13).

Cataract Surgical Coverage

- Cataract surgical coverage was relatively high; 54.9% of people with bilateral cataract VA<3/60 had had surgery and 32.6% at VA<6/18. (Table 14).
- 11.2% of the 1134 eyes that had undergone cataract surgery had a poor outcome with best correction (i.e VA<6/60). (Table 15).

Summary table of RAAB survey in 5 districts of Bangladesh

District	Total Clusters	Adult pop Examined	Blind	Prev. of blind%	Avoi. Cause of blindness %			Bi Cataract %
					blind	SVI	VI	
Narail	49	2,450	65	2.72	80	92	93.5	67.6
Jamalpur	61	3,050	57	1.91	73.7	86.8	96.2	77.9
Gazipur	50	2,500	46	1.9	71.7	77.6	94.6	73.8
Kishoreganj	61	3,050	68	2.25	82.4	90.8	94.6	69.3
Cox's Bazar	50	2,500	77	3.02	92.2	96.9	99.7	73.3

PROJECT REPORT

AIM

The aim of this study was to conduct a Rapid Assessment of Avoidable Blindness in Gazipur, Kishoreganj and Cox's Bazar districts to estimate the prevalence and causes of blindness in people aged ≥50 years.

INTRODUCTION

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

The National Blindness and Low Vision Survey of Bangladesh was conducted in Bangladesh in 2000. A nationally representative sample of 11,624 adults 30 years and older underwent detailed ophthalmic examination, of whom 1.4% were blind (95% confidence intervals 1.2%-1.6%), 80% of which was due to cataract. There was a two-fold variation in the prevalence of blindness between the richest and the poorest divisions.

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

Gazipur is situated in Dhaka division, located in the North-Eastern part of Bangladesh. It has an area of approximately 1741.53 square kilometres with a population of about 2,225,586. Gazipur consists of 6 upazillas ,46 union parishads and 1163 villages. The upazilas are Gazipur Sadar/ Joydebpur, Tongi, Kaliakair, Kaliganj, Kapasia, and Sreepur.

KIshoreganj is situated in Dhaka division, located in the North-Eastern part of Bangladesh. It has an area of approximately 2688.62 square kilometres with inhabitants of about 2,812,964. Jamalpur consists of 13 upazillas which is further subdivided into 105 union parishad and 946 mouzas and 1775 villages.

Cox's Bazar is a district in the Chittagong division in Bangladesh. It is located 150 kilometres south in Chittagong. It has an area of approximately 2491.86 square kilometers with inhabitants of about 19,35516. Cox's Bazar consists of 13 upazillas which is further subdivided into 105 union parishad and 946 mouzas and 1775 villages.

METHODS

Sample selection

Gazipur

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 3.0%, a population size of approximately 267,070 adults aged ≥50 years in Gazipur, a design effect of 1.5 for clusters of 50, and 10% non-response, the required sample size was estimated to be 2,500 subjects. In total, 50 clusters of 50 adults aged ≥50 years were required for this survey.

Kishoreganj

Similarly, allowing for a required confidence of 95%, a worst acceptable result of 3.1%, a population size of approximately 337,555 adults aged ≥50 years in Kishoreganj, a design effect of 1.5 for clusters of 50, and 10% non-response, the required sample size was estimated to be 3050 subjects. In total, 61 clusters of 50 adults aged ≥50 years were required for this survey.

Cox's Bazar

Similarly, allowing for a required confidence of 95%, a worst acceptable result of 3.1%, a population size of approximately 232,261 adults aged ≥50 years in Cox's Bazar, a design effect of 1.5 for clusters of 50, and 10% non-response, the required sample size was estimated to be 2500 subjects. In total, 50 clusters of 50 adults aged ≥50 years were required for this survey.

The clusters were selected through probability-proportionate to size sampling. Updated data from the 2001 national census was used as the sampling frame. We produced a list of all the enumeration areas

in Gazipur, Kishoreganj, and Cox's Bazar 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 neighbours. The contact details of the project ophthalmologists including the cell number were left with the neighbours 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 metre distance. All measurements were taken in full daylight with available spectacle correction. If the VA was <6/18 in either eye then pinhole vision was also measured. Categories of visual impairment were defined as:

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

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

Refresher training

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

Statistical analysis

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

ETHICAL APPROVAL

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

RESULTS - GAZIPUR

The study population consisted of 2,500 people. 71 people (2.8%) were not available and no people (0 %) refused to be examined and 11 (0.4%) were not capable so that 2,418 people were included in the survey (96.7%). Those who were unavailable were more likely to be male (77.5% of unavailable were male). The sampled population was relatively representative of the district population in terms of age and sex distribution, although elderly people (70 years and above) were slightly over-represented in the sample (Table 1).

There were 46 bilaterally blind people with available correction, giving a sample prevalence of blindness of 1.90 % (95% confidence interval (CI): 1.11-2.69 %) with an observed DEFF of 2.11 (Table 2). The prevalence of bilateral severe visual impairment was 2.03% (95% CI: 1.35-2.71%; DEFF=1.47), and the prevalence of bilateral visual impairment was 10.71% (95% CI: 9.00-12.42%; DEFF=1.92). The prevalence of bilateral blindness was higher in males (2.22%) than in females (1.61%). The prevalence of visual impairment and blindness increased rapidly with age (Figure 1). There were 45 people who were pseudophakic or aphakic in both eyes and 64 had unilateral (pseudo) aphakia. Female were more likely to have bilateral (pseudo) aphakia (2.01%) than males (1.71%).

Cataract was the primary cause of bilateral blindness (69.6%) and bilateral severe visual impairment (44.9 %) (Table 3). Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) was the second leading cause of bilateral blindness (28.3%). Cataract was responsible for the majority of the bilateral severe visual impairment (44.9%) while refractive error (30.6%) was the second leading cause. And in case of bilateral visual impairment, refractive error (73.7%) was the leading cause followed by cataract (19.7%). Avoidable causes, that is, cataract (including unoperated and post-operative complications) refractive error, and corneal scar were responsible for almost all cases of bilateral blindness (71.7%), bilateral severe visual impairment (77.6%) and bilateral visual impairment (94.6%).

Extrapolating survey data to the age- and sex- distribution of Gazipur district, in the people aged ≥50 years there were estimated to be 3138 blind men and 2581 blind women, 2,114 severely visually impaired men and 3,895 severely visually impaired women, and 14,679 visually impaired men and 15,567 visually impaired women. The age- and sex- adjusted prevalence of blindness was 2.17% 2.28% for severe visual impairment and 11.47% for visual impairment. There are a total of 6,127 people (2933 men and 3,194 women) with best corrected bilateral VA<6/60 due to cataract who require surgery.

The cataract surgical coverage (CSC) was moderately high for both people and eyes (Table 4). For people with VA < 3/60 the CSC was high (73.8%) and for eyes with cataract at VA < 3/60 the CSC was 50.7%.

Information was available on 154 eyes operated for cataract. Most of the surgeries were undertaken in private hospital (61.0%), voluntary/charitable hospitals (25.3%) or in eye camps (8.4%). Few were conducted in government hospitals (5.2%). Outcome after surgery was relatively poor (Table 5). With available correction only 74.7% of eyes achieved a good outcome (VA≥6/18) after surgery, while 12.3% had a borderline outcome (<6/18-6/60), and 13.0% had a poor outcome (<6/60). This improved with best correction so that 88.3% of eyes achieved a good outcome. Most people were very satisfied (73.4%) or partially satisfied (17.5%) with the surgery, while few were indifferent (1.3%), partially dissatisfied (3.2%) or very dissatisfied (4.5%). People with a cataract causing a VA<6/60 in the better eye were asked why they had not gone for surgery. The most common reasons were “cannot afford the operation” (59.4%) and “contra-indication” (10.9%) and “old age: no need” (6.3%).

RESULTS - KISHOREGANJ

The study population consisted of 3050 people. 13 people (0.4%) were not available and 12 people (0.4%) were not capable for examination so that 3,023 people were included in the survey (99.1%). Those who were unavailable were more likely to be male (69.2% of unavailable were male). The sampled population was relatively representative of the district population in terms of age and sex distribution (Table 6).

There were 68 bilaterally blind people with available correction, giving a sample prevalence of blindness of 2.25% (95% confidence interval (CI): 1.52-2.98%) with an observed DEFF of 1.90 (Table 7). The prevalence of bilateral severe visual impairment was 4.37% (95% CI: 3.49-5.25%; DEFF=1.46), and the prevalence of bilateral visual impairment was 3.61% (95% CI: 2.86-4.35%; DEFF=1.26). The prevalence estimates were similar in men and women. The prevalence of visual impairment and blindness increased rapidly with age (Figure 2). There were 41 people who were pseudophakic or aphakic in both eyes and 83 had unilateral (pseudo) aphakia. Men and women were equally likely to have (pseudo) aphakia but the percentage of unilateral pseudo) aphakia is slightly higher in women (3.11%) than in men (2.31%).

Cataract was the primary cause of bilateral blindness (70.6%) and bilateral severe visual impairment (82.8%) (Table 8). Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) was the second leading cause of bilateral blindness (17.6%) and that of the bilateral severe visual impairment (9.2%). Refractive error was responsible for the majority of bilateral visual impairment (68.8%), followed by cataract (24.4%) . Avoidable causes, that is, cataract (including unoperated and post-operative complications) refractive error, and corneal scar were responsible for almost all cases of bilateral blindness (82.4%), bilateral severe visual impairment (90.8%) and bilateral visual impairment (94.6%).

Extrapolating survey data to the age- and sex- distribution of Kishoreganj district, in the people aged ≥50 years there were estimated to be 2,648 blind men and 4,527 blind women, 9,889 severely visually impaired men and 11,923 severely visually impaired women, and 29,914 visually impaired men and 28,149 visually impaired women. The age- and sex- adjusted prevalence of blindness was 2.35%, 4.79% for severe visual impairment and 11.86% for visual impairment. There are a total of 15,503 people (7,202 men and 8,301 women) with best corrected bilateral VA<6/60 due to cataract who require surgery.

The cataract surgical coverage (CSC) was moderately high for both people and eyes (Table 9). For people with VA < 3/60 the CSC was high (69.3%) and for eyes with cataract at VA < 3/60 the CSC was 46.6%.

Information was available on 165 eyes operated for cataract. Most of the surgeries were undertaken in voluntary/charitable hospitals (41.8) private hospital (28.5%), or eye camps (22.4%). Few were conducted in government hospitals (7.3%). Outcome after surgery was relatively poor (Table 10). With available correction only 77.6% of eyes achieved a good outcome (VA≥6/18) after surgery, while 10.9% had a borderline outcome (<6/18-6/60), and 11.5% had a poor outcome (<6/60). This improved with best correction so that 88.5% of eyes achieved a good outcome. Most people were very satisfied (47.9%) or partially satisfied (34.5%) with the surgery, while few were indifferent (0.6%), very dissatisfied (12.1%). 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 “can not afford” (60.3%), fear of treatment (14.1%)or, “unaware of treatment” (12.8%).

RESULTS – COX'S BAZAR

The study population consisted of 2500 people. 4 people (.02%) were not available and 3 people (0.1 %) refused to be examined and 8 (0.3%) were not capable so that 2,485 people were included in the survey (99.4%). Those who were unavailable, all were male (100% of unavailable were male). The sampled population was relatively representative of the district population in terms of age and sex distribution, although elderly people (70 years and above) were slightly over-represented in the sample (Table 11).

There were 77 bilaterally blind people with available correction, giving a sample prevalence of blindness of 3.10 % (95% confidence interval (CI): 2.15-4.05 %) with an observed DEFF of 1.95 (Table 12). The prevalence of bilateral severe visual impairment was 2.58% (95% CI: 1.89-3.26%; DEFF=1.21), and the prevalence of bilateral visual impairment was 12.29% (95% CI: 11.19-14.722%; DEFF=1.78). The prevalence of bilateral blindness was higher in females (3.22%) than in males (2.96%). The prevalence of visual impairment and blindness increased rapidly with age (Figure 3). There were 37 people who were pseudophakic or aphakic in both eyes and 60 had unilateral (pseudo) aphakia. Males were more likely to have bilateral (pseudo) aphakia (1.61%) than females (1.38%).

Cataract was the primary cause of bilateral blindness (76.6%) and bilateral severe visual impairment (92.2 %) (Table 13). Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration) was the second leading cause of bilateral blindness (7.8%). Both Posterior segment disease (including glaucoma, diabetic retinopathy and age-related macular degeneration)(3.1%) and refractive error (3.1%) was the second leading cause of bilateral severe visual impairment. And in case of bilateral visual impairment, refractive error (84.5%) was the leading cause followed by cataract (14.3%). Avoidable causes, that is, cataract (including unoperated and post-operative complications) refractive error, and corneal scar were responsible for almost all cases of

bilateral blindness (92.2%), bilateral severe visual impairment (96.9%) and bilateral visual impairment (99.7%).

Extrapolating survey data to the age- and sex- distribution of Cox's Bazar district, in the people aged ≥50 years there were estimated to be 4,457 blind men and 6,738 blind women, 3,504 severely visually impaired men and 4,791 severely visually impaired women, and 18,694 visually impaired men and 12,597 visually impaired women. The age- and sex- adjusted prevalence of blindness was 4.88% 3.62% for severe visual impairment and 13.65% for visual impairment. There are a total of 15,570 people (5,778 men and 9,792 women) with best corrected bilateral VA<6/60 due to cataract who require surgery.

The cataract surgical coverage (CSC) was moderately high for both people and eyes (Table 14). For people with VA < 3/60 the CSC was high (54.9%) and for eyes with cataract at VA < 3/60 the CSC was 40.7%.

Information was available on 134 eyes operated for cataract. Most of the surgeries were undertaken in private hospital (70.9%), eye camps (23.1%). voluntary/charitable hospitals (5.2%) or in Few were conducted in government hospitals (0.7%). Outcome after surgery was relatively poor (Table 15). With available correction only 73.9% of eyes achieved a good outcome (VA≥6/18) after surgery, while 14.9% had a borderline outcome (<6/18-6/60), and 11.2% had a poor outcome (<6/60). This improved with best correction so that 84.3% of eyes achieved a good outcome. Most people were very satisfied (73.9%) or partially satisfied (19.4%) with the surgery, while few were indifferent (2.2%), partially dissatisfied (2.2%) or very dissatisfied (2.2%). People with a cataract causing a VA<6/60 in the better eye were asked why they had not gone for surgery. The most common reasons were "cannot afford the operation" (82.7%) "old age: no need" (7.3%) and "No company" (5.5).

CONCLUSION

Despite high Cataract Surgical Coverage both in Cox'sbazar, Gazipur and Kishoreganj, cataract become apparent as the major cause of blindness. Needs assessment of the districts need to be incorporated to the survey to know the existing eye-care facilities and the cataract surgical rate. Treatable blindness requires a comprehensive ophthalmologic approach. Visual outcome after cataract surgery is relatively poor. So, it can be considered as a big concern in reducing blindness. Implementing a monitoring system for cataract surgical results could sensitize surgeons to quality control, thereby improving outcomes after surgery. Efforts in raising awareness for avoidable causes of blindness has created substantial impact on people since "unaware of treatment" did not appear as the major barrier in these three districts. However, lack of uptake of surgical treatment due to financial constraints, remains the major reason for cataract still being the principal cause of avoidable blindness.

TABLES AND FIGURES

Table 1. Age and Gender composition of district and sample population- Gazipur

	Males		Females	
Age groups	District	Sample	District	Sample
50-54 yrs	43,285 (29.4%)	253 (21.6%)	34,404 (29.6%)	457 (36.7%)
55-59 yrs	27,734(18.8%)	246 (21.0%)	22,368 (19.2%)	295 (23.7%)
60-64 yrs	26,574(18.0%)	271 (23.1%)	21,409 (18.4%)	230 (18.5)
65-69 yrs	17,871 (12.1%)	120 (10.2%)	13,847 (11.9%)	111 (8.9%)
70-74 yrs	14,854 (10.1%)	125 (10.7%)	11,503 (9.9%)	86 (6.9%)
75-79 yrs	7,195(4.9%)	80 (6.8%)	5,113 (4.4%)	34 (2.7%)
80-99 yrs	9,864 (6.7%)	77 (6.6%)	7,669 (6.6%)	33 (2.6%)

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

VA with available correction	Males (n=1234)	Females (n=1266)	Total (n=2500)
VA < 3/60			
Bilateral blindness	26 (2.22%)	20 (1.61%)	46 (1.90%)
Blind eyes	120 (5.12%)	115 (4.61%)	235 (4.86%)
VA < 6/60 and VA ≥3/60			
Bilateral severe visual impairment	18 (1.54%)	31 (2.49%)	49 (2.03%)
Severe visually impaired eyes	51 (2.18%)	70 (2.81%)	121(2.50%)
VA < 6/18 and VA≥6/60			
Bilateral visual impairment	126 (10.75%)	133 (10.67%)	259 (10.71%)
Unilateral visual impairment	287 (12.24%)	302 (12.12%)	589(12.18%)
Bilateral aphakia	20 (1.71%)	25 (2.01%)	45 (1.86%)
Unilateral aphakia	33 (2.82%)	31 (2.49%)	68 (2.65%)
Aphakic eyes	73 (3.11%)	81 (3.25%)	154 (3.18%)

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

	Bilateral Blindness (VA < 3/60)	**Bilateral severe visual impairment (VA<6/60 - ≥3/60)**	**Bilateral visual impairment (VA < 6/18 - ≥6/60)**
	(n=65)	**(n=25)**	**(n=154)**
Refractive error	0 (0%)	15 (30.6%)	191 (73.7%)
Cataract, untreated	32 (69.6%)	22(44.9%)	51 (19.7%)
Aphakia, uncorrected	0 (0%)	0	2(0.8)
Surgical complications	0 (0%)	0	0
Phthysis	0	0	0
Other corneal scar	1(2.2%)	1 (2%)	1(0.4%)
Posterior segment	**13 (28.3%)**	**11(22.4%)**	**14 (5.4%)**
Globe abnormalities	1(2.2%)	0	0
Avoidable blindness	**33 (71.7 %)**	**38 (77.6%)**	**245 (94.6%)**

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

	CSC – Persons (95% CI)	CSC – Eyes (95% CI)
VA < 3/60		
Male	69.8%	48.3%
Female	78.0%	52.9%
Total	73.8%	50.7%
VA < 6/60		
Male	64.4%	42.0%
Female	65.8%	44.5%
Total	65.1%	43.3%
VA < 6/18		
Male	47.5%	31.2%
Female	51.0%	34.6%
Total	49.3%	32.9%

Table 5. Post-operative visual acuity in 154 eyes following cataract surgery, by IOL status- Gazipur.

	Non-IOL eyes (n=141)	IOL eyes (n=13)	All eyes (n=154)
Available correction			
Can see 6/18	109 (77.3%)	6 (46.2%)	115 (74.7%)
Cannot see 6/18, can see 6/60	17 (12.1%)	2 (15.4%)	19 (12.3%)
Cannot see 6/60	15 (10.6%)	5 (38.5%)	20 (13.0%)
Best correction			
Can see 6/18	127 (90.1%)	9 (69.2%)	136 (88.3%)
Cannot see 6/18, can see 6/60	5 (3.5%)	1 (7.7%)	6 (3.9%)
Cannot see 6/60	9 (6.4%)	3 (23.1%)	12 (7.8%)

Figure 1- Gazipur

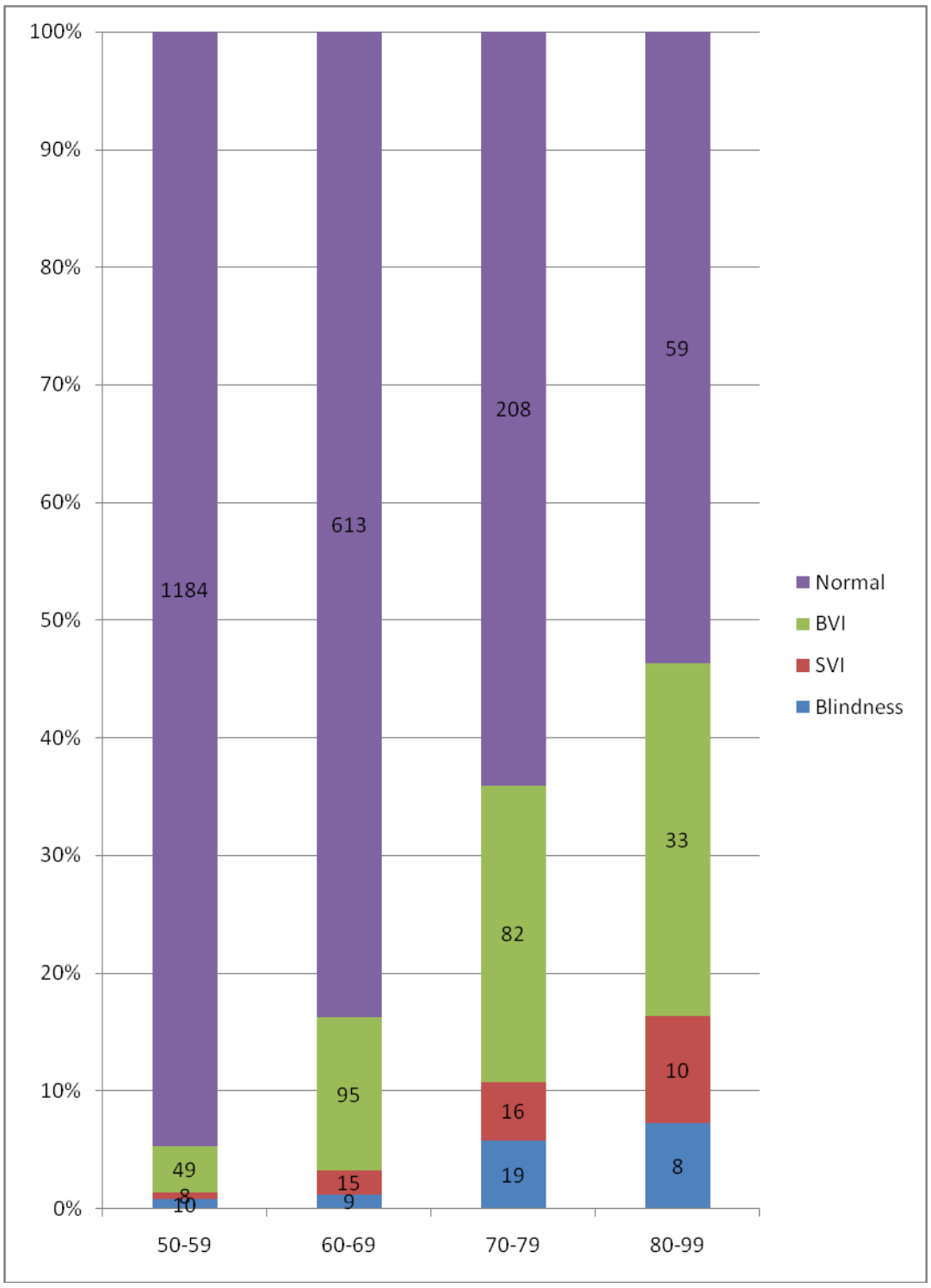


Table 6. Age and Gender composition of district and sample population- Kishoreganj

	Males		Females	
Age groups	District	Sample	District	Sample
50-54 yrs	53,509 (29.4%)	242 (17.5%)	36,522 (29.6%)	577 (35.2%)
55-59 yrs	34,286 (18.8%)	260 (18.8%)	23,745 (19.2%)	346 (21.1%)
60-64 yrs	32,851 (18.0%)	371 26.8%)	22,727 (18.4%)	332 (20.2%)
65-69 yrs	22,092 (12.1%)	201 (14.5%)	14,699 (11.9%)	143 (8.7%)
70-74 yrs	18,362 (10.1%)	166 (12.0%)	12,211 (9.9%)	114 (7.0%)
75-79 yrs	8,894 (4.9%)	72 (5.2%)	5,427(4.4%)	53 (3.2%)
80-99 yrs	12,193 (6.7%)	71 (5.1%)	8,141 (6.6%)	75 (4.6%)

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

VA with available correction	Males (n=1,401)	Females (n= 1,649)	Total (n=3050)
VA < 3/60			
Bilateral blindness	21 (1.52%)	47 (2.87%)	68 (2.25%)
Blind eyes	114 (4.12%)	182 (5.55%)	296 (4.90%)
VA < 6/60 and VA ≥3/60			
Bilateral severe visual impairment	64 (4.63%)	78 (4.76%)	142 (4.70%)
Severe visually impaired eyes	152 (5.50%)	183 (5.58%)	335 (5.54%)
VA < 6/18 and VA≥6/60			
Bilateral visual impairment	162 (11.71%)	187 (11.40%)	349 (11.54%)
Moderate visual impairment eyes	338 (12.22%)	370 (11.28%)	708 (11.71%)
Bilateral aphakia	22 (1.59%)	19 (1.16%)	41 (1.36%)
Unilateral aphakia	32 (2.31%)	51 (3.11%)	83 (2.75%)
Aphakic eyes	76 (2.75%)	89 (2.71%)	165 (2.73%)

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

	Bilateral Blindness (VA < 3/60)	Bilateral severe visual impairment (VA<6/60 - ≥3/60)	Bilateral visual impairment (VA < 6/18 - ≥6/60)
	(n=57)	**(n=38)**	**(n=235)**
Refractive error	0 (0%)	9 (6.3%)	240 (68.8%)
Cataract, untreated	48 (70.6%)	117 (82.4%)	85 (24.4%)
Aphakia, uncorrected	0 (0%)	1(0.7%)	5 (1.4%)
Surgical complications	0 (0%)	0	0
Phthysis	2 (2.9%)	0	0
Other corneal scar	6 (8.8%)	2 (1.4%)	0
Posterior segment	**12 (17.6%)**	**13 (9.2%)**	**19 (5.4%)**
Globe abnormalities	1 (1.5%)	0	0
Avoidable blindness	**56 (82.4 %)**	**129 (90.8%)**	**330(94.6%)**

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

	CSC – Persons (95% CI)	CSC – Eyes (95% CI)
VA < 3/60		
Male	80.4%	55.5%
Female	61.8%	41.0%
Total	69.3%	46.6%
VA < 6/60		
Male	44.9%	28.8%
Female	42.2%	25.4%
Total	43.2%	26.9%
VA < 6/18		
Male	34.0%	22.5%
Female	33.2%	20.9%
Total	33.5%	21.6%

Table 10. Post-operative visual acuity in 164 eyes following cataract surgery, by IOL status- Kishoreganj

	Non-IOL eyes (n=18)	IOL eyes (n=147)	All eyes (n=165)
Available correction			
Can see 6/18	9 (50.0%)	111 (81.0%)	128 (77.6%)
Cannot see 6/18, can see 6/60	7 (38.9%)	11 (7.5%)	18(10.9%)
Cannot see 6/60	2 (11.1%)	17 (11.6%)	19 (11.5%)
Best correction			
Can see 6/18	16 (88.9%)	130 (88.4%)	146 (88.5%)
Cannot see 6/18, can see 6/60	1 (5.6%)	0 (0.0%)	1 (0.6%)
Cannot see 6/60	1 (5.6%)	17 (11.6%)	18 (10.9%)

Figure-2: Kishoreganj

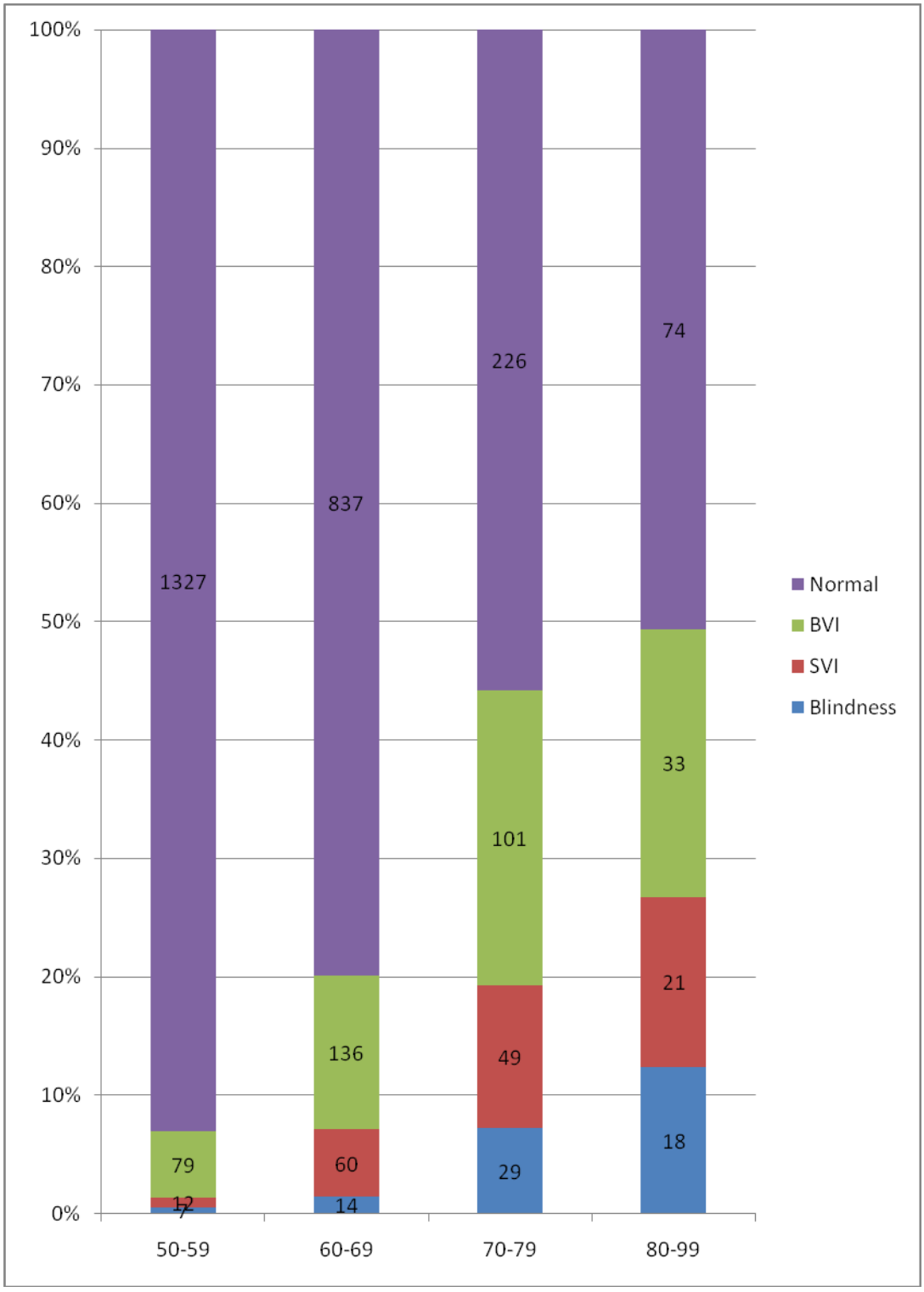


Table 11. Age and Gender composition of district and sample population- Cox's Bazar

	Males		Females	
Age groups	District	Sample	District	Sample
50-54 yrs	37,563 (29.4%)	142 (12.6%)	29,988 (29.6%)	676 (27.2%)
55-59 yrs	24,068(18.8%)	207 (17.5%)	19,497 (19.2%)	531 (21.4%)
60-64 yrs	23,061 (18.0%)	413(30.0%)	18,661 (18.4%)	677 (27.2%)
65-69 yrs	15,508 (12.1%)	229 (19.4%)	12,069 (11.9%)	311 (12.5%)
70-74 yrs	12,890 (10.1%)	106 (9.0%)	10,027 (9.9%)	171 (6.9%)
75-79 yrs	6,243 (4.9%)	35 (3.0%)	4,450(4.4%)	53 (2.1%)
80-99 yrs	8,560 (6.7%)	42 (3.6%)	6,684 (6.6%)	66 (2.7%)

Table12. Distribution by visual acuity with available correction in the better eye in adults aged 50 years and older- Cox's Bazar

VA with available correction	Males (n=1,194)	Females (n= 1,306)	Total (n=2500)
VA < 3/60			
Bilateral blindness	35 (2.96%)	42 (3.22%)	77 (3.10%)
Blind eyes	129 (5.46%)	142 (5.44%)	271 (5.45%)
VA < 6/60 and VA ≥3/60			
Bilateral severe visual impairment	27 (2.29%)	37 (2.84%)	64 (2.58%)
Severe visually impaired eyes	69 (2.92%)	71 (2.72%)	140 (2.82%)
VA < 6/18 and VA≥6/60			
Bilateral visual impairment	202 (17.10%)	120 (9.20%)	322 (12.96%)
Moderate visual impairment eyes	395 (16.62%)	239 (9.16%)	634 (12.76%)

Bilateral aphakia	19 (1.61%)	18 (1.38%)	37 (1.49%)
Unilateral aphakia	36 (3.05%)	24 (1.84%)	60 (2.41%)
Aphakic eyes	74 (3.13%)	60 (2.30%)	134 (2.70%)

Table 13. Cause of blindness, severe visual impairment and visual impairment in people with available correction- Cox's Bazar

	Bilateral Blindness (VA < 3/60)	**Bilateral severe visual impairment (VA<6/60 - ≥3/60)**	**Bilateral visual impairment (VA < 6/18 - ≥6/60)**
	(n=57)	**(n=38)**	**(n=235)**
Refractive error	1 (1.3%)	2 (3.1%)	272 (84.5%)
Cataract, untreated	59 (76.6%)	59 (92.2%)	46 (14.3%)
Aphakia, uncorrected	1 (1.3%)	0(0%)	0
Surgical complications	1 (1.3%)	1(1.6%)	3(0.9%)
Phthysis	3 (3.9%)	0	0
Other corneal scar	6 (7.8%)	0	0
Posterior segment	**6 (7.8%)**	**2 (3.1%)**	**1 (0.3%)**
Globe abnormalities	0 (0%)	0	0
Avoidable blindness	**71 (92.2 %)**	**62 (96.9%)**	**321(99.7%)**

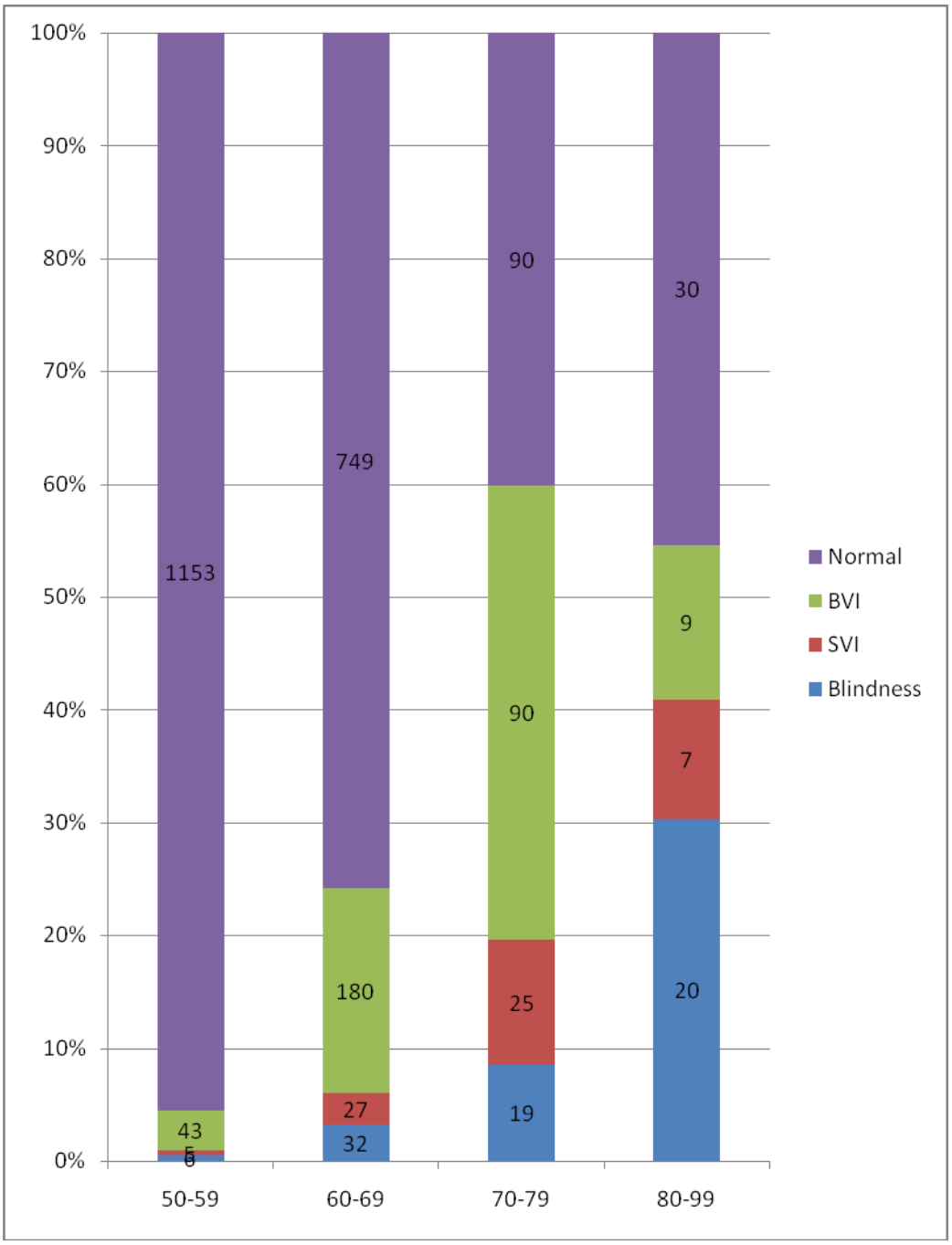
Table 14. Cataract surgical coverage (CSC) by person and eyes in people aged ≥50 years (best correction) Cox's Bazar

	CSC – Persons (95% CI)	CSC – Eyes (95% CI)
VA < 3/60		
Male	62.1%	47.1%
Female	48.4%	34.9%
Total	54.9%	40.7%
VA < 6/60		
Male	47.7%	33.6%
Female	34.0%	25.1%
Total	40.3%	29.2%
VA < 6/18		
Male	37.6%	28.6%
Female	28.2%	21.4%
Total	32.6%	24.9%

Table 15. Post-operative visual acuity in 164 eyes following cataract surgery, by IOL status- Cox's Bazar

	Non-IOL eyes (n=16)	IOL eyes (n=118)	All eyes (n=134)
Available correction			
Can see 6/18	9 (56.3%)	90 (76.3%)	99 (73.9%)
Cannot see 6/18, can see 6/60	2 (12.5%)	18 (15.3%)	20(14.9%)
Cannot see 6/60	5 (31.3%)	10 (8.5%)	15 (11.2%)
Best correction			
Can see 6/18	9 (56.3%)	104 (88.1%)	113 (84.3%)
Cannot see 6/18, can see 6/60	2 (12.5%)	4 (3.4%)	6 (4.5%)
Cannot see 6/60	5 (31.3%)	10 (8.5%)	15 (11.2%)

Figure-3: Cox's Bazar



SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 1/2/2011 11:32:29A

This report is for the survey area: Gazipur

Year and month when survey was conducted: 2010- 6 until 2010- 6

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

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

	Total eligible		Examined		Not available		Refused		Not capable		Coverage
	n	%	n	%	n	%	n	%	n	%	
Males	1,234	49.4%	1,172	48.5%	55	77.5%	0		7	700.0%	95.0%
Females	1,266	50.6%	1,246	51.5%	16	22.5%	0		4	400.0%	98.4%
Total	2,500		2,418	96.7%	71	2.8%	0	0.0%	11	0.4%	96.7%

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

	Examined	Not available	Not capable	Total
Males	61.7	62.7	80.7	61.8
Females	58.0	63.4	72.5	58.2
Total	59.8	62.9	77.7	60.0

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

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with best correction or pinhole (WHO definition)						
All bilateral blindness	26	2.22	20	1.61	46	1.90
All blind eyes	118	5.03	114	4.57	232	4.80
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	26	2.22	20	1.61	46	1.90
All blind eyes	120	5.12	115	4.61	235	4.86
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in the better eye, with available correction						
All bilateral SVI	18	1.54	31	2.49	49	2.03
All SVI eyes	51	2.18	70	2.81	121	2.50
Visual Impairment (VI) - VA<6/18 - 6/60 in the better eye, with available correction						
All bilateral VI	126	10.75	133	10.67	259	10.71
All VI eyes	287	12.24	302	12.12	589	12.18

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

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	26	2.22	20	1.61	46	1.90
All blind eyes	120	5.12	115	4.61	235	4.86
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	44	3.75	51	4.09	95	3.93
All eyes	171	7.30	185	7.42	356	7.36
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	170	14.51	184	14.77	354	14.64
All eyes	458	19.54	487	19.54	945	19.54

