

RESULTS OF RAPID ASSESSMENT OF AVOIDABLE BLINDNESS

SAMPLE RESULTS - NOT ADJUSTED FOR AGE AND SEX

Date and time of report: 14/01/2016 14:57:06

This report is for the survey area: Peshawar District

Year and month when survey was conducted: 2013- 8 until 2013- 9

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

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

	Examined		Not available		Refused		Not capable		Total	
	n	%	n	%	n	%	n	%	n	%
Males	1,572	96.3%	18	1.1%	40	2.5%	2	0.1%	1,632	100.0%
Females	1,512	97.4%	10	0.6%	30	1.9%	1	0.1%	1,553	100.0%
Total	3,084	96.8%	28	0.9%	70	2.2%	3	0.1%	3,185	100.0%

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

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with best correction or pinhole						
All bilateral blindness	27	1.7% (1.1-2.3)	17	1.1% (0.6-1.6)	44	1.4% (1.0-1.9)
All blind eyes	175	5.6% (4.5-6.6)	129	4.3% (3.3-5.2)	304	4.9% (4.1-5.7)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	29	1.8% (1.2-2.5)	19	1.3% (0.7-1.9)	48	1.6% (1.1-2.0)
All blind eyes	188	6.0% (4.9-7.0)	146	4.8% (3.8-5.8)	334	5.4% (4.6-6.2)
Severe visual impairment (SVI) - VA<6/60 - 3/60 in the better eye with available correction						
All bilateral Severe VI	17	1.1% (0.6-1.5)	13	0.9% (0.4-1.3)	30	1.0% (0.7-1.3)
All Severe VI eyes	52	1.7% (1.2-2.1)	53	1.8% (1.2-2.3)	105	1.7% (1.3-2.1)
Moderate visual impairment (MVI) - VA<6/18 - 6/60 in the better eye with available correction						
All bilateral MVI	89	5.7% (4.4-6.9)	138	9.1% (7.4-10.9)	227	7.4% (6.2-8.5)
All Moderate VI eyes	251	8.0% (6.7-9.3)	329	10.9% (9.2-12.5)	580	9.4% (8.2-10.6)

3. Prevalence of presenting VA<3/60, VA<6/60, VA<6/18 and VA<6/12 - all causes (cumulative categories)

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Blindness - VA < 3/60 in the better eye with available correction (presenting VA)						
All bilateral blindness	29	1.8% (1.2-2.5)	19	1.3% (0.7-1.9)	48	1.6% (1.1-2.0)
All blind eyes	188	6.0% (4.9-7.0)	146	4.8% (3.8-5.8)	334	5.4% (4.6-6.2)
VA<6/60 in the better eye, with available correction (presenting VA)						
All bilateral cases	46	2.9% (2.1-3.7)	32	2.1% (1.4-2.8)	78	2.5% (2.0-3.1)
All eyes	240	7.6% (6.5-8.8)	199	6.6% (5.4-7.8)	439	7.1% (6.2-8.0)
VA<6/18 in the better eye, with available correction (presenting VA)						
All bilateral cases	135	8.6% (7.1-10.1)	170	11.2% (9.4-13.1)	305	9.9% (8.6-11.2)
All eyes	491	15.6% (13.7-17.6)	528	17.5% (15.4-19.5)	1,019	16.5% (14.9-18.1)