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	0	0.0%	0	0.0%
Cataract, untreated	19	73.1%	13	65.0%	32	69.6%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**19**	**73.1%**	**13**	**65.0%**	**32**	**69.6%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	1	3.8%	0	0.0%	1	2.2%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**3.8%**	**0**	**0.0%**	**1**	**2.2%**
Total avoidable	**20**	**76.9%**	**13**	**65.0%**	**33**	**71.7%**
Glaucoma	3	11.5%	2	10.0%	5	10.9%
Diabetic retinopathy	0	0.0%	1	5.0%	1	2.2%
Potentially preventable*	**3**	**11.5%**	**3**	**15.0%**	**6**	**13.0%**
Globe abnormality	1	3.8%	0	0.0%	1	2.2%
ARMD	1	3.8%	0	0.0%	1	2.2%
Other post. segment / CNS	1	3.8%	4	20.0%	5	10.9%
Total posterior segment	**6**	**23.1%**	**7**	**35.0%**	**13**	**28.3%**
	26	**100.0%**	**20**	**100.0%**	**46**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	2	1.7%	0	0.0%	2	0.9%
Cataract, untreated	76	63.3%	71	61.7%	147	62.6%
Aphakia, uncorrected	0	0.0%	1	0.9%	1	0.4%
Total curable	**78**	**65.0%**	**72**	**62.6%**	**150**	**63.8%**
Surgical complications	1	0.8%	0	0.0%	1	0.4%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	8	6.7%	6	5.2%	14	6.0%
Other corneal scar	10	8.3%	8	7.0%	18	7.7%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**19**	**15.8%**	**14**	**12.2%**	**33**	**14.0%**
Total avoidable	**97**	**80.8%**	**86**	**74.8%**	**183**	**77.9%**
Glaucoma	6	5.0%	5	4.3%	11	4.7%
Diabetic retinopathy	1	0.8%	3	2.6%	4	1.7%
Potentially preventable*	**7**	**5.8%**	**8**	**7.0%**	**15**	**6.4%**
Globe abnormality	3	2.5%	4	3.5%	7	3.0%
ARMD	6	5.0%	1	0.9%	7	3.0%
Other post. segment / CNS	7	5.8%	16	13.9%	23	9.8%
Total posterior segment	**23**	**19.2%**	**29**	**25.2%**	**52**	**22.1%**
	120	**100.0%**	**115**	**100.0%**	**235**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	6	33.3%	9	29.0%	15	30.6%
Cataract, untreated	8	44.4%	14	45.2%	22	44.9%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**14**	**77.8%**	**23**	**74.2%**	**37**	**75.5%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	1	3.2%	1	2.0%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**0**	**0.0%**	**1**	**3.2%**	**1**	**2.0%**
Total avoidable	**14**	**77.8%**	**24**	**77.4%**	**38**	**77.6%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	1	5.6%	2	6.5%	3	6.1%
Potentially preventable*	**1**	**5.6%**	**2**	**6.5%**	**3**	**6.1%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	2	11.1%	3	9.7%	5	10.2%
Other post. segment / CNS	1	5.6%	2	6.5%	3	6.1%
Total posterior segment	**4**	**22.2%**	**7**	**22.6%**	**11**	**22.4%**
	18	**100.0%**	**31**	**100.0%**	**49**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	16	31.4%	22	31.4%	38	31.4%
Cataract, untreated	23	45.1%	32	45.7%	55	45.5%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**39**	**76.5%**	**54**	**77.1%**	**93**	**76.9%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	2	3.9%	2	2.9%	4	3.3%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**2**	**3.9%**	**2**	**2.9%**	**4**	**3.3%**
Total avoidable	**41**	**80.4%**	**56**	**80.0%**	**97**	**80.2%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	3	5.9%	4	5.7%	7	5.8%
Potentially preventable*	**3**	**5.9%**	**4**	**5.7%**	**7**	**5.8%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	6	11.8%	7	10.0%	13	10.7%
Other post. segment / CNS	1	2.0%	3	4.3%	4	3.3%
Total posterior segment	**10**	**19.6%**	**14**	**20.0%**	**24**	**19.8%**
	51	**100.0%**	**70**	**100.0%**	**121**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	94	74.6%	97	72.9%	191	73.7%
Cataract, untreated	26	20.6%	25	18.8%	51	19.7%
Aphakia, uncorrected	1	0.8%	1	0.8%	2	0.8%
Total curable	**121**	**96.0%**	**123**	**92.5%**	**244**	**94.2%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	1	0.8%	1	0.4%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**0**	**0.0%**	**1**	**0.8%**	**1**	**0.4%**
Total avoidable	**121**	**96.0%**	**124**	**93.2%**	**245**	**94.6%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	1	0.8%	1	0.4%
Potentially preventable*	**0**	**0.0%**	**1**	**0.8%**	**1**	**0.4%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	5	4.0%	7	5.3%	12	4.6%
Other post. segment / CNS	0	0.0%	1	0.8%	1	0.4%
Total posterior segment	**5**	**4.0%**	**9**	**6.8%**	**14**	**5.4%**
	126	**100.0%**	**133**	**100.0%**	**259**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	214	74.6%	226	74.8%	440	74.7%
Cataract, untreated	60	20.9%	49	16.2%	109	18.5%
Aphakia, uncorrected	1	0.3%	1	0.3%	2	0.3%
Total curable	**275**	**95.8%**	**276**	**91.4%**	**551**	**93.5%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	1	0.3%	1	0.3%	2	0.3%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**0.3%**	**1**	**0.3%**	**2**	**0.3%**
Total avoidable	**276**	**96.2%**	**277**	**91.7%**	**553**	**93.9%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	1	0.3%	1	0.2%
Potentially preventable*	**0**	**0.0%**	**1**	**0.3%**	**1**	**0.2%**
Globe abnormality	1	0.3%	0	0.0%	1	0.2%
ARMD	10	3.5%	20	6.6%	30	5.1%
Other post. segment / CNS	0	0.0%	4	1.3%	4	0.7%
Total posterior segment	**11**	**3.8%**	**25**	**8.3%**	**36**	**6.1%**
	287	**100.0%**	**302**	**100.0%**	**589**	**100.0%**

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

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

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Cataract blindness with VA<3/60 with best correction or pinhole						
Bilateral cataract blind	19	1.62	13	1.04	32	1.32
Unilateral cataract blind	40	3.41	46	3.69	86	3.56
Cataract blind eyes	78	3.33	72	2.89	150	3.10
Cataract with VA<6/60 with best correction or pinhole						
Bilateral cataract	26	2.22	25	2.01	51	2.11
Cataract eyes	101	4.31	101	4.05	202	4.18
Cataract with VA<6/18 with best correction or pinhole						
Bilateral cataract	52	4.44	50	4.01	102	4.22
Cataract eyes	161	6.87	153	6.14	314	6.49

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

11. Sample prevalence of (pseudo)aphakia

	Male		Female		Total	
	n	%	n	%	n	%
Bilateral (pseudo)aphakia	20	1.71	25	2.01	45	1.86
Unilateral (pseudo)aphakia	33	2.82	31	2.49	64	2.65
(Pseudo)aphakic eyes	73	3.11	81	3.25	154	3.18

12. Cataract Surgical Coverage

Cataract Surgical Coverage (eyes) - percentage

	Male	Female	Total
VA < 3/60	48.3	52.9	50.7
VA < 6/60	42.0	44.5	43.3
VA < 6/18	31.2	34.6	32.9

Cataract Surgical Coverage (persons) - percentage

	Male	Female	Total
VA < 3/60	69.8	78.0	73.8
VA < 6/60	64.4	65.8	65.1
VA < 6/18	47.5	51.0	49.3

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

	Male		Female		Total	
	n	%	n	%	n	%
First eyes	53	72.6	56	69.1	109	70.8
Second eyes	20	27.4	25	30.9	45	29.2

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

	Male		Female		Total	
Age group	n	%	n	%	n	%
50 to 54 yrs	3	1.2	5	1.1	8	1.1
55 to 59 yrs	0	0.0	3	1.0	3	0.6
60 to 64 yrs	2	0.7	6	2.6	8	1.6
65 to 69 yrs	1	0.8	1	0.9	2	0.9
70 to 74 yrs	2	1.6	2	2.3	4	1.9
75 to 79 yrs	1	1.3	1	2.9	2	1.8
80 + yrs	4	5.2	3	9.1	7	6.4
Total	**13**	**1.1**	**21**	**1.7**	**34**	**1.4**

15. Comparison responders versus non-responders

	Non-responders		Responders	
	n	%	n	%
Not blind	150	91.5%	4,447	92.0%
Blind due to cataract	9	5.5%	150	3.1%
Blind due to other causes	4	2.4%	85	1.8%
Operated for	1	0.6%	154	3.2%
Total	164	100.0%	4,836	100.0%

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

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

Date and time of report: 1/2/2011 11:35:34A

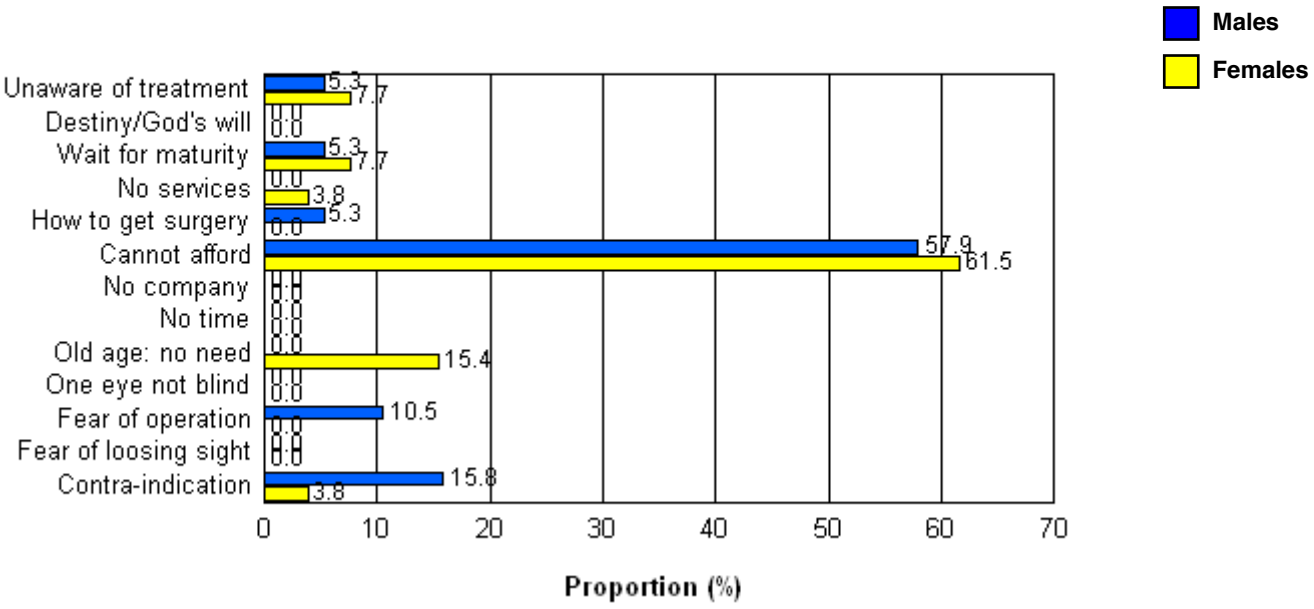
This report is for the survey area: Gazipur

Year and month when the survey was conducted: 2010- 6 until 2010- 6

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

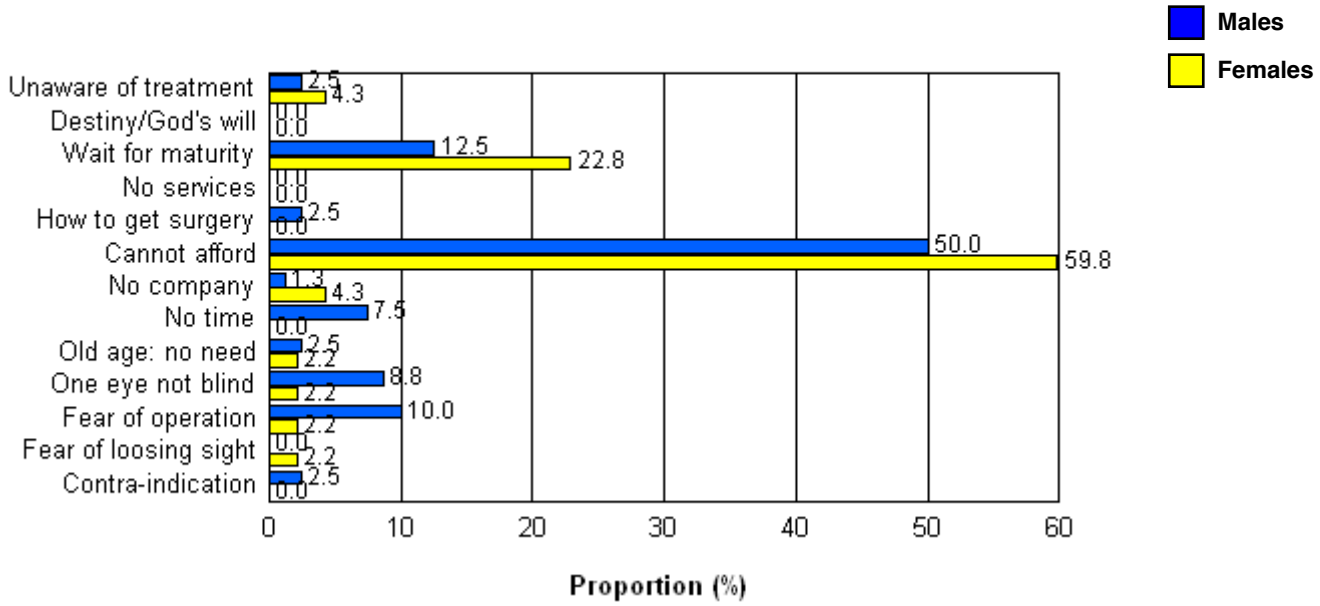
1. Barriers to cataract surgery, as indicated by persons in sample, bilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	2	5.3	2	7.7	4	6.3
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	2	5.3	2	7.7	4	6.3
No services	0	0.0	1	3.8	1	1.6
How to get surgery	2	5.3	0	0.0	2	3.1
Cannot afford	22	57.9	16	61.5	38	59.4
No company	0	0.0	0	0.0	0	0.0
No time	0	0.0	0	0.0	0	0.0
Old age: no need	0	0.0	4	15.4	4	6.3
One eye not blind	0	0.0	0	0.0	0	0.0
Fear of operation	4	10.5	0	0.0	4	6.3
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	6	15.8	1	3.8	7	10.9
All barriers	**38**	**100.0 %**	**26**	**100.0 %**	**64**	**100.0 %**



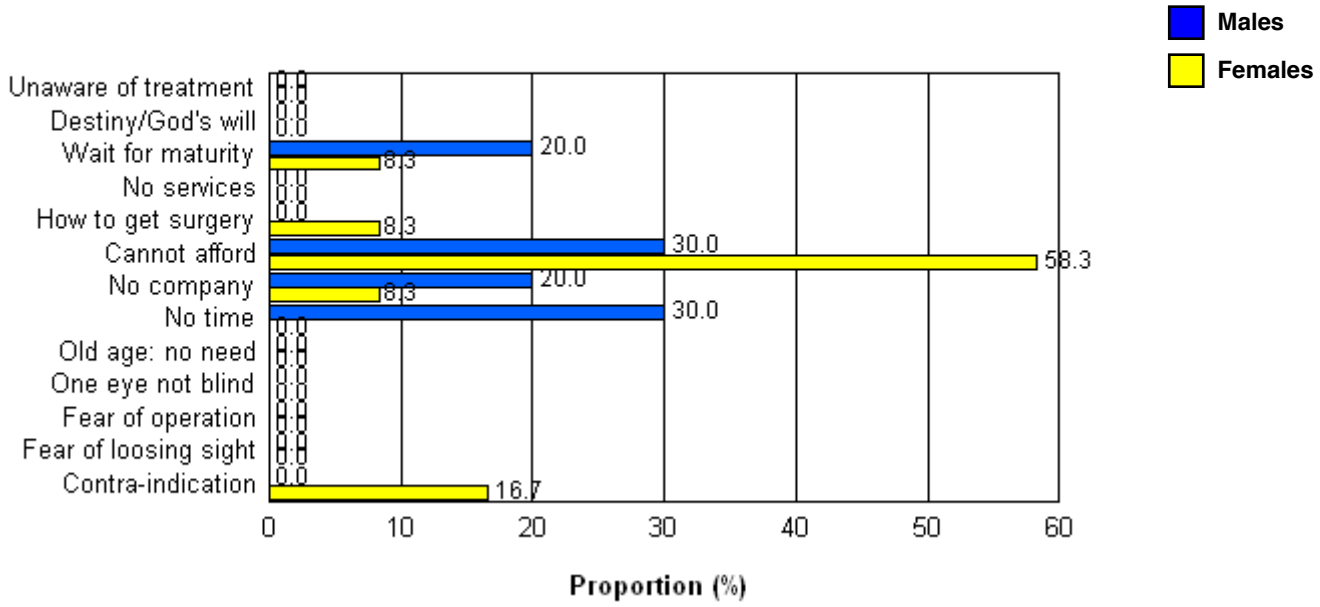
2. Barriers to cataract surgery, as indicated by persons in sample, unilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	2	2.5	4	4.3	6	3.5
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	10	12.5	21	22.8	31	18.0
No services	0	0.0	0	0.0	0	0.0
How to get surgery	2	2.5	0	0.0	2	1.2
Cannot afford	40	50.0	55	59.8	95	55.2
No company	1	1.3	4	4.3	5	2.9
No time	6	7.5	0	0.0	6	3.5
Old age: no need	2	2.5	2	2.2	4	2.3
One eye not blind	7	8.8	2	2.2	9	5.2
Fear of operation	8	10.0	2	2.2	10	5.8
Fear of loosing sight	0	0.0	2	2.2	2	1.2
Contra-indication	2	2.5	0	0.0	2	1.2
All barriers	**80**	**100.0 %**	**92**	**100.0 %**	**172**	**100.0 %**



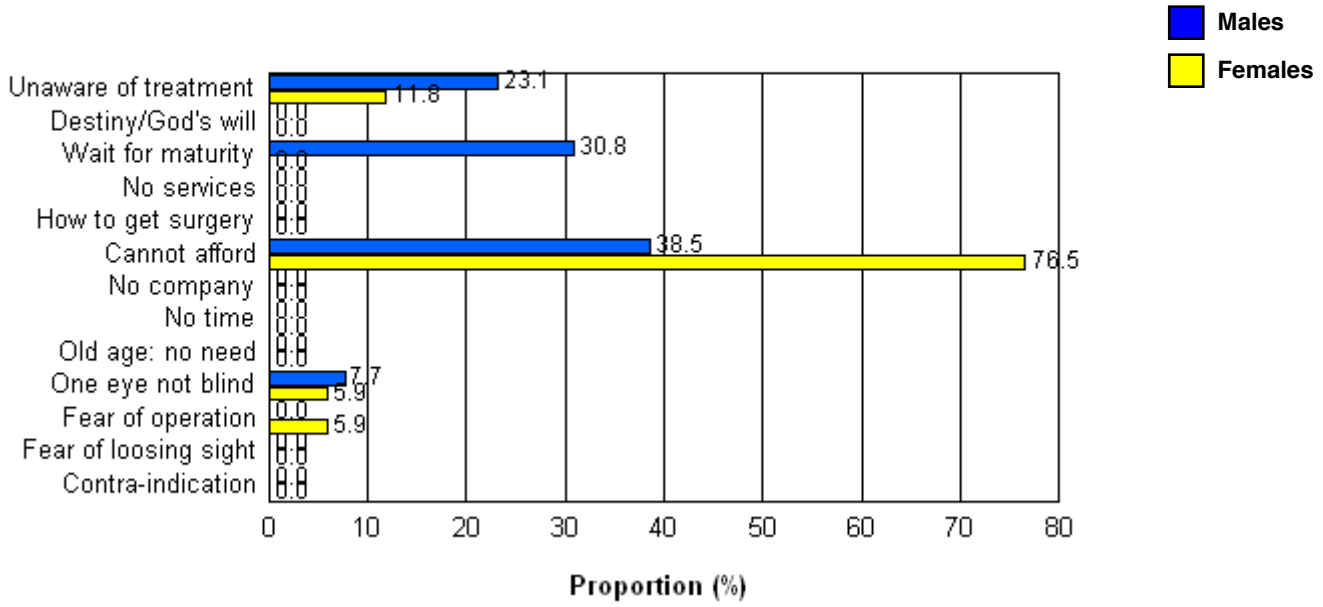
3. Barriers to cataract surgery, as indicated by persons in sample, with bilateral severe visual impairment due to cataract (VA<6/60 - 3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	0	0.0	0	0.0	0	0.0
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	2	20.0	1	8.3	3	13.6
No services	0	0.0	0	0.0	0	0.0
How to get surgery	0	0.0	1	8.3	1	4.5
Cannot afford	3	30.0	7	58.3	10	45.5
No company	2	20.0	1	8.3	3	13.6
No time	3	30.0	0	0.0	3	13.6
Old age: no need	0	0.0	0	0.0	0	0.0
One eye not blind	0	0.0	0	0.0	0	0.0
Fear of operation	0	0.0	0	0.0	0	0.0
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	0	0.0	2	16.7	2	9.1
All barriers	**10**	**100.0 %**	**12**	**100.0 %**	**22**	**100.0 %**



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

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	6	23.1	4	11.8	10	16.7
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	8	30.8	0	0.0	8	13.3
No services	0	0.0	0	0.0	0	0.0
How to get surgery	0	0.0	0	0.0	0	0.0
Cannot afford	10	38.5	26	76.5	36	60.0
No company	0	0.0	0	0.0	0	0.0
No time	0	0.0	0	0.0	0	0.0
Old age: no need	0	0.0	0	0.0	0	0.0
One eye not blind	2	7.7	2	5.9	4	6.7
Fear of operation	0	0.0	2	5.9	2	3.3
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	0	0.0	0	0.0	0	0.0
All barriers	**26**	**100.0 %**	**34**	**100.0 %**	**60**	**100.0 %**



VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

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

Date and time of the report: 1/2/2011 11:37:33A

This report is for the survey area Gazipur

Year and month when survey was completed: 2010- 6 until 2010- 6

The visual acuity of all subjects operated earlier is measured with available correction and with a pinhole. This report gives
population based data on visual outcome, not specific for one surgeon or one hospital and with follow-up periods ranging from one month to several decades. When cataract surgery took place several years earlier, the chance of 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%,

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	109	77.3%	6	46.2%	0	0.0%	115	74.7%
Cannot see 6/18, can see 6/60	17	12.1%	2	15.4%	0	0.0%	19	12.3%
Cannot see 6/60	15	10.6%	5	38.5%	0	0.0%	20	13.0%
Total	**141**	**100.0%**	**13**	**100.0%**	**0**	**100.0%**	**154**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	127	90.1%	9	69.2%	0	0.0%	136	88.3%
Cannot see 6/18, can see 6/60	5	3.5%	1	7.7%	0	0.0%	6	3.9%
Cannot see 6/60	9	6.4%	3	23.1%	0	0.0%	12	7.8%
Total	**141**	**100.0%**	**13**	**100.0%**	**0**	**100.0%**	**154**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	77	78.6%	0		0	0.0%	77	78.6%
Cannot see 6/18, can see 6/60	12	12.2%	0		0	0.0%	12	12.2%
Cannot see 6/60	9	9.2%	0		0	0.0%	9	9.2%
Total	**98**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	**98**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	90	91.8%	0		0	0.0%	90	91.8%
Cannot see 6/18, can see 6/60	2	2.0%	0		0	0.0%	2	2.0%
Cannot see 6/60	6	6.1%	0		0	0.0%	6	6.1%
Total	**98**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	**98**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	32	74.4%	6	46.2%	0	0.0%	38	67.9%
Cannot see 6/18, can see 6/60	5	11.6%	2	15.4%	0	0.0%	7	12.5%
Cannot see 6/60	6	14.0%	5	38.5%	0	0.0%	11	19.6%
Total	**43**	**100.0%**	**13**	**100.0%**	**0**	**100.0%**	**56**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	37	86.0%	9	69.2%	0	0.0%	46	82.1%
Cannot see 6/18, can see 6/60	3	7.0%	1	7.7%	0	0.0%	4	7.1%
Cannot see 6/60	3	7.0%	3	23.1%	0	0.0%	6	10.7%
Total	**43**	**100.0%**	**13**	**100.0%**	**0**	**100.0%**	**56**	**100.0%**

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

Age group	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
45 to 49	2	3.0%	0	0.0%	0	0.0%	2	2.7%
50 to 54	4	6.1%	1	14.3%	0	0.0%	5	6.8%
55 to 59	11	16.7%	0	0.0%	0	0.0%	11	15.1%
60 to 64	19	28.8%	0	0.0%	0	0.0%	19	26.0%
65 to 69	14	21.2%	2	28.6%	0	0.0%	16	21.9%
70 to 74	7	10.6%	4	57.1%	0	0.0%	11	15.1%
75 to 79	6	9.1%	0	0.0%	0	0.0%	6	8.2%
80 and older	3	4.5%	0	0.0%	0	0.0%	3	4.1%
Total	**66**	**100.0%**	**7**	**100.0%**	**0**	**100.0%**	**73**	**100.0%**

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

Age group	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Below 30 yrs	0	0.0%	2	33.3%	0	0.0%	2	2.5%
45 to 49	4	5.3%	0	0.0%	0	0.0%	4	4.9%
50 to 54	11	14.7%	1	16.7%	0	0.0%	12	14.8%
55 to 59	21	28.0%	1	16.7%	0	0.0%	22	27.2%
60 to 64	11	14.7%	2	33.3%	0	0.0%	13	16.0%
65 to 69	14	18.7%	0	0.0%	0	0.0%	14	17.3%
70 to 74	9	12.0%	0	0.0%	0	0.0%	9	11.1%
75 to 79	1	1.3%	0	0.0%	0	0.0%	1	1.2%
80 and older	4	5.3%	0	0.0%	0	0.0%	4	4.9%
Total	**75**	**100.0%**	**6**	**100.0%**	**0**	**100.0%**	**81**	**100.0%**

9. Place of surgery by sex

	Males n	Males %	Females n	Females %	Total n	Total %
Government hospital	4	5.5%	4	4.9%	8	5.2%
Voluntary/Charitable hospital	20	27.4%	19	23.5%	39	25.3%
Private hospital	41	56.2%	53	65.4%	94	61.0%
Eye camp/Improvised setting	8	11.0%	5	6.2%	13	8.4%
Total	**73**	**100.0%**	**81**	**100.0%**	**154**	**100.0%**

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

Top: with IOL Bottom: without IOL	Govt. Hosp. eyes	 %	Vol. Hosp. eyes	 %	Pvt. Hosp. eyes	 %	Eye camp eyes	 %	Traditional eyes	 %
Can see 6/18	5	83.3%	27	75.0%	73	79.3%	4	57.1%	0	
Cannot see 6/18, can see 6/60	0	0.0%	3	8.3%	12	13.0%	2	28.6%	0	
Cannot see 6/60	1	16.7%	6	16.7%	7	7.6%	1	14.3%	0	
Total	**6**	**100.0%**	**36**	**100.0%**	**92**	**100.0%**	**7**	**100.0%**	**0**	**100.0%**
Can see 6/18	0	0.0%	2	66.7%	0	0.0%	4	66.7%	0	
Cannot see 6/18, can see 6/60	0	0.0%	1	33.3%	1	50.0%	0	0.0%	0	
Cannot see 6/60	2	100.0%	0	0.0%	1	50.0%	2	33.3%	0	
Total	**2**	**100.0%**	**3**	**100.0%**	**2**	**100.0%**	**6**	**100.0%**	**0**	**100.0%**

11. Use of spectacles by sex

	Males n	 %	Females n	 %	Total n	 %
Without glasses	58	79.5%	69	85.2%	127	82.5%
With glasses	15	20.5%	12	14.8%	27	17.5%
Total	**73**	**100.0%**	**81**	**100.0%**	**154**	**100.0%**

12. Are you satisfied with results of cataract surgery?

	Males n	 %	Females n	 %	Total n	 %
Very satisfied	53	72.6%	60	74.1%	113	73.4%
Partially satisfied	15	20.5%	12	14.8%	27	17.5%
Indifferent	2	2.7%	0	0.0%	2	1.3%
Partially dissatisfied	3	4.1%	2	2.5%	5	3.2%
very dissatisfied	0	0.0%	7	8.6%	7	4.5%
Total	**73**	**100.0%**	**81**	**100.0%**	**154**	**100.0%**

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

Top: with IOL Bottom: without IOL	Very satisfied eyes	 %	Part. satisfied eyes	 %	Indifferent eyes	 %	Part. unsat. eyes	 %	Very unsat. eyes	 %
Can see 6/18	102	91.9%	7	33.3%	0	0.0%	0	0.0%	0	0.0%
Cannot see 6/18, can see 6/60	9	8.1%	8	38.1%	0	0.0%	0	0.0%	0	0.0%
Cannot see 6/60	0	0.0%	6	28.6%	2	100.0%	3	100.0%	4	100.0%
Total	**111**	**100.0%**	**21**	**100.0%**	**2**	**100.0%**	**3**	**100.0%**	**4**	**100.0%**
Can see 6/18	2	100.0%	4	66.7%	0		0	0.0%	0	0.0%
Cannot see 6/18, can see 6/60	0	0.0%	2	33.3%	0		0	0.0%	0	0.0%
Cannot see 6/60	0	0.0%	0	0.0%	0		2	100.0%	3	100.0%
Total	**2**	**100.0%**	**6**	**100.0%**	**0**	**100.0%**	**2**	**100.0%**	**3**	**100.0%**

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

Top: with IOL Bottom: without IOL	Selection eyes	 %	Surgery eyes	 %	Spectacles eyes	 %	Sequelae eyes	 %	No relation eyes	 %
Can see 6/18	0	0.0%	0	0.0%	0	0.0%	0		60	95.2%
Cannot see 6/18, can see 6/60	0	0.0%	0	0.0%	7	70.0%	0		2	3.2%
Cannot see 6/60	4	100.0%	1	100.0%	3	30.0%	0		1	1.6%
Total	**4**	**100.0%**	**1**	**100.0%**	**10**	**100.0%**	**0**	**100.0%**	**63**	**100.0%**

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

Top: with IOL Bottom: without IOL	Selection eyes	 %	Surgery eyes	 %	Spectacles eyes	 %	Sequelae eyes	 %	No relation eyes	 %
Can see 6/18	0	0.0%	0		0	0.0%	0		49	98.0%
Cannot see 6/18, can see 6/60	0	0.0%	0		8	72.7%	0		0	0.0%
Cannot see 6/60	2	100.0%	0		3	27.3%	0		1	2.0%
Total	**2**	**100.0%**	**0**	**100.0%**	**11**	**100.0%**	**0**	**100.0%**	**50**	**100.0%**
Can see 6/18	0	0.0%	0	0.0%	0	0.0%	0	0.0%	6	100.0%
Cannot see 6/18, can see 6/60	0	0.0%	0	0.0%	1	33.3%	1	100.0%	0	0.0%
Cannot see 6/60	2	100.0%	1	100.0%	2	66.7%	0	0.0%	0	0.0%
Total	**2**	**100.0%**	**1**	**100.0%**	**3**	**100.0%**	**1**	**100.0%**	**6**	**100.0%**

16. Proportion and type of surgery

	Males n	 %	Females n	 %	Total n	 %
With IOL	66	90.4%	75	92.6%	141	91.6%
Without IOL	7	9.6%	6	7.4%	13	8.4%
Total	**73**	**100.0%**	**81**	**100.0%**	**154**	**100.0%**

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

Date and time of report: 1/2/2011 11:39:01A

This report is for the survey area Gazipur

Year and month when survey was conducted: 2010- 6 until 2010- 6

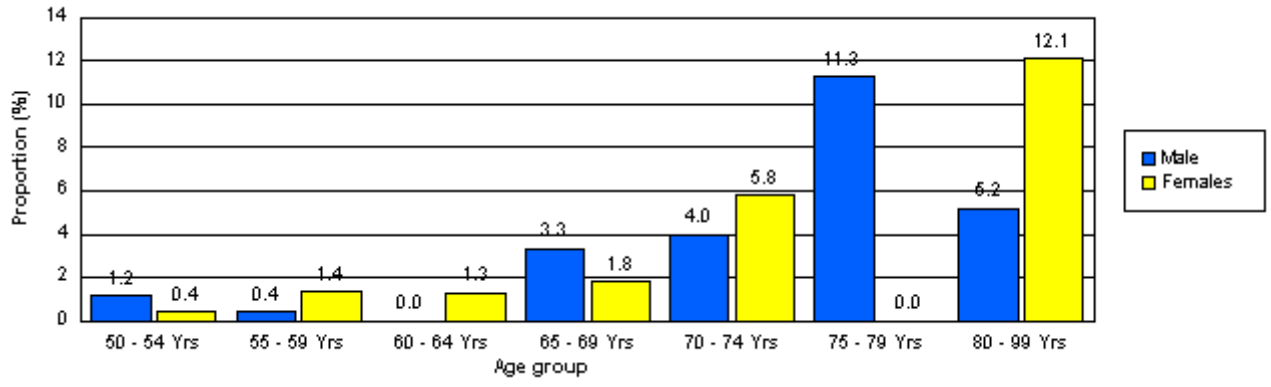
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral cataract blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals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

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

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	253	21.6	457	36.7	710	29.4
	246	21.0	295	23.7	541	22.4
	271	23.1	230	18.5	501	20.7
	120	10.2	111	8.9	231	9.6
	125	10.7	86	6.9	211	8.7
	80	6.8	34	2.7	114	4.7
	77	6.6	33	2.6	110	4.5
All ages	**1,172**	**100.0%**	**1,246**	**100.0%**	**2,418**	**100.0%**

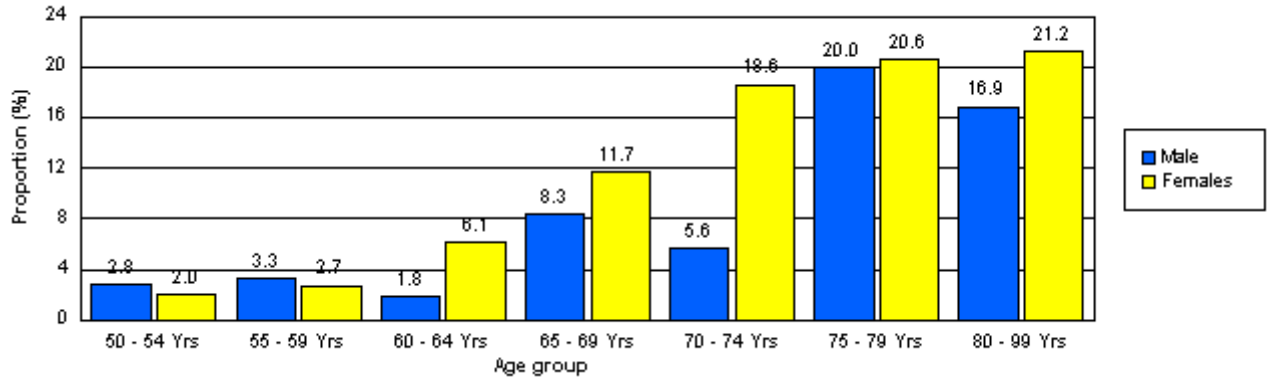
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction (WHO definition of

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	1.2	2	0.4	5	0.7
	1	0.4	4	1.4	5	0.9
	0	0.0	3	1.3	3	0.6
	4	3.3	2	1.8	6	2.6
	5	4.0	5	5.8	10	4.7
	9	11.3	0	0.0	9	7.9
	4	5.2	4	12.1	8	7.3
All ages	**26**	**2.2**	**20**	**1.6**	**46**	**1.9**



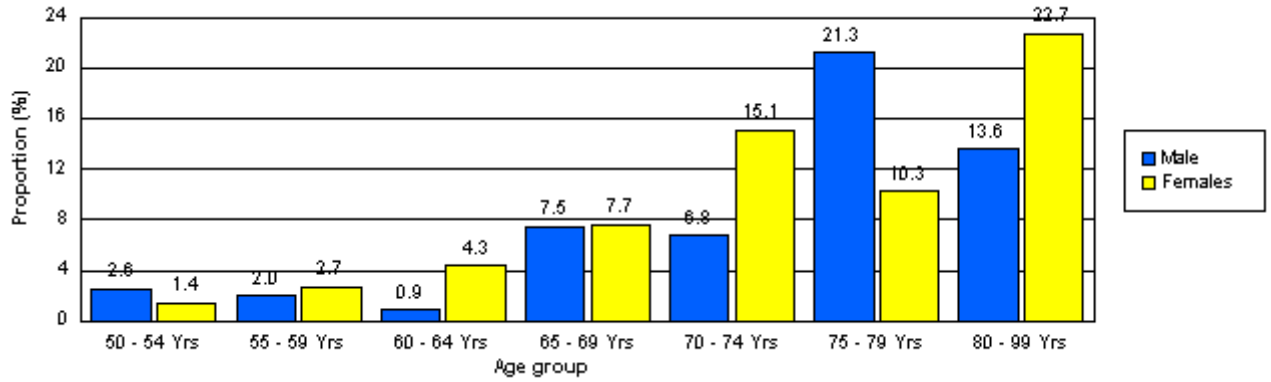
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	7	2.8	9	2.0	16	2.3
	8	3.3	8	2.7	16	3.0
	5	1.8	14	6.1	19	3.8
	10	8.3	13	11.7	23	10.0
	7	5.6	16	18.6	23	10.9
	16	20.0	7	20.6	23	20.2
	13	16.9	7	21.2	20	18.2
All ages	**66**	**5.6**	**74**	**5.9**	**140**	**5.8**



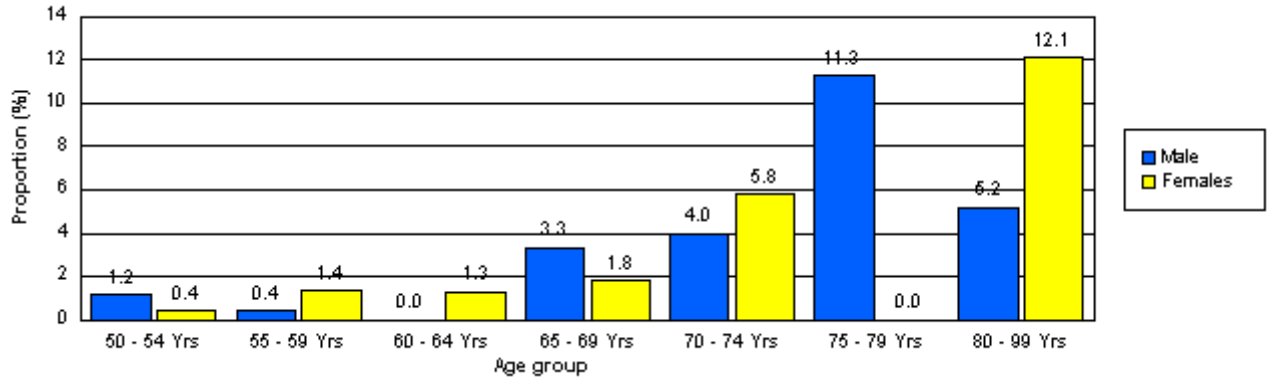
4. Prevalence of blind eyes - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	13	2.6	13	1.4	26	1.8
	10	2.0	16	2.7	26	2.4
	5	0.9	20	4.3	25	2.5
	18	7.5	17	7.7	35	7.6
	17	6.8	26	15.1	43	10.2
	34	21.3	7	10.3	41	18.0
	21	13.6	15	22.7	36	16.4
All ages	**118**	**5.0**	**114**	**4.6**	**232**	**4.8**



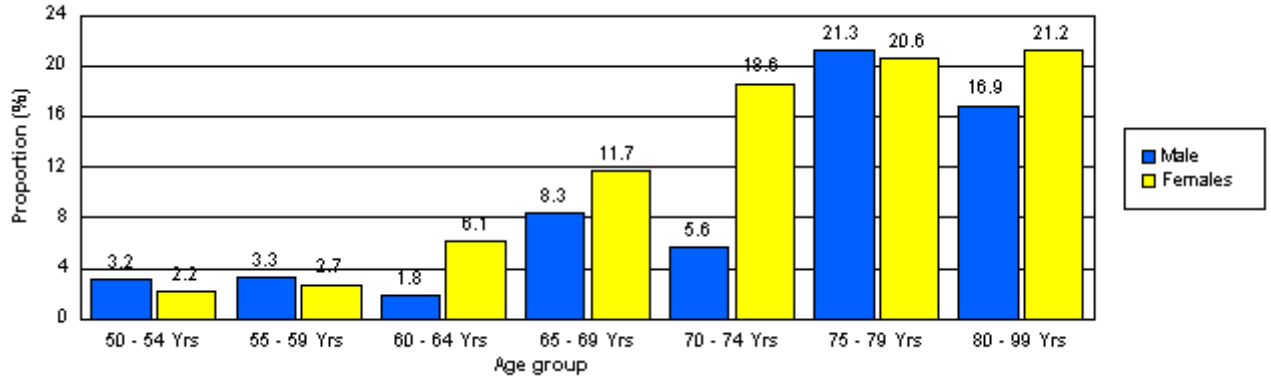
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	1.2	2	0.4	5	0.7
	1	0.4	4	1.4	5	0.9
	0	0.0	3	1.3	3	0.6
	4	3.3	2	1.8	6	2.6
	5	4.0	5	5.8	10	4.7
	9	11.3	0	0.0	9	7.9
	4	5.2	4	12.1	8	7.3
All ages	**26**	**2.2**	**20**	**1.6**	**46**	**1.9**



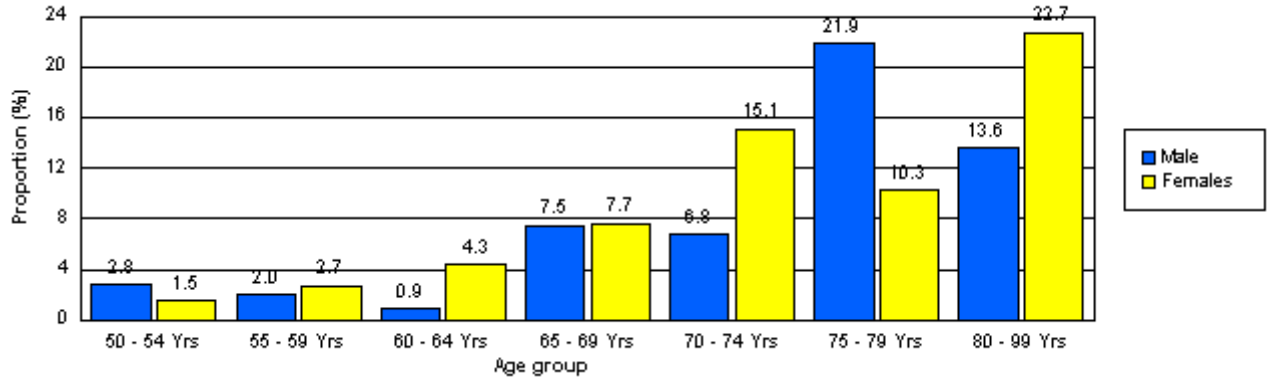
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	8	3.2	10	2.2	18	2.5
	8	3.3	8	2.7	16	3.0
	5	1.8	14	6.1	19	3.8
	10	8.3	13	11.7	23	10.0
	7	5.6	16	18.6	23	10.9
	17	21.3	7	20.6	24	21.1
	13	16.9	7	21.2	20	18.2
All ages	**68**	**5.8**	**75**	**6.0**	**143**	**5.9**