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	0	0.0%	0	0.0%	0	0.0%
2. Aphakia uncorrected	2	6.9%	0	0.0%	2	4.2%
3. Cataract untreated	13	44.8%	10	52.6%	23	47.9%
4. Cataract surgical complications	1	3.4%	2	10.5%	3	6.3%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	6	20.7%	1	5.3%	7	14.6%
7. Phthisis	0	0.0%	1	5.3%	1	2.1%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	1	3.4%	0	0.0%	1	2.1%
10. Diabetic retinopathy	0	0.0%	2	10.5%	2	4.2%
11. ARMD	2	6.9%	1	5.3%	3	6.3%
12. Other posterior segment disease	3	10.3%	1	5.3%	4	8.3%
13. All other globe/CNS abnormalities	1	3.4%	1	5.3%	2	4.2%
Total	29	100.0%	19	100.0%	48	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	15	51.7%	10	52.6%	25	52.1%
B. Preventable (PHC/PEC services) (5,6,7,8)	6	20.7%	2	10.5%	8	16.7%
C. Preventable (Ophthalmic services) (4,9,10)	2	6.9%	4	21.1%	6	12.5%
D. Avoidable (A+B+C)	23	79.3%	16	84.2%	39	81.3%
E. Posterior segment causes (8,9,10,11,12)	6	20.7%	4	21.1%	10	20.8%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	1	0.5%	3	2.1%	4	1.2%
2. Aphakia uncorrected	2	1.1%	1	0.7%	3	0.9%
3. Cataract untreated	71	37.8%	78	53.4%	149	44.6%
4. Cataract surgical complications	6	3.2%	4	2.7%	10	3.0%
5. Trachomatous corneal opacity	1	0.5%	0	0.0%	1	0.3%
6. Non Trachomatous corneal opacity	32	17.0%	20	13.7%	52	15.6%
7. Phthisis	14	7.4%	8	5.5%	22	6.6%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	8	4.3%	4	2.7%	12	3.6%
10. Diabetic retinopathy	2	1.1%	7	4.8%	9	2.7%
11. ARMD	7	3.7%	3	2.1%	10	3.0%
12. Other posterior segment disease	33	17.6%	14	9.6%	47	14.1%
13. All other globe/CNS abnormalities	11	5.9%	4	2.7%	15	4.5%
Total	188	100.0%	146	100.0%	334	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	74	39.4%	82	56.2%	156	46.7%
B. Preventable (PHC/PEC services) (5,6,7,8)	47	25.0%	28	19.2%	75	22.5%
C. Preventable (Ophthalmic services) (4,9,10)	16	8.5%	15	10.3%	31	9.3%
D. Avoidable (A+B+C)	137	72.9%	125	85.6%	262	78.4%
E. Posterior segment causes (8,9,10,11,12)	50	26.6%	28	19.2%	78	23.4%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	3	17.6%	1	7.7%	4	13.3%
2. Aphakia uncorrected	0	0.0%	0	0.0%	0	0.0%
3. Cataract untreated	11	64.7%	7	53.8%	18	60.0%
4. Cataract surgical complications	0	0.0%	1	7.7%	1	3.3%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	1	7.7%	1	3.3%
10. Diabetic retinopathy	1	5.9%	1	7.7%	2	6.7%
11. ARMD	2	11.8%	1	7.7%	3	10.0%
12. Other posterior segment disease	0	0.0%	1	7.7%	1	3.3%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	17	100.0%	13	100.0%	30	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	14	82.4%	8	61.5%	22	73.3%
B. Preventable (PHC/PEC services) (5,6,7,8)	0		0		0	
C. Preventable (Ophthalmic services) (4,9,10)	1	5.9%	3	23.1%	4	13.3%
D. Avoidable (A+B+C)	15	88.2%	11	84.6%	26	86.7%
E. Posterior segment causes (8,9,10,11,12)	3	17.7%	4	30.8%	7	23.3%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	9	17.3%	9	17.0%	18	17.1%
2. Aphakia uncorrected	1	1.9%	0	0.0%	1	1.0%
3. Cataract untreated	31	59.6%	24	45.3%	55	52.4%
4. Cataract surgical complications	3	5.8%	4	7.5%	7	6.7%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	3	5.8%	2	3.8%	5	4.8%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	3	5.7%	3	2.9%
10. Diabetic retinopathy	1	1.9%	3	5.7%	4	3.8%
11. ARMD	2	3.8%	3	5.7%	5	4.8%
12. Other posterior segment disease	1	1.9%	4	7.5%	5	4.8%
13. All other globe/CNS abnormalities	1	1.9%	1	1.9%	2	1.9%
Total	52	100.0%	53	100.0%	105	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	41	78.8%	33	62.3%	74	70.5%
B. Preventable (PHC/PEC services) (5,6,7,8)	3	5.8%	2	3.8%	5	4.8%
C. Preventable (Ophthalmic services) (4,9,10)	4	7.7%	10	18.9%	14	13.3%
D. Avoidable (A+B+C)	48	92.3%	45	84.9%	93	88.6%
E. Posterior segment causes (8,9,10,11,12)	4	7.7%	13	24.5%	17	16.2%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	66	74.2%	95	68.8%	161	70.9%
2. Aphakia uncorrected	0	0.0%	0	0.0%	0	0.0%
3. Cataract untreated	18	20.2%	35	25.4%	53	23.3%
4. Cataract surgical complications	2	2.2%	0	0.0%	2	0.9%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	0	0.0%	1	0.7%	1	0.4%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	1	0.7%	1	0.4%
10. Diabetic retinopathy	0	0.0%	3	2.2%	3	1.3%
11. ARMD	1	1.1%	1	0.7%	2	0.9%
12. Other posterior segment disease	2	2.2%	2	1.4%	4	1.8%
13. All other globe/CNS abnormalities	0	0.0%	0	0.0%	0	0.0%
Total	89	100.0%	138	100.0%	227	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	84	94.4%	130	94.2%	214	94.3%
B. Preventable (PHC/PEC services) (5,6,7,8)	0		1	0.7%	1	0.4%
C. Preventable (Ophthalmic services) (4,9,10)	2	2.3%	4	2.9%	6	2.6%
D. Avoidable (A+B+C)	86	96.6%	135	97.8%	221	97.4%
E. Posterior segment causes (8,9,10,11,12)	3	3.4%	7	5.1%	10	4.4%

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

	n	Males %	n	Females %	n	Total %
1. Refractive error	189	75.3%	219	66.6%	408	70.3%
2. Aphakia uncorrected	0	0.0%	1	0.3%	1	0.2%
3. Cataract untreated	39	15.5%	77	23.4%	116	20.0%
4. Cataract surgical complications	7	2.8%	9	2.7%	16	2.8%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	5	2.0%	4	1.2%	9	1.6%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	0	0.0%	1	0.3%	1	0.2%
10. Diabetic retinopathy	3	1.2%	9	2.7%	12	2.1%
11. ARMD	2	0.8%	2	0.6%	4	0.7%
12. Other posterior segment disease	3	1.2%	6	1.8%	9	1.6%
13. All other globe/CNS abnormalities	3	1.2%	1	0.3%	4	0.7%
Total	251	100.0%	329	100.0%	580	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	228	90.8%	297	90.3%	525	90.5%
B. Preventable (PHC/PEC services) (5,6,7,8)	5	2.0%	4	1.2%	9	1.6%
C. Preventable (Ophthalmic services) (4,9,10)	10	4.0%	19	5.8%	29	5.0%
D. Avoidable (A+B+C)	243	96.8%	320	97.3%	563	97.1%
E. Posterior segment causes (8,9,10,11,12)	8	3.2%	18	5.5%	26	4.5%

12. Prevalence of cataract with VA<3/60, VA<6/60, VA<6/18 and VA<6/12 - best corrected VA or pinhole

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Cataract and VA<3/60 with best correction or pinhole						
Bilateral cataract	8	0.5% (0.2-0.8)	7	0.5% (0.1-0.8)	15	0.5% (0.2-0.7)
Unilateral cataract	56	3.6% (2.7-4.5)	57	3.8% (2.7-4.8)	113	3.7% (2.9-4.4)
Cataract eyes	72	2.3% (1.7-2.9)	71	2.4% (1.7-3.0)	143	2.3% (1.8-2.8)
Cataract and VA<6/60 with best correction or pinhole						
Bilateral cataract	13	0.8% (0.4-1.2)	12	0.8% (0.3-1.3)	25	0.8% (0.5-1.1)
Unilateral cataract	64	4.1% (3.4-5.4)	67	4.4% (3.6-6.0)	131	4.3% (3.8-5.5)
Cataract eyes	90	2.9% (2.2-3.5)	91	3.0% (2.2-3.8)	181	2.9% (2.4-3.5)
Cataract and VA<6/18 with best correction or pinhole						
Bilateral cataract	34	2.2% (1.5-2.8)	41	2.7% (1.7-3.7)	75	2.4% (1.8-3.1)
Unilateral cataract	80	5.1% (3.9-6.3)	101	6.7% (5.2-8.1)	181	5.9% (4.9-6.9)
Cataract eyes	148	4.7% (3.8-5.6)	183	6.1% (4.8-7.3)	331	5.4% (4.5-6.2)