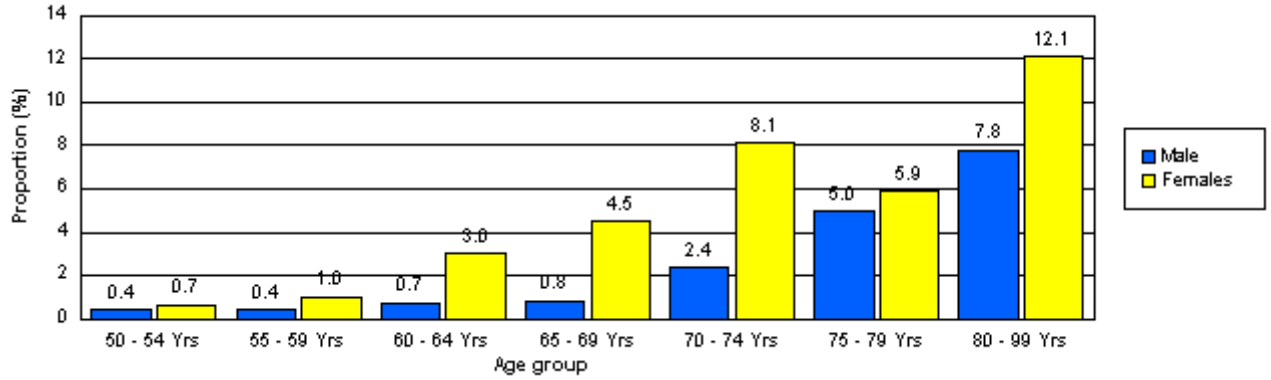
7. Prevalence of blind eyes - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	14	2.8	14	1.5	28	2.0
	10	2.0	16	2.7	26	2.4
	5	0.9	20	4.3	25	2.5
	18	7.5	17	7.7	35	7.6
	17	6.8	26	15.1	43	10.2
	35	21.9	7	10.3	42	18.4
	21	13.6	15	22.7	36	16.4
All ages	**120**	**5.1**	**115**	**4.6**	**235**	**4.9**



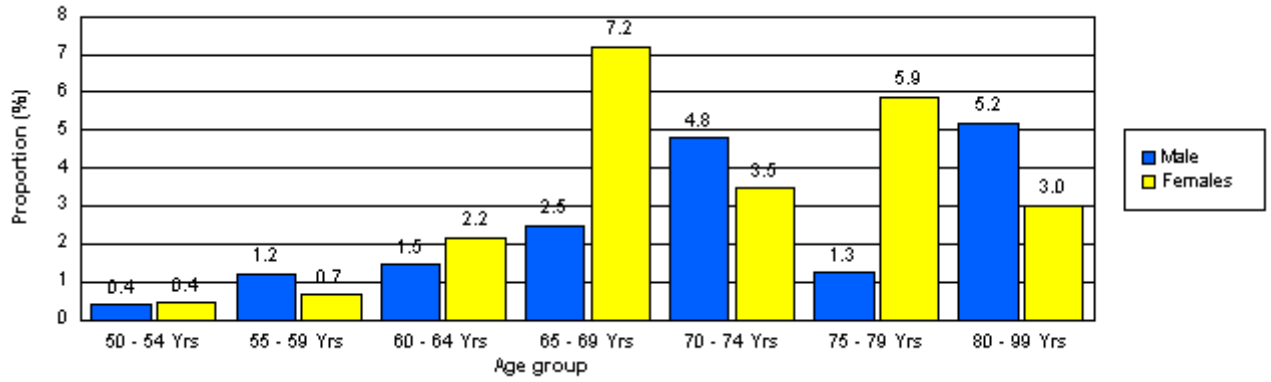
8. Prevalence of people with bilateral severe visual impairment - VA <6/60-3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.4	3	0.7	4	0.6
	1	0.4	3	1.0	4	0.7
	2	0.7	7	3.0	9	1.8
	1	0.8	5	4.5	6	2.6
	3	2.4	7	8.1	10	4.7
	4	5.0	2	5.9	6	5.3
	6	7.8	4	12.1	10	9.1
All ages	**18**	**1.5**	**31**	**2.5**	**49**	**2.0**



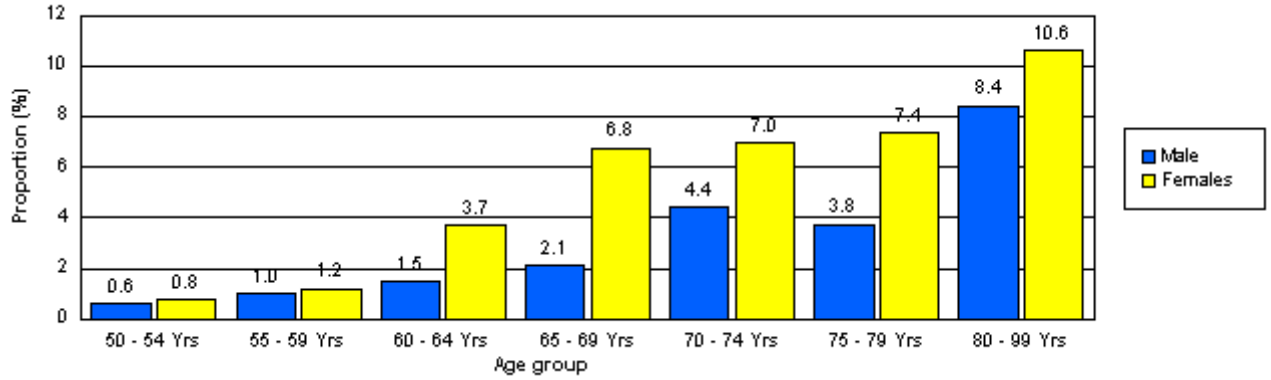
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.4	2	0.4	3	0.4
	3	1.2	2	0.7	5	0.9
	4	1.5	5	2.2	9	1.8
	3	2.5	8	7.2	11	4.8
	6	4.8	3	3.5	9	4.3
	1	1.3	2	5.9	3	2.6
	4	5.2	1	3.0	5	4.5
All ages	**22**	**1.9**	**23**	**1.8**	**45**	**1.9**



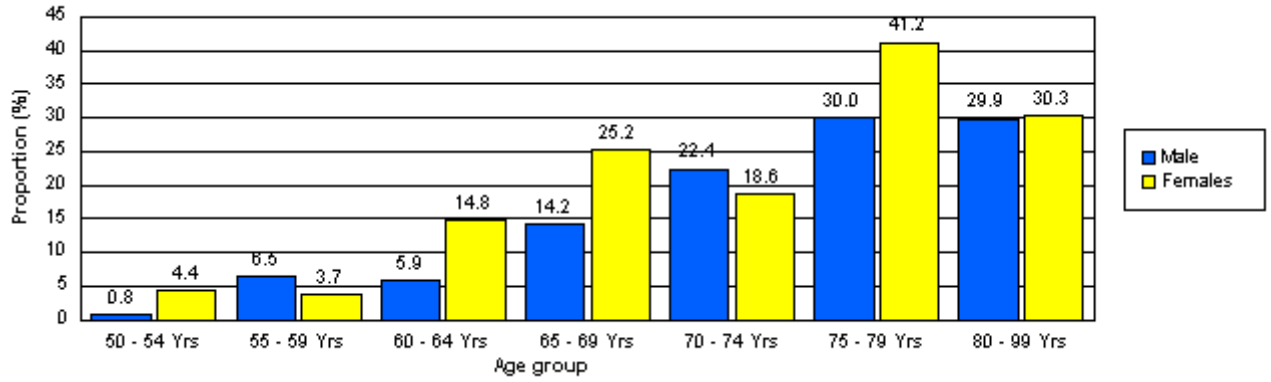
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	0.6	7	0.8	10	0.7
	5	1.0	7	1.2	12	1.1
	8	1.5	17	3.7	25	2.5
	5	2.1	15	6.8	20	4.3
	11	4.4	12	7.0	23	5.5
	6	3.8	5	7.4	11	4.8
	13	8.4	7	10.6	20	9.1
All ages	**51**	**2.2**	**70**	**2.8**	**121**	**2.5**



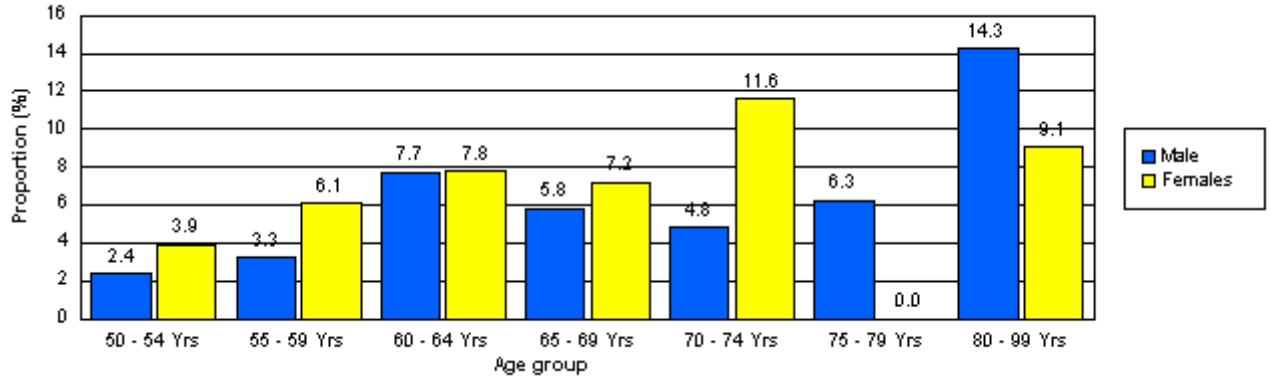
11. Prevalence of people with bilateral visual impairment - VA <6/18-6/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	20	4.4	22	3.1
	16	6.5	11	3.7	27	5.0
	16	5.9	34	14.8	50	10.0
	17	14.2	28	25.2	45	19.5
	28	22.4	16	18.6	44	20.9
	24	30.0	14	41.2	38	33.3
	23	29.9	10	30.3	33	30.0
All ages	**126**	**10.8**	**133**	**10.7**	**259**	**10.7**



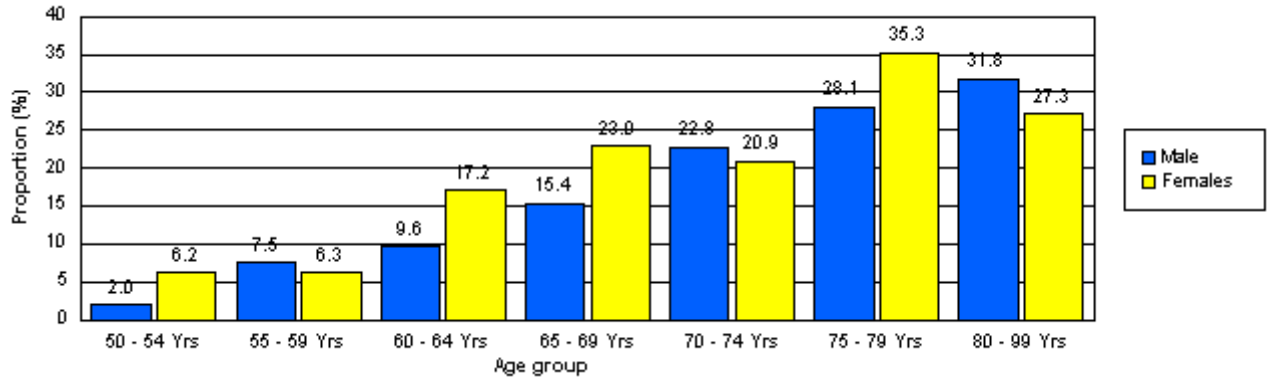
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	6	2.4	18	3.9	24	3.4
	8	3.3	18	6.1	26	4.8
	21	7.7	18	7.8	39	7.8
	7	5.8	8	7.2	15	6.5
	6	4.8	10	11.6	16	7.6
	5	6.3	0	0.0	5	4.4
	11	14.3	3	9.1	14	12.7
All ages	**64**	**5.5**	**75**	**6.0**	**139**	**5.7**



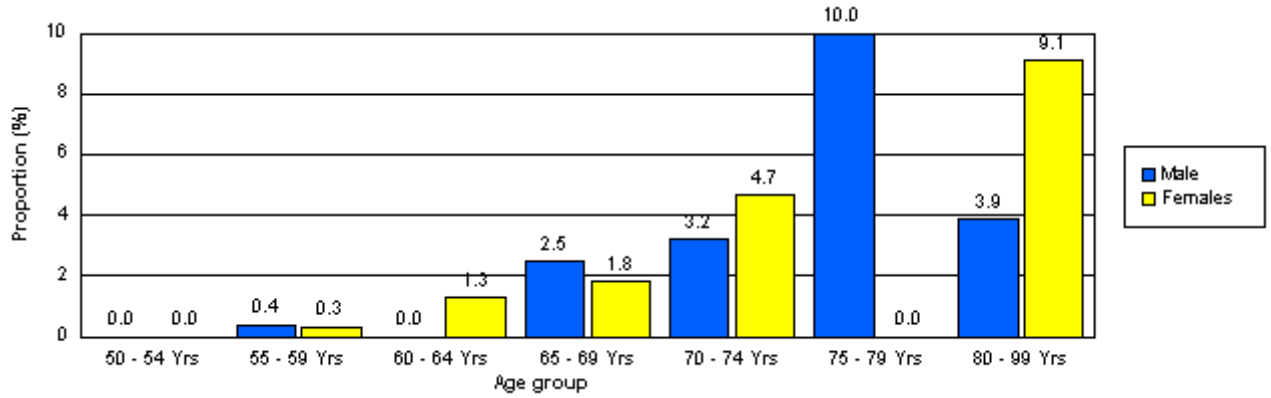
13. Prevalence of VI eyes - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	10	2.0	57	6.2	67	4.7
	37	7.5	37	6.3	74	6.8
	52	9.6	79	17.2	131	13.1
	37	15.4	51	23.0	88	19.0
	57	22.8	36	20.9	93	22.0
	45	28.1	24	35.3	69	30.3
	49	31.8	18	27.3	67	30.5
All ages	**287**	**12.2**	**302**	**12.1**	**589**	**12.2**



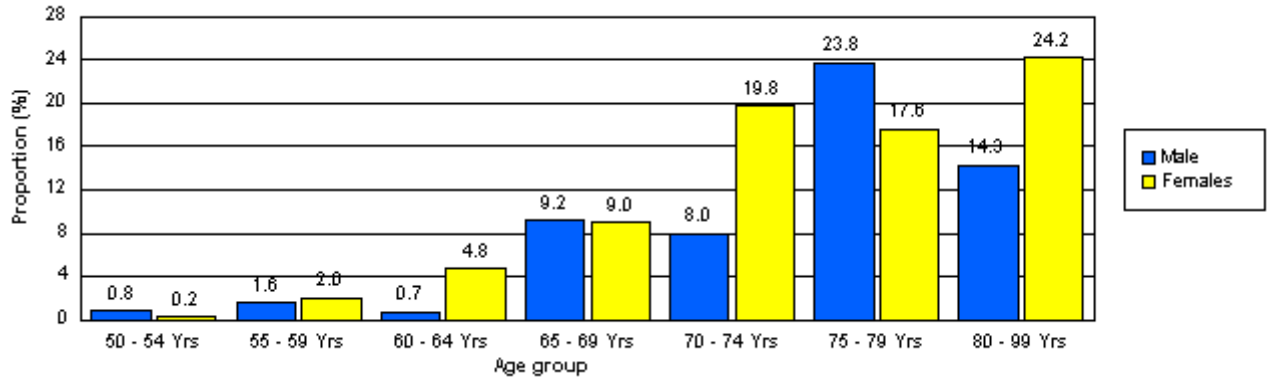
14. Prevalence of people bilateral blind due to cataract - VA <3/60 in better eye with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	0	0.0	0	0.0
	1	0.4	1	0.3	2	0.4
	0	0.0	3	1.3	3	0.6
	3	2.5	2	1.8	5	2.2
	4	3.2	4	4.7	8	3.8
	8	10.0	0	0.0	8	7.0
	3	3.9	3	9.1	6	5.5
All ages	**19**	**1.6**	**13**	**1.0**	**32**	**1.3**



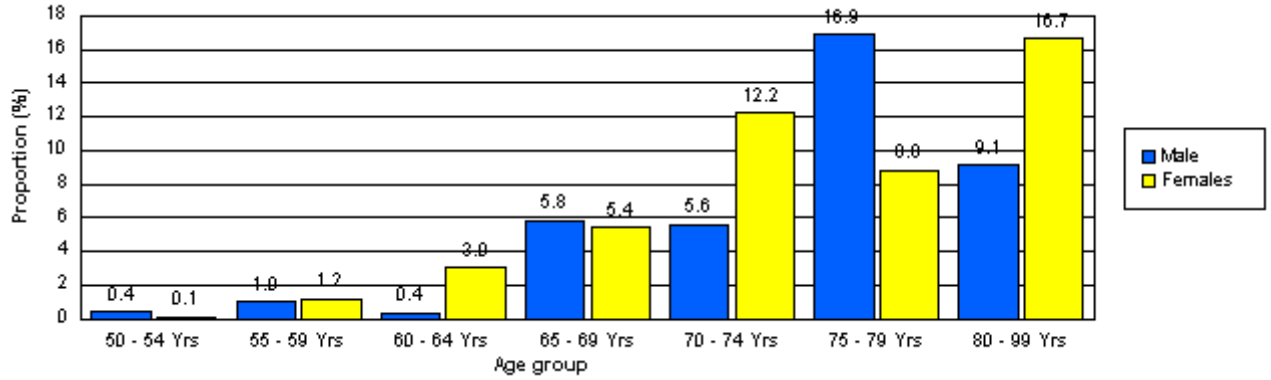
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	1	0.2	3	0.4
	4	1.6	6	2.0	10	1.8
	2	0.7	11	4.8	13	2.6
	11	9.2	10	9.0	21	9.1
	10	8.0	17	19.8	27	12.8
	19	23.8	6	17.6	25	21.9
	11	14.3	8	24.2	19	17.3
All ages	**59**	**5.0**	**59**	**4.7**	**118**	**4.9**



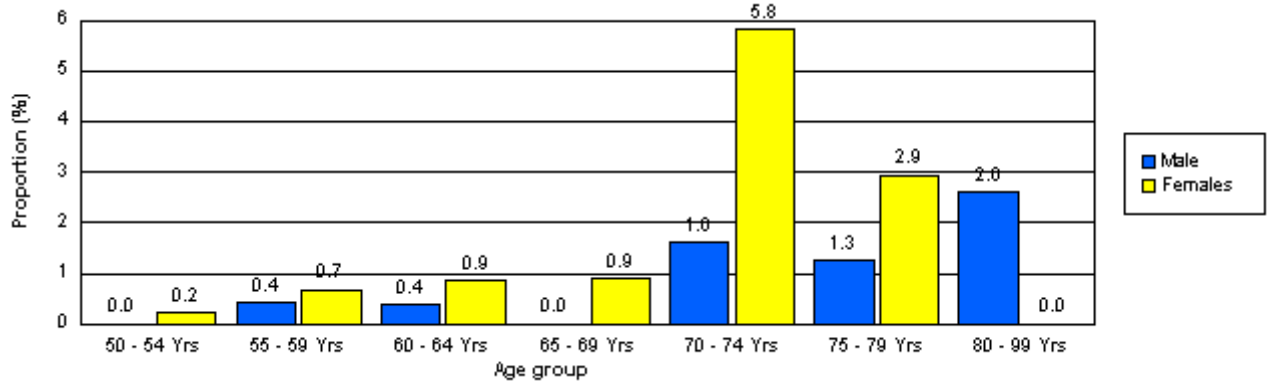
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.4	1	0.1	3	0.2
	5	1.0	7	1.2	12	1.1
	2	0.4	14	3.0	16	1.6
	14	5.8	12	5.4	26	5.6
	14	5.6	21	12.2	35	8.3
	27	16.9	6	8.8	33	14.5
	14	9.1	11	16.7	25	11.4
All ages	**78**	**3.3**	**72**	**2.9**	**150**	**3.1**



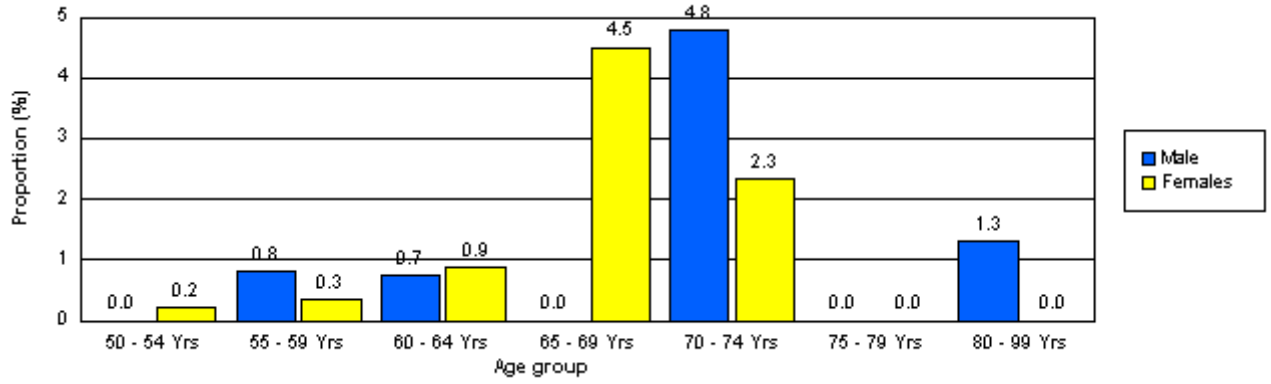
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correctio

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.2	1	0.1
	1	0.4	2	0.7	3	0.6
	1	0.4	2	0.9	3	0.6
	0	0.0	1	0.9	1	0.4
	2	1.6	5	5.8	7	3.3
	1	1.3	1	2.9	2	1.8
	2	2.6	0	0.0	2	1.8
All ages	**7**	**0.6**	**12**	**1.0**	**19**	**0.8**



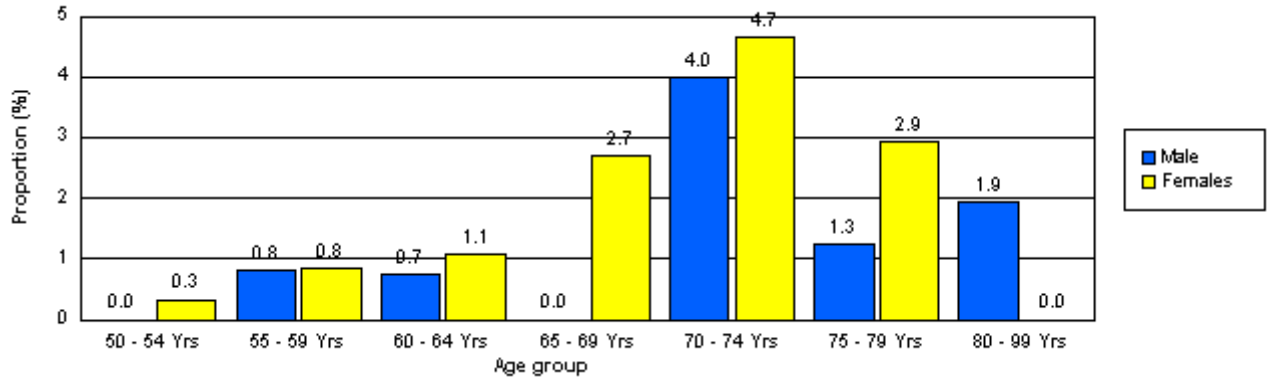
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA <3/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.2	1	0.1
	2	0.8	1	0.3	3	0.6
	2	0.7	2	0.9	4	0.8
	0	0.0	5	4.5	5	2.2
	6	4.8	2	2.3	8	3.8
	0	0.0	0	0.0	0	0.0
	1	1.3	0	0.0	1	0.9
All ages	**11**	**0.9**	**11**	**0.9**	**22**	**0.9**



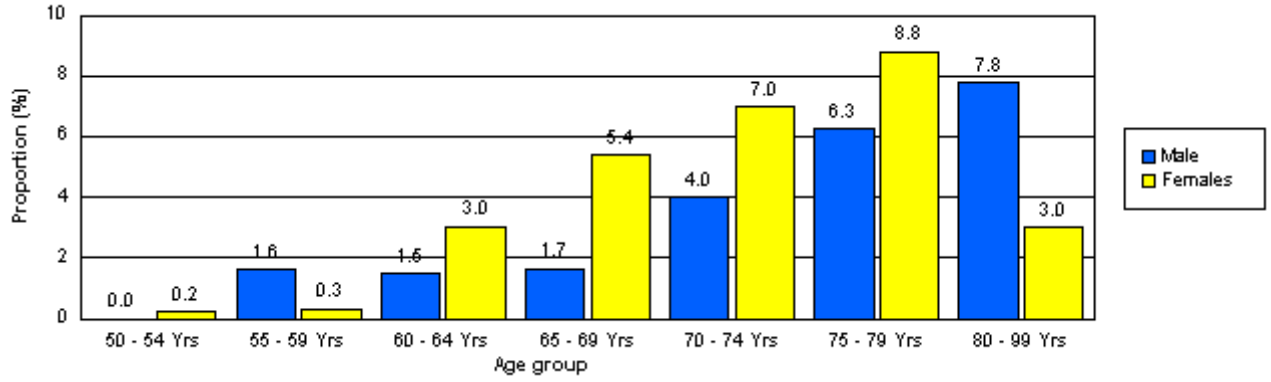
19. Prevalence of cataract SVI eyes - VA VA<6/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	3	0.3	3	0.2
	4	0.8	5	0.8	9	0.8
	4	0.7	5	1.1	9	0.9
	0	0.0	6	2.7	6	1.3
	10	4.0	8	4.7	18	4.3
	2	1.3	2	2.9	4	1.8
	3	1.9	0	0.0	3	1.4
All ages	**23**	**1.0**	**29**	**1.2**	**52**	**1.1**



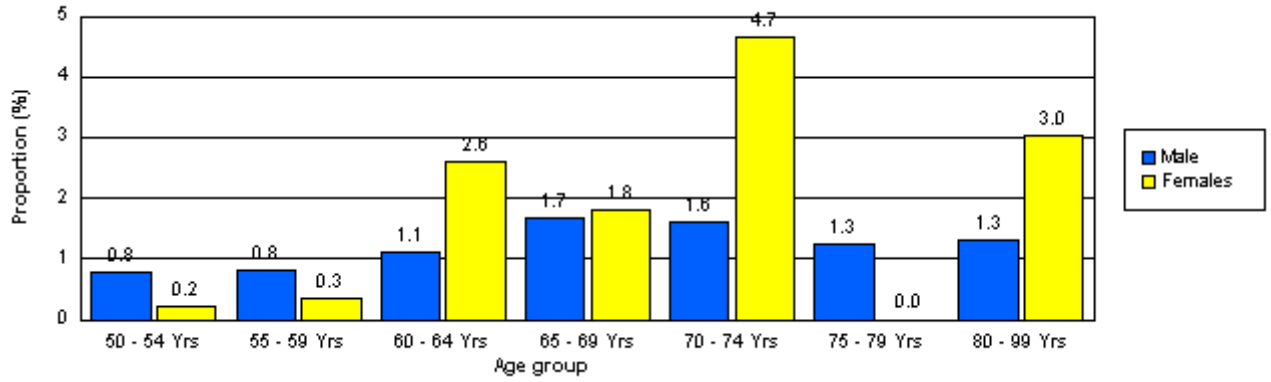
20. Prevalence of people with bilateral visual impairment due to cataract - VA <6/18-6/60 - best eye, best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.2	1	0.1
	4	1.6	1	0.3	5	0.9
	4	1.5	7	3.0	11	2.2
	2	1.7	6	5.4	8	3.5
	5	4.0	6	7.0	11	5.2
	5	6.3	3	8.8	8	7.0
	6	7.8	1	3.0	7	6.4
All ages	**26**	**2.2**	**25**	**2.0**	**51**	**2.1**



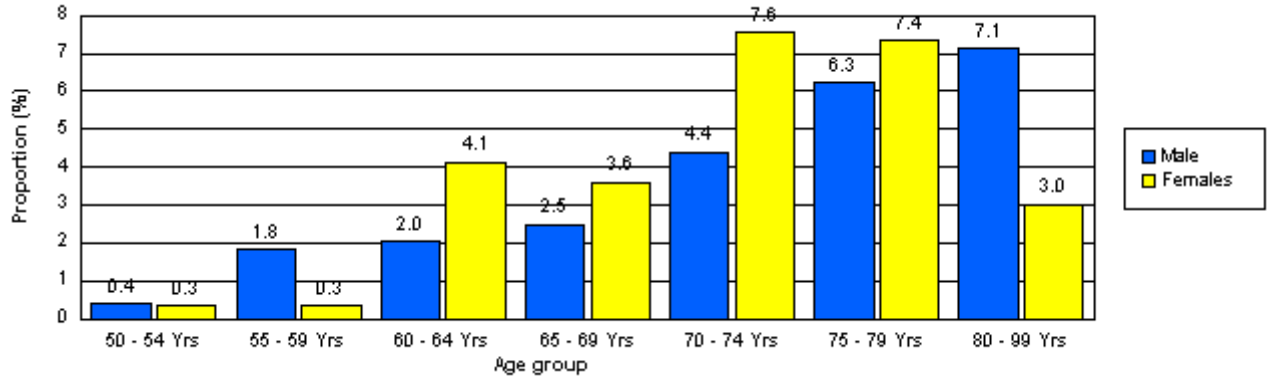
21. Prevalence of people with unilateral visual impairment due to cataract - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	1	0.2	3	0.4
	2	0.8	1	0.3	3	0.6
	3	1.1	6	2.6	9	1.8
	2	1.7	2	1.8	4	1.7
	2	1.6	4	4.7	6	2.8
	1	1.3	0	0.0	1	0.9
	1	1.3	1	3.0	2	1.8
All ages	**13**	**1.1**	**15**	**1.2**	**28**	**1.2**



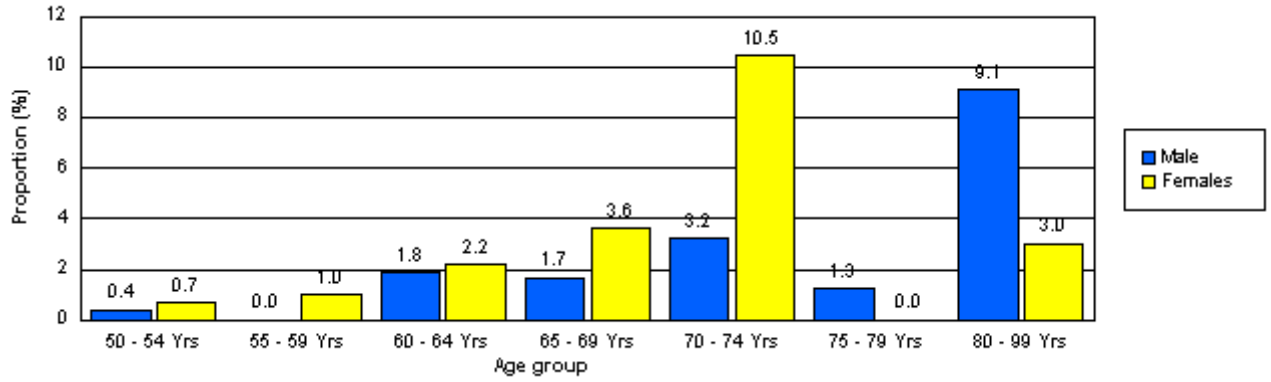
22. Prevalence of cataract VI eyes - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.4	3	0.3	5	0.4
	9	1.8	2	0.3	11	1.0
	11	2.0	19	4.1	30	3.0
	6	2.5	8	3.6	14	3.0
	11	4.4	13	7.6	24	5.7
	10	6.3	5	7.4	15	6.6
	11	7.1	2	3.0	13	5.9
All ages	**60**	**2.6**	**52**	**2.1**	**112**	**2.3**



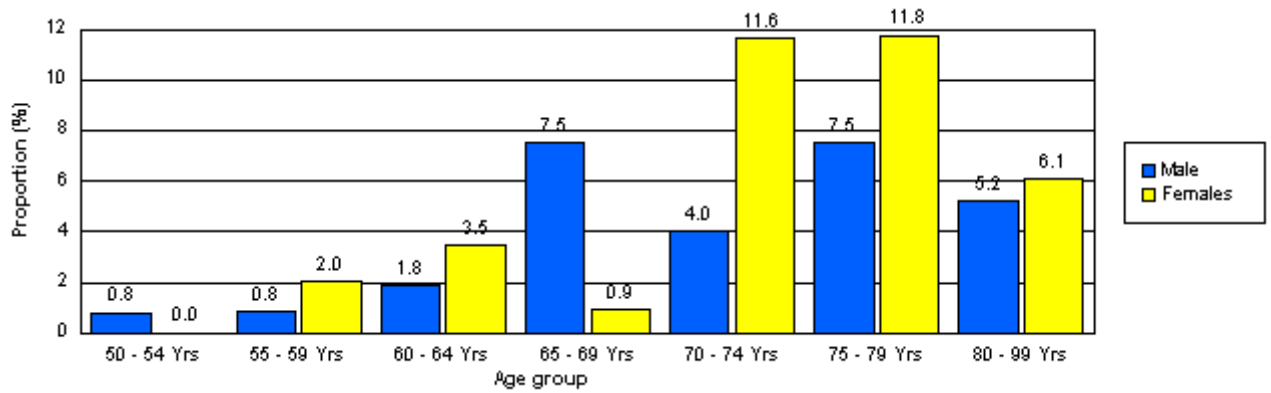
23. Prevalence of people with bilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.4	3	0.7	4	0.6
	0	0.0	3	1.0	3	0.6
	5	1.8	5	2.2	10	2.0
	2	1.7	4	3.6	6	2.6
	4	3.2	9	10.5	13	6.2
	1	1.3	0	0.0	1	0.9
	7	9.1	1	3.0	8	7.3
All ages	**20**	**1.7**	**25**	**2.0**	**45**	**1.9**



24. Prevalence of people with unilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	0	0.0	2	0.3
	2	0.8	6	2.0	8	1.5
	5	1.8	8	3.5	13	2.6
	9	7.5	1	0.9	10	4.3
	5	4.0	10	11.6	15	7.1
	6	7.5	4	11.8	10	8.8
	4	5.2	2	6.1	6	5.5
All ages	**33**	**2.8**	**31**	**2.5**	**64**	**2.6**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS
AGE AND SEX ADJUSTED

Date and time of the report: 1/2/2011 11:44:50A

This report is for the survey area Gazipur

Year and month when survey was completed: 2010- 6 until 2010- 6

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

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

Male	147,377	55.9%
Female	116,313	44.1%
Total	**263,690**	**100.0%**

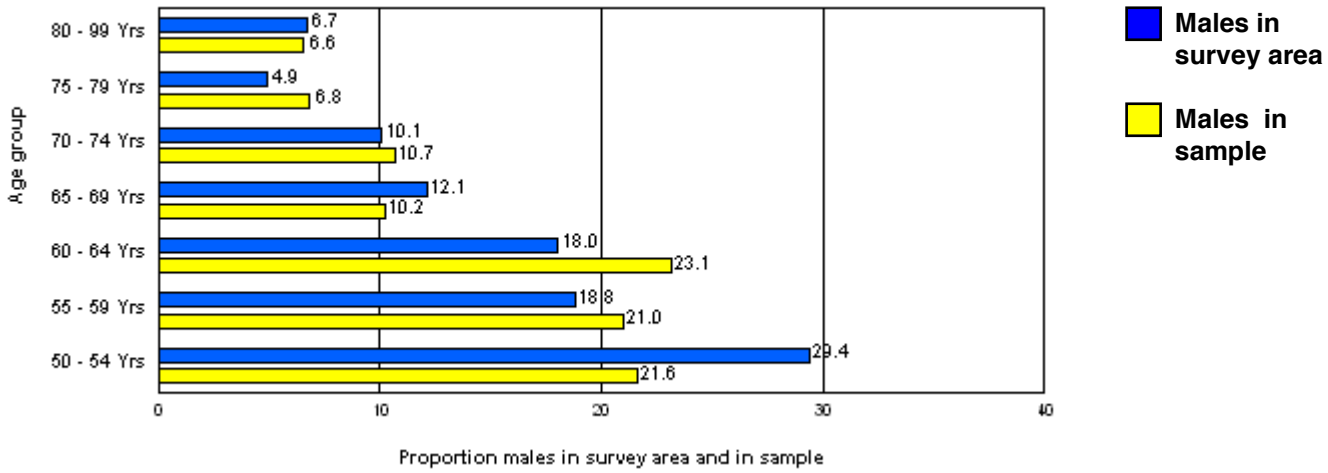
2a. Age and sex composition of population in sample

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	253	21.6%	457	36.7%	710	29.4%
55 - 59 Yrs	246	21.0%	295	23.7%	541	22.4%
60 - 64 Yrs	271	23.1%	230	18.5%	501	20.7%
65 - 69 Yrs	120	10.2%	111	8.9%	231	9.6%
70 - 74 Yrs	125	10.7%	86	6.9%	211	8.7%
75 - 79 Yrs	80	6.8%	34	2.7%	114	4.7%
80 - 99 Yrs	77	6.6%	33	2.6%	110	4.5%
Total	**1,172**	**100.0%**	**1,246**	**100.0%**	**2,418**	**100.0%**

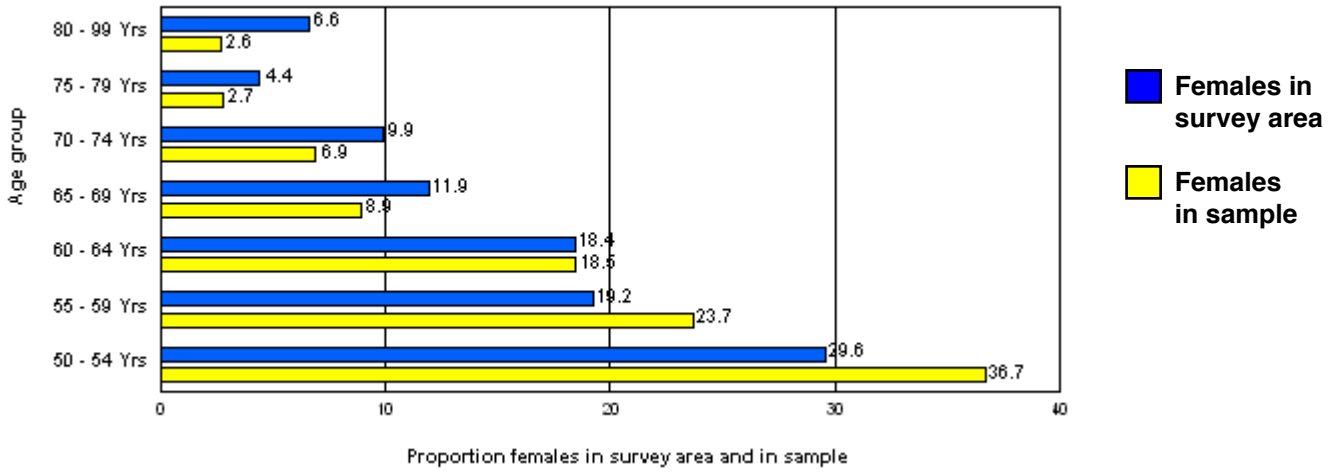
2b. Age and sex composition of population in entire survey area

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	43,285	29.4%	34,404	29.6%	77,689	29.5%
55 - 59 Yrs	27,734	18.8%	22,368	19.2%	50,102	19.0%
60 - 64 Yrs	26,574	18.0%	21,409	18.4%	47,983	18.2%
65 - 69 Yrs	17,871	12.1%	13,847	11.9%	31,718	12.0%
70 - 74 Yrs	14,854	10.1%	11,503	9.9%	26,357	10.0%
75 - 79 Yrs	7,195	4.9%	5,113	4.4%	12,308	4.7%
80 - 99 Yrs	9,864	6.7%	7,669	6.6%	17,533	6.6%
Total	**147,377**	**100.0%**	**116,313**	**100.0%**	**263,690**	**100.0%**

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



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



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

Estimated cases in people 50+ in survey area	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Blindness - VA<3/60 in better eye, best corrected or pinhole (WHO definition)									
Bilateral blind	3,138	2.13	±1.27	2,581	2.22	±0.88	5,719	2.17	±0.79
Blind eyes	14,291	4.85	±1.52	14,190	6.10	±0.97	28,481	5.40	±1.00
Blindness - VA<3/60 in better eye, with available correction									
Bilateral blind	3,138	2.13	±1.27	2,581	2.22	±0.88	5,719	2.17	±0.79
Blind eyes	14,552	4.94	±1.52	14,266	6.13	±0.97	28,817	5.46	±1.00
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in better eye with available correction									
Bilateral SVI	2,114	1.43	±0.73	3,895	3.35	±0.95	6,009	2.28	±0.68
SVI eyes	6,118	2.08	±0.74	8,495	3.65	±0.88	14,613	2.77	±0.62
Visual Impairment (VI) - VA<6/18 - 6/60 in better eye with available correction									
Bilateral VI	14,679	9.96	±1.97	15,567	13.38	±1.89	30,246	11.47	±1.71
VI eyes	33,589	11.40	±1.80	33,420	14.37	±1.81	67,009	12.71	±1.59

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

Estimated cases in people 50+ in survey area	Male n	Male %	Female n	Female %	Total n	Total %
Blindness - VA<3/60 in better eye, with available correction						
Bilateral blind	3,138	2.13	2,581	2.22	5,719	2.17
Blind eyes	14,552	4.94	14,266	6.13	28,817	5.46
VA<6/60 in better eye with available correction						
Bilateral <6/60	5,251	3.56	6,476	5.57	11,728	4.45
Eyes <6/60	20,670	7.01	22,761	9.78	43,431	8.24
VA<6/18 in better eye with available correction						
Bilateral <6/18	19,930	13.52	22,043	18.95	41,973	15.92
Eyes <6/18	54,259	18.41	56,181	24.15	110,440	20.94

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

	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Cataract and VA<3/60 in better eye with best correction or pinhole									
Bilateral cataract	2,139	1.45	±0.96	1,837	1.58	±0.69	3,975	1.51	±0.64
Unilateral cataract	6,934	4.70	±1.18	7,837	6.74	±1.02	14,771	5.60	±0.84
Cataract eyes	11,211	3.80	±1.22	11,510	4.95	±0.71	22,721	4.31	±0.80
Cataract and SVI in better eye with best correction or pinhole									
Bilateral cataract	795	0.54	±0.36	1,357	1.17	±0.53	2,152	0.82	±0.33
Unilateral cataract	1,263	0.86	±0.53	1,229	1.06	±0.70	2,491	0.94	±0.48
Cataract eyes	2,596	0.88	±0.50	3,190	1.37	±0.66	5,785	1.10	±0.43
Cataract and VI in better eye with best correction or pinhole									
Bilateral cataract	2,954	2.00	±0.86	3,037	2.61	±0.58	5,991	2.27	±0.52
Unilateral cataract	1,615	1.10	±0.84	1,727	1.48	±0.66	3,342	1.27	±0.49
Cataract eyes	6,945	2.36	±0.92	6,100	2.62	±0.73	13,044	2.47	±0.59

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

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

	Male n	Male %	Female n	Female %	Total n	Total %
Cataract and VA<3/60 in better eye with best correction or pinhole						
Bilateral cataract	2,139	1.45	1,837	1.58	3,975	1.51
Unilateral cataract	6,934	4.70	7,837	6.74	14,771	5.60
Cataract eyes	11,211	3.80	11,510	4.95	22,721	4.31
Cataract and VA<6/60 in better eye with best correction or pinhole						
Bilateral cataract	2,933	1.99	3,194	2.75	6,127	2.32
Unilateral cataract	8,196	5.56	9,065	7.79	17,262	6.55
Cataract eyes	13,807	4.68	14,700	6.32	28,507	5.41
Cataract and VA<6/18 in better eye with best correction or pinhole						
Bilateral cataract	5,887	3.99	6,231	5.36	12,118	4.60
Unilateral cataract	9,812	6.66	10,792	9.28	20,604	7.81
Cataract eyes	20,751	7.04	20,800	8.94	41,551	7.88

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

8. Adjusted results for aphakia and pseudophakia

	Male			Female			Total		
	n	%	CI95%	n	%	CI95%	n	%	CI95%
Bilateral (pseudo)aphakia	2,421	1.64	±0.80	2,854	2.45	±0.91	5,275	2.00	±0.63
Unilateral (pseudo)aphakia	4,044	2.74	±1.00	3,728	3.21	±0.93	7,773	2.95	±0.71
(pseudo)aphakic eyes	8,887	3.02	±0.96	9,436	4.06	±1.02	18,323	3.47	±0.70

9. Adjusted results for cataract surgical coverage

Cataract Surgical Coverage (eyes)

	Males	Females	Total
VA <3/60	44.2	45.0	44.6
VA <6/60	39.2	39.1	39.1
VA <6/18	30.0	31.2	30.6

Cataract Surgical Coverage (persons)

	Males	Females	Total
VA <3/60	71.6	75.0	73.3
VA <6/60	66.2	64.1	65.1
VA <6/18	49.4	49.9	49.7

SAMPLING ERROR (CLUSTER SAMPLING) & DESIGN EFFECT

Date and time of the report: 1/2/2011 11:46:27A

This report is for the survey area Gazipur

Year and month when survey was completed: 2010- 6 until 2010- 6

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

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

Bilateral blind, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	26	2.22	0.95 - 3.49	1.27	1.06	0.83	2.26	0.65
Female	20	1.61	0.73 - 2.48	0.88	0.74	0.57	1.58	0.45
Total	**46**	**1.90**	**1.11 - 2.69**	**0.79**	**0.66**	**0.52**	**2.11**	**0.40**

Blind eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	118	5.03	3.52 - 6.55	1.52	1.27	0.99	1.47	0.77
Female	114	4.57	3.60 - 5.55	0.97	0.82	0.64	0.70	0.50

Total	**232**	**4.80**	**3.79**	**-**	**5.80**	**1.00**	**0.84**	**0.66**	**1.38**	**0.51**

Bilateral SVI, best corrected								**Cluster sampling**		
	Cases in sample	**Sample prev.**	**CI 95%**			**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	11	0.94	0.43	-	1.45	0.51	0.43	0.33	0.84	0.26
Female	20	1.61	0.83	-	2.38	0.77	0.65	0.50	1.22	0.39
Total	**31**	**1.28**	**0.79**	**-**	**1.77**	**0.49**	**0.41**	**0.32**	**1.19**	**0.25**

SVI eyes, best corrected								**Cluster sampling**		
	Cases in sample	**Sample prev.**	**CI 95%**			**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	34	1.41	0.81	-	2.00	0.60	0.50	0.39	0.78	0.30
Female	46	1.85	1.02	-	2.67	0.83	0.69	0.54	1.23	0.42
Total	**80**	**1.63**	**1.09**	**-**	**2.17**	**0.54**	**0.45**	**0.35**	**1.15**	**0.28**

Bilateral VI, best corrected								**Cluster sampling**		
	Cases in sample	**Sample prev.**	**CI 95%**			**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	35	2.99	1.94	-	4.03	1.05	0.88	0.69	1.16	0.53
Female	45	3.61	2.50	-	4.72	1.11	0.93	0.72	1.14	0.56
Total	**80**	**3.31**	**2.50**	**-**	**4.12**	**0.81**	**0.68**	**0.53**	**1.29**	**0.41**

VI eyes, best corrected								**Cluster sampling**		
	Cases in sample	**Sample prev.**	**CI 95%**			**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	82	3.46	2.54	-	4.38	0.92	0.77	0.60	0.78	0.47
Female	94	3.73	2.70	-	4.76	1.03	0.86	0.67	0.95	0.52
Total	**174**	**3.60**	**2.88**	**-**	**4.31**	**0.72**	**0.60**	**0.47**	**0.93**	**0.37**

Bilateral blind, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	26	2.22	0.95 - 3.49	1.27	1.06	0.83	2.26	0.65
Female	20	1.61	0.73 - 2.48	0.88	0.74	0.57	1.58	0.45
Total	**46**	**1.90**	**1.11 - 2.69**	**0.79**	**0.66**	**0.52**	**2.11**	**0.40**

Blind eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	120	5.12	3.60 - 6.64	1.52	1.28	0.99	1.45	0.78
Female	116	4.61	3.65 - 5.58	0.97	0.81	0.63	0.69	0.49
Total	**236**	**4.86**	**3.86 - 5.86**	**1.00**	**0.84**	**0.66**	**1.37**	**0.51**

Bilateral SVI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	18	1.54	0.81 - 2.26	0.73	0.61	0.48	1.07	0.37
Female	31	2.49	1.53 - 3.44	0.95	0.80	0.62	1.22	0.49
Total	**49**	**2.03**	**1.35 - 2.71**	**0.68**	**0.57**	**0.44**	**1.47**	**0.35**

SVI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	52	2.18	1.43 - 2.92	0.74	0.62	0.48	0.79	0.38
Female	70	2.81	1.93 - 3.68	0.88	0.73	0.57	0.91	0.45
Total	**122**	**2.50**	**1.88 - 3.12**	**0.62**	**0.52**	**0.40**	**0.99**	**0.32**

Bilateral VI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	126	10.75	8.78 - 12.72	1.97	1.65	1.29	1.23	1.00
Female	133	10.67	8.78 - 12.56	1.89	1.59	1.24	1.21	0.96
Total	**259**	**10.71**	**9.00 - 12.42**	**1.71**	**1.43**	**1.12**	**1.92**	**0.87**

VI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	288	12.24	10.44 - 14.04	1.80	1.51	1.18	0.92	0.92
Female	302	12.12	10.31 - 13.93	1.81	1.52	1.18	0.99	0.92
Total	**590**	**12.18**	**10.59 - 13.77**	**1.59**	**1.33**	**1.04**	**1.48**	**0.81**

Bilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	19	1.62	0.66 - 2.58	0.96	0.80	0.63	1.76	0.49
Female	13	1.04	0.35 - 1.73	0.69	0.58	0.45	1.50	0.35
Total	**32**	**1.32**	**0.68 - 1.96**	**0.64**	**0.54**	**0.42**	**1.98**	**0.33**

Unilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	40	3.41	2.23 - 4.60	1.18	0.99	0.77	1.30	0.60
Female	46	3.69	2.67 - 4.71	1.02	0.85	0.67	0.95	0.52
Total	**86**	**3.56**	**2.71 - 4.40**	**0.84**	**0.71**	**0.55**	**1.31**	**0.43**

Eyes cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	78	3.33	2.11 - 4.55	1.22	1.02	0.80	1.41	0.62
Female	72	2.89	2.18 - 3.60	0.71	0.59	0.46	0.58	0.36
Total	**150**	**3.10**	**2.30 - 3.90**	**0.80**	**0.67**	**0.52**	**1.34**	**0.41**

Bilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	5	0.43	0.07 - 0.79	0.36	0.30	0.23	0.93	0.18
Female	6	0.48	-0.05 - 1.02	0.53	0.45	0.35	1.93	0.27
Total	**11**	**0.45**	**0.12 - 0.79**	**0.33**	**0.28**	**0.22**	**1.54**	**0.17**

Unilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	13	1.11	0.58 - 1.64	0.53	0.45	0.35	0.79	0.27
Female	17	1.36	0.67 - 2.06	0.70	0.59	0.46	1.18	0.36
Total	**30**	**1.24**	**0.76 - 1.72**	**0.48**	**0.40**	**0.31**	**1.18**	**0.24**

Eyes cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	24	0.98	0.48 - 1.48	0.50	0.42	0.33	0.79	0.26
Female	30	1.16	0.51 - 1.82	0.66	0.55	0.43	1.22	0.34
Total	**52**	**1.08**	**0.65 - 1.50**	**0.43**	**0.36**	**0.28**	**1.09**	**0.22**

Bilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	21	1.79	0.93 - 2.66	0.86	0.73	0.57	1.30	0.44
Female	12	0.96	0.39 - 1.54	0.58	0.48	0.38	1.13	0.29
Total	**33**	**1.36**	**0.84 - 1.89**	**0.52**	**0.44**	**0.34**	**1.28**	**0.27**

Unilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	18	1.54	0.69 - 2.38	0.84	0.71	0.55	1.43	0.43
Female	28	2.25	1.59 - 2.91	0.66	0.55	0.43	0.64	0.34
Total	**46**	**1.90**	**1.41 - 2.39**	**0.49**	**0.41**	**0.32**	**0.81**	**0.25**

Eyes cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	60	2.56	1.64 - 3.48	0.92	0.77	0.60	1.03	0.47
Female	52	2.09	1.36 - 2.82	0.73	0.61	0.48	0.84	0.37
Total	**112**	**2.32**	**1.73 - 2.91**	**0.59**	**0.50**	**0.39**	**0.97**	**0.30**

Bilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	20	1.71	0.91 - 2.50	0.80	0.67	0.52	1.15	0.41
Female	25	2.01	1.10 - 2.92	0.91	0.76	0.60	1.37	0.46
Total	**45**	**1.86**	**1.23 - 2.49**	**0.63**	**0.53**	**0.41**	**1.35**	**0.32**

Unilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	33	2.82	1.81 - 3.82	1.00	0.84	0.66	1.12	0.51
Female	31	2.49	1.56 - 3.42	0.93	0.78	0.61	1.15	0.47
Total	**64**	**2.65**	**1.94 - 3.36**	**0.71**	**0.60**	**0.46**	**1.23**	**0.36**

Eyes (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	74	3.11	2.15 - 4.07	0.96	0.81	0.63	0.93	0.49
Female	82	3.25	2.23 - 4.27	1.02	0.85	0.67	1.07	0.52
Total	**154**	**3.18**	**2.48 - 3.89**	**0.70**	**0.59**	**0.46**	**1.01**	**0.36**

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 1/2/2011 11:52:55A

This report is for the survey area: Kishoreganj

Year and month when survey was conducted: 2010- 8 until 2010- 8

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

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

	Total eligible		Examined		Not available		Refused		Not capable		Coverage
	n	%	n	%	n	%	n	%	n	%	
Males	1,401	45.9%	1,383	45.7%	9	69.2%	0	0.0%	9	900.0%	98.7%
Females	1,649	54.1%	1,640	54.3%	4	30.8%	2		3	300.0%	99.5%
Total	3,050		3,023	99.1%	13	0.4%	2	0.1%	12	0.4%	99.1%

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

	Examined	Not available	Refused	Not capable	Total
Males	62.0	62.4	0.0	73.2	62.0
Females	58.9	72.0	62.5	75.7	59.0
Total	60.3	65.4	62.5	73.8	60.4

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

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with best correction or pinhole (WHO definition)						
All bilateral blindness	21	1.52	47	2.87	68	2.25
All blind eyes	114	4.12	182	5.55	296	4.90
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	21	1.52	47	2.87	68	2.25
All blind eyes	114	4.12	182	5.55	296	4.90
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in the better eye, with available correction						
All bilateral SVI	64	4.63	78	4.76	142	4.70
All SVI eyes	152	5.50	183	5.58	335	5.54
Visual Impairment (VI) - VA<6/18 - 6/60 in the better eye, with available correction						
All bilateral VI	162	11.71	187	11.40	349	11.54
All VI eyes	338	12.22	370	11.28	708	11.71

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

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	21	1.52	47	2.87	68	2.25
All blind eyes	114	4.12	182	5.55	296	4.90
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	85	6.15	125	7.62	210	6.95
All eyes	266	9.62	365	11.13	631	10.44
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	247	17.86	312	19.02	559	18.49
All eyes	604	21.84	735	22.41	1,339	22.15

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	0	0.0%	0	0.0%
Cataract, untreated	14	66.7%	34	72.3%	48	70.6%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**14**	**66.7%**	**34**	**72.3%**	**48**	**70.6%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	2	4.3%	2	2.9%
Other corneal scar	3	14.3%	3	6.4%	6	8.8%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**3**	**14.3%**	**5**	**10.6%**	**8**	**11.8%**
Total avoidable	**17**	**81.0%**	**39**	**83.0%**	**56**	**82.4%**
Glaucoma	1	4.8%	3	6.4%	4	5.9%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**1**	**4.8%**	**3**	**6.4%**	**4**	**5.9%**
Globe abnormality	1	4.8%	0	0.0%	1	1.5%
ARMD	1	4.8%	4	8.5%	5	7.4%
Other post. segment / CNS	1	4.8%	1	2.1%	2	2.9%
Total posterior segment	**4**	**19.0%**	**8**	**17.0%**	**12**	**17.6%**
	21	**100.0%**	**47**	**100.0%**	**68**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	0	0.0%	0	0.0%
Cataract, untreated	61	53.5%	128	70.3%	189	63.9%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**61**	**53.5%**	**128**	**70.3%**	**189**	**63.9%**
Surgical complications	4	3.5%	2	1.1%	6	2.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	4	3.5%	10	5.5%	14	4.7%
Other corneal scar	26	22.8%	17	9.3%	43	14.5%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**34**	**29.8%**	**29**	**15.9%**	**63**	**21.3%**
Total avoidable	**95**	**83.3%**	**157**	**86.3%**	**252**	**85.1%**
Glaucoma	4	3.5%	7	3.8%	11	3.7%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**4**	**3.5%**	**7**	**3.8%**	**11**	**3.7%**
Globe abnormality	6	5.3%	3	1.6%	9	3.0%
ARMD	2	1.8%	8	4.4%	10	3.4%
Other post. segment / CNS	7	6.1%	7	3.8%	14	4.7%
Total posterior segment	**19**	**16.7%**	**25**	**13.7%**	**44**	**14.9%**
	114	**100.0%**	**182**	**100.0%**	**296**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	2	3.1%	7	9.0%	9	6.3%
Cataract, untreated	58	90.6%	59	75.6%	117	82.4%
Aphakia, uncorrected	0	0.0%	1	1.3%	1	0.7%
Total curable	**60**	**93.8%**	**67**	**85.9%**	**127**	**89.4%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	2	2.6%	2	1.4%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**0**	**0.0%**	**2**	**2.6%**	**2**	**1.4%**
Total avoidable	**60**	**93.8%**	**69**	**88.5%**	**129**	**90.8%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	1	1.3%	1	0.7%
Potentially preventable*	**0**	**0.0%**	**1**	**1.3%**	**1**	**0.7%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	4	6.3%	3	3.8%	7	4.9%
Other post. segment / CNS	0	0.0%	5	6.4%	5	3.5%
Total posterior segment	**4**	**6.3%**	**9**	**11.5%**	**13**	**9.2%**
	64	**100.0%**	**78**	**100.0%**	**142**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	7	4.6%	17	9.3%	24	7.2%
Cataract, untreated	127	83.6%	133	72.7%	260	77.6%
Aphakia, uncorrected	0	0.0%	1	0.5%	1	0.3%
Total curable	**134**	**88.2%**	**151**	**82.5%**	**285**	**85.1%**
Surgical complications	0	0.0%	1	0.5%	1	0.3%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	1	0.7%	5	2.7%	6	1.8%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**0.7%**	**6**	**3.3%**	**7**	**2.1%**
Total avoidable	**135**	**88.8%**	**157**	**85.8%**	**292**	**87.2%**
Glaucoma	4	2.6%	0	0.0%	4	1.2%
Diabetic retinopathy	1	0.7%	2	1.1%	3	0.9%
Potentially preventable*	**5**	**3.3%**	**2**	**1.1%**	**7**	**2.1%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	11	7.2%	10	5.5%	21	6.3%
Other post. segment / CNS	1	0.7%	14	7.7%	15	4.5%
Total posterior segment	**17**	**11.2%**	**26**	**14.2%**	**43**	**12.8%**
	152	**100.0%**	**183**	**100.0%**	**335**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	113	69.8%	127	67.9%	240	68.8%
Cataract, untreated	40	24.7%	45	24.1%	85	24.4%
Aphakia, uncorrected	1	0.6%	4	2.1%	5	1.4%
Total curable	**154**	**95.1%**	**176**	**94.1%**	**330**	**94.6%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	0	0.0%	0	0.0%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Total avoidable	**154**	**95.1%**	**176**	**94.1%**	**330**	**94.6%**
Glaucoma	0	0.0%	1	0.5%	1	0.3%
Diabetic retinopathy	0	0.0%	1	0.5%	1	0.3%
Potentially preventable*	**0**	**0.0%**	**2**	**1.1%**	**2**	**0.6%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	6	3.7%	6	3.2%	12	3.4%
Other post. segment / CNS	2	1.2%	3	1.6%	5	1.4%
Total posterior segment	**8**	**4.9%**	**11**	**5.9%**	**19**	**5.4%**
	162	**100.0%**	**187**	**100.0%**	**349**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	249	73.7%	271	73.2%	520	73.4%
Cataract, untreated	74	21.9%	75	20.3%	149	21.0%
Aphakia, uncorrected	2	0.6%	5	1.4%	7	1.0%
Total curable	**325**	**96.2%**	**351**	**94.9%**	**676**	**95.5%**
Surgical complications	0	0.0%	0	0.0%	0	0.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	1	0.3%	0	0.0%	1	0.1%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**0.3%**	**0**	**0.0%**	**1**	**0.1%**
Total avoidable	**326**	**96.4%**	**351**	**94.9%**	**677**	**95.6%**
Glaucoma	0	0.0%	3	0.8%	3	0.4%
Diabetic retinopathy	0	0.0%	2	0.5%	2	0.3%
Potentially preventable*	**0**	**0.0%**	**5**	**1.4%**	**5**	**0.7%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	10	3.0%	8	2.2%	18	2.5%
Other post. segment / CNS	2	0.6%	6	1.6%	8	1.1%
Total posterior segment	**12**	**3.6%**	**19**	**5.1%**	**31**	**4.4%**
	338	**100.0%**	**370**	**100.0%**	**708**	**100.0%**

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

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

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Cataract blindness with VA<3/60 with best correction or pinhole						
Bilateral cataract blind	10	0.72	29	1.77	39	1.29
Unilateral cataract blind	41	2.96	70	4.27	111	3.67
Cataract blind eyes	61	2.21	128	3.90	189	3.13
Cataract with VA<6/60 with best correction or pinhole						
Bilateral cataract	62	4.48	85	5.18	147	4.86
Cataract eyes	188	6.80	261	7.96	449	7.43
Cataract with VA<6/18 with best correction or pinhole						
Bilateral cataract	101	7.30	129	7.87	230	7.61
Cataract eyes	262	9.47	336	10.24	598	9.89

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

11. Sample prevalence of (pseudo)aphakia

	Male		Female		Total	
	n	%	n	%	n	%
Bilateral (pseudo)aphakia	22	1.59	19	1.16	41	1.36
Unilateral (pseudo)aphakia	32	2.31	51	3.11	83	2.75
(Pseudo)aphakic eyes	76	2.75	89	2.71	165	2.73

12. Cataract Surgical Coverage

Cataract Surgical Coverage (eyes) - percentage

	Male	Female	Total
VA < 3/60	55.5	41.0	46.6
VA < 6/60	28.8	25.4	26.9
VA < 6/18	22.5	20.9	21.6

Cataract Surgical Coverage (persons) - percentage

	Male	Female	Total
VA < 3/60	80.4	61.8	69.3
VA < 6/60	44.6	42.2	43.2
VA < 6/18	34.0	33.2	33.5

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

	Male		Female		Total	
	n	%	n	%	n	%
First eyes	54	71.1	70	78.7	124	75.2
Second eyes	22	28.9	19	21.3	41	24.8

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

	Male		Female		Total	
Age group	n	%	n	%	n	%
50 to 54 yrs	0	0.0	0	0.0	0	0.0
55 to 59 yrs	2	0.8	5	1.4	7	1.2
60 to 64 yrs	5	1.3	3	0.9	8	1.1
65 to 69 yrs	1	0.5	5	3.5	6	1.7
70 to 74 yrs	5	3.0	6	5.3	11	3.9
75 to 79 yrs	3	4.2	2	3.8	5	4.0
80 + yrs	3	4.2	3	4.0	6	4.1
Total	**19**	**1.4**	**24**	**1.5**	**43**	**1.4**

15. Comparison responders versus non-responders

	Non-responders		Responders	
	n	%	n	%
Not blind	46	85.2%	5,585	92.4%
Blind due to cataract	6	11.1%	189	3.1%
Blind due to other causes	2	3.7%	107	1.8%
Operated for	0	0.0%	165	2.7%
Total	54	100.0%	6,046	100.0%

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

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

Date and time of report: 1/2/2011 11:58:16A

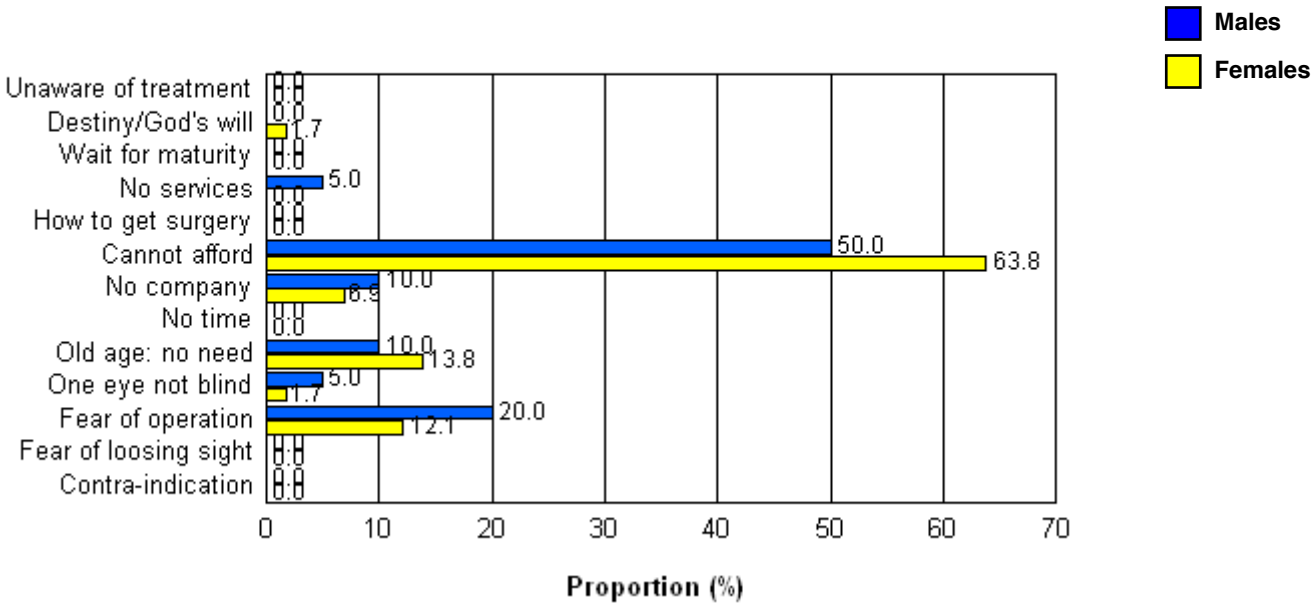
This report is for the survey area: Kishoreganj

Year and month when the survey was conducted: 2010- 8 until 2010- 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.

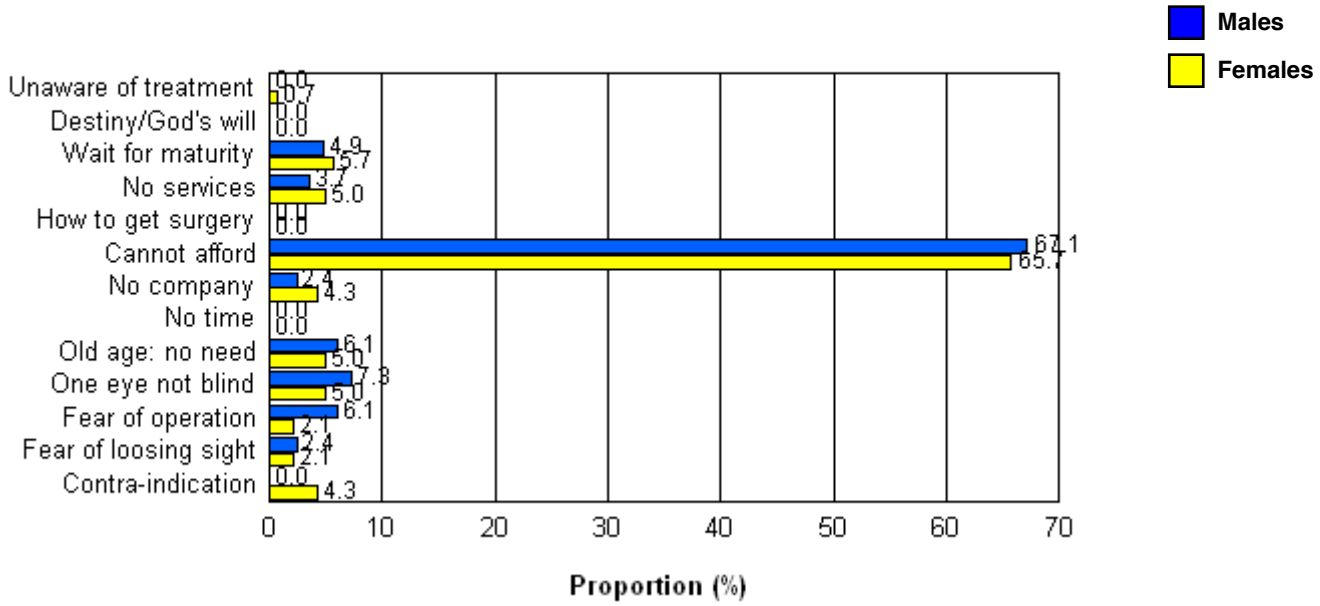
1. Barriers to cataract surgery, as indicated by persons in sample, bilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	0	0.0	0	0.0	0	0.0
Destiny/God's will	0	0.0	1	1.7	1	1.3
Wait for maturity	0	0.0	0	0.0	0	0.0
No services	1	5.0	0	0.0	1	1.3
How to get surgery	0	0.0	0	0.0	0	0.0
Cannot afford	10	50.0	37	63.8	47	60.3
No company	2	10.0	4	6.9	6	7.7
No time	0	0.0	0	0.0	0	0.0
Old age: no need	2	10.0	8	13.8	10	12.8
One eye not blind	1	5.0	1	1.7	2	2.6
Fear of operation	4	20.0	7	12.1	11	14.1
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	0	0.0	0	0.0	0	0.0
All barriers	**20**	**100.0 %**	**58**	**100.0 %**	**78**	**100.0 %**



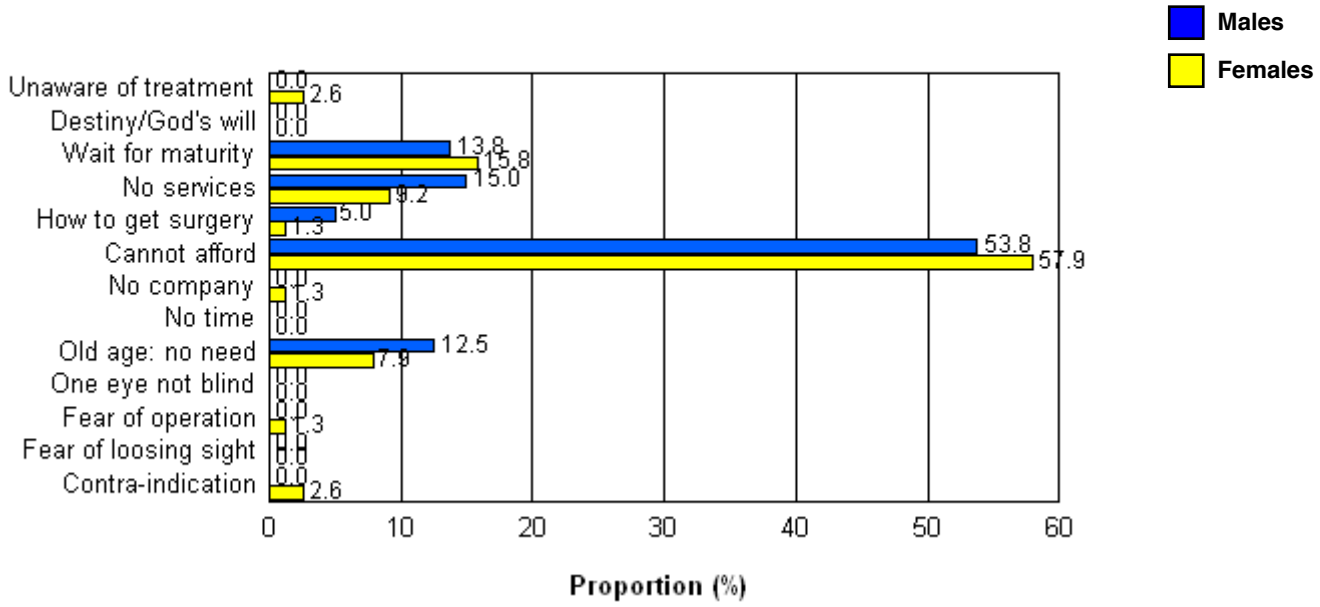
2. Barriers to cataract surgery, as indicated by persons in sample, unilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	0	0.0	1	0.7	1	0.5
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	4	4.9	8	5.7	12	5.4
No services	3	3.7	7	5.0	10	4.5
How to get surgery	0	0.0	0	0.0	0	0.0
Cannot afford	55	67.1	92	65.7	147	66.2
No company	2	2.4	6	4.3	8	3.6
No time	0	0.0	0	0.0	0	0.0
Old age: no need	5	6.1	7	5.0	12	5.4
One eye not blind	6	7.3	7	5.0	13	5.9
Fear of operation	5	6.1	3	2.1	8	3.6
Fear of loosing sight	2	2.4	3	2.1	5	2.3
Contra-indication	0	0.0	6	4.3	6	2.7
All barriers	**82**	**100.0 %**	**140**	**100.0 %**	**222**	**100.0 %**



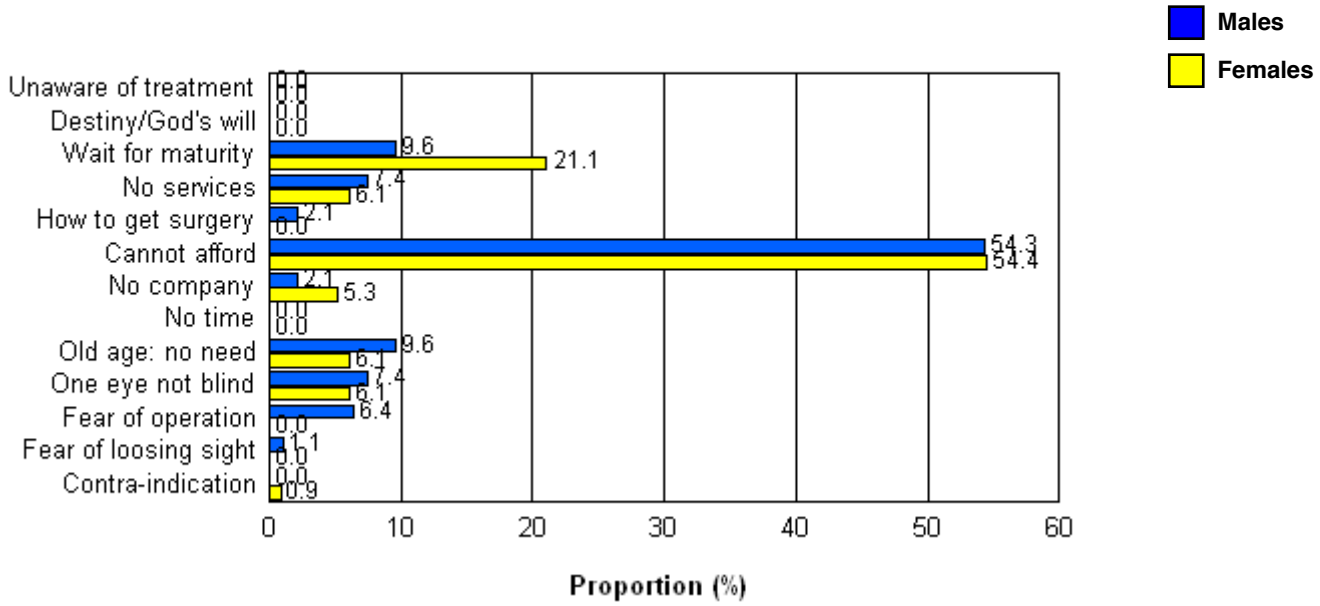
3. Barriers to cataract surgery, as indicated by persons in sample, with bilateral severe visual impairment due to cataract (VA<6/60 - 3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	0	0.0	2	2.6	2	1.3
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	11	13.8	12	15.8	23	14.7
No services	12	15.0	7	9.2	19	12.2
How to get surgery	4	5.0	1	1.3	5	3.2
Cannot afford	43	53.8	44	57.9	87	55.8
No company	0	0.0	1	1.3	1	0.6
No time	0	0.0	0	0.0	0	0.0
Old age: no need	10	12.5	6	7.9	16	10.3
One eye not blind	0	0.0	0	0.0	0	0.0
Fear of operation	0	0.0	1	1.3	1	0.6
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	0	0.0	2	2.6	2	1.3
All barriers	**80**	**100.0 %**	**76**	**100.0 %**	**156**	**100.0 %**



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

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	0	0.0	0	0.0	0	0.0
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	9	9.6	24	21.1	33	15.9
No services	7	7.4	7	6.1	14	6.7
How to get surgery	2	2.1	0	0.0	2	1.0
Cannot afford	51	54.3	62	54.4	113	54.3
No company	2	2.1	6	5.3	8	3.8
No time	0	0.0	0	0.0	0	0.0
Old age: no need	9	9.6	7	6.1	16	7.7
One eye not blind	7	7.4	7	6.1	14	6.7
Fear of operation	6	6.4	0	0.0	6	2.9
Fear of loosing sight	1	1.1	0	0.0	1	0.5
Contra-indication	0	0.0	1	0.9	1	0.5
All barriers	**94**	**100.0 %**	**114**	**100.0 %**	**208**	**100.0 %**



VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

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

Date and time of the report: 1/2/2011 12:43:27P

This report is for the survey area Kishoreganj

Year and month when survey was completed: 2010- 8 until 2010- 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%,

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	119	81.0%	9	50.0%	0	0.0%	128	77.6%
Cannot see 6/18, can see 6/60	11	7.5%	7	38.9%	0	0.0%	18	10.9%
Cannot see 6/60	17	11.6%	2	11.1%	0	0.0%	19	11.5%
Total	**147**	**100.0%**	**18**	**100.0%**	**0**	**100.0%**	**165**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	130	88.4%	16	88.9%	0	0.0%	146	88.5%
Cannot see 6/18, can see 6/60	0	0.0%	1	5.6%	0	0.0%	1	0.6%
Cannot see 6/60	17	11.6%	1	5.6%	0	0.0%	18	10.9%
Total	**147**	**100.0%**	**18**	**100.0%**	**0**	**100.0%**	**165**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	86	84.3%	0		0	0.0%	86	84.3%
Cannot see 6/18, can see 6/60	7	6.9%	0		0	0.0%	7	6.9%
Cannot see 6/60	9	8.8%	0		0	0.0%	9	8.8%
Total	**102**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	**102**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	93	91.2%	0		0	0.0%	93	91.2%
Cannot see 6/60	9	8.8%	0		0	0.0%	9	8.8%
Total	**102**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	**102**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	33	73.3%	9	50.0%	0	0.0%	42	66.7%
Cannot see 6/18, can see 6/60	4	8.9%	7	38.9%	0	0.0%	11	17.5%
Cannot see 6/60	8	17.8%	2	11.1%	0	0.0%	10	15.9%
Total	**45**	**100.0%**	**18**	**100.0%**	**0**	**100.0%**	**63**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	37	82.2%	16	88.9%	0	0.0%	53	84.1%
Cannot see 6/18, can see 6/60	0	0.0%	1	5.6%	0	0.0%	1	1.6%
Cannot see 6/60	8	17.8%	1	5.6%	0	0.0%	9	14.3%
Total	**45**	**100.0%**	**18**	**100.0%**	**0**	**100.0%**	**63**	**100.0%**

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

Age group	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
45 to 49	0	0.0%	1	10.0%	0	0.0%	1	1.3%
50 to 54	3	4.5%	5	50.0%	0	0.0%	8	10.5%
55 to 59	12	18.2%	0	0.0%	0	0.0%	12	15.8%
60 to 64	12	18.2%	1	10.0%	0	0.0%	13	17.1%
65 to 69	23	34.8%	3	30.0%	0	0.0%	26	34.2%
70 to 74	8	12.1%	0	0.0%	0	0.0%	8	10.5%
75 to 79	3	4.5%	0	0.0%	0	0.0%	3	3.9%
80 and older	5	7.6%	0	0.0%	0	0.0%	5	6.6%
Total	**66**	**100.0%**	**10**	**100.0%**	**0**	**100.0%**	**76**	**100.0%**

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

Age group	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
45 to 49	4	4.9%	0	0.0%	0	0.0%	4	4.5%
50 to 54	13	16.0%	1	12.5%	0	0.0%	14	15.7%
55 to 59	18	22.2%	3	37.5%	0	0.0%	21	23.6%
60 to 64	10	12.3%	2	25.0%	0	0.0%	12	13.5%
65 to 69	15	18.5%	1	12.5%	0	0.0%	16	18.0%
70 to 74	5	6.2%	1	12.5%	0	0.0%	6	6.7%
75 to 79	11	13.6%	0	0.0%	0	0.0%	11	12.4%
80 and older	5	6.2%	0	0.0%	0	0.0%	5	5.6%
Total	**81**	**100.0%**	**8**	**100.0%**	**0**	**100.0%**	**89**	**100.0%**

9. Place of surgery by sex

	Males n	Males %	Females n	Females %	Total n	Total %
Government hospital	6	7.9%	6	6.7%	12	7.3%
Voluntary/Charitable hospital	34	44.7%	35	39.3%	69	41.8%
Private hospital	22	28.9%	25	28.1%	47	28.5%
Eye camp/Improvised setting	14	18.4%	23	25.8%	37	22.4%
Total	**76**	**100.0%**	**89**	**100.0%**	**165**	**100.0%**

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

Top: with IOL Bottom: without IOL	Govt. Hosp. eyes	 %	Vol. Hosp. eyes	 %	Pvt. Hosp. eyes	 %	Eye camp eyes	 %	Traditional eyes	 %
Can see 6/18	7	63.6%	52	86.7%	36	80.0%	24	77.4%	0	
Cannot see 6/18, can see 6/60	2	18.2%	3	5.0%	3	6.7%	3	9.7%	0	
Cannot see 6/60	2	18.2%	5	8.3%	6	13.3%	4	12.9%	0	
Total	**11**	**100.0%**	**60**	**100.0%**	**45**	**100.0%**	**31**	**100.0%**	**0**	**100.0%**
Can see 6/18	1	100.0%	4	44.4%	1	50.0%	3	50.0%	0	
Cannot see 6/18, can see 6/60	0	0.0%	4	44.4%	0	0.0%	3	50.0%	0	
Cannot see 6/60	0	0.0%	1	11.1%	1	50.0%	0	0.0%	0	
Total	**1**	**100.0%**	**9**	**100.0%**	**2**	**100.0%**	**6**	**100.0%**	**0**	**100.0%**

11. Use of spectacles by sex

	Males n	 %	Females n	 %	Total n	 %
Without glasses	60	78.9%	79	88.8%	139	84.2%
With glasses	16	21.1%	10	11.2%	26	15.8%
Total	**76**	**100.0%**	**89**	**100.0%**	**165**	**100.0%**

12. Are you satisfied with results of cataract surgery?

	Males n	 %	Females n	 %	Total n	 %
Very satisfied	38	50.0%	41	46.1%	79	47.9%
Partially satisfied	26	34.2%	31	34.8%	57	34.5%
Indifferent	0	0.0%	1	1.1%	1	0.6%
Partially dissatisfied	5	6.6%	3	3.4%	8	4.8%
very dissatisfied	7	9.2%	13	14.6%	20	12.1%
Total	**76**	**100.0%**	**89**	**100.0%**	**165**	**100.0%**

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

Top: with IOL Bottom: without IOL	Very satisfied eyes	 %	Part. satisfied eyes	 %	Indifferent eyes	 %	Part. unsat. eyes	 %	Very unsat. eyes	 %
Can see 6/18	72	97.3%	42	87.5%	0		0	0.0%	5	27.8%
Cannot see 6/18, can see 6/60	2	2.7%	5	10.4%	0		1	14.3%	3	16.7%
Cannot see 6/60	0	0.0%	1	2.1%	0		6	85.7%	10	55.6%
Total	**74**	**100.0%**	**48**	**100.0%**	**0**	**100.0%**	**7**	**100.0%**	**18**	**100.0%**
Can see 6/18	5	100.0%	2	22.2%	0	0.0%	0	0.0%	2	100.0%
Cannot see 6/18, can see 6/60	0	0.0%	5	55.6%	1	100.0%	1	100.0%	0	0.0%
Cannot see 6/60	0	0.0%	2	22.2%	0	0.0%	0	0.0%	0	0.0%
Total	**5**	**100.0%**	**9**	**100.0%**	**1**	**100.0%**	**1**	**100.0%**	**2**	**100.0%**

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

Top: with IOL Bottom: without IOL	Selection eyes	 %	Surgery eyes	 %	Spectacles eyes	 %	Sequelae eyes	 %	No relation eyes	 %
Can see 6/18	0	0.0%	0	0.0%	0	0.0%	0	0.0%	84	98.8%
Cannot see 6/18, can see 6/60	0	0.0%	0	0.0%	6	100.0%	0	0.0%	0	0.0%
Cannot see 6/60	1	100.0%	1	100.0%	0	0.0%	4	100.0%	1	1.2%
Total	**1**	**100.0%**	**1**	**100.0%**	**6**	**100.0%**	**4**	**100.0%**	**85**	**100.0%**