13. Sample prevalence of (pseudo)aphakia

	Males		Females		Total	
	n	% (95%CI)	n	% (95%CI)	n	% (95%CI)
Bilateral (pseudo)aphakia	79	5.0% (4.1-5.9)	63	4.2% (3.2-5.2)	142	4.6% (3.9-5.3)
Unilateral (pseudo)aphakia	83	5.3% (4.1-6.5)	89	5.9% (4.6-7.2)	172	5.6% (4.7-6.4)
(Pseudo)aphakic eyes	241	7.7% (6.6-8.8)	215	7.1% (5.7-8.5)	456	7.4% (6.5-8.3)

14. Cataract Surgical Coverage

	Males	Females	Total
Cataract Surgical Coverage (eyes) - percentage			
VA < 3/60	77.0	75.2	76.1
VA < 6/60	72.8	70.3	71.6
VA < 6/18	62.0	54.0	57.9
Cataract Surgical Coverage (persons) - percentage			
VA < 3/60	92.5	92.6	92.5
VA < 6/60	88.6	88.2	88.4
VA < 6/18	75.5	71.5	73.5

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

	Males		Females		Total	
	n	%	n	%	n	%
First eyes	162	67.2%	152	70.7%	314	68.9%
Second eyes	79	32.8%	63	29.3%	142	31.1%

16. Uncorrected refractive error and uncorrected presbyopia

	Males		Females		Total	
	n	%	n	%	n	%
Total refractive errors	273	17.4%	282	18.7%	555	18.0%
Uncorrected refractive errors	71	4.5%	96	6.4%	167	5.4%
Uncorrected presbyopia	1,073	68.3%	1,052	69.6%	2,125	68.9%

17. Persons with Functional Low Vision: BCVA<6/18 - PL+ in the better eye; incurable

	Males		Females		Total	
	n	%	n	%	n	%
50 - 59	3	0.4%	4	0.4%	7	0.4%
60 - 69	11	2.3%	6	1.5%	17	1.9%
70 - 79	3	1.4%	5	3.9%	8	2.4%
80+	2	2.4%	5	11.4%	7	5.5%
Total	19	1.2%	20	1.3%	39	1.3%

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

	Males		Females		Total	
	n	%	n	%	n	%
1. Refractive error	0	0.0%	0	0.0%	0	0.0%
2. Aphakia uncorrected	0	0.0%	0	0.0%	0	0.0%
3. Cataract untreated	0	0.0%	0	0.0%	0	0.0%
4. Cataract surgical complications	2	10.5%	2	10.0%	4	10.3%
5. Trachomatous corneal opacity	0	0.0%	0	0.0%	0	0.0%
6. Non Trachomatous corneal opacity	4	21.1%	2	10.0%	6	15.4%
7. Phthisis	0	0.0%	0	0.0%	0	0.0%
8. Onchocerciasis	0	0.0%	0	0.0%	0	0.0%
9. Glaucoma	1	5.3%	2	10.0%	3	7.7%
10. Diabetic retinopathy	1	5.3%	6	30.0%	7	17.9%
11. ARMD	5	26.3%	3	15.0%	8	20.5%
12. Other posterior segment disease	5	26.3%	4	20.0%	9	23.1%
13. All other globe/CNS abnormalities	1	5.3%	1	5.0%	2	5.1%
Total	19	100.0%	20	100.0%	39	100.0%

Intervention by this visual impairment

A. Treatable (1,2,3)	0		0		0	
B. Preventable (PHC/PEC services) (5,6,7,8)	4	21.1%	2	10.0%	6	15.4%
C. Preventable (Ophthalmic services) (4,9,10)	4	21.1%	10	50.0%	14	35.9%
D. Avoidable (A+B+C)	8	42.1%	12	60.0%	20	51.3%
E. Posterior segment causes (8,9,10,11,12)	12	63.2%	15	75.0%	27	69.2%

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

	Males		Females		Total	
	n	%	n	%	n	%
BCVA<3/60 - PL+	12	41.4%	6	31.6%	18	37.5%
BCVA<6/60 - 3/60	2	11.8%	6	46.2%	8	26.7%
BCVA<6/18 - 6/60	5	5.6%	8	5.8%	13	5.7%
Total	19	14.1%	20	11.8%	39	12.8%