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

Top: with IOL Bottom: without IOL	Selection eyes	 %	Surgery eyes	 %	Spectacles eyes	 %	Sequelae eyes	 %	No relation eyes	 %
Can see 6/18	0	0.0%	0	0.0%	0	0.0%	0	0.0%	35	92.1%
Cannot see 6/18, can see 6/60	0	0.0%	0	0.0%	3	100.0%	0	0.0%	2	5.3%
Cannot see 6/60	4	100.0%	2	100.0%	0	0.0%	3	100.0%	1	2.6%
Total	**4**	**100.0%**	**2**	**100.0%**	**3**	**100.0%**	**3**	**100.0%**	**38**	**100.0%**
Can see 6/18	0		2	100.0%	0	0.0%	0	0.0%	7	100.0%
Cannot see 6/18, can see 6/60	0		0	0.0%	7	87.5%	0	0.0%	0	0.0%
Cannot see 6/60	0		0	0.0%	1	12.5%	1	100.0%	0	0.0%
Total	**0**	**100.0%**	**2**	**100.0%**	**8**	**100.0%**	**1**	**100.0%**	**7**	**100.0%**

16. Proportion and type of surgery

	Males n	 %	Females n	 %	Total n	 %
With IOL	66	86.8%	81	91.0%	147	89.1%
Without IOL	10	13.2%	8	9.0%	18	10.9%
Total	**76**	**100.0%**	**89**	**100.0%**	**165**	**100.0%**

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

Date and time of report:	1/2/2011
This report is for the survey area	Kishoreganj
Year and month when survey was conducted:	2010- 8 until 2010- 8

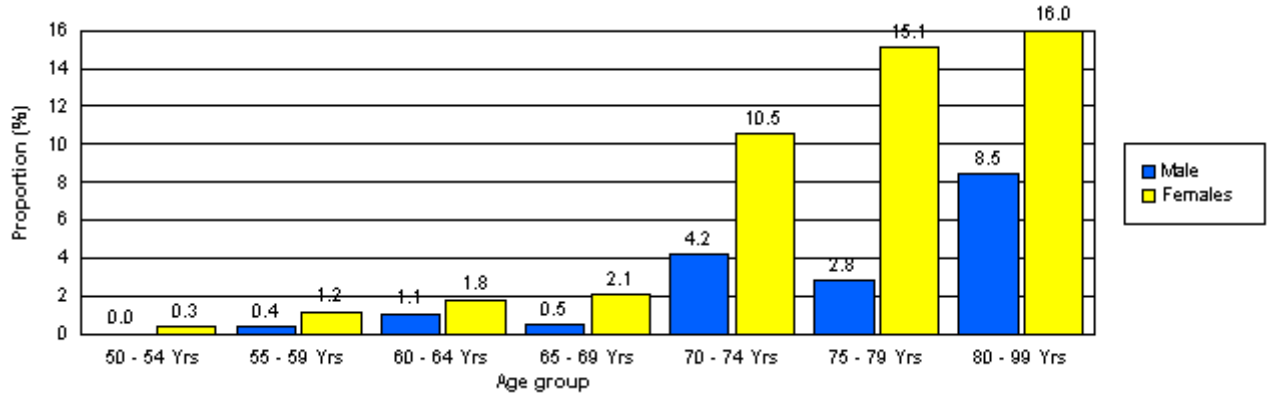
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral cataract blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals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

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	242	17.5	577	35.2	819	27.1
	260	18.8	346	21.1	606	20.0
	371	26.8	332	20.2	703	23.3
	201	14.5	143	8.7	344	11.4
	166	12.0	114	7.0	280	9.3
	72	5.2	53	3.2	125	4.1
	71	5.1	75	4.6	146	4.8
All ages	**1,383**	**100.0%**	**1,640**	**100.0%**	**3,023**	**100.0%**

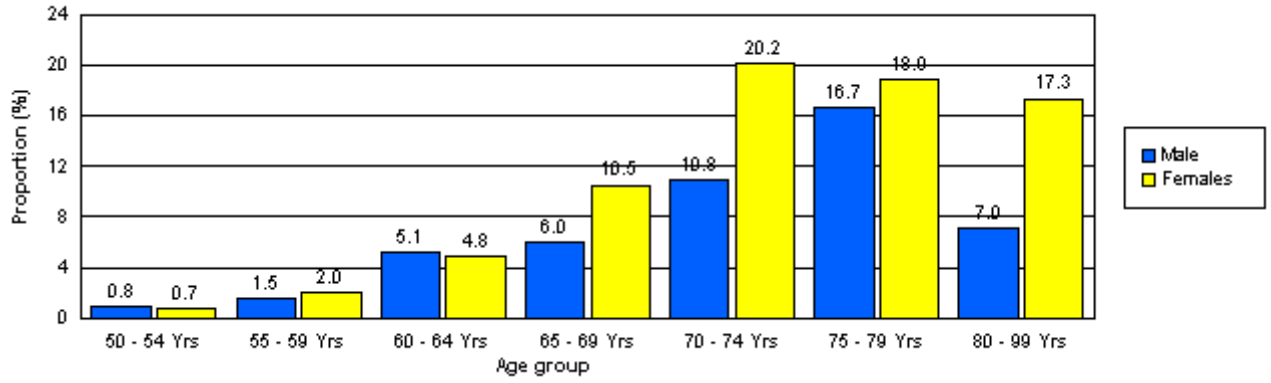
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction (WHO definition of

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.3	2	0.2
	1	0.4	4	1.2	5	0.8
	4	1.1	6	1.8	10	1.4
	1	0.5	3	2.1	4	1.2
	7	4.2	12	10.5	19	6.8
	2	2.8	8	15.1	10	8.0
	6	8.5	12	16.0	18	12.3
All ages	**21**	**1.5**	**47**	**2.9**	**68**	**2.2**



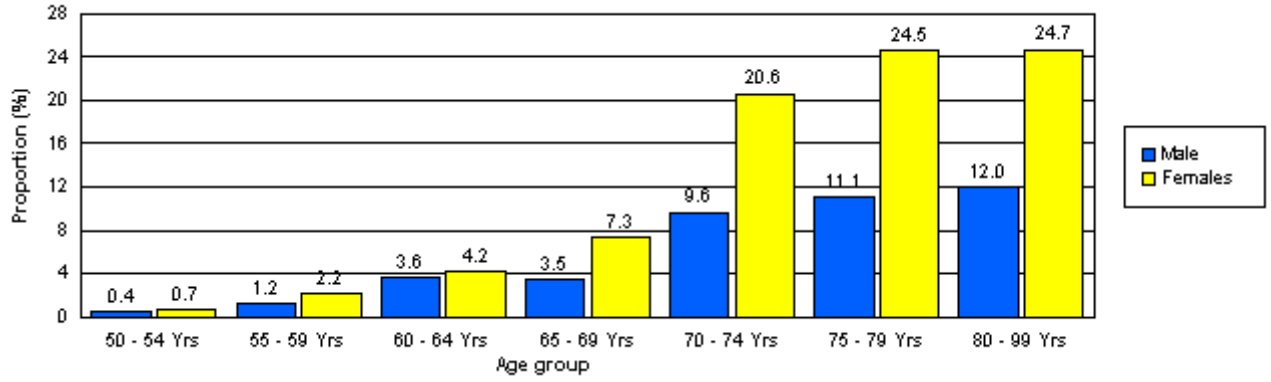
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	4	0.7	6	0.7
	4	1.5	7	2.0	11	1.8
	19	5.1	16	4.8	35	5.0
	12	6.0	15	10.5	27	7.8
	18	10.8	23	20.2	41	14.6
	12	16.7	10	18.9	22	17.6
	5	7.0	13	17.3	18	12.3
All ages	**72**	**5.2**	**88**	**5.4**	**160**	**5.3**



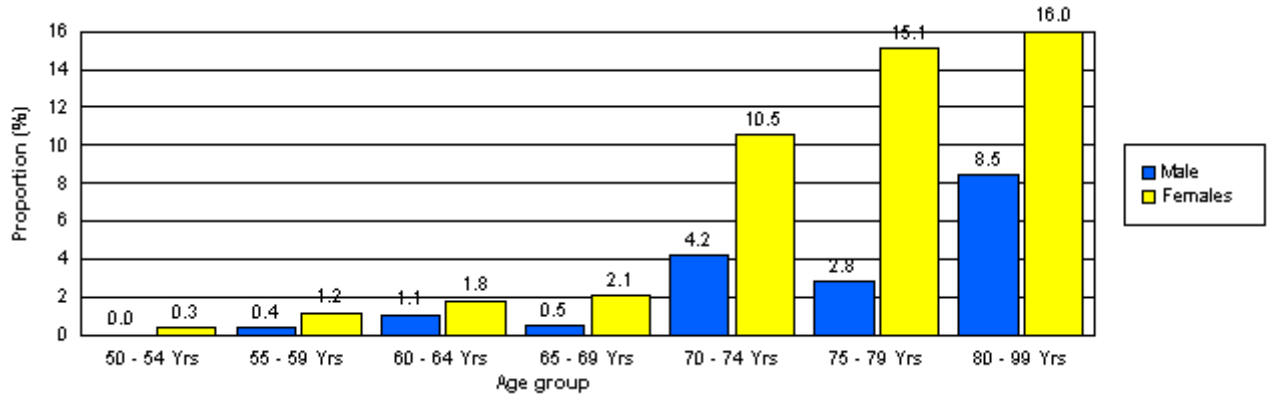
4. Prevalence of blind eyes - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.4	8	0.7	10	0.6
	6	1.2	15	2.2	21	1.7
	27	3.6	28	4.2	55	3.9
	14	3.5	21	7.3	35	5.1
	32	9.6	47	20.6	79	14.1
	16	11.1	26	24.5	42	16.8
	17	12.0	37	24.7	54	18.5
All ages	**114**	**4.1**	**182**	**5.5**	**296**	**4.9**



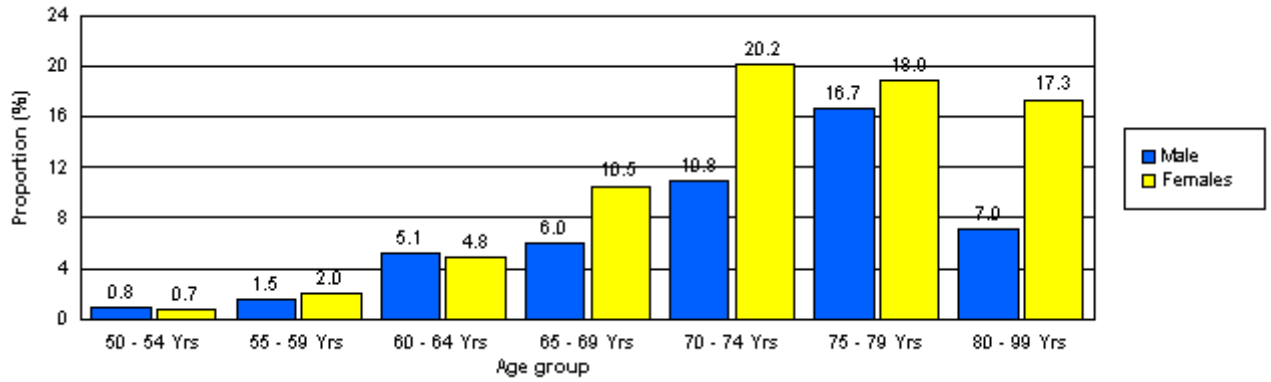
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.3	2	0.2
	1	0.4	4	1.2	5	0.8
	4	1.1	6	1.8	10	1.4
	1	0.5	3	2.1	4	1.2
	7	4.2	12	10.5	19	6.8
	2	2.8	8	15.1	10	8.0
	6	8.5	12	16.0	18	12.3
All ages	**21**	**1.5**	**47**	**2.9**	**68**	**2.2**



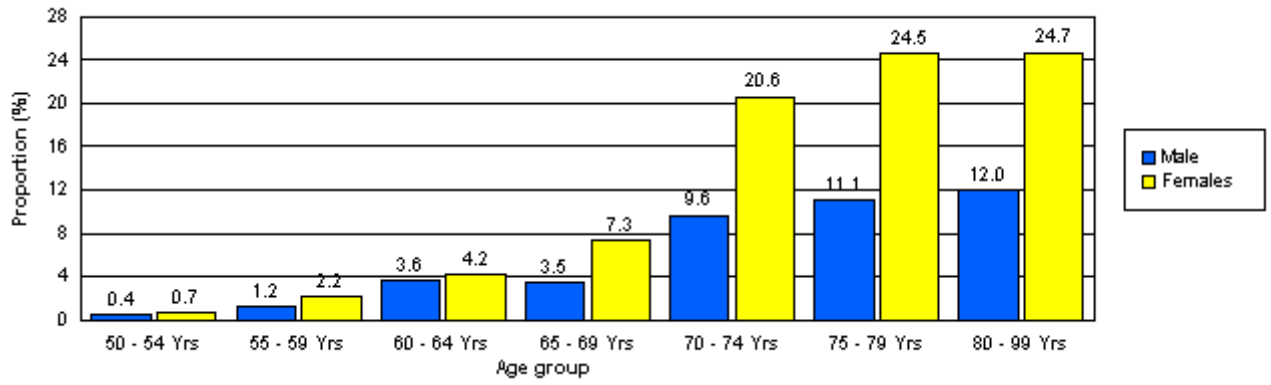
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	4	0.7	6	0.7
	4	1.5	7	2.0	11	1.8
	19	5.1	16	4.8	35	5.0
	12	6.0	15	10.5	27	7.8
	18	10.8	23	20.2	41	14.6
	12	16.7	10	18.9	22	17.6
	5	7.0	13	17.3	18	12.3
All ages	**72**	**5.2**	**88**	**5.4**	**160**	**5.3**



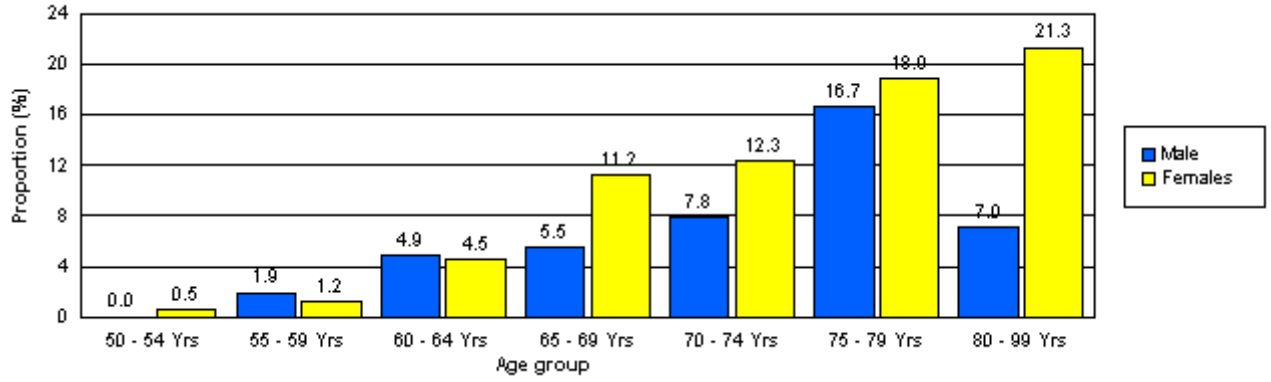
7. Prevalence of blind eyes - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.4	8	0.7	10	0.6
	6	1.2	15	2.2	21	1.7
	27	3.6	28	4.2	55	3.9
	14	3.5	21	7.3	35	5.1
	32	9.6	47	20.6	79	14.1
	16	11.1	26	24.5	42	16.8
	17	12.0	37	24.7	54	18.5
All ages	**114**	**4.1**	**182**	**5.5**	**296**	**4.9**



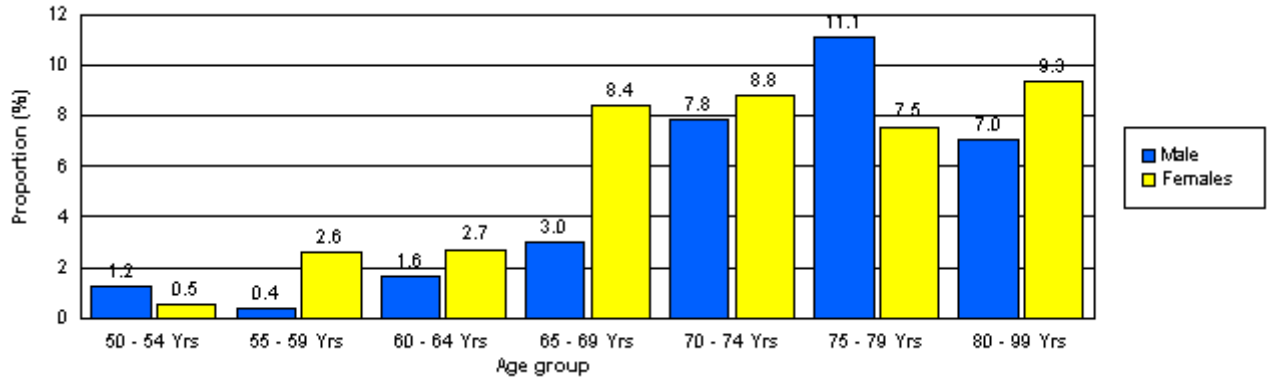
8. Prevalence of people with bilateral severe visual impairment - VA <6/60-3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	3	0.5	3	0.4
	5	1.9	4	1.2	9	1.5
	18	4.9	15	4.5	33	4.7
	11	5.5	16	11.2	27	7.8
	13	7.8	14	12.3	27	9.6
	12	16.7	10	18.9	22	17.6
	5	7.0	16	21.3	21	14.4
All ages	**64**	**4.6**	**78**	**4.8**	**142**	**4.7**



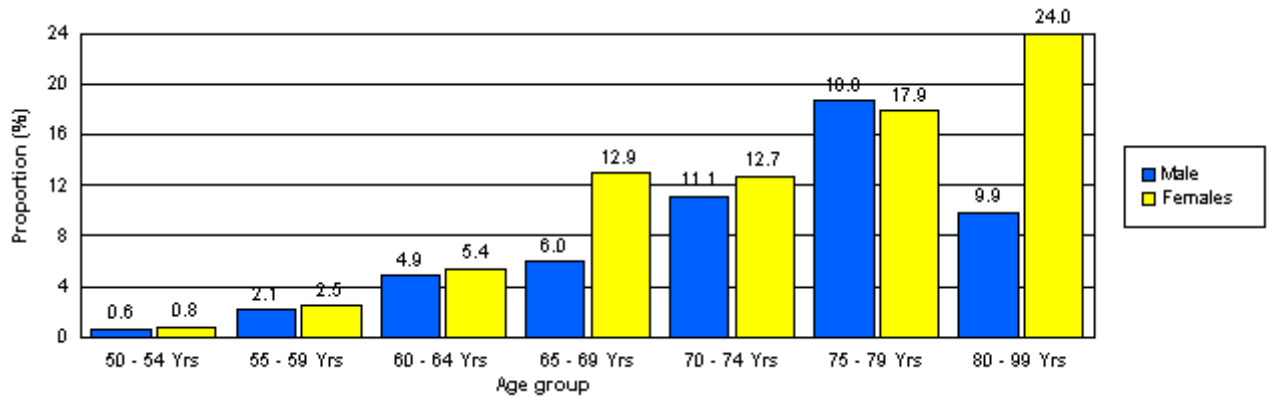
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	1.2	3	0.5	6	0.7
	1	0.4	9	2.6	10	1.7
	6	1.6	9	2.7	15	2.1
	6	3.0	12	8.4	18	5.2
	13	7.8	10	8.8	23	8.2
	8	11.1	4	7.5	12	9.6
	5	7.0	7	9.3	12	8.2
All ages	**42**	**3.0**	**54**	**3.3**	**96**	**3.2**



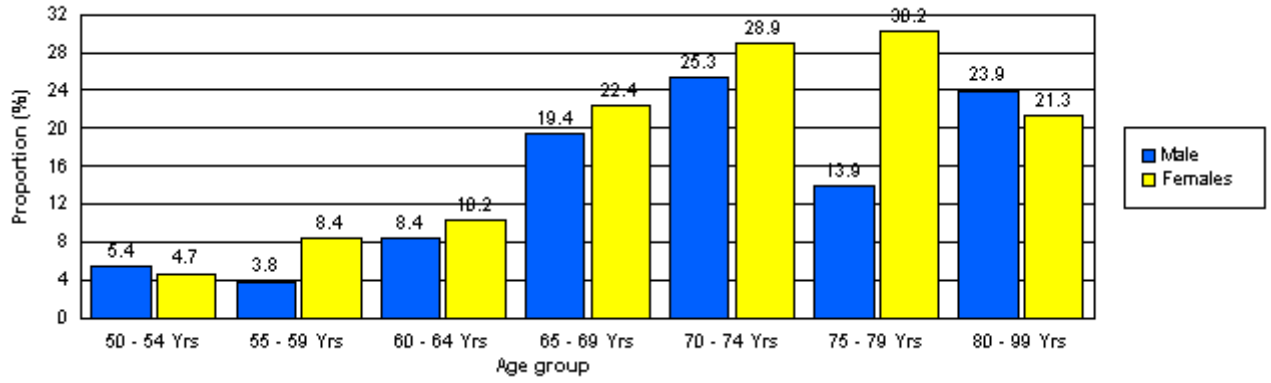
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	3	0.6	9	0.8	12	0.7
	11	2.1	17	2.5	28	2.3
	36	4.9	36	5.4	72	5.1
	24	6.0	37	12.9	61	8.9
	37	11.1	29	12.7	66	11.8
	27	18.8	19	17.9	46	18.4
	14	9.9	36	24.0	50	17.1
All ages	**152**	**5.5**	**183**	**5.6**	**335**	**5.5**



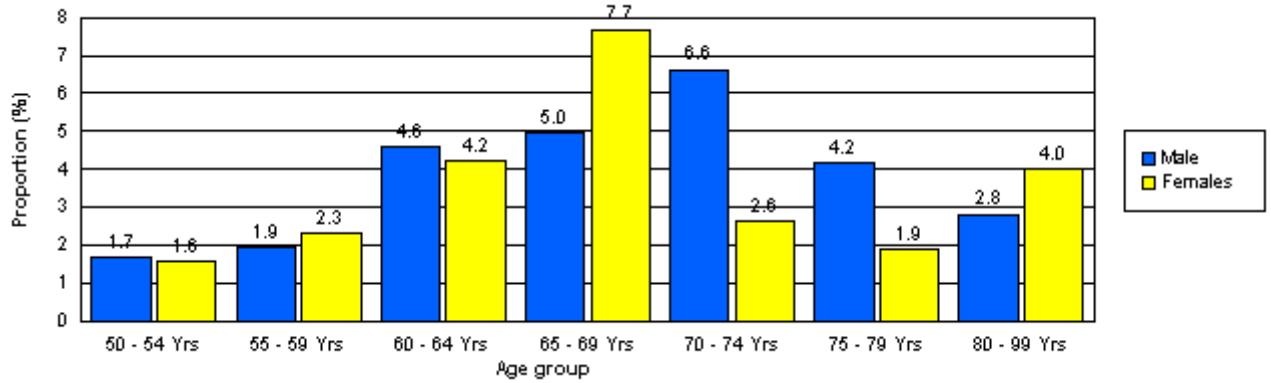
11. Prevalence of people with bilateral visual impairment - VA <6/18-6/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	13	5.4	27	4.7	40	4.9
	10	3.8	29	8.4	39	6.4
	31	8.4	34	10.2	65	9.2
	39	19.4	32	22.4	71	20.6
	42	25.3	33	28.9	75	26.8
	10	13.9	16	30.2	26	20.8
	17	23.9	16	21.3	33	22.6
All ages	**162**	**11.7**	**187**	**11.4**	**349**	**11.5**



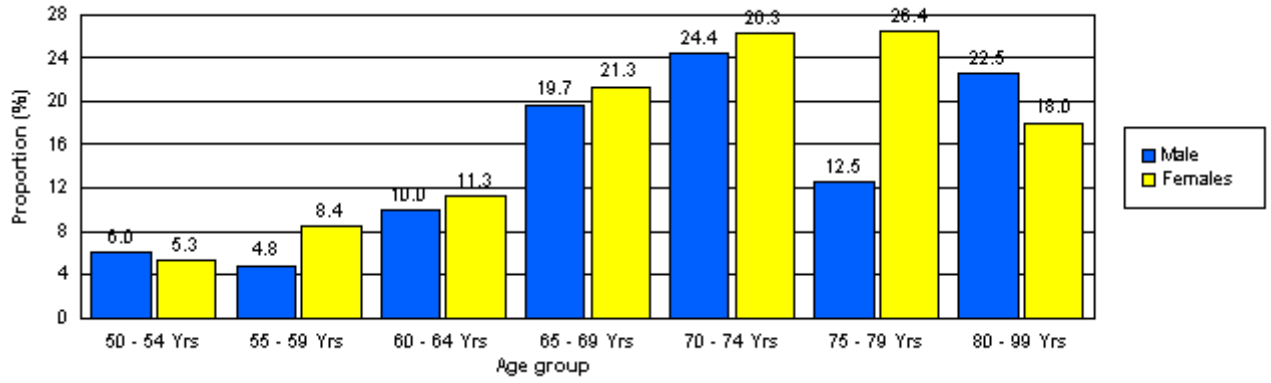
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	4	1.7	9	1.6	13	1.6
	5	1.9	8	2.3	13	2.1
	17	4.6	14	4.2	31	4.4
	10	5.0	11	7.7	21	6.1
	11	6.6	3	2.6	14	5.0
	3	4.2	1	1.9	4	3.2
	2	2.8	3	4.0	5	3.4
All ages	**52**	**3.8**	**49**	**3.0**	**101**	**3.3**



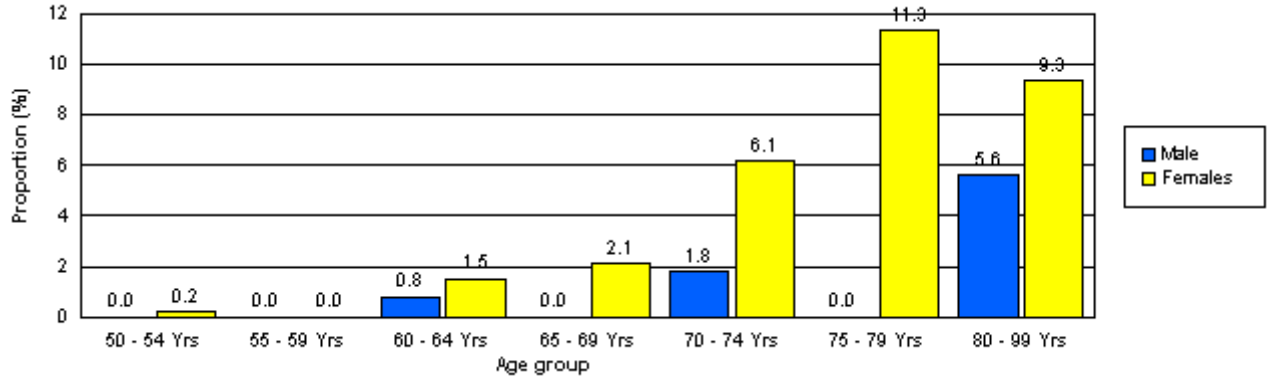
13. Prevalence of VI eyes - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	29	6.0	61	5.3	90	5.5
	25	4.8	58	8.4	83	6.8
	74	10.0	75	11.3	149	10.6
	79	19.7	61	21.3	140	20.3
	81	24.4	60	26.3	141	25.2
	18	12.5	28	26.4	46	18.4
	32	22.5	27	18.0	59	20.2
All ages	**338**	**12.2**	**370**	**11.3**	**708**	**11.7**



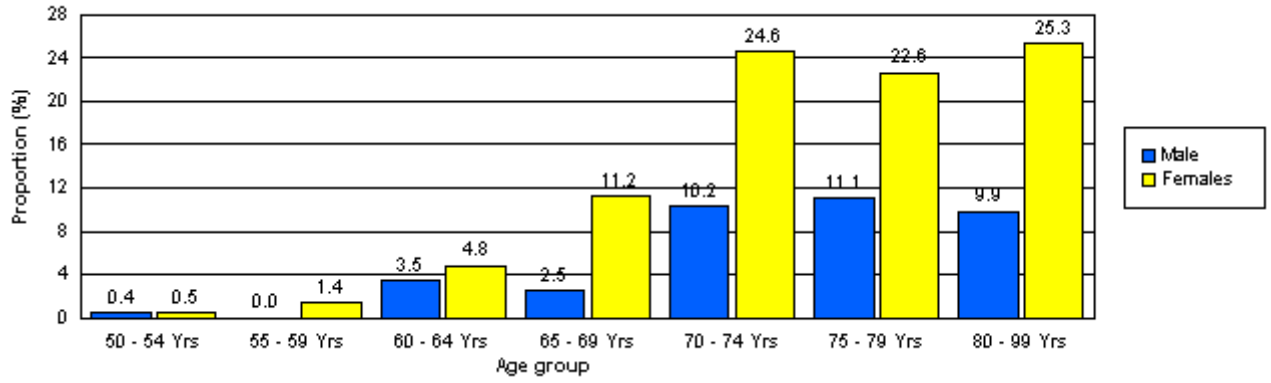
14. Prevalence of people bilateral blind due to cataract - VA <3/60 in better eye with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.2	1	0.1
	0	0.0	0	0.0	0	0.0
	3	0.8	5	1.5	8	1.1
	0	0.0	3	2.1	3	0.9
	3	1.8	7	6.1	10	3.6
	0	0.0	6	11.3	6	4.8
	4	5.6	7	9.3	11	7.5
All ages	**10**	**0.7**	**29**	**1.8**	**39**	**1.3**



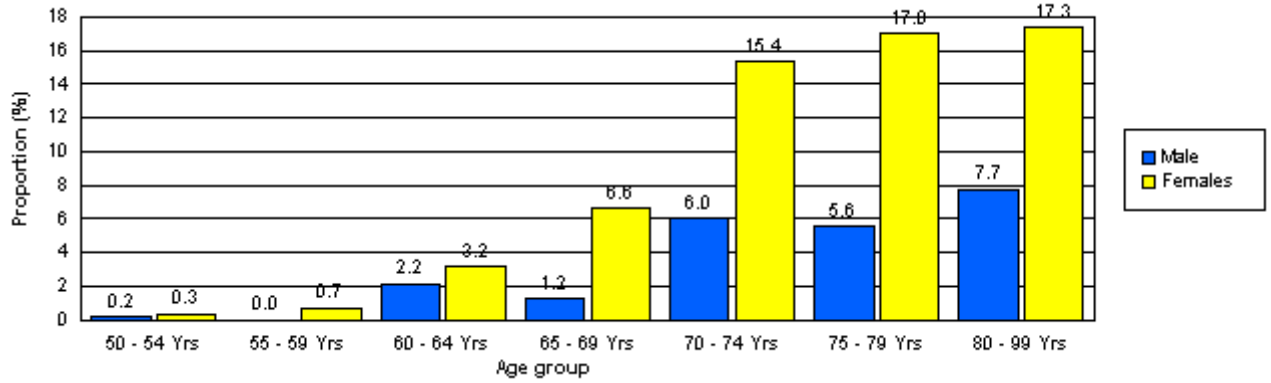
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.4	3	0.5	4	0.5
	0	0.0	5	1.4	5	0.8
	13	3.5	16	4.8	29	4.1
	5	2.5	16	11.2	21	6.1
	17	10.2	28	24.6	45	16.1
	8	11.1	12	22.6	20	16.0
	7	9.9	19	25.3	26	17.8
All ages	**51**	**3.7**	**99**	**6.0**	**150**	**5.0**



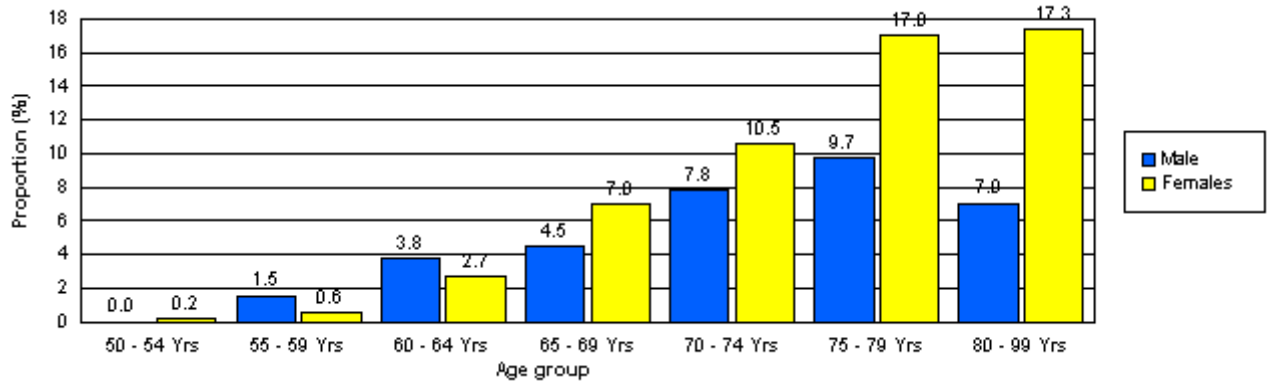
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.2	4	0.3	5	0.3
	0	0.0	5	0.7	5	0.4
	16	2.2	21	3.2	37	2.6
	5	1.2	19	6.6	24	3.5
	20	6.0	35	15.4	55	9.8
	8	5.6	18	17.0	26	10.4
	11	7.7	26	17.3	37	12.7
All ages	**61**	**2.2**	**128**	**3.9**	**189**	**3.1**



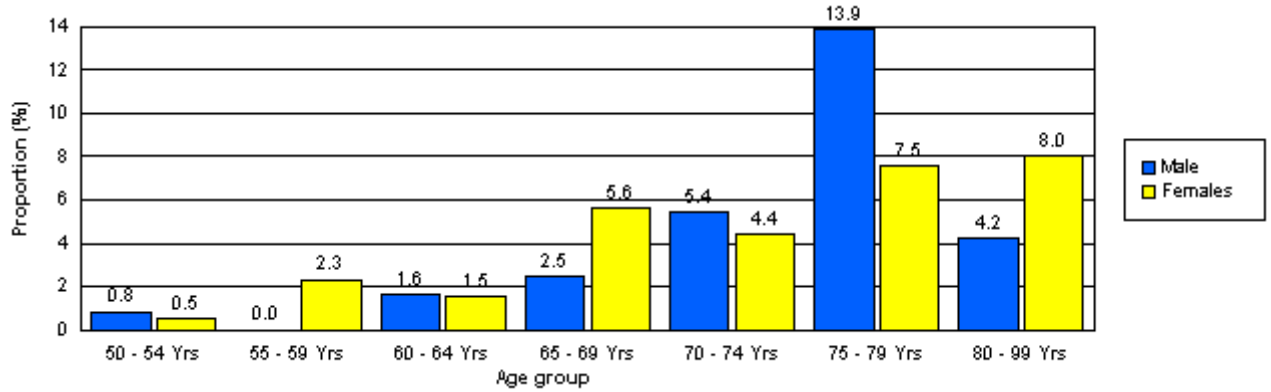
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correctio

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.2	1	0.1
	4	1.5	2	0.6	6	1.0
	14	3.8	9	2.7	23	3.3
	9	4.5	10	7.0	19	5.5
	13	7.8	12	10.5	25	8.9
	7	9.7	9	17.0	16	12.8
	5	7.0	13	17.3	18	12.3
All ages	**52**	**3.8**	**56**	**3.4**	**108**	**3.6**



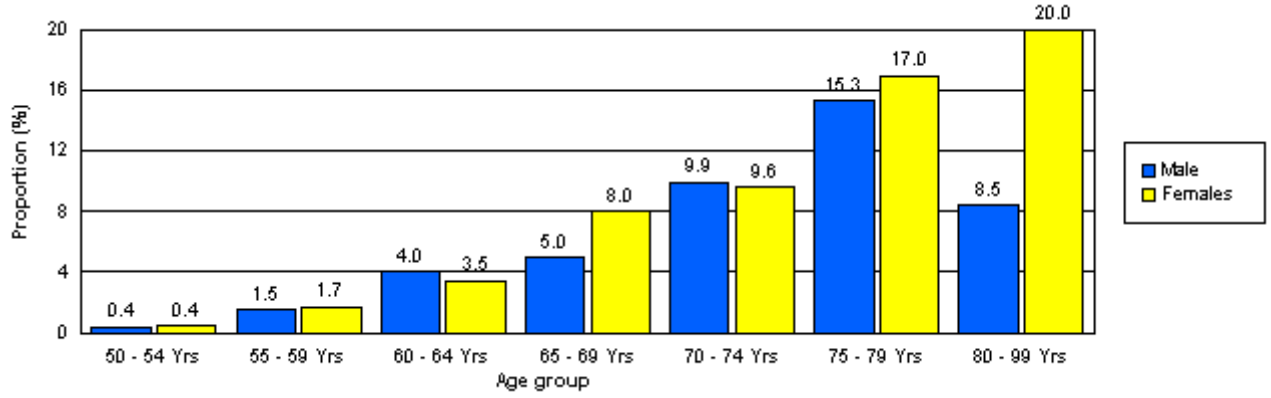
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA <3/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	3	0.5	5	0.6
	0	0.0	8	2.3	8	1.3
	6	1.6	5	1.5	11	1.6
	5	2.5	8	5.6	13	3.8
	9	5.4	5	4.4	14	5.0
	10	13.9	4	7.5	14	11.2
	3	4.2	6	8.0	9	6.2
All ages	**35**	**2.5**	**39**	**2.4**	**74**	**2.4**



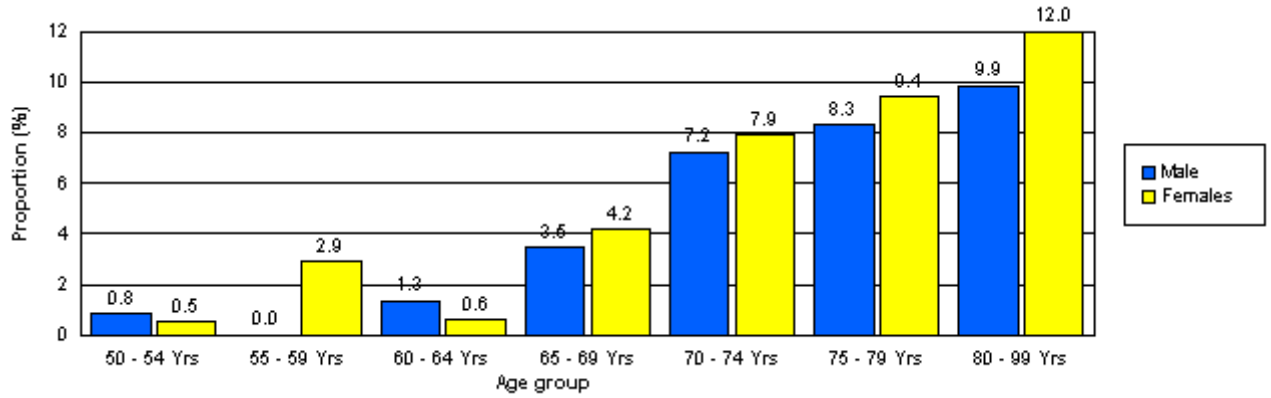
19. Prevalence of cataract SVI eyes - VA VA<6/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.4	5	0.4	7	0.4
	8	1.5	12	1.7	20	1.7
	30	4.0	23	3.5	53	3.8
	20	5.0	23	8.0	43	6.3
	33	9.9	22	9.6	55	9.8
	22	15.3	18	17.0	40	16.0
	12	8.5	30	20.0	42	14.4
All ages	**127**	**4.6**	**133**	**4.1**	**260**	**4.3**



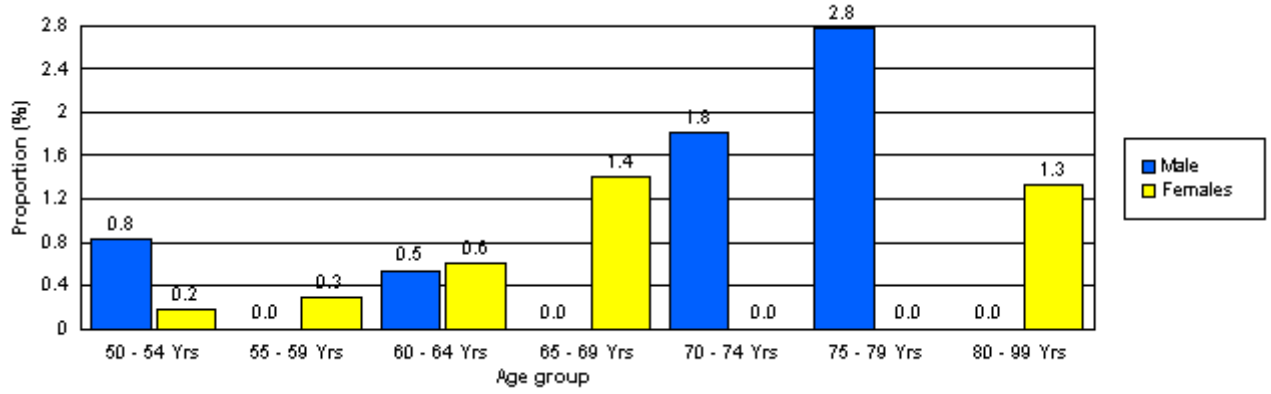
20. Prevalence of people with bilateral visual impairment due to cataract - VA <6/18-6/60 - best eye, best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	3	0.5	5	0.6
	0	0.0	10	2.9	10	1.7
	5	1.3	2	0.6	7	1.0
	7	3.5	6	4.2	13	3.8
	12	7.2	9	7.9	21	7.5
	6	8.3	5	9.4	11	8.8
	7	9.9	9	12.0	16	11.0
All ages	**39**	**2.8**	**44**	**2.7**	**83**	**2.7**



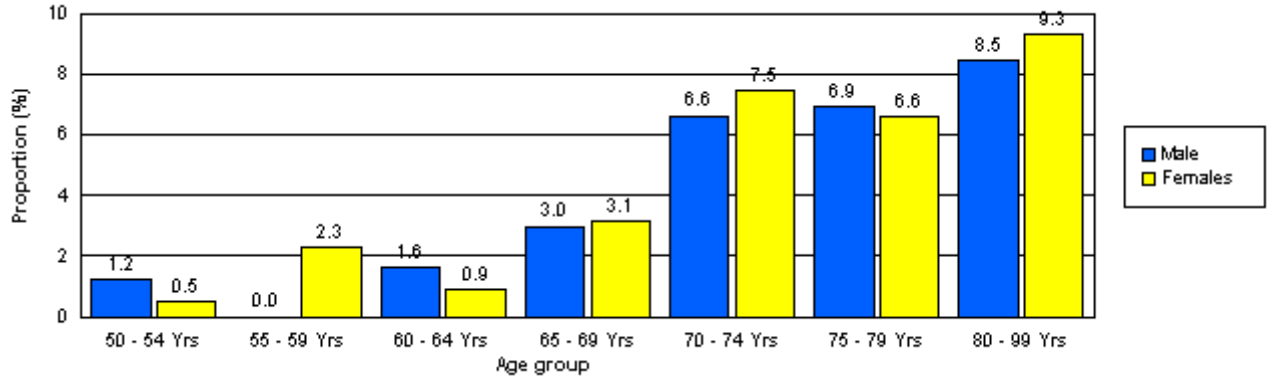
21. Prevalence of people with unilateral visual impairment due to cataract - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	0.8	1	0.2	3	0.4
	0	0.0	1	0.3	1	0.2
	2	0.5	2	0.6	4	0.6
	0	0.0	2	1.4	2	0.6
	3	1.8	0	0.0	3	1.1
	2	2.8	0	0.0	2	1.6
	0	0.0	1	1.3	1	0.7
All ages	**9**	**0.7**	**7**	**0.4**	**16**	**0.5**



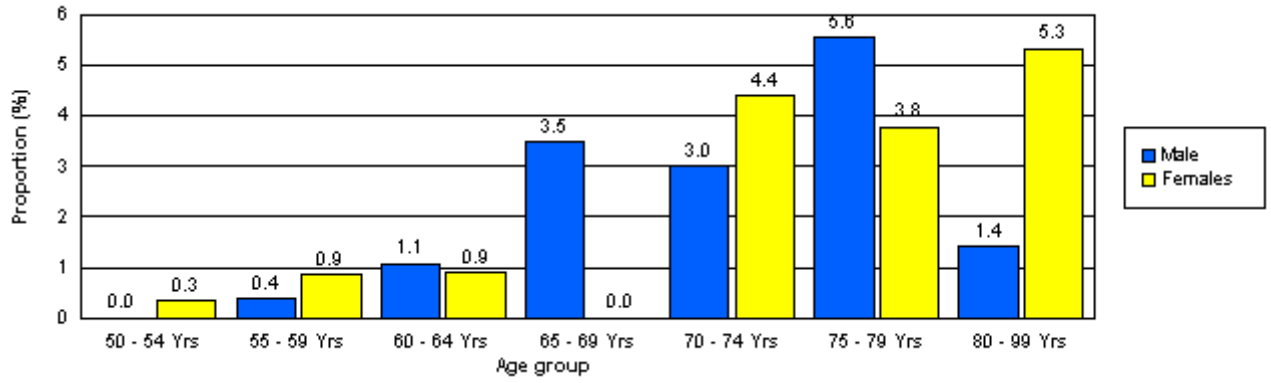
22. Prevalence of cataract VI eyes - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	6	1.2	6	0.5	12	0.7
	0	0.0	16	2.3	16	1.3
	12	1.6	6	0.9	18	1.3
	12	3.0	9	3.1	21	3.1
	22	6.6	17	7.5	39	7.0
	10	6.9	7	6.6	17	6.8
	12	8.5	14	9.3	26	8.9
All ages	**74**	**2.7**	**75**	**2.3**	**149**	**2.5**



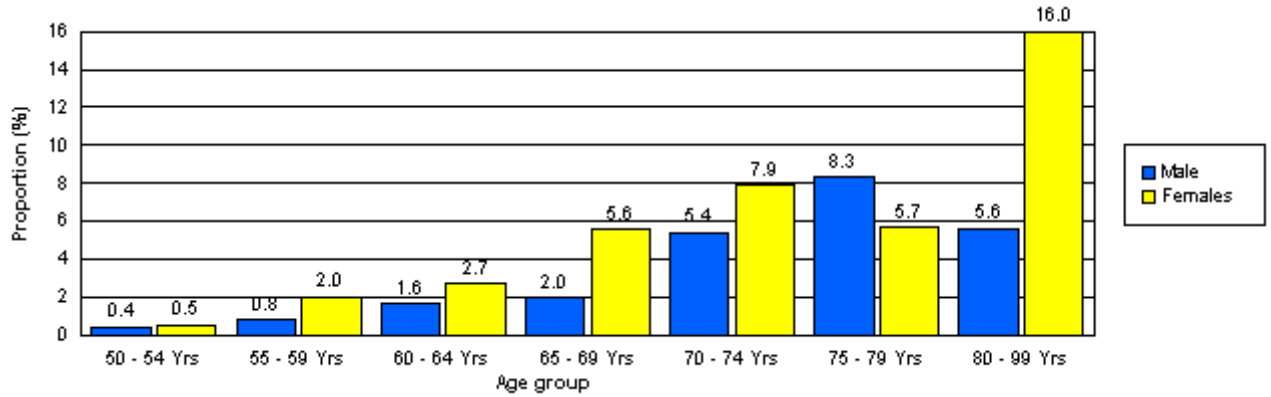
23. Prevalence of people with bilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.3	2	0.2
	1	0.4	3	0.9	4	0.7
	4	1.1	3	0.9	7	1.0
	7	3.5	0	0.0	7	2.0
	5	3.0	5	4.4	10	3.6
	4	5.6	2	3.8	6	4.8
	1	1.4	4	5.3	5	3.4
All ages	**22**	**1.6**	**19**	**1.2**	**41**	**1.4**



24. Prevalence of people with unilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.4	3	0.5	4	0.5
	2	0.8	7	2.0	9	1.5
	6	1.6	9	2.7	15	2.1
	4	2.0	8	5.6	12	3.5
	9	5.4	9	7.9	18	6.4
	6	8.3	3	5.7	9	7.2
	4	5.6	12	16.0	16	11.0
All ages	**32**	**2.3**	**51**	**3.1**	**83**	**2.7**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS
AGE AND SEX ADJUSTED

Date and time of the report: 1/2/2011

This report is for the survey area Kishoreganj

Year and month when survey was completed: 2010- 8 until 2010- 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,

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

Male	182,187	59.6%
Female	123,472	40.4%
Total	**305,659**	**100.0%**

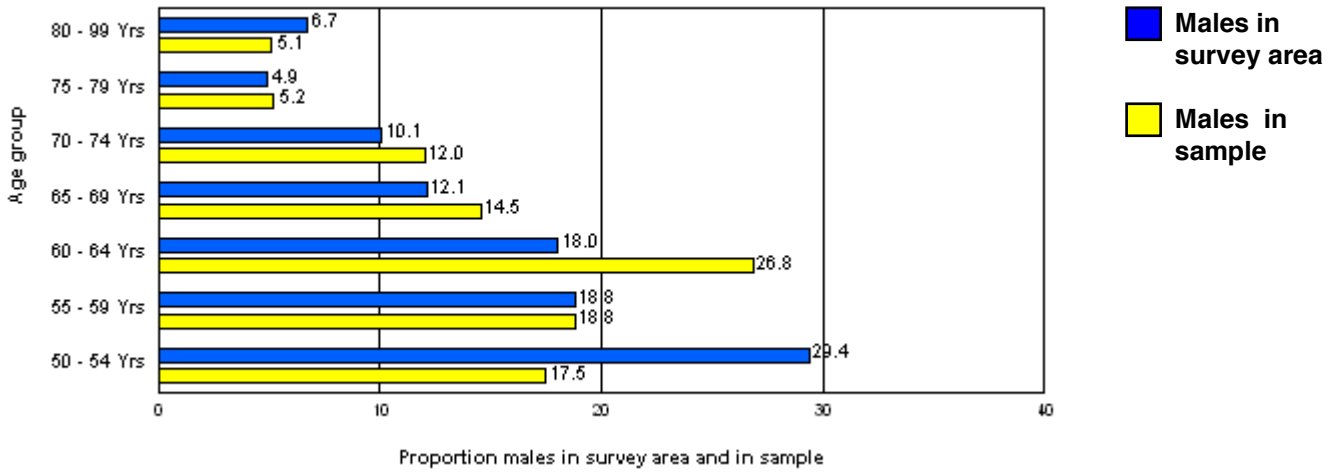
2a. Age and sex composition of population in sample

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	242	17.5%	577	35.2%	819	27.1%
55 - 59 Yrs	260	18.8%	346	21.1%	606	20.0%
60 - 64 Yrs	371	26.8%	332	20.2%	703	23.3%
65 - 69 Yrs	201	14.5%	143	8.7%	344	11.4%
70 - 74 Yrs	166	12.0%	114	7.0%	280	9.3%
75 - 79 Yrs	72	5.2%	53	3.2%	125	4.1%
80 - 99 Yrs	71	5.1%	75	4.6%	146	4.8%
Total	**1,383**	**100.0%**	**1,640**	**100.0%**	**3,023**	**100.0%**

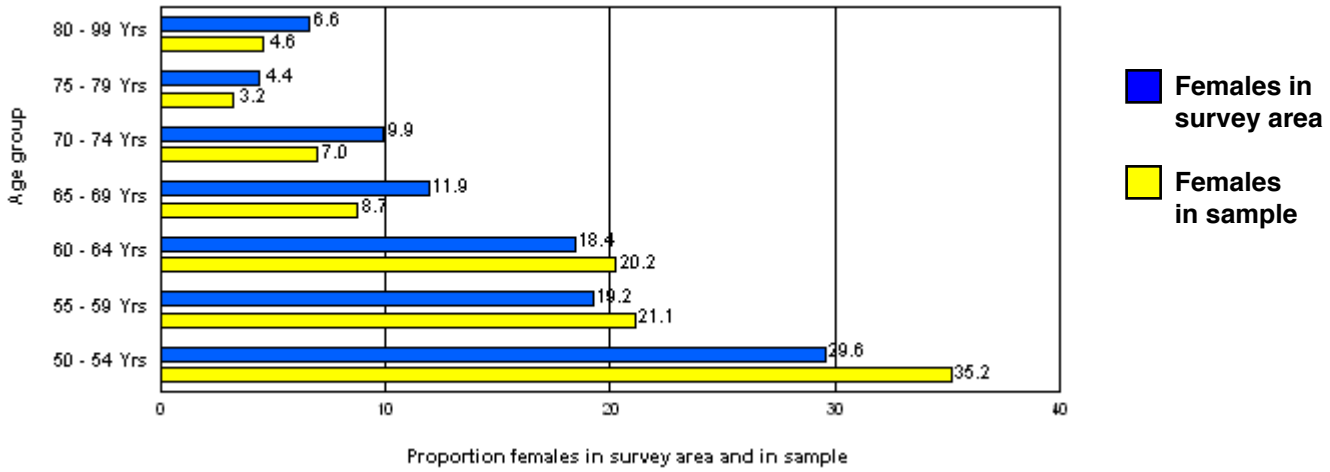
2b. Age and sex composition of population in entire survey area

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	53,509	29.4%	36,522	29.6%	90,031	29.5%
55 - 59 Yrs	34,286	18.8%	23,745	19.2%	58,031	19.0%
60 - 64 Yrs	32,851	18.0%	22,727	18.4%	55,578	18.2%
65 - 69 Yrs	22,092	12.1%	14,699	11.9%	36,791	12.0%
70 - 74 Yrs	18,362	10.1%	12,211	9.9%	30,573	10.0%
75 - 79 Yrs	8,894	4.9%	5,427	4.4%	14,321	4.7%
80 - 99 Yrs	12,193	6.7%	8,141	6.6%	20,334	6.7%
Total	**182,187**	**100.0%**	**123,472**	**100.0%**	**305,659**	**100.0%**

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



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



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

Estimated cases in people 50+ in survey area	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Blindness - VA<3/60 in better eye, best corrected or pinhole (WHO definition)									
Bilateral blind	2,648	1.45	±0.73	4,527	3.67	±1.00	7,175	2.35	±0.73
Blind eyes	13,599	3.73	±1.06	17,324	7.02	±1.28	30,923	5.06	±0.98
Blindness - VA<3/60 in better eye, with available correction									
Bilateral blind	2,648	1.45	±0.73	4,527	3.67	±1.00	7,175	2.35	±0.73
Blind eyes	13,599	3.73	±1.06	17,324	7.02	±1.28	30,923	5.06	±0.98
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in better eye with available correction									
Bilateral SVI	7,241	3.97	±1.20	7,396	5.99	±0.99	14,637	4.79	±0.88
SVI eyes	17,772	4.88	±1.32	16,963	6.87	±1.16	34,735	5.68	±1.00
Visual Impairment (VI) - VA<6/18 - 6/60 in better eye with available correction									
Bilateral VI	20,025	10.99	±1.79	16,226	13.14	±1.78	36,251	11.86	±1.40
VI eyes	41,623	11.42	±1.78	31,470	12.74	±1.59	73,094	11.96	±1.30

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

Estimated cases in people 50+ in survey area	Male n	Male %	Female n	Female %	Total n	Total %
Blindness - VA<3/60 in better eye, with available correction						
Bilateral blind	2,648	1.45	4,527	3.67	7,175	2.35
Blind eyes	13,599	3.73	17,324	7.02	30,923	5.06
VA<6/60 in better eye with available correction						
Bilateral <6/60	9,889	5.43	11,923	9.66	21,812	7.14
Eyes <6/60	31,370	8.61	34,287	13.88	65,658	10.74
VA<6/18 in better eye with available correction						
Bilateral <6/18	29,914	16.42	28,149	22.80	58,063	19.00
Eyes <6/18	72,993	20.03	65,758	26.63	138,751	22.70

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

	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Cataract and VA<3/60 in better eye with best correction or pinhole									
Bilateral cataract	1,284	0.70	±0.46	2,838	2.30	±0.74	4,122	1.35	±0.50
Unilateral cataract	5,993	3.29	±1.13	9,563	7.75	±1.13	15,556	5.09	±0.91
Cataract eyes	8,561	2.35	±0.81	15,239	6.17	±1.04	23,801	3.89	±0.82
Cataract and SVI in better eye with best correction or pinhole									
Bilateral cataract	5,918	3.25	±1.00	5,463	4.42	±0.80	11,380	3.72	±0.69
Unilateral cataract	4,269	2.34	±1.07	3,500	2.83	±0.86	7,769	2.54	±0.70
Cataract eyes	14,780	4.06	±1.12	12,535	5.08	±0.96	27,315	4.47	±0.80
Cataract and VI in better eye with best correction or pinhole									
Bilateral cataract	4,925	2.70	±0.78	4,083	3.31	±0.60	9,008	2.95	±0.53
Unilateral cataract	1,198	0.66	±0.68	583	0.47	±0.64	1,781	0.58	±0.48
Cataract eyes	9,438	2.59	±0.93	6,871	2.78	±0.68	16,309	2.67	±0.63

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

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

	Male n	Male %	Female n	Female %	Total n	Total %
Cataract and VA<3/60 in better eye with best correction or pinhole						
Bilateral cataract	1,284	0.70	2,838	2.30	4,122	1.35
Unilateral cataract	5,993	3.29	9,563	7.75	15,556	5.09
Cataract eyes	8,561	2.35	15,239	6.17	23,801	3.89
Cataract and VA<6/60 in better eye with best correction or pinhole						
Bilateral cataract	7,202	3.95	8,301	6.72	15,503	5.07
Unilateral cataract	10,262	5.63	13,063	10.58	23,325	7.63
Cataract eyes	23,342	6.41	27,774	11.25	51,116	8.36
Cataract and VA<6/18 in better eye with best correction or pinhole						
Bilateral cataract	12,127	6.66	12,383	10.03	24,510	8.02
Unilateral cataract	11,460	6.29	13,646	11.05	25,106	8.21
Cataract eyes	32,780	9.00	34,645	14.03	67,424	11.03

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

8. Adjusted results for aphakia and pseudophakia

	Male			Female			Total		
	n	%	CI95%	n	%	CI95%	n	%	CI95%
Bilateral (pseudo)aphakia	2,474	1.36	±0.66	1,712	1.39	±0.53	4,187	1.37	±0.41
Unilateral (pseudo)aphakia	3,879	2.13	±0.97	4,682	3.79	±0.89	8,562	2.80	±0.63
(pseudo)aphakic eyes	8,828	2.42	±0.84	8,107	3.28	±0.71	16,935	2.77	±0.53

9. Adjusted results for cataract surgical coverage

Cataract Surgical Coverage (eyes)

	Males	Females	Total
VA <3/60	50.8	34.7	41.6
VA <6/60	27.4	22.6	24.9
VA <6/18	21.2	19.0	20.1

Cataract Surgical Coverage (persons)

	Males	Females	Total
VA <3/60	78.7	60.9	69.0
VA <6/60	44.3	41.3	42.7
VA <6/18	32.8	32.7	32.7

SAMPLING ERROR (CLUSTER SAMPLING) & DESIGN EFFECT

Date and time of the report: 1/2/2011

This report is for the survey area Kishoreganj

Year and month when survey was completed: 2010- 8 until 2010- 8

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

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

Bilateral blind, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	21	1.52	0.79 - 2.25	0.73	0.61	0.48	1.29	0.37
Female	47	2.87	1.86 - 3.87	1.00	0.84	0.66	1.54	0.51
Total	**68**	**2.25**	**1.52 - 2.98**	**0.73**	**0.61**	**0.48**	**1.90**	**0.37**

Blind eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	114	4.12	3.06 - 5.18	1.06	0.89	0.69	1.03	0.54
Female	182	5.55	4.27 - 6.83	1.28	1.07	0.84	1.33	0.65

Total	**296**	**4.90**	**3.91**	**-**	**5.88**	**0.98**	**0.83**	**0.64**	**1.63**	**0.50**

Bilateral SVI, best corrected — **Cluster sampling**

	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	62	4.48	3.27	-	5.70	1.22	1.02	0.79	1.24	0.62
Female	70	4.27	3.32	-	5.22	0.95	0.80	0.62	0.94	0.48
Total	**132**	**4.37**	**3.49**	**-**	**5.25**	**0.88**	**0.74**	**0.57**	**1.46**	**0.45**

SVI eyes, best corrected — **Cluster sampling**

	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	144	5.21	3.94	-	6.47	1.26	1.06	0.83	1.16	0.64
Female	166	5.03	3.93	-	6.13	1.10	0.92	0.72	1.08	0.56
Total	**310**	**5.11**	**4.15**	**-**	**6.07**	**0.96**	**0.81**	**0.63**	**1.50**	**0.49**

Bilateral VI, best corrected — **Cluster sampling**

	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	48	3.47	2.37	-	4.57	1.10	0.92	0.72	1.29	0.56
Female	61	3.72	2.82	-	4.62	0.90	0.76	0.59	0.97	0.46
Total	**109**	**3.61**	**2.86**	**-**	**4.35**	**0.75**	**0.63**	**0.49**	**1.26**	**0.38**

VI eyes, best corrected — **Cluster sampling**

	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	90	3.22	2.24	-	4.20	0.98	0.82	0.64	1.12	0.50
Female	106	3.20	2.45	-	3.95	0.75	0.63	0.49	0.77	0.38
Total	**194**	**3.21**	**2.55**	**-**	**3.87**	**0.66**	**0.56**	**0.43**	**1.11**	**0.34**

Bilateral blind, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	21	1.52	0.79 - 2.25	0.73	0.61	0.48	1.29	0.37
Female	47	2.87	1.86 - 3.87	1.00	0.84	0.66	1.54	0.51
Total	**68**	**2.25**	**1.52 - 2.98**	**0.73**	**0.61**	**0.48**	**1.90**	**0.37**

Blind eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	114	4.12	3.06 - 5.18	1.06	0.89	0.69	1.03	0.54
Female	182	5.55	4.27 - 6.83	1.28	1.07	0.84	1.33	0.65
Total	**296**	**4.90**	**3.91 - 5.88**	**0.98**	**0.83**	**0.64**	**1.63**	**0.50**

Bilateral SVI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	64	4.63	3.43 - 5.82	1.20	1.00	0.78	1.17	0.61
Female	78	4.76	3.77 - 5.75	0.99	0.83	0.65	0.92	0.51
Total	**142**	**4.70**	**3.82 - 5.57**	**0.88**	**0.74**	**0.57**	**1.35**	**0.45**

SVI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	152	5.50	4.17 - 6.82	1.32	1.11	0.86	1.21	0.67
Female	184	5.58	4.42 - 6.74	1.16	0.97	0.76	1.08	0.59
Total	**336**	**5.54**	**4.54 - 6.54**	**1.00**	**0.84**	**0.66**	**1.51**	**0.51**

Bilateral VI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	162	11.71	9.92 - 13.50	1.79	1.50	1.17	1.12	0.91
Female	187	11.40	9.63 - 13.18	1.78	1.49	1.16	1.33	0.91
Total	**349**	**11.54**	**10.15 - 12.94**	**1.40**	**1.17**	**0.91**	**1.50**	**0.71**

VI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	338	12.22	10.44 - 14.00	1.78	1.50	1.17	1.07	0.91
Female	370	11.28	9.69 - 12.87	1.59	1.34	1.04	1.08	0.81
Total	**708**	**11.71**	**10.41 - 13.01**	**1.30**	**1.09**	**0.85**	**1.29**	**0.67**

Bilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	10	0.72	0.26 - 1.19	0.46	0.39	0.30	1.08	0.24
Female	29	1.77	1.03 - 2.50	0.74	0.62	0.48	1.33	0.38
Total	**39**	**1.29**	**0.79 - 1.79**	**0.50**	**0.42**	**0.33**	**1.53**	**0.25**

Unilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	41	2.96	1.84 - 4.09	1.13	0.95	0.74	1.60	0.58
Female	70	4.27	3.14 - 5.40	1.13	0.95	0.74	1.34	0.58
Total	**111**	**3.67**	**2.76 - 4.58**	**0.91**	**0.76**	**0.59**	**1.83**	**0.46**

Eyes cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	62	2.21	1.40 - 3.01	0.81	0.68	0.53	1.09	0.41
Female	128	3.90	2.86 - 4.94	1.04	0.87	0.68	1.23	0.53
Total	**190**	**3.13**	**2.31 - 3.94**	**0.82**	**0.69**	**0.53**	**1.74**	**0.42**

Bilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	40	2.89	1.90 - 3.89	1.00	0.84	0.65	1.27	0.51
Female	38	2.32	1.51 - 3.12	0.80	0.68	0.53	1.22	0.41
Total	**78**	**2.58**	**1.89 - 3.27**	**0.69**	**0.58**	**0.45**	**1.47**	**0.35**

Unilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	47	3.40	2.33	-	4.46	1.07	0.89	0.70	1.25	0.54
Female	57	3.48	2.61	-	4.34	0.86	0.73	0.57	0.95	0.44
Total	**104**	**3.44**	**2.74**	**-**	**4.14**	**0.70**	**0.59**	**0.46**	**1.17**	**0.36**

Eyes cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	128	4.59	3.47	-	5.71	1.12	0.94	0.73	1.03	0.57
Female	134	4.05	3.10	-	5.01	0.96	0.80	0.63	1.00	0.49
Total	**260**	**4.30**	**3.50**	**-**	**5.10**	**0.80**	**0.67**	**0.52**	**1.22**	**0.41**

Bilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	26	1.88	1.10	-	2.66	0.78	0.65	0.51	1.19	0.40
Female	24	1.46	0.87	-	2.06	0.60	0.50	0.39	1.05	0.30
Total	**50**	**1.65**	**1.12**	**-**	**2.19**	**0.53**	**0.45**	**0.35**	**1.38**	**0.27**

Unilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	22	1.59	0.91	-	2.27	0.68	0.57	0.45	1.07	0.35
Female	27	1.65	1.00	-	2.29	0.64	0.54	0.42	1.09	0.33
Total	**49**	**1.62**	**1.14**	**-**	**2.10**	**0.48**	**0.40**	**0.31**	**1.14**	**0.24**

Eyes cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	74	2.68	1.75	-	3.60	0.93	0.78	0.61	1.19	0.47
Female	76	2.29	1.61	-	2.96	0.68	0.57	0.44	0.88	0.35
Total	**150**	**2.46**	**1.83**	**-**	**3.10**	**0.63**	**0.53**	**0.41**	**1.31**	**0.32**

Bilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	22	1.59	0.93	-	2.25	0.66	0.55	0.43	1.00	0.34
Female	19	1.16	0.63	-	1.68	0.53	0.44	0.34	1.03	0.27
Total	**41**	**1.36**	**0.95**	**-**	**1.77**	**0.41**	**0.34**	**0.27**	**0.99**	**0.21**

Unilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	32	2.31	1.34	-	3.28	0.97	0.81	0.63	1.50	0.50
Female	51	3.11	2.22	-	4.00	0.89	0.75	0.58	1.13	0.46
Total	**83**	**2.75**	**2.12**	**-**	**3.37**	**0.63**	**0.53**	**0.41**	**1.16**	**0.32**

Eyes (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%			Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	76	2.75	1.91	-	3.59	0.84	0.70	0.55	0.95	0.43
Female	90	2.71	2.01	-	3.42	0.71	0.59	0.46	0.81	0.36
Total	**166**	**2.73**	**2.20**	**-**	**3.26**	**0.53**	**0.44**	**0.35**	**0.83**	**0.27**

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 1/2/2011

This report is for the survey area: Cox`s bazar

Year and month when survey was conducted: 2010-10 until 2010-10

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. Confidence intervals for prevalence of various conditions can be

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

	Total eligible		Examined		Not available		Refused		Not capable		Coverage
	n	%	n	%	n	%	n	%	n	%	
Males	1,194	47.8%	1,181	47.5%	4		1	33.3%	8	800.0%	98.9%
Females	1,306	52.2%	1,304	52.5%	0	0.0%	2	66.7%	0	0.0%	99.8%
Total	2,500		2,485	99.4%	4	0.2%	3	0.1%	8	0.3%	99.4%

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

	Examined	Not available	Refused	Not capable	Total
Males	62.0	71.5	71.0	76.1	62.1
Females	57.4	0.0	55.5	0.0	57.4
Total	59.6	71.5	60.7	76.1	59.6

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

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with best correction or pinhole (WHO definition)						
All bilateral blindness	34	2.88	41	3.14	75	3.02
All blind eyes	127	5.38	139	5.33	266	5.35
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	35	2.96	42	3.22	77	3.10
All blind eyes	129	5.46	142	5.44	271	5.45
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in the better eye, with available correction						
All bilateral SVI	27	2.29	37	2.84	64	2.58
All SVI eyes	69	2.92	71	2.72	140	2.82
Visual Impairment (VI) - VA<6/18 - 6/60 in the better eye, with available correction						
All bilateral VI	202	17.10	120	9.20	322	12.96
All VI eyes	395	16.72	239	9.16	634	12.76

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

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Blindness - VA<3/60 in the better eye, with available correction (presenting VA)						
All bilateral blindness	35	2.96	42	3.22	77	3.10
All blind eyes	129	5.46	142	5.44	271	5.45
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	62	5.25	79	6.06	141	5.67
All eyes	198	8.38	213	8.17	411	8.27
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	264	22.35	199	15.26	463	18.63
All eyes	593	25.11	452	17.33	1,045	21.03

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	1	2.4%	1	1.3%
Cataract, untreated	25	71.4%	34	81.0%	59	76.6%
Aphakia, uncorrected	0	0.0%	1	2.4%	1	1.3%
Total curable	**25**	**71.4%**	**36**	**85.7%**	**61**	**79.2%**
Surgical complications	0	0.0%	1	2.4%	1	1.3%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	3	8.6%	0	0.0%	3	3.9%
Other corneal scar	3	8.6%	3	7.1%	6	7.8%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**6**	**17.1%**	**4**	**9.5%**	**10**	**13.0%**
Total avoidable	**31**	**88.6%**	**40**	**95.2%**	**71**	**92.2%**
Glaucoma	2	5.7%	0	0.0%	2	2.6%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**2**	**5.7%**	**0**	**0.0%**	**2**	**2.6%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	1	2.9%	1	2.4%	2	2.6%
Other post. segment / CNS	1	2.9%	1	2.4%	2	2.6%
Total posterior segment	**4**	**11.4%**	**2**	**4.8%**	**6**	**7.8%**
	35	**100.0%**	**42**	**100.0%**	**77**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	2	1.4%	2	0.7%
Cataract, untreated	83	64.3%	110	77.5%	193	71.2%
Aphakia, uncorrected	0	0.0%	1	0.7%	1	0.4%
Total curable	**83**	**64.3%**	**113**	**79.6%**	**196**	**72.3%**
Surgical complications	6	4.7%	2	1.4%	8	3.0%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	12	9.3%	2	1.4%	14	5.2%
Other corneal scar	11	8.5%	14	9.9%	25	9.2%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**29**	**22.5%**	**18**	**12.7%**	**47**	**17.3%**
Total avoidable	**112**	**86.8%**	**131**	**92.3%**	**243**	**89.7%**
Glaucoma	3	2.3%	5	3.5%	8	3.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**3**	**2.3%**	**5**	**3.5%**	**8**	**3.0%**
Globe abnormality	3	2.3%	0	0.0%	3	1.1%
ARMD	4	3.1%	2	1.4%	6	2.2%
Other post. segment / CNS	7	5.4%	4	2.8%	11	4.1%
Total posterior segment	**17**	**13.2%**	**11**	**7.7%**	**28**	**10.3%**
	129	**100.0%**	**142**	**100.0%**	**271**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	0	0.0%	2	5.4%	2	3.1%
Cataract, untreated	25	92.6%	34	91.9%	59	92.2%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**25**	**92.6%**	**36**	**97.3%**	**61**	**95.3%**
Surgical complications	1	3.7%	0	0.0%	1	1.6%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	0	0.0%	0	0.0%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**3.7%**	**0**	**0.0%**	**1**	**1.6%**
Total avoidable	**26**	**96.3%**	**36**	**97.3%**	**62**	**96.9%**
Glaucoma	0	0.0%	1	2.7%	1	1.6%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**1**	**2.7%**	**1**	**1.6%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	1	3.7%	0	0.0%	1	1.6%
Other post. segment / CNS	0	0.0%	0	0.0%	0	0.0%
Total posterior segment	**1**	**3.7%**	**1**	**2.7%**	**2**	**3.1%**
	27	**100.0%**	**37**	**100.0%**	**64**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	1	1.4%	3	4.2%	4	2.9%
Cataract, untreated	62	89.9%	67	94.4%	129	92.1%
Aphakia, uncorrected	1	1.4%	0	0.0%	1	0.7%
Total curable	**64**	**92.8%**	**70**	**98.6%**	**134**	**95.7%**
Surgical complications	4	5.8%	0	0.0%	4	2.9%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	0	0.0%	0	0.0%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**4**	**5.8%**	**0**	**0.0%**	**4**	**2.9%**
Total avoidable	**68**	**98.6%**	**70**	**98.6%**	**138**	**98.6%**
Glaucoma	0	0.0%	1	1.4%	1	0.7%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**1**	**1.4%**	**1**	**0.7%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	1	1.4%	0	0.0%	1	0.7%
Other post. segment / CNS	0	0.0%	0	0.0%	0	0.0%
Total posterior segment	**1**	**1.4%**	**1**	**1.4%**	**2**	**1.4%**
	69	**100.0%**	**71**	**100.0%**	**140**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	178	88.1%	94	78.3%	272	84.5%
Cataract, untreated	23	11.4%	23	19.2%	46	14.3%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**201**	**99.5%**	**117**	**97.5%**	**318**	**98.8%**
Surgical complications	1	0.5%	2	1.7%	3	0.9%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	0	0.0%	0	0.0%	0	0.0%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**1**	**0.5%**	**2**	**1.7%**	**3**	**0.9%**
Total avoidable	**202**	**100.0%**	**119**	**99.2%**	**321**	**99.7%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	0	0.0%	0	0.0%	0	0.0%
Other post. segment / CNS	0	0.0%	1	0.8%	1	0.3%
Total posterior segment	**0**	**0.0%**	**1**	**0.8%**	**1**	**0.3%**
	202	**100.0%**	**120**	**100.0%**	**322**	**100.0%**

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

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

	Male		Female		Total	
	n	%	n	%	n	%
Refractive error	353	89.4%	191	79.9%	544	85.8%
Cataract, untreated	38	9.6%	39	16.3%	77	12.1%
Aphakia, uncorrected	0	0.0%	0	0.0%	0	0.0%
Total curable	**391**	**99.0%**	**230**	**96.2%**	**621**	**97.9%**
Surgical complications	1	0.3%	5	2.1%	6	0.9%
Trachoma	0	0.0%	0	0.0%	0	0.0%
Phthysis	0	0.0%	0	0.0%	0	0.0%
Other corneal scar	2	0.5%	1	0.4%	3	0.5%
Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
Total preventable	**3**	**0.8%**	**6**	**2.5%**	**9**	**1.4%**
Total avoidable	**394**	**99.7%**	**236**	**98.7%**	**630**	**99.4%**
Glaucoma	0	0.0%	0	0.0%	0	0.0%
Diabetic retinopathy	0	0.0%	0	0.0%	0	0.0%
Potentially preventable*	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Globe abnormality	0	0.0%	0	0.0%	0	0.0%
ARMD	0	0.0%	0	0.0%	0	0.0%
Other post. segment / CNS	1	0.3%	3	1.3%	4	0.6%
Total posterior segment	**1**	**0.3%**	**3**	**1.3%**	**4**	**0.6%**
	395	**100.0%**	**239**	**100.0%**	**634**	**100.0%**

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

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

	Male		Female		Total	
Level of visual acuity	n	%	n	%	n	%
Cataract blindness with VA<3/60 with best correction or pinhole						
Bilateral cataract blind	22	1.86	33	2.53	55	2.21
Unilateral cataract blind	39	3.30	46	3.53	85	3.42
Cataract blind eyes	83	3.51	112	4.29	195	3.92
Cataract with VA<6/60 with best correction or pinhole						
Bilateral cataract	45	3.81	66	5.06	111	4.47
Cataract eyes	146	6.18	179	6.86	325	6.54
Cataract with VA<6/18 with best correction or pinhole						
Bilateral cataract	68	5.76	89	6.83	157	6.32
Cataract eyes	185	7.83	220	8.44	405	8.15

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

11. Sample prevalence of (pseudo)aphakia

	Male		Female		Total	
	n	%	n	%	n	%
Bilateral (pseudo)aphakia	19	1.61	18	1.38	37	1.49
Unilateral (pseudo)aphakia	36	3.05	24	1.84	60	2.41
(Pseudo)aphakic eyes	74	3.13	60	2.30	134	2.70

12. Cataract Surgical Coverage

Cataract Surgical Coverage (eyes) - percentage

	Male	Female	Total
VA < 3/60	47.1	34.9	40.7
VA < 6/60	33.6	25.1	29.2
VA < 6/18	28.6	21.4	24.9

Cataract Surgical Coverage (persons) - percentage

	Male	Female	Total
VA < 3/60	62.1	48.4	54.9
VA < 6/60	47.7	34.0	40.3
VA < 6/18	37.6	28.2	32.6

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

	Male		Female		Total	
	n	%	n	%	n	%
First eyes	55	74.3	42	70.0	97	72.4
Second eyes	19	25.7	18	30.0	37	27.6

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

	Male		Female		Total	
Age group	n	%	n	%	n	%
50 to 54 yrs	0	0.0	1	0.2	1	0.1
55 to 59 yrs	0	0.0	1	0.3	1	0.2
60 to 64 yrs	0	0.0	2	0.8	2	0.3
65 to 69 yrs	1	0.4	0	0.0	1	0.3
70 to 74 yrs	1	0.9	1	1.5	2	1.2
75 to 79 yrs	0	0.0	0	0.0	0	0.0
80 + yrs	1	2.4	1	4.2	2	3.0
Total	**3**	**0.3**	**6**	**0.5**	**9**	**0.4**

15. Comparison responders versus non-responders

	Non-responders		Responders	
	n	%	n	%
Not blind	30	100.0%	4,565	91.9%
Blind due to cataract	0	0.0%	195	3.9%
Blind due to other causes	0	0.0%	76	1.5%
Operated for	0	0.0%	134	2.7%
Total	30	100.0%	4,970	100.0%

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

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

Date and time of report: 1/2/2011

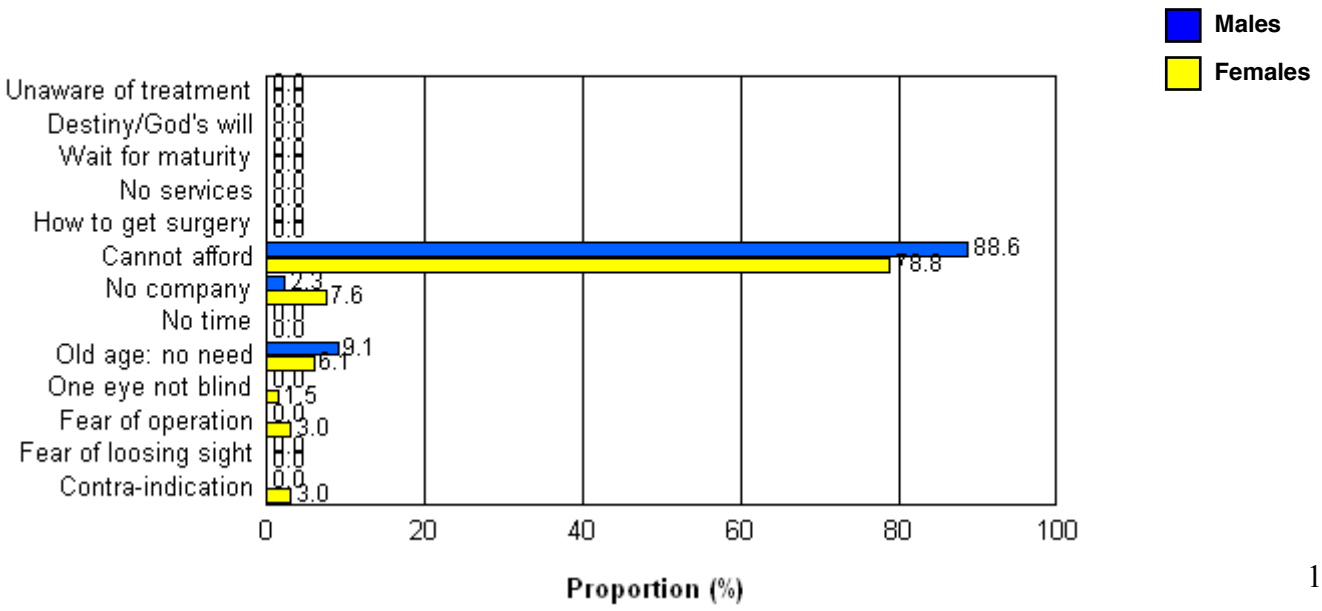
This report is for the survey area: Cox`s bazar

Year and month when the survey was conducted: 2010-10 until 2010-10

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.

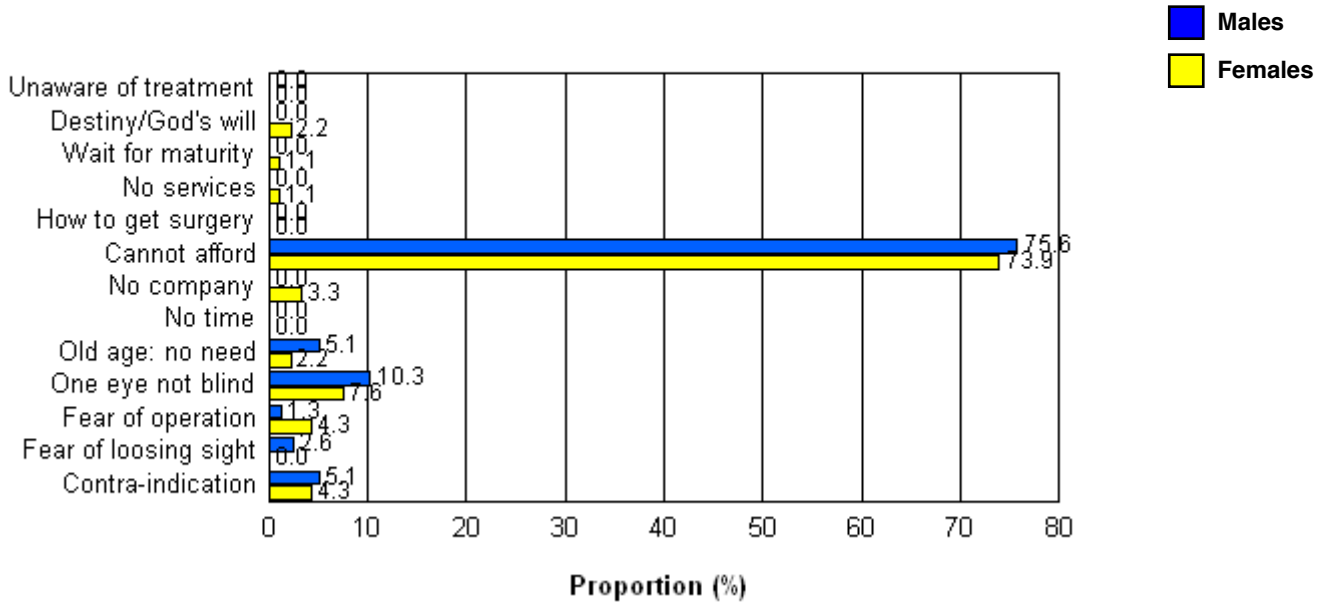
1. Barriers to cataract surgery, as indicated by persons in sample, bilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	0	0.0	0	0.0	0	0.0
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	0	0.0	0	0.0	0	0.0
No services	0	0.0	0	0.0	0	0.0
How to get surgery	0	0.0	0	0.0	0	0.0
Cannot afford	39	88.6	52	78.8	91	82.7
No company	1	2.3	5	7.6	6	5.5
No time	0	0.0	0	0.0	0	0.0
Old age: no need	4	9.1	4	6.1	8	7.3
One eye not blind	0	0.0	1	1.5	1	0.9
Fear of operation	0	0.0	2	3.0	2	1.8
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	0	0.0	2	3.0	2	1.8
All barriers	**44**	**100.0 %**	**66**	**100.0 %**	**110**	**100.0 %**



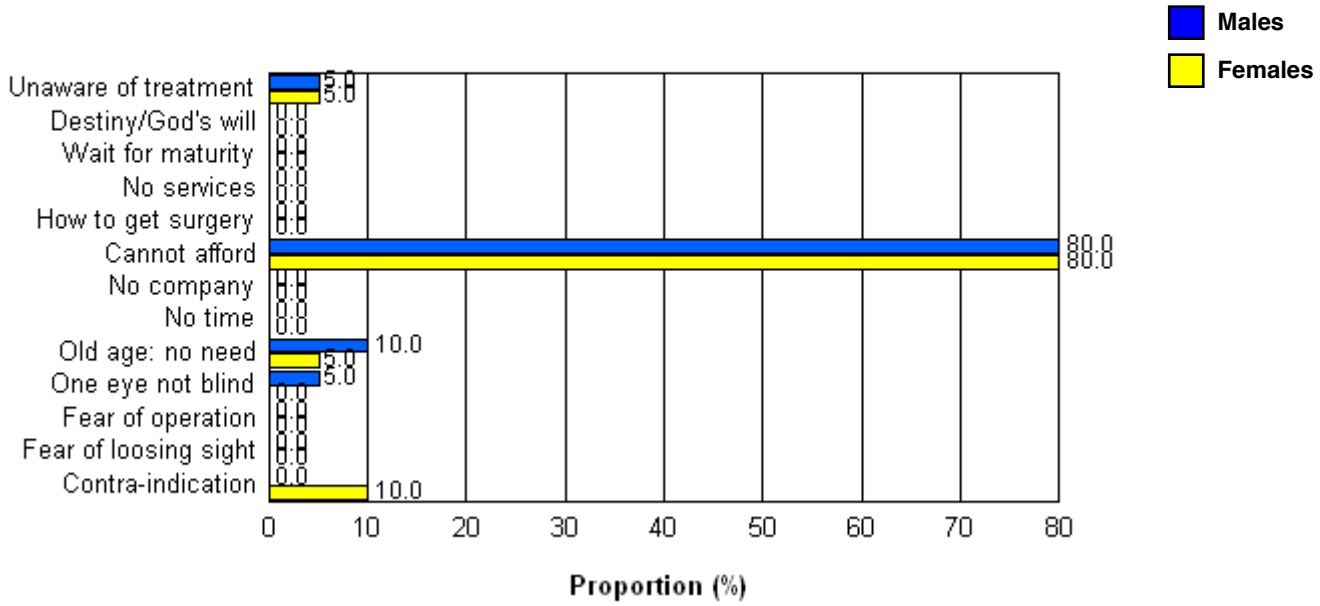
2. Barriers to cataract surgery, as indicated by persons in sample, unilateral blind due to cataract (VA<3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	0	0.0	0	0.0	0	0.0
Destiny/God's will	0	0.0	2	2.2	2	1.2
Wait for maturity	0	0.0	1	1.1	1	0.6
No services	0	0.0	1	1.1	1	0.6
How to get surgery	0	0.0	0	0.0	0	0.0
Cannot afford	59	75.6	68	73.9	127	74.7
No company	0	0.0	3	3.3	3	1.8
No time	0	0.0	0	0.0	0	0.0
Old age: no need	4	5.1	2	2.2	6	3.5
One eye not blind	8	10.3	7	7.6	15	8.8
Fear of operation	1	1.3	4	4.3	5	2.9
Fear of loosing sight	2	2.6	0	0.0	2	1.2
Contra-indication	4	5.1	4	4.3	8	4.7
All barriers	**78**	**100.0 %**	**92**	**100.0 %**	**170**	**100.0 %**



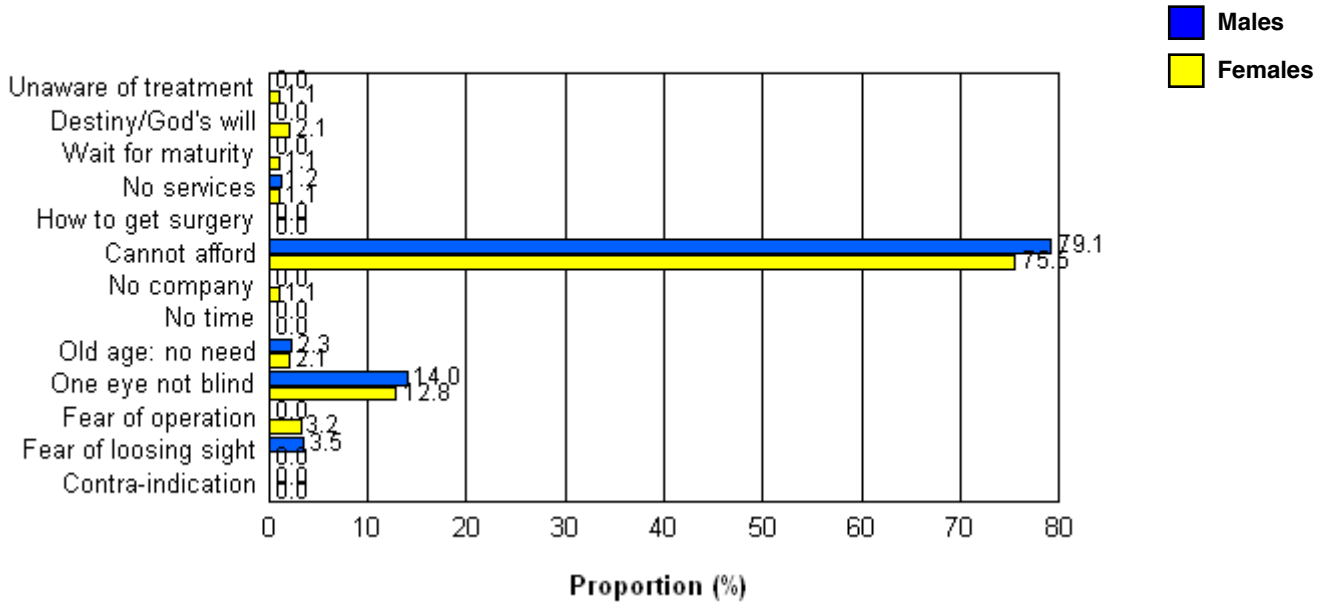
3. Barriers to cataract surgery, as indicated by persons in sample, with bilateral severe visual impairment due to cataract (VA<6/60 - 3/60, best corrected)

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	1	5.0	1	5.0	2	5.0
Destiny/God's will	0	0.0	0	0.0	0	0.0
Wait for maturity	0	0.0	0	0.0	0	0.0
No services	0	0.0	0	0.0	0	0.0
How to get surgery	0	0.0	0	0.0	0	0.0
Cannot afford	16	80.0	16	80.0	32	80.0
No company	0	0.0	0	0.0	0	0.0
No time	0	0.0	0	0.0	0	0.0
Old age: no need	2	10.0	1	5.0	3	7.5
One eye not blind	1	5.0	0	0.0	1	2.5
Fear of operation	0	0.0	0	0.0	0	0.0
Fear of loosing sight	0	0.0	0	0.0	0	0.0
Contra-indication	0	0.0	2	10.0	2	5.0
All barriers	**20**	**100.0 %**	**20**	**100.0 %**	**40**	**100.0 %**



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

	Males		Females		Total	
Barriers	**n**	**%**	**n**	**%**	**n**	**%**
Unaware of treatment	0	0.0	1	1.1	1	0.6
Destiny/God's will	0	0.0	2	2.1	2	1.1
Wait for maturity	0	0.0	1	1.1	1	0.6
No services	1	1.2	1	1.1	2	1.1
How to get surgery	0	0.0	0	0.0	0	0.0
Cannot afford	68	79.1	71	75.5	139	77.2
No company	0	0.0	1	1.1	1	0.6
No time	0	0.0	0	0.0	0	0.0
Old age: no need	2	2.3	2	2.1	4	2.2
One eye not blind	12	14.0	12	12.8	24	13.3
Fear of operation	0	0.0	3	3.2	3	1.7
Fear of loosing sight	3	3.5	0	0.0	3	1.7
Contra-indication	0	0.0	0	0.0	0	0.0
All barriers	**86**	**100.0 %**	**94**	**100.0 %**	**180**	**100.0 %**



VISUAL OUTCOME AFTER CATARACT SURGERY (LONG-TERM OUTCOME)

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

Date and time of the report: 1/2/2011

This report is for the survey area Cox`s bazar

Year and month when survey was completed: 2010-10 until 2010-10

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%,

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	90	76.3%	9	56.3%	0	0.0%	99	73.9%
Cannot see 6/18, can see 6/60	18	15.3%	2	12.5%	0	0.0%	20	14.9%
Cannot see 6/60	10	8.5%	5	31.3%	0	0.0%	15	11.2%
Total	**118**	**100.0%**	**16**	**100.0%**	**0**	**100.0%**	**134**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	104	88.1%	9	56.3%	0	0.0%	113	84.3%
Cannot see 6/18, can see 6/60	4	3.4%	2	12.5%	0	0.0%	6	4.5%
Cannot see 6/60	10	8.5%	5	31.3%	0	0.0%	15	11.2%
Total	**118**	**100.0%**	**16**	**100.0%**	**0**	**100.0%**	**134**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	78	83.0%	3	60.0%	0	0.0%	81	81.8%
Cannot see 6/18, can see 6/60	12	12.8%	2	40.0%	0	0.0%	14	14.1%
Cannot see 6/60	4	4.3%	0	0.0%	0	0.0%	4	4.0%
Total	**94**	**100.0%**	**5**	**100.0%**	**0**	**100.0%**	**99**	**100.0%**

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

Category of visual acuity	IOLs eyes	IOLs %	Non-IOLs eyes	Non-IOLs %	Couching eyes	Couching %	Total eyes	Total %
Can see 6/18	87	92.6%	3	60.0%	0	0.0%	90	90.9%
Cannot see 6/18, can see 6/60	3	3.2%	2	40.0%	0	0.0%	5	5.1%
Cannot see 6/60	4	4.3%	0	0.0%	0	0.0%	4	4.0%
Total	**94**	**100.0%**	**5**	**100.0%**	**0**	**100.0%**	**99**	**100.0%**

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

Category of visual acuity	IOLs eyes	%	Non-IOLs eyes	%	Couching eyes	%	Total eyes	%
Can see 6/18	12	50.0%	6	54.5%	0	0.0%	18	51.4%
Cannot see 6/18, can see 6/60	6	25.0%	0	0.0%	0	0.0%	6	17.1%
Cannot see 6/60	6	25.0%	5	45.5%	0	0.0%	11	31.4%
Total	**24**	**100.0%**	**11**	**100.0%**	**0**	**100.0%**	**35**	**100.0%**

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

Category of visual acuity	IOLs eyes	%	Non-IOLs eyes	%	Couching eyes	%	Total eyes	%
Can see 6/18	17	70.8%	6	54.5%	0	0.0%	23	65.7%
Cannot see 6/18, can see 6/60	1	4.2%	0	0.0%	0	0.0%	1	2.9%
Cannot see 6/60	6	25.0%	5	45.5%	0	0.0%	11	31.4%
Total	**24**	**100.0%**	**11**	**100.0%**	**0**	**100.0%**	**35**	**100.0%**

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

Age group	IOLs eyes	%	Non-IOLs eyes	%	Couching eyes	%	Total eyes	%
50 to 54	2	2.9%	2	40.0%	0	0.0%	4	5.4%
55 to 59	8	11.6%	0	0.0%	0	0.0%	8	10.8%
60 to 64	17	24.6%	3	60.0%	0	0.0%	20	27.0%
65 to 69	24	34.8%	0	0.0%	0	0.0%	24	32.4%
70 to 74	9	13.0%	0	0.0%	0	0.0%	9	12.2%
75 to 79	6	8.7%	0	0.0%	0	0.0%	6	8.1%
80 and older	3	4.3%	0	0.0%	0	0.0%	3	4.1%
Total	**69**	**100.0%**	**5**	**100.0%**	**0**	**100.0%**	**74**	**100.0%**

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

Age group	IOLs eyes	%	Non-IOLs eyes	%	Couching eyes	%	Total eyes	%
45 to 49	1	2.0%	0	0.0%	0	0.0%	1	1.7%
50 to 54	5	10.2%	0	0.0%	0	0.0%	5	8.3%
55 to 59	7	14.3%	3	27.3%	0	0.0%	10	16.7%
60 to 64	20	40.8%	5	45.5%	0	0.0%	25	41.7%
65 to 69	7	14.3%	0	0.0%	0	0.0%	7	11.7%
70 to 74	2	4.1%	0	0.0%	0	0.0%	2	3.3%
75 to 79	6	12.2%	1	9.1%	0	0.0%	7	11.7%
80 and older	1	2.0%	2	18.2%	0	0.0%	3	5.0%
Total	**49**	**100.0%**	**11**	**100.0%**	**0**	**100.0%**	**60**	**100.0%**

9. Place of surgery by sex

	Males n	%	Females n	%	Total n	%
Government hospital	0	0.0%	1	1.7%	1	0.7%
Voluntary/Charitable hospital	3	4.1%	4	6.7%	7	5.2%
Private hospital	54	73.0%	41	68.3%	95	70.9%
Eye camp/Improvised setting	17	23.0%	14	23.3%	31	23.1%
Total	**74**	**100.0%**	**60**	**100.0%**	**134**	**100.0%**

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

Top: with IOL Bottom: without IOL	Govt. Hosp. eyes	 %	Vol. Hosp. eyes	 %	Pvt. Hosp. eyes	 %	Eye camp eyes	 %	Traditional eyes	 %
Can see 6/18	1	100.0%	6	100.0%	69	76.7%	14	66.7%	0	
Cannot see 6/18, can see 6/60	0	0.0%	0	0.0%	15	16.7%	3	14.3%	0	
Cannot see 6/60	0	0.0%	0	0.0%	6	6.7%	4	19.0%	0	
Total	**1**	**100.0%**	**6**	**100.0%**	**90**	**100.0%**	**21**	**100.0%**	**0**	**100.0%**
Can see 6/18	0		0	0.0%	4	80.0%	5	50.0%	0	
Cannot see 6/18, can see 6/60	0		0	0.0%	0	0.0%	2	20.0%	0	
Cannot see 6/60	0		1	100.0%	1	20.0%	3	30.0%	0	
Total	**0**	**100.0%**	**1**	**100.0%**	**5**	**100.0%**	**10**	**100.0%**	**0**	**100.0%**

11. Use of spectacles by sex

	Males		Females		Total	
	n	%	n	%	n	%
Without glasses	65	87.8%	46	76.7%	111	82.8%
With glasses	9	12.2%	14	23.3%	23	17.2%
Total	**74**	**100.0%**	**60**	**100.0%**	**134**	**100.0%**

12. Are you satisfied with results of cataract surgery?

	Males		Females		Total	
	n	%	n	%	n	%
Very satisfied	56	75.7%	43	71.7%	99	73.9%
Partially satisfied	11	14.9%	15	25.0%	26	19.4%
Indifferent	1	1.4%	2	3.3%	3	2.2%
Partially dissatisfied	3	4.1%	0	0.0%	3	2.2%
very dissatisfied	3	4.1%	0	0.0%	3	2.2%
Total	**74**	**100.0%**	**60**	**100.0%**	**134**	**100.0%**

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

Top: with IOL Bottom: without IOL	Very satisfied eyes	 %	Part. satisfied eyes	 %	Indifferent eyes	 %	Part. unsat. eyes	 %	Very unsat. eyes	 %
Can see 6/18	88	92.6%	2	11.1%	0		0	0.0%	0	0.0%
Cannot see 6/18, can see 6/60	6	6.3%	12	66.7%	0		0	0.0%	0	0.0%
Cannot see 6/60	1	1.1%	4	22.2%	0		2	100.0%	3	100.0%
Total	**95**	**100.0%**	**18**	**100.0%**	**0**	**100.0%**	**2**	**100.0%**	**3**	**100.0%**
Can see 6/18	4	100.0%	5	62.5%	0	0.0%	0	0.0%	0	
Cannot see 6/18, can see 6/60	0	0.0%	2	25.0%	0	0.0%	0	0.0%	0	
Cannot see 6/60	0	0.0%	1	12.5%	3	100.0%	1	100.0%	0	
Total	**4**	**100.0%**	**8**	**100.0%**	**3**	**100.0%**	**1**	**100.0%**	**0**	**100.0%**

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

Top: with IOL	Selection		Surgery		Spectacles		Sequelae		No relation	
Bottom: without IOL	eyes	%	eyes	%	eyes	%	eyes	%	eyes	%
Can see 6/18	1	33.3%	0	0.0%	1	14.3%	0	0.0%	67	95.7%
Cannot see 6/18, can see 6/60	0	0.0%	1	100.0%	6	85.7%	1	50.0%	3	4.3%
Cannot see 6/60	2	66.7%	0	0.0%	0	0.0%	1	50.0%	0	0.0%
Total	**3**	**100.0%**	**1**	**100.0%**	**7**	**100.0%**	**2**	**100.0%**	**70**	**100.0%**
Can see 6/18	0		0	0.0%	0		0		3	100.0%
Cannot see 6/18, can see 6/60	0		2	100.0%	0		0		0	0.0%
Total	**0**	**100.0%**	**2**	**100.0%**	**0**	**100.0%**	**0**	**100.0%**	**3**	**100.0%**

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

Top: with IOL	Selection		Surgery		Spectacles		Sequelae		No relation	
Bottom: without IOL	eyes	%	eyes	%	eyes	%	eyes	%	eyes	%
Can see 6/18	0		0	0.0%	0	0.0%	0	0.0%	21	95.5%
Cannot see 6/18, can see 6/60	0		0	0.0%	4	100.0%	2	28.6%	1	4.5%
Cannot see 6/60	0		2	100.0%	0	0.0%	5	71.4%	0	0.0%
Total	**0**	**100.0%**	**2**	**100.0%**	**4**	**100.0%**	**7**	**100.0%**	**22**	**100.0%**
Can see 6/18	0		0	0.0%	0	0.0%	0	0.0%	6	100.0%
Cannot see 6/60	0		1	100.0%	2	100.0%	2	100.0%	0	0.0%
Total	**0**	**100.0%**	**1**	**100.0%**	**2**	**100.0%**	**2**	**100.0%**	**6**	**100.0%**

16. Proportion and type of surgery

	Males		Females		Total	
	n	%	n	%	n	%
With IOL	69	93.2%	49	81.7%	118	88.1%
Without IOL	5	6.8%	11	18.3%	16	11.9%
Total	**74**	**100.0%**	**60**	**100.0%**	**134**	**100.0%**

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

Date and time of report:	1/2/2011
This report is for the survey area	Cox`s bazar
Year and month when survey was conducted:	2010-10 until 2010-10

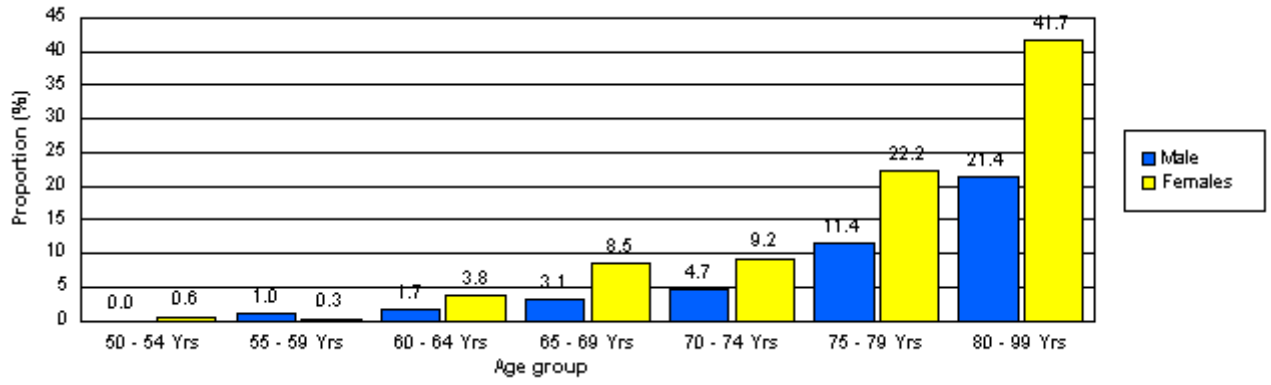
The sample size of the Rapid Assessment is sufficient to provide an acceptable accuracy of the overall prevalence of bilateral cataract blindness (VA <3/60). The accuracy of prevalence estimates for any subgroup is far less and caution should be taken in the interpretation of these data. Confidence intervals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

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	149	12.6	527	40.4	676	27.2
	207	17.5	324	24.8	531	21.4
	413	35.0	264	20.2	677	27.2
	229	19.4	82	6.3	311	12.5
	106	9.0	65	5.0	171	6.9
	35	3.0	18	1.4	53	2.1
	42	3.6	24	1.8	66	2.7
All ages	**1,181**	**100.0%**	**1,304**	**100.0%**	**2,485**	**100.0%**

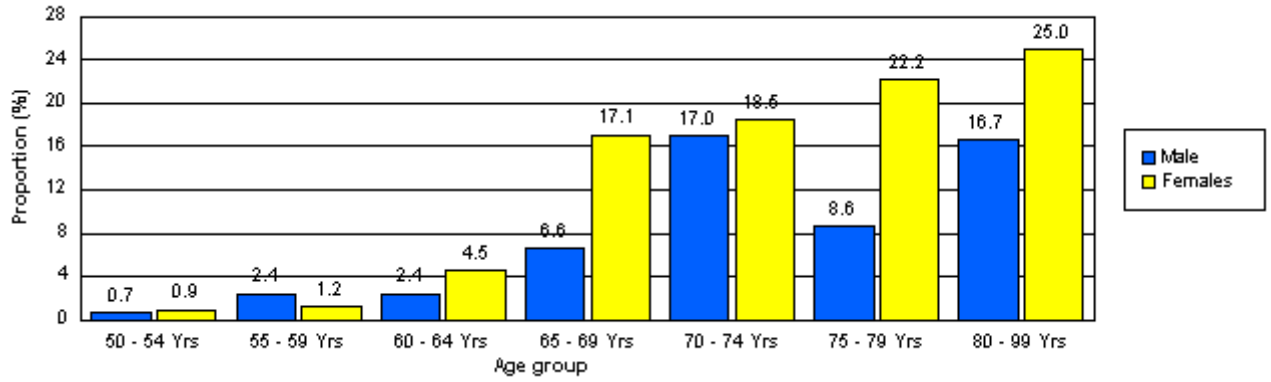
2. Prevalence of people with bilateral blindness - VA <3/60 in better eye with best correction (WHO definition of

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	3	0.6	3	0.4
	2	1.0	1	0.3	3	0.6
	7	1.7	10	3.8	17	2.5
	7	3.1	7	8.5	14	4.5
	5	4.7	6	9.2	11	6.4
	4	11.4	4	22.2	8	15.1
	9	21.4	10	41.7	19	28.8
All ages	**34**	**2.9**	**41**	**3.1**	**75**	**3.0**



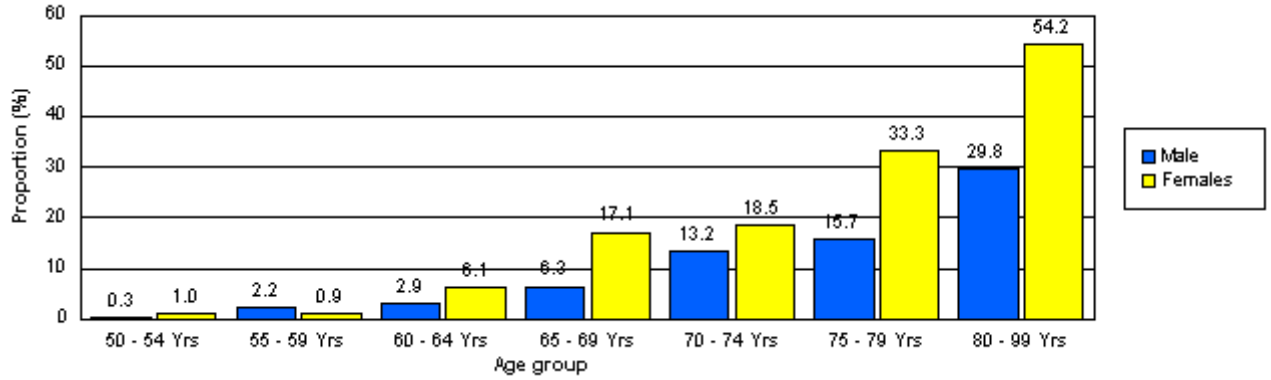
3. Prevalence of people with unilateral blindness - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.7	5	0.9	6	0.9
	5	2.4	4	1.2	9	1.7
	10	2.4	12	4.5	22	3.2
	15	6.6	14	17.1	29	9.3
	18	17.0	12	18.5	30	17.5
	3	8.6	4	22.2	7	13.2
	7	16.7	6	25.0	13	19.7
All ages	**59**	**5.0**	**57**	**4.4**	**116**	**4.7**



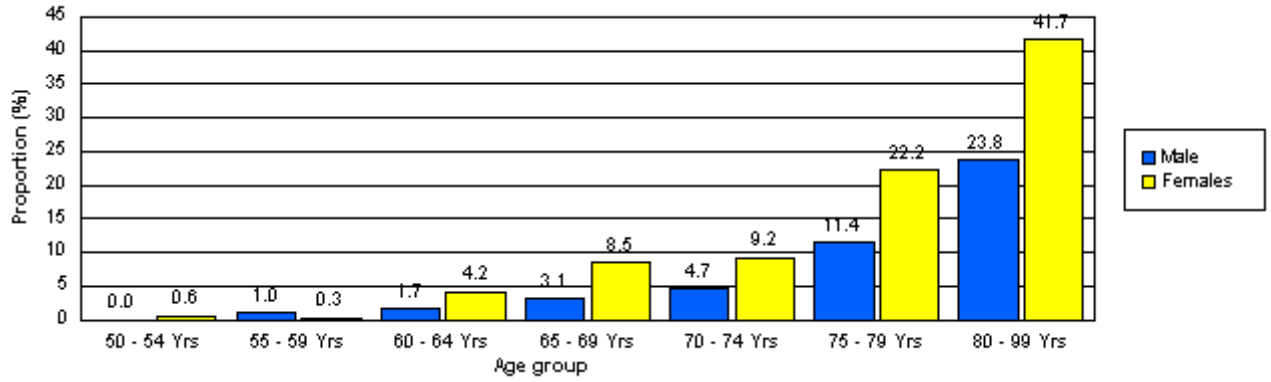
4. Prevalence of blind eyes - VA <3/60 with best correction (WHO definition of blindness)

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.3	11	1.0	12	0.9
	9	2.2	6	0.9	15	1.4
	24	2.9	32	6.1	56	4.1
	29	6.3	28	17.1	57	9.2
	28	13.2	24	18.5	52	15.2
	11	15.7	12	33.3	23	21.7
	25	29.8	26	54.2	51	38.6
All ages	**127**	**5.4**	**139**	**5.3**	**266**	**5.4**



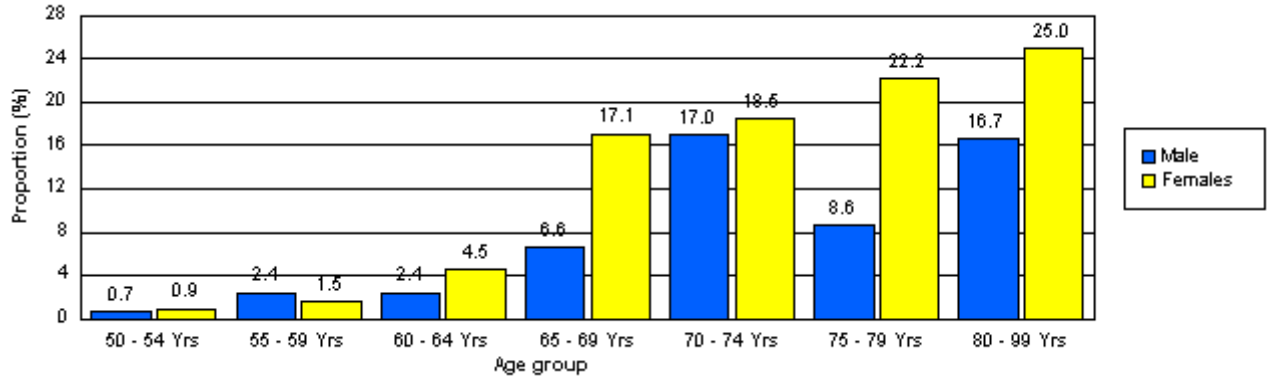
5. Prevalence of people with bilateral blindness - VA <3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	3	0.6	3	0.4
	2	1.0	1	0.3	3	0.6
	7	1.7	11	4.2	18	2.7
	7	3.1	7	8.5	14	4.5
	5	4.7	6	9.2	11	6.4
	4	11.4	4	22.2	8	15.1
	10	23.8	10	41.7	20	30.3
All ages	**35**	**3.0**	**42**	**3.2**	**77**	**3.1**



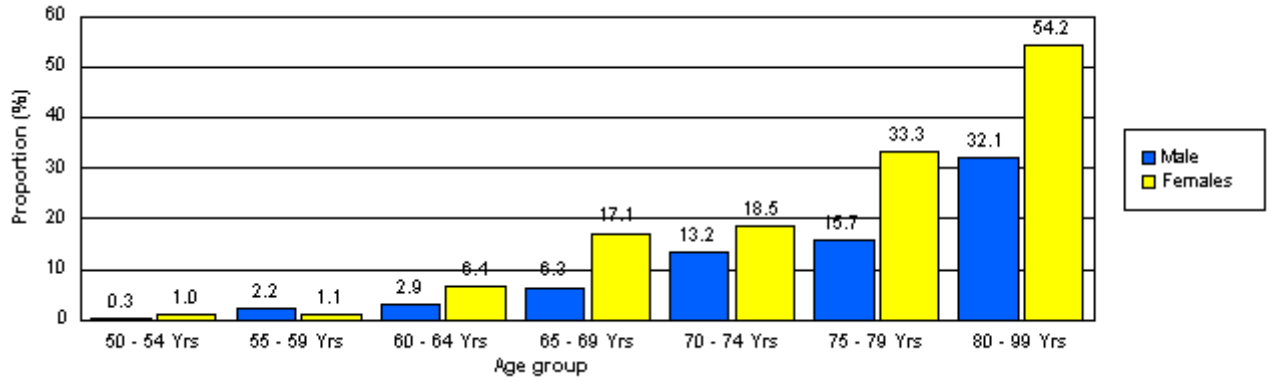
6. Prevalence of people with unilateral blindness - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.7	5	0.9	6	0.9
	5	2.4	5	1.5	10	1.9
	10	2.4	12	4.5	22	3.2
	15	6.6	14	17.1	29	9.3
	18	17.0	12	18.5	30	17.5
	3	8.6	4	22.2	7	13.2
	7	16.7	6	25.0	13	19.7
All ages	**59**	**5.0**	**58**	**4.4**	**117**	**4.7**



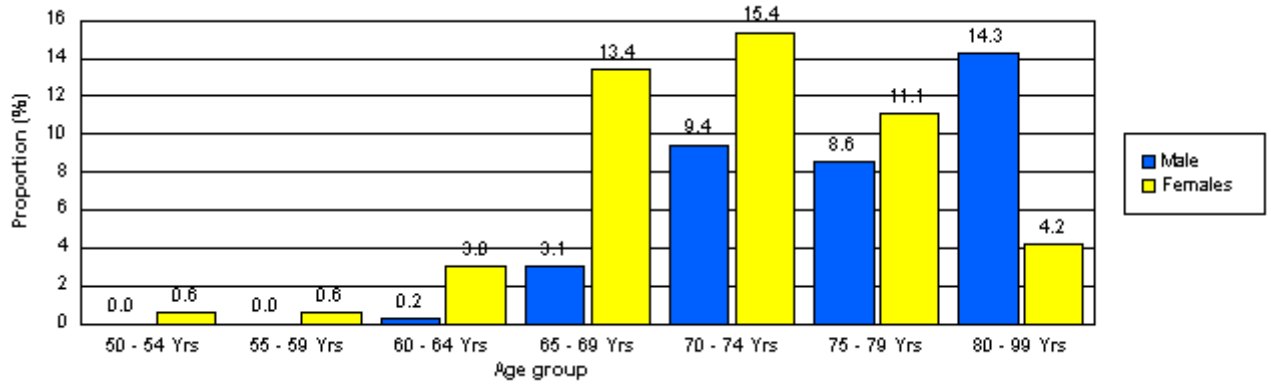
7. Prevalence of blind eyes - VA <3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	1	0.3	11	1.0	12	0.9
	9	2.2	7	1.1	16	1.5
	24	2.9	34	6.4	58	4.3
	29	6.3	28	17.1	57	9.2
	28	13.2	24	18.5	52	15.2
	11	15.7	12	33.3	23	21.7
	27	32.1	26	54.2	53	40.2
All ages	**129**	**5.5**	**142**	**5.4**	**271**	**5.5**



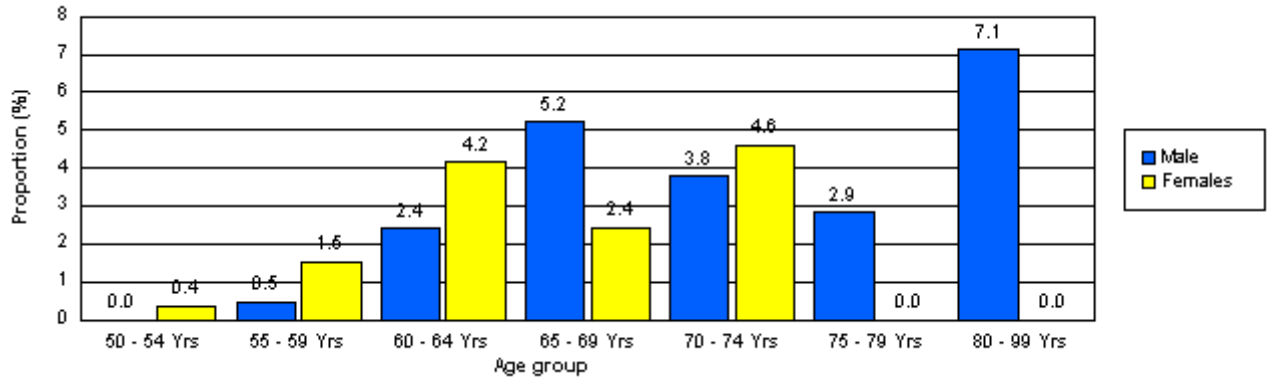
8. Prevalence of people with bilateral severe visual impairment - VA <6/60-3/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	3	0.6	3	0.4
	0	0.0	2	0.6	2	0.4
	1	0.2	8	3.0	9	1.3
	7	3.1	11	13.4	18	5.8
	10	9.4	10	15.4	20	11.7
	3	8.6	2	11.1	5	9.4
	6	14.3	1	4.2	7	10.6
All ages	**27**	**2.3**	**37**	**2.8**	**64**	**2.6**



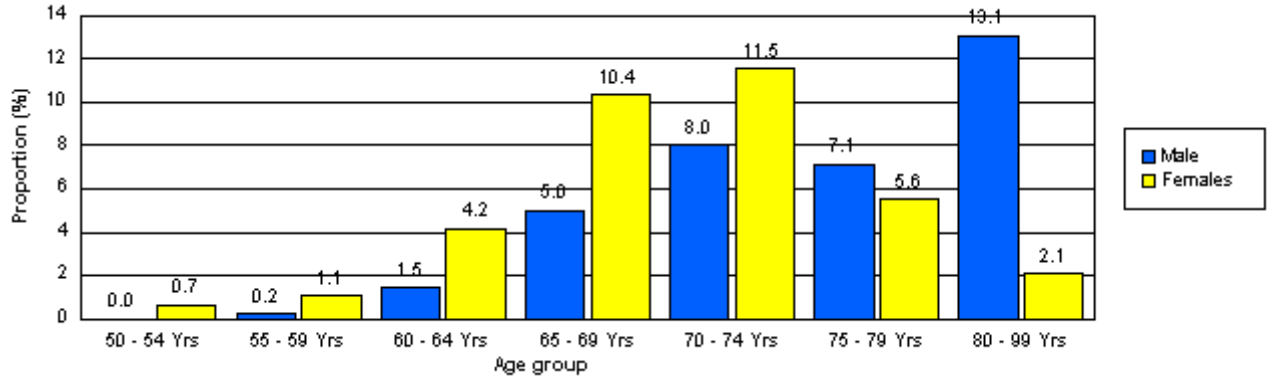
9. Prevalence of people with unilateral severe visual impairment - VA <6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.4	2	0.3
	1	0.5	5	1.5	6	1.1
	10	2.4	11	4.2	21	3.1
	12	5.2	2	2.4	14	4.5
	4	3.8	3	4.6	7	4.1
	1	2.9	0	0.0	1	1.9
	3	7.1	0	0.0	3	4.5
All ages	**31**	**2.6**	**23**	**1.8**	**54**	**2.2**



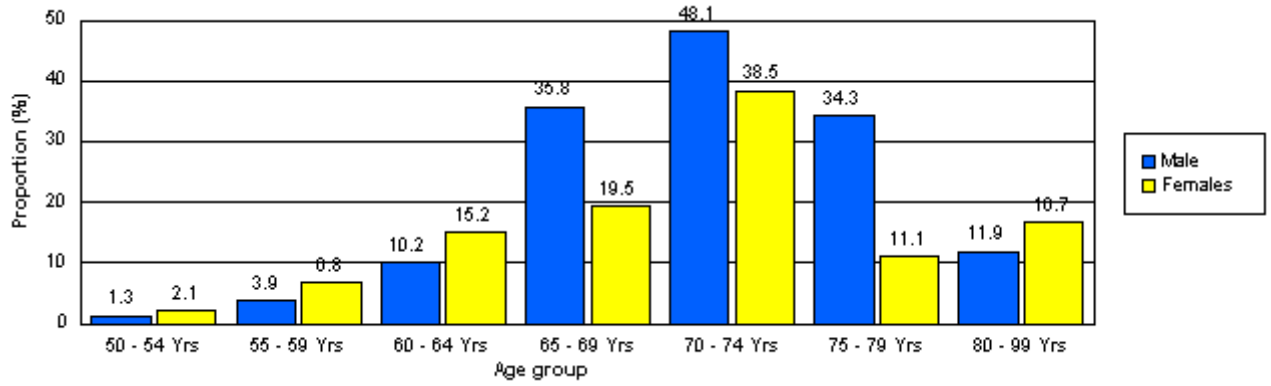
10. Prevalence of SVI eyes - VA VA<6/60-3/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	7	0.7	7	0.5
	1	0.2	7	1.1	8	0.8
	12	1.5	22	4.2	34	2.5
	23	5.0	17	10.4	40	6.4
	17	8.0	15	11.5	32	9.4
	5	7.1	2	5.6	7	6.6
	11	13.1	1	2.1	12	9.1
All ages	**69**	**2.9**	**71**	**2.7**	**140**	**2.8**



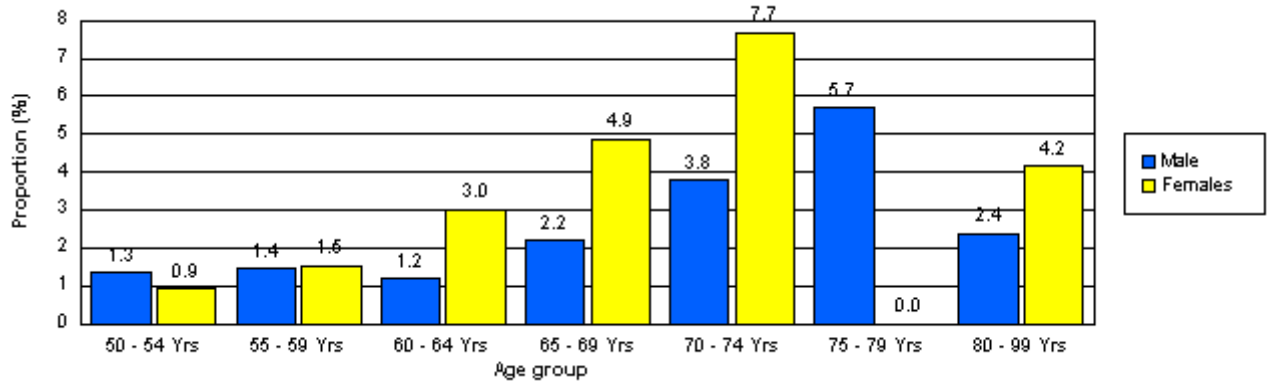
11. Prevalence of people with bilateral visual impairment - VA <6/18-6/60 in better eye with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	1.3	11	2.1	13	1.9
	8	3.9	22	6.8	30	5.6
	42	10.2	40	15.2	82	12.1
	82	35.8	16	19.5	98	31.5
	51	48.1	25	38.5	76	44.4
	12	34.3	2	11.1	14	26.4
	5	11.9	4	16.7	9	13.6
All ages	**202**	**17.1**	**120**	**9.2**	**322**	**13.0**



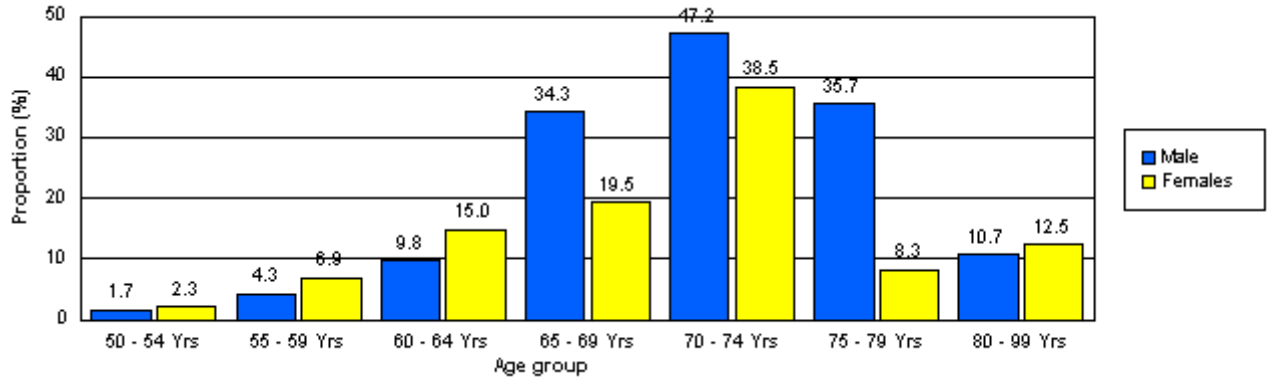
12. Prevalence of people with unilateral visual impairment - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	2	1.3	5	0.9	7	1.0
	3	1.4	5	1.5	8	1.5
	5	1.2	8	3.0	13	1.9
	5	2.2	4	4.9	9	2.9
	4	3.8	5	7.7	9	5.3
	2	5.7	0	0.0	2	3.8
	1	2.4	1	4.2	2	3.0
All ages	**22**	**1.9**	**28**	**2.1**	**50**	**2.0**



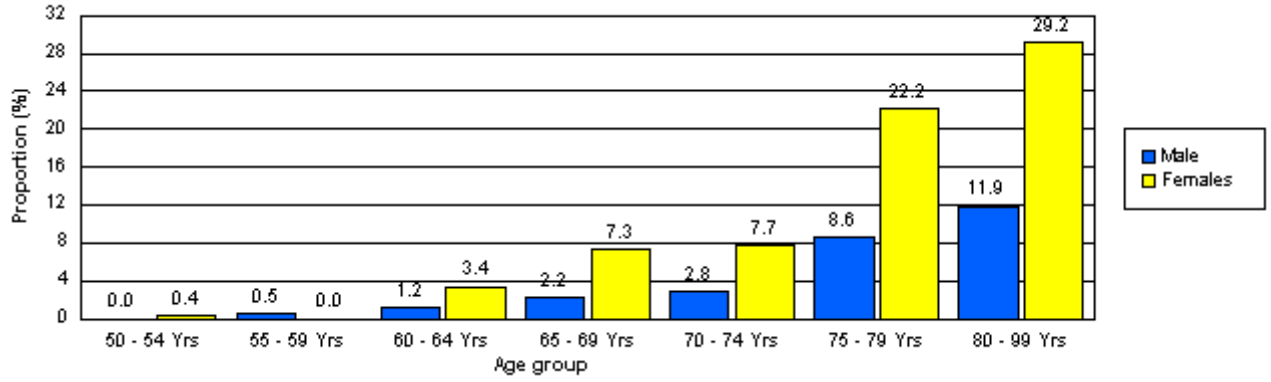
13. Prevalence of VI eyes - VA <6/18-6/60 with available correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	5	1.7	24	2.3	29	2.1
	18	4.3	45	6.9	63	5.9
	81	9.8	79	15.0	160	11.8
	157	34.3	32	19.5	189	30.4
	100	47.2	50	38.5	150	43.9
	25	35.7	3	8.3	28	26.4
	9	10.7	6	12.5	15	11.4
All ages	**395**	**16.7**	**239**	**9.2**	**634**	**12.8**



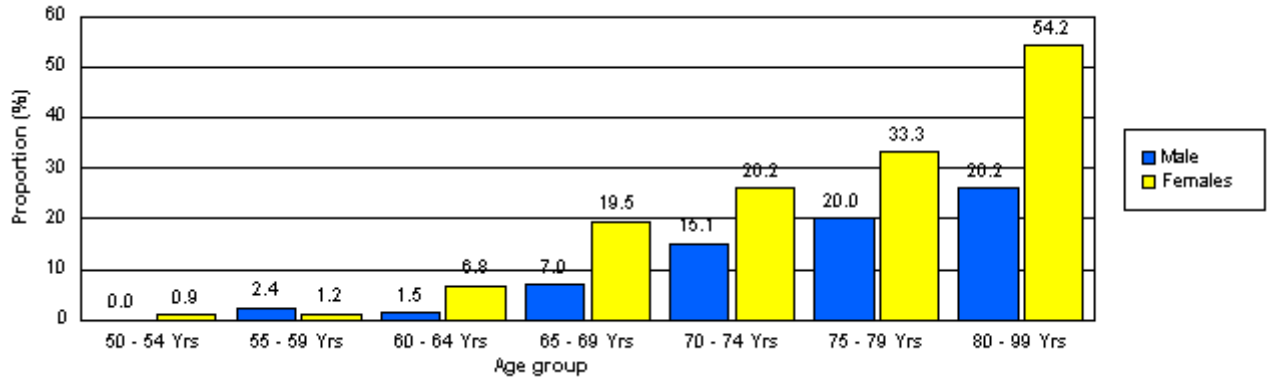
14. Prevalence of people bilateral blind due to cataract - VA <3/60 in better eye with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.4	2	0.3
	1	0.5	0	0.0	1	0.2
	5	1.2	9	3.4	14	2.1
	5	2.2	6	7.3	11	3.5
	3	2.8	5	7.7	8	4.7
	3	8.6	4	22.2	7	13.2
	5	11.9	7	29.2	12	18.2
All ages	**22**	**1.9**	**33**	**2.5**	**55**	**2.2**



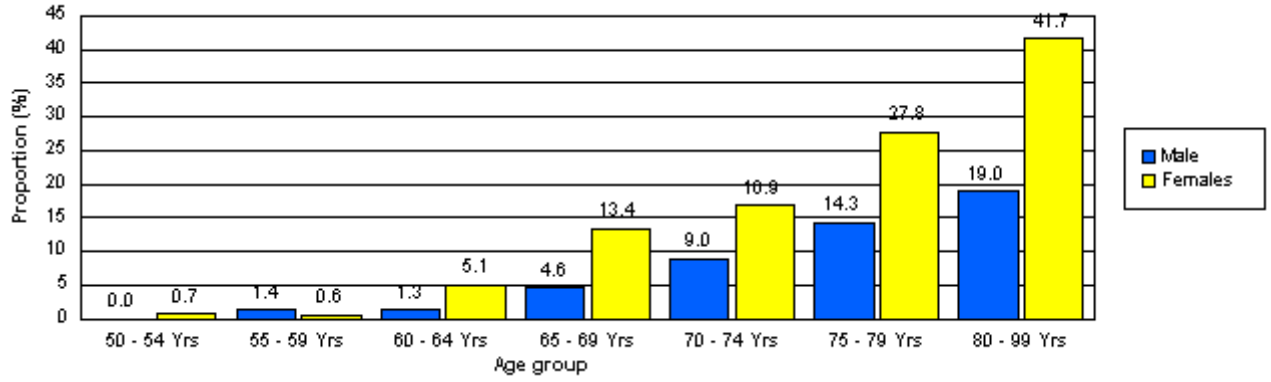
15. Prevalence of people unilateral blind due to cataract - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	5	0.9	5	0.7
	5	2.4	4	1.2	9	1.7
	6	1.5	18	6.8	24	3.5
	16	7.0	16	19.5	32	10.3
	16	15.1	17	26.2	33	19.3
	7	20.0	6	33.3	13	24.5
	11	26.2	13	54.2	24	36.4
All ages	**61**	**5.2**	**79**	**6.1**	**140**	**5.6**



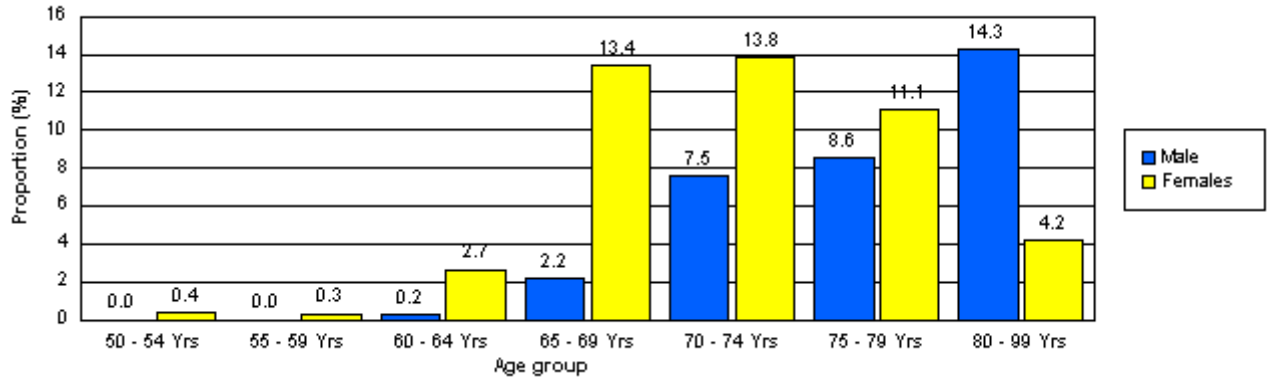
16. Prevalence of cataract blind eyes - VA <3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	7	0.7	7	0.5
	6	1.4	4	0.6	10	0.9
	11	1.3	27	5.1	38	2.8
	21	4.6	22	13.4	43	6.9
	19	9.0	22	16.9	41	12.0
	10	14.3	10	27.8	20	18.9
	16	19.0	20	41.7	36	27.3
All ages	**83**	**3.5**	**112**	**4.3**	**195**	**3.9**



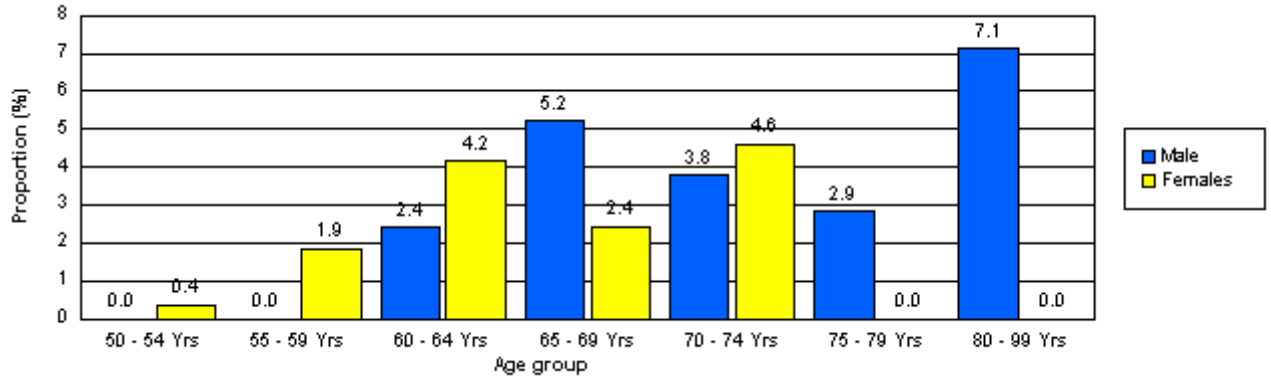
17. Prevalence of people with bilateral severe visual impairment due to cataract - VA <6/60-3/60 - best eye, best correctio

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.4	2	0.3
	0	0.0	1	0.3	1	0.2
	1	0.2	7	2.7	8	1.2
	5	2.2	11	13.4	16	5.1
	8	7.5	9	13.8	17	9.9
	3	8.6	2	11.1	5	9.4
	6	14.3	1	4.2	7	10.6
All ages	**23**	**1.9**	**33**	**2.5**	**56**	**2.3**



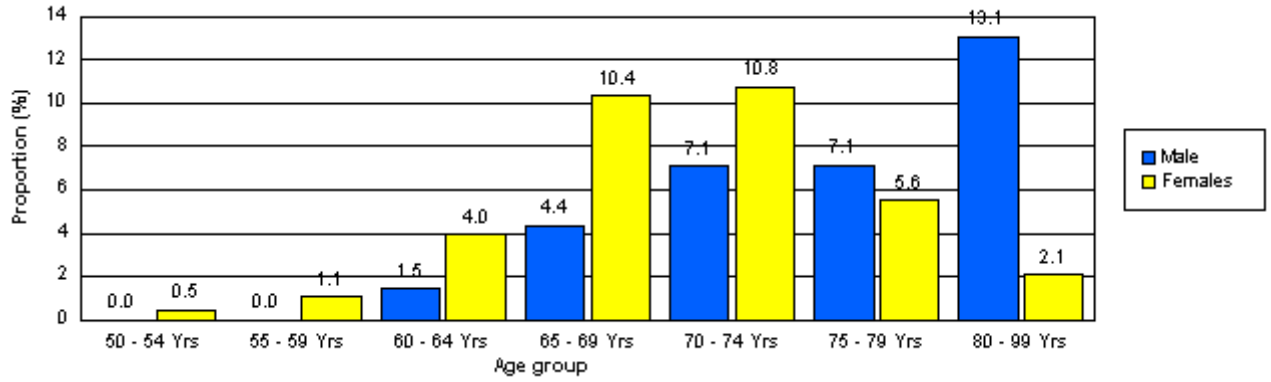
18. Prevalence of people with unilateral severe visual impairment due to cataract - VA <3/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.4	2	0.3
	0	0.0	6	1.9	6	1.1
	10	2.4	11	4.2	21	3.1
	12	5.2	2	2.4	14	4.5
	4	3.8	3	4.6	7	4.1
	1	2.9	0	0.0	1	1.9
	3	7.1	0	0.0	3	4.5
All ages	**30**	**2.5**	**24**	**1.8**	**54**	**2.2**



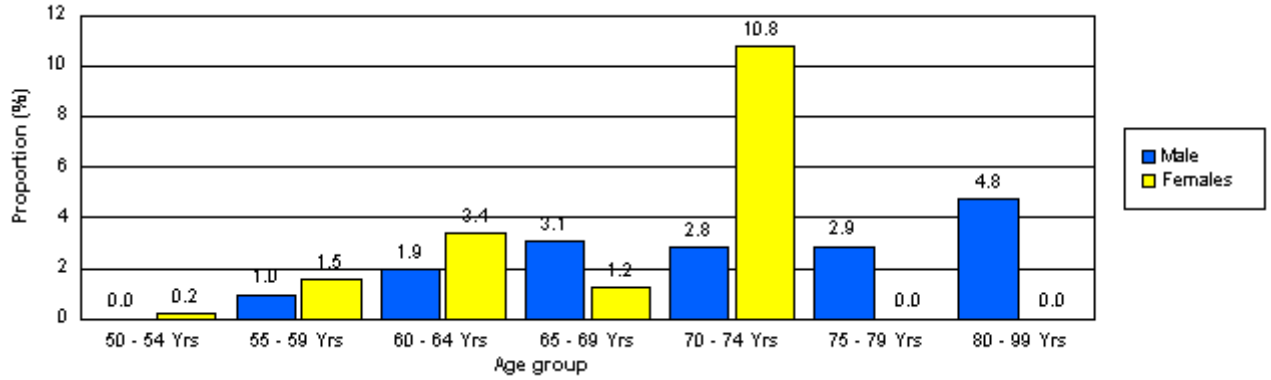
19. Prevalence of cataract SVI eyes - VA VA<6/60-3/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	5	0.5	5	0.4
	0	0.0	7	1.1	7	0.7
	12	1.5	21	4.0	33	2.4
	20	4.4	17	10.4	37	5.9
	15	7.1	14	10.8	29	8.5
	5	7.1	2	5.6	7	6.6
	11	13.1	1	2.1	12	9.1
All ages	**63**	**2.7**	**67**	**2.6**	**130**	**2.6**



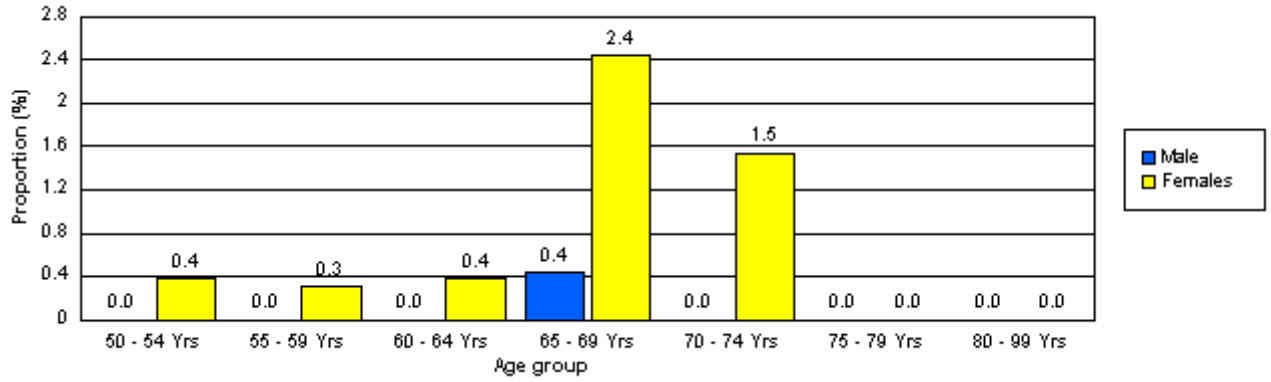
20. Prevalence of people with bilateral visual impairment due to cataract - VA <6/18-6/60 - best eye, best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.2	1	0.1
	2	1.0	5	1.5	7	1.3
	8	1.9	9	3.4	17	2.5
	7	3.1	1	1.2	8	2.6
	3	2.8	7	10.8	10	5.8
	1	2.9	0	0.0	1	1.9
	2	4.8	0	0.0	2	3.0
All ages	**23**	**1.9**	**23**	**1.8**	**46**	**1.9**



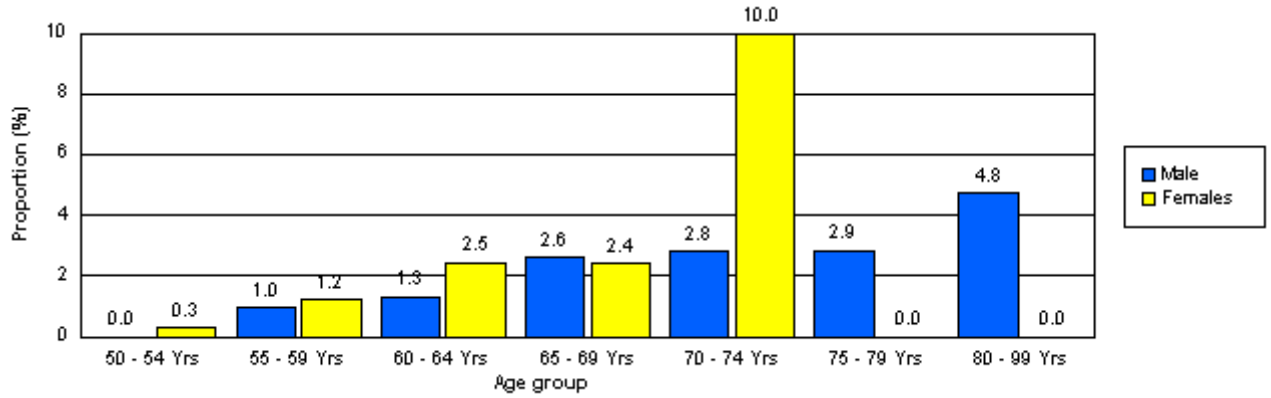
21. Prevalence of people with unilateral visual impairment due to cataract - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	2	0.4	2	0.3
	0	0.0	1	0.3	1	0.2
	0	0.0	1	0.4	1	0.1
	1	0.4	2	2.4	3	1.0
	0	0.0	1	1.5	1	0.6
	0	0.0	0	0.0	0	0.0
	0	0.0	0	0.0	0	0.0
All ages	**1**	**0.1**	**7**	**0.5**	**8**	**0.3**



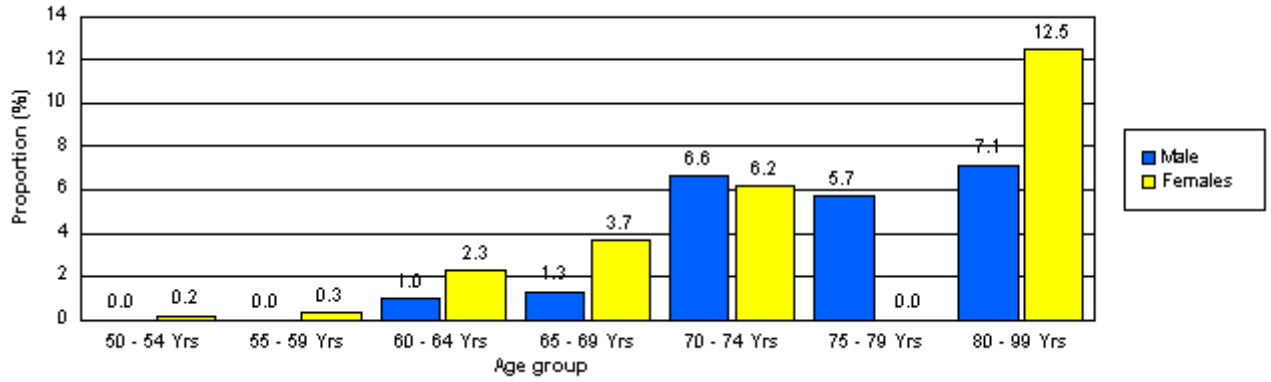
22. Prevalence of cataract VI eyes - VA <6/18-6/60 with best correction

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	3	0.3	3	0.2
	4	1.0	8	1.2	12	1.1
	11	1.3	13	2.5	24	1.8
	12	2.6	4	2.4	16	2.6
	6	2.8	13	10.0	19	5.6
	2	2.9	0	0.0	2	1.9
	4	4.8	0	0.0	4	3.0
All ages	**39**	**1.7**	**41**	**1.6**	**80**	**1.6**



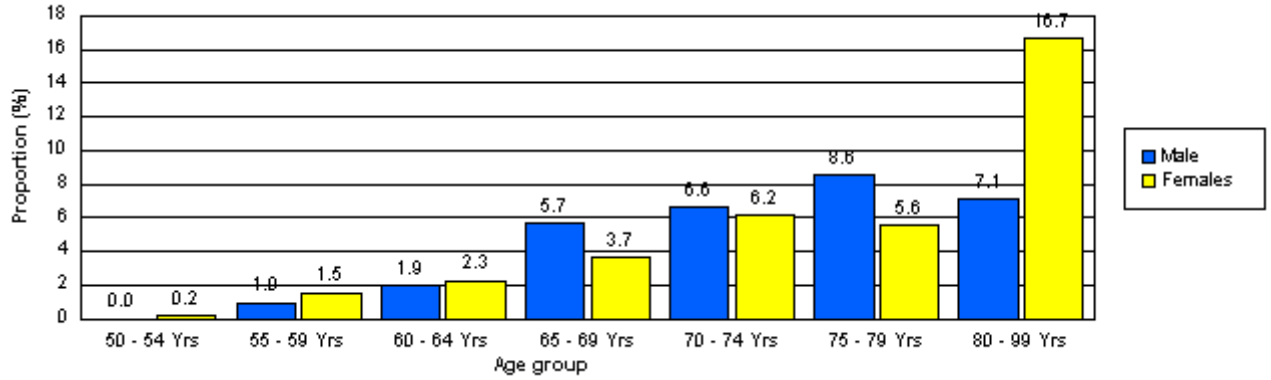
23. Prevalence of people with bilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.2	1	0.1
	0	0.0	1	0.3	1	0.2
	4	1.0	6	2.3	10	1.5
	3	1.3	3	3.7	6	1.9
	7	6.6	4	6.2	11	6.4
	2	5.7	0	0.0	2	3.8
	3	7.1	3	12.5	6	9.1
All ages	**19**	**1.6**	**18**	**1.4**	**37**	**1.5**



24. Prevalence of people with unilateral (pseudo)aphakia

Agegroup	Male		Female		Total	
	n	%	n	%	n	%
	0	0.0	1	0.2	1	0.1
	2	1.0	5	1.5	7	1.3
	8	1.9	6	2.3	14	2.1
	13	5.7	3	3.7	16	5.1
	7	6.6	4	6.2	11	6.4
	3	8.6	1	5.6	4	7.5
	3	7.1	4	16.7	7	10.6
All ages	**36**	**3.0**	**24**	**1.8**	**60**	**2.4**



RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS
AGE AND SEX ADJUSTED

Date and time of the report: 1/2/2011

This report is for the survey area Cox`s bazar

Year and month when survey was completed: 2010-10 until 2010-10

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,

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

Male	127,893	55.8%
Female	101,376	44.2%
Total	**229,269**	**100.0%**

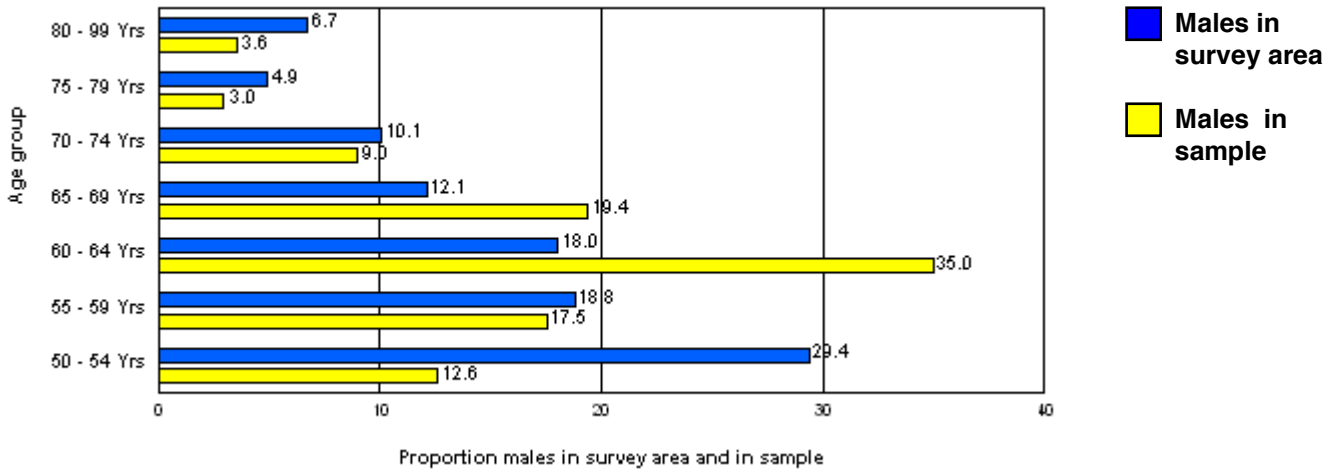
2a. Age and sex composition of population in sample

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	149	12.6%	527	40.4%	676	27.2%
55 - 59 Yrs	207	17.5%	324	24.8%	531	21.4%
60 - 64 Yrs	413	35.0%	264	20.2%	677	27.2%
65 - 69 Yrs	229	19.4%	82	6.3%	311	12.5%
70 - 74 Yrs	106	9.0%	65	5.0%	171	6.9%
75 - 79 Yrs	35	3.0%	18	1.4%	53	2.1%
80 - 99 Yrs	42	3.6%	24	1.8%	66	2.7%
Total	**1,181**	**100.0%**	**1,304**	**100.0%**	**2,485**	**100.0%**

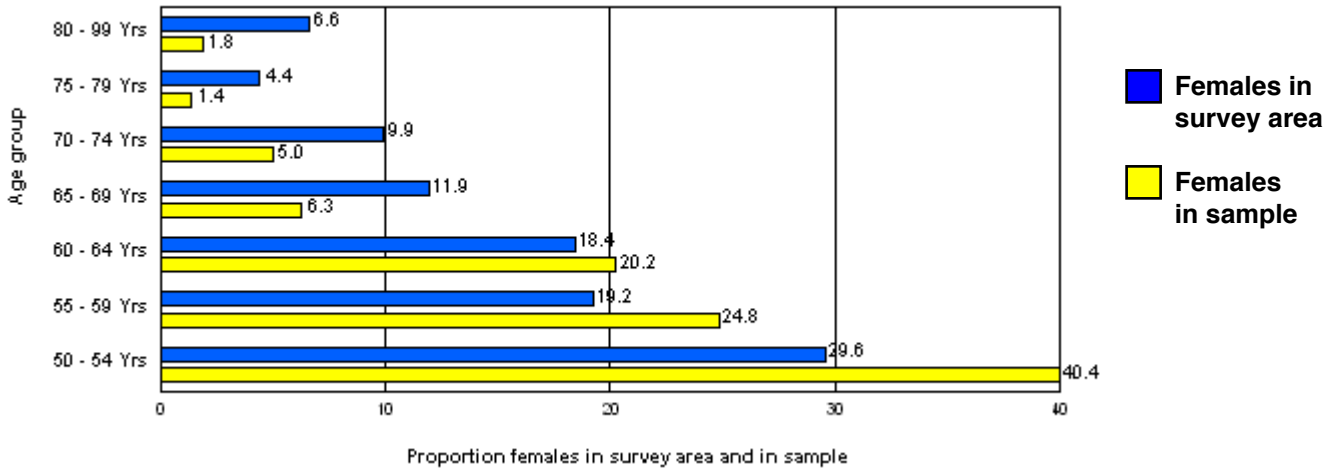
2b. Age and sex composition of population in entire survey area

	Male		Female		Total	
Age groups	n	%	n	%	n	%
50 - 54 Yrs	37,563	29.4%	29,988	29.6%	67,551	29.5%
55 - 59 Yrs	24,068	18.8%	19,497	19.2%	43,565	19.0%
60 - 64 Yrs	23,061	18.0%	18,661	18.4%	41,722	18.2%
65 - 69 Yrs	15,508	12.1%	12,069	11.9%	27,577	12.0%
70 - 74 Yrs	12,890	10.1%	10,027	9.9%	22,917	10.0%
75 - 79 Yrs	6,243	4.9%	4,450	4.4%	10,693	4.7%
80 - 99 Yrs	8,560	6.7%	6,684	6.6%	15,244	6.6%
Total	**127,893**	**100.0%**	**101,376**	**100.0%**	**229,269**	**100.0%**

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



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



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

Estimated cases in people 50+ in survey area	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Blindness - VA<3/60 in better eye, best corrected or pinhole (WHO definition)									
Bilateral blind	4,253	3.33	±1.31	6,667	6.58	±0.99	10,921	4.76	±0.93
Blind eyes	15,065	5.89	±1.58	21,280	10.50	±1.13	36,345	7.93	±1.06
Blindness - VA<3/60 in better eye, with available correction									
Bilateral blind	4,457	3.48	±1.33	6,738	6.65	±1.01	11,195	4.88	±0.95
Blind eyes	15,472	6.05	±1.60	21,482	10.59	±1.15	36,954	8.06	±1.10
Severe Visual Impairment (SVI) - VA<6/60 - 3/60 in better eye with available correction									
Bilateral SVI	3,504	2.74	±0.85	4,791	4.73	±0.94	8,295	3.62	±0.69
SVI eyes	7,545	2.95	±0.86	7,964	3.93	±0.69	15,509	3.38	±0.60
Visual Impairment (VI) - VA<6/18 - 6/60 in better eye with available correction									
Bilateral VI	18,694	14.62	±2.44	12,597	12.43	±2.12	31,291	13.65	±1.76
VI eyes	36,962	14.45	±2.31	24,493	12.08	±2.22	61,456	13.40	±1.85

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

Estimated cases in people 50+ in survey area	Male n	Male %	Female n	Female %	Total n	Total %
Blindness - VA<3/60 in better eye, with available correction						
Bilateral blind	4,457	3.48	6,738	6.65	11,195	4.88
Blind eyes	15,472	6.05	21,482	10.59	36,954	8.06
VA<6/60 in better eye with available correction						
Bilateral <6/60	7,961	6.22	11,529	11.37	19,490	8.50
Eyes <6/60	23,017	9.00	29,445	14.52	52,462	11.44
VA<6/18 in better eye with available correction						
Bilateral <6/18	26,655	20.84	24,126	23.80	50,781	22.15
Eyes <6/18	59,980	23.45	53,939	26.60	113,918	24.84

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

	Male n	Male %	Male CI95%	Female n	Female %	Female CI95%	Total n	Total %	Total CI95%
Cataract and VA<3/60 in better eye with best correction or pinhole									
Bilateral cataract	2,653	2.07	±1.18	5,343	5.27	±0.93	7,996	3.49	±0.90
Unilateral cataract	7,436	5.81	±0.96	11,879	11.72	±1.01	19,315	8.42	±0.70
Cataract eyes	12,742	4.98	±1.35	22,564	11.13	±1.14	35,306	7.70	±1.03
Cataract and SVI in better eye with best correction or pinhole									
Bilateral cataract	3,125	2.44	±0.58	4,449	4.39	±0.47	7,574	3.30	±0.42
Unilateral cataract	2,647	2.07	±1.18	2,010	1.98	±1.21	4,657	2.03	±0.99
Cataract eyes	6,982	2.73	±0.82	7,625	3.76	±0.70	14,607	3.19	±0.61
Cataract and VI in better eye with best correction or pinhole									
Bilateral cataract	2,104	1.65	±1.00	2,221	2.19	±0.72	4,325	1.89	±0.70
Unilateral cataract	68	0.05	±0.56	693	0.68	±0.71	761	0.33	±0.49
Cataract eyes	3,794	1.48	±1.04	4,165	2.05	±0.89	7,959	1.74	±0.78

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

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

	Male n	Male %	Female n	Female %	Total n	Total %
Cataract and VA<3/60 in better eye with best correction or pinhole						
Bilateral cataract	2,653	2.07	5,343	5.27	7,996	3.49
Unilateral cataract	7,436	5.81	11,879	11.72	19,315	8.42
Cataract eyes	12,742	4.98	22,564	11.13	35,306	7.70
Cataract and VA<6/60 in better eye with best correction or pinhole						
Bilateral cataract	5,778	4.52	9,792	9.66	15,570	6.79
Unilateral cataract	10,083	7.88	13,888	13.70	23,972	10.46
Cataract eyes	19,724	7.71	30,189	14.89	49,914	10.89
Cataract and VA<6/18 in better eye with best correction or pinhole						
Bilateral cataract	7,882	6.16	12,013	11.85	19,895	8.68
Unilateral cataract	10,151	7.94	14,582	14.38	24,733	10.79
Cataract eyes	23,518	9.19	34,354	16.94	57,872	12.62

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

8. Adjusted results for aphakia and pseudophakia

	Male			Female			Total		
	n	%	CI95%	n	%	CI95%	n	%	CI95%
Bilateral (pseudo)aphakia	2,246	1.76	±0.79	2,435	2.40	±0.62	4,681	2.04	±0.54
Unilateral (pseudo)aphakia	3,557	2.78	±0.94	3,202	3.16	±0.86	6,759	2.95	±0.63
(pseudo)aphakic eyes	8,049	3.15	±0.92	8,072	3.98	±0.73	16,121	3.52	±0.65

9. Adjusted results for cataract surgical coverage

Cataract Surgical Coverage (eyes)

	Males	Females	Total
VA <3/60	38.7	26.3	31.3
VA <6/60	29.0	21.1	24.4
VA <6/18	25.5	19.0	21.8

Cataract Surgical Coverage (persons)

	Males	Females	Total
VA <3/60	60.8	45.6	51.8
VA <6/60	43.8	33.2	37.5
VA <6/18	36.3	29.4	32.3

SAMPLING ERROR (CLUSTER SAMPLING) & DESIGN EFFECT

Date and time of the report: 1/2/2011

This report is for the survey area Cox`s bazar

Year and month when survey was completed: 2010-10 until 2010-10

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

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

Bilateral blind, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	34	2.88	1.57 - 4.19	1.31	1.10	0.86	1.90	0.67
Female	41	3.14	2.15 - 4.14	0.99	0.83	0.65	1.10	0.51
Total	**75**	**3.02**	**2.09 - 3.95**	**0.93**	**0.78**	**0.61**	**1.92**	**0.48**

Blind eyes, best corrected			**Cluster sampling**					
	Cases in sample	**Sample prev.**	**CI 95%**	**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	128	5.38	3.80 - 6.95	1.58	1.32	1.03	1.50	0.80
Female	140	5.33	4.20 - 6.46	1.13	0.95	0.74	0.86	0.58

Total	**266**	**5.35**	**4.29**	**-**	**6.42**	**1.06**	**0.89**	**0.70**	**1.44**	**0.54**

Bilateral SVI, best corrected								**Cluster sampling**		
	Cases in sample	**Sample prev.**	**CI 95%**			**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	27	2.29	1.44	-	3.13	0.85	0.71	0.55	0.99	0.43
Female	34	2.61	1.67	-	3.55	0.94	0.79	0.61	1.18	0.48
Total	**61**	**2.45**	**1.77**	**-**	**3.14**	**0.69**	**0.58**	**0.45**	**1.28**	**0.35**

SVI eyes, best corrected								**Cluster sampling**		
	Cases in sample	**Sample prev.**	**CI 95%**			**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	68	2.88	2.03	-	3.73	0.85	0.72	0.56	0.80	0.44
Female	68	2.61	1.91	-	3.30	0.69	0.58	0.45	0.64	0.35
Total	**136**	**2.74**	**2.13**	**-**	**3.34**	**0.61**	**0.51**	**0.40**	**0.89**	**0.31**

Bilateral VI, best corrected								**Cluster sampling**		
	Cases in sample	**Sample prev.**	**CI 95%**			**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	24	2.03	0.88	-	3.18	1.15	0.96	0.75	2.04	0.59
Female	28	2.15	1.10	-	3.20	1.05	0.88	0.69	1.78	0.54
Total	**52**	**2.09**	**1.21**	**-**	**2.98**	**0.89**	**0.74**	**0.58**	**2.48**	**0.45**

VI eyes, best corrected								**Cluster sampling**		
	Cases in sample	**Sample prev.**	**CI 95%**			**Var. 95%**	**Var. 90%**	**Var. 80%**	**DEFF**	**SEcrs**
Male	44	1.86	0.76	-	2.96	1.10	0.92	0.72	2.04	0.56
Female	52	1.96	0.99	-	2.92	0.97	0.81	0.63	1.65	0.49
Total	**96**	**1.91**	**1.07**	**-**	**2.75**	**0.84**	**0.71**	**0.55**	**2.44**	**0.43**

Bilateral blind, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	35	2.96	1.63 - 4.29	1.33	1.12	0.87	1.89	0.68
Female	42	3.22	2.21 - 4.23	1.01	0.84	0.66	1.10	0.51
Total	**77**	**3.10**	**2.15 - 4.05**	**0.95**	**0.80**	**0.62**	**1.95**	**0.49**

Blind eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	130	5.46	3.86 - 7.06	1.60	1.34	1.05	1.52	0.82
Female	142	5.44	4.29 - 6.60	1.15	0.97	0.75	0.87	0.59
Total	**272**	**5.45**	**4.35 - 6.55**	**1.10**	**0.92**	**0.72**	**1.51**	**0.56**

Bilateral SVI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	27	2.29	1.44 - 3.13	0.85	0.71	0.55	0.99	0.43
Female	37	2.84	1.90 - 3.78	0.94	0.79	0.62	1.09	0.48
Total	**64**	**2.58**	**1.89 - 3.26**	**0.69**	**0.58**	**0.45**	**1.21**	**0.35**

SVI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	70	2.92	2.07 - 3.78	0.86	0.72	0.56	0.79	0.44
Female	72	2.72	2.03 - 3.42	0.69	0.58	0.45	0.62	0.35
Total	**140**	**2.82**	**2.22 - 3.42**	**0.60**	**0.50**	**0.39**	**0.85**	**0.31**

Bilateral VI, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	202	17.10	14.66 - 19.55	2.44	2.05	1.60	1.29	1.25
Female	120	9.20	7.08 - 11.33	2.12	1.78	1.39	1.83	1.08
Total	**322**	**12.96**	**11.19 - 14.72**	**1.76**	**1.48**	**1.15**	**1.78**	**0.90**

VI eyes, available correction			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	396	16.72	14.41 - 19.03	2.31	1.94	1.51	1.18	1.18
Female	240	9.16	6.94 - 11.39	2.22	1.87	1.45	2.02	1.13
Total	**634**	**12.76**	**10.90 - 14.61**	**1.85**	**1.56**	**1.21**	**2.00**	**0.95**

Bilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	22	1.86	0.68 - 3.05	1.18	0.99	0.77	2.36	0.60
Female	33	2.53	1.60 - 3.46	0.93	0.78	0.61	1.20	0.48
Total	**55**	**2.21**	**1.32 - 3.11**	**0.90**	**0.75**	**0.59**	**2.40**	**0.46**

Unilateral cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	39	3.30	2.34 - 4.26	0.96	0.80	0.63	0.88	0.49
Female	46	3.53	2.51 - 4.54	1.01	0.85	0.66	1.03	0.52
Total	**85**	**3.42**	**2.72 - 4.13**	**0.70**	**0.59**	**0.46**	**0.97**	**0.36**

Eyes cataract blind			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	84	3.51	2.16 - 4.86	1.35	1.13	0.88	1.65	0.69
Female	112	4.29	3.16 - 5.43	1.14	0.95	0.74	1.07	0.58
Total	**196**	**3.92**	**2.90 - 4.95**	**1.03**	**0.86**	**0.67**	**1.81**	**0.52**

Bilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%	Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	10	0.85	0.26 - 1.43	0.58	0.49	0.38	1.24	0.30
Female	10	0.77	0.29 - 1.24	0.47	0.40	0.31	1.00	0.24
Total	**20**	**0.80**	**0.38 - 1.23**	**0.42**	**0.35**	**0.28**	**1.44**	**0.22**

Unilateral cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%		Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	43	3.64	2.46	- 4.83	1.18	0.99	0.77	1.23	0.60
Female	47	3.60	2.39	- 4.82	1.21	1.02	0.79	1.44	0.62
Total	**90**	**3.62**	**2.63**	**- 4.62**	**0.99**	**0.83**	**0.65**	**1.83**	**0.51**

Eyes cataract SVI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%		Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	64	2.67	1.85	- 3.49	0.82	0.69	0.53	0.79	0.42
Female	68	2.57	1.87	- 3.27	0.70	0.59	0.46	0.67	0.36
Total	**130**	**2.62**	**2.01**	**- 3.22**	**0.61**	**0.51**	**0.40**	**0.93**	**0.31**

Bilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%		Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	15	1.27	0.27	- 2.27	1.00	0.84	0.65	2.46	0.51
Female	11	0.84	0.13	- 1.56	0.72	0.60	0.47	2.09	0.37
Total	**26**	**1.05**	**0.35**	**- 1.74**	**0.70**	**0.58**	**0.46**	**3.03**	**0.36**

Unilateral cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%		Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	9	0.76	0.20	- 1.32	0.56	0.47	0.37	1.29	0.29
Female	19	1.46	0.75	- 2.17	0.71	0.60	0.46	1.19	0.36
Total	**28**	**1.13**	**0.63**	**- 1.62**	**0.49**	**0.41**	**0.32**	**1.41**	**0.25**

Eyes cataract VI			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%		Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	40	1.65	0.61	- 2.69	1.04	0.87	0.68	2.04	0.53
Female	42	1.57	0.68	- 2.46	0.89	0.75	0.58	1.74	0.45
Total	**80**	**1.61**	**0.83**	**- 2.39**	**0.78**	**0.66**	**0.51**	**2.50**	**0.40**

Bilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%		Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	19	1.61	0.82	- 2.40	0.79	0.66	0.51	1.20	0.40
Female	18	1.38	0.76	- 2.00	0.62	0.52	0.40	0.95	0.32
Total	**37**	**1.49**	**0.95**	**- 2.03**	**0.54**	**0.45**	**0.35**	**1.28**	**0.27**

Unilateral (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%		Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	36	3.05	2.10	- 3.99	0.94	0.79	0.62	0.93	0.48
Female	24	1.84	0.98	- 2.70	0.86	0.72	0.56	1.38	0.44
Total	**60**	**2.41**	**1.79**	**- 3.04**	**0.63**	**0.53**	**0.41**	**1.08**	**0.32**

Eyes (pseudo)aphakia			Cluster sampling					
	Cases in sample	Sample prev.	CI 95%		Var. 95%	Var. 90%	Var. 80%	DEFF	SEcrs
Male	74	3.13	2.22	- 4.05	0.92	0.77	0.60	0.85	0.47
Female	60	2.30	1.57	- 3.03	0.73	0.61	0.48	0.80	0.37
Total	**134**	**2.70**	**2.05**	**- 3.34**	**0.65**	**0.54**	**0.42**	**1.03**	**0.33**