

STATISTICS BOTSWANA

EYE DISEASE STATISTICS

Stats Brief 2014

Private Bag 0024, Gaborone.

Tel: 3671300 **Fax:** 3952201

E-mail: info@statsbots.org.bw **Website:** <http://www.statsbots.org.bw>

Preface

This statistical brief analyzes the conditions of eye cases diagnosed at health facilities as new or repeat attendances among children, young and older people over a ten year period covering the years 2005 to 2014. The brief states the major causes of eye disease burden, seasonal conditions and looks at who was at risk in 2014.

Statistics Botswana's Health Statistics Unit (HSU), is attached to the Ministry of Health & Wellness to provide statistical support to the Ministry to facilitate collection, analysis and dissemination of quality official statistics for evidence-based decision making, program monitoring and evaluation. The Unit produces Statistical Briefs on eye health and related problems.

The Health Statistics Unit has since decided to produce Statistical Briefs instead of the bulky annual reports on different data sets notably; Eye health, Psychiatric-Out Patient, Psychiatric-In Patient, Out –Patient and In Patient. This particular stats brief is the second of the editions.

Generally as shown in this report eye attendances have been in decrease, from a total of 90,019 in 2005 to 78,620 in 2014.

For more information, contact the Directorate of Stakeholder Relations at 3671300. All Statistics Botswana outputs/publications are available on the website at www.statsbots.org.bw and at the Statistics Botswana Library (Head-Office, Plot 8843, Khama Crescent, Gaborone).

We sincerely thank all stakeholders involved in the formulation of this brief, for their continued support, as we strive to better serve users with our statistical products and services.



Anna Majelantle
Statistician General
December 2017

1.0 Introduction

The World Health Organisation (WHO) estimates that every five seconds one person in the world goes blind, while every minute a child loses sight. It is estimated that 80 percent of blindness is avoidable. A study in Botswana revealed that 3.7 percent or more than 74,000 blindness incidence and prevalence rates among adult population of 50 years and above, was due to cataract, diabetic retinopathy (DR), corneal scars, trachoma and glaucoma. On the other hand, an uncorrected refractive error was found to be the leading cause of blindness among children in Botswana.

According to the 2011 Population and Housing Census, 3.7 percent of the population had some form of disability which was almost equally matched between males and females at 3.9 and 3.6 per cent respectively. The most prevalent form of disability was visual impairment which constituted 48.6 percent of all disabilities followed by defect of hearing with 20.3 percent. The youth aged 15 to 39 made up the bulk of the disabled population with 32.4 percent followed by the elderly aged 65 years above with 28.3 percent. While the youth were mostly affected by intellectual impairment (51.7%) and speech impairment (46.3%), the elderly were mostly affected by sight impairment (40.9%).

Eye function renders human the sense of sight. They convert light into electrical signals. Afterwards, the brain deciphers these electrical signals into images. Eyes help us view our surroundings and enable us to see colors. Eyes also help us see near as well as distant objects. These extremely delicate organs can fall prey to different eye problems due to allergic factors, unhygienic conditions, injuries and the old age.

Realizing the importance of the eye, this report covers all diseases and conditions that threatened eye health in 2014. Specifically the report covers trends, major diseases by age, sex, month and district. The report also highlights eye injuries and discusses sight threatening conditions and those at risk.

2. Background

Eye care services have come a long way in this country. Specialized eye care services were started by a missionary, Dr Teichler in 1964 at Deborah Relief Memorial Hospital in Mochudi. This was followed by the introduction of eye care services in Princess Marina Hospital in 1970. It then became apparent that these services were not universally accessible.

In 1993, the Ministry of Health formulated the National Prevention of blindness /Eye Health Program to coordinate eye services. This is now an integral part of the existing health care services in the country. Integration of the program in the existing health care system increases accessibility of the ophthalmic services to the rural communities as well as increasing community awareness towards blinding eye conditions in Botswana. Initially the focus of the program was curative, but in recent years the program has evolved to emphasize prevention, promotion, curative and rehabilitative services.

Visual impairment and Blindness is a worldwide public health problem. According to World Health Organization 2010 estimates, about 285 million people worldwide live with visual impairment due to either eye diseases or uncorrected refractive errors. Of these, 39 million were blind, of whom 90% live in low income countries.

The major causes of blindness worldwide are: cataract, uncorrected refractive errors, glaucoma, diabetic retinopathy, age- related macular degeneration, corneal opacity, trachoma, eye conditions in children. 80% of cases of blindness are treatable or preventable.

In 2009 childhood blindness survey was conducted and results revealed that uncorrected refractive errors, cataract and trauma were the leading causes of visual impairment and blindness amongst children from 0-15 years.

In order to address the above mentioned problems, at the Sixty-sixth World Health Assembly, the Global Eye Health Action Plan for period 2014–2019 was endorsed, that aims to reduce avoidable visual impairment as a global public health problem and to secure access to rehabilitation services for the visually impaired. This is proposed to be achieved by increasing current efforts by Member States, the WHO Secretariat and International partners, improved coordination, efficient monitoring, focusing the use of resources towards the most cost-effective interventions, and developing innovative approaches to prevent and cure eye diseases.

Botswana as a member of WHO through the Ministry of Health & Wellness works with stakeholders and partners to eliminate avoidable blindness.

The annual health statistics report is produced by Statistics Botswana in collaboration with the Ministry of Health and Wellness. This report analyses eye outpatient submissions from all health facilities across the country. The information is captured into relevant computer systems for further analysis.

2.0 Summary of Findings

The country Profile

The Population of Botswana is estimated at 2.156 million for the year 2014, with males constituting 49.1 percent compared to 50.9 for their female counterparts. The proportion of children less than five years and young are 12.1 and 20.2 percent respectively. The elderly population proportion is 4.7 percent and the adults 15-64 constituted 63.2 percent as indicated in Botswana Population Projections 2011-2016 Report as shown in table 1 below.

Table 1: Population by age and Sex, 2014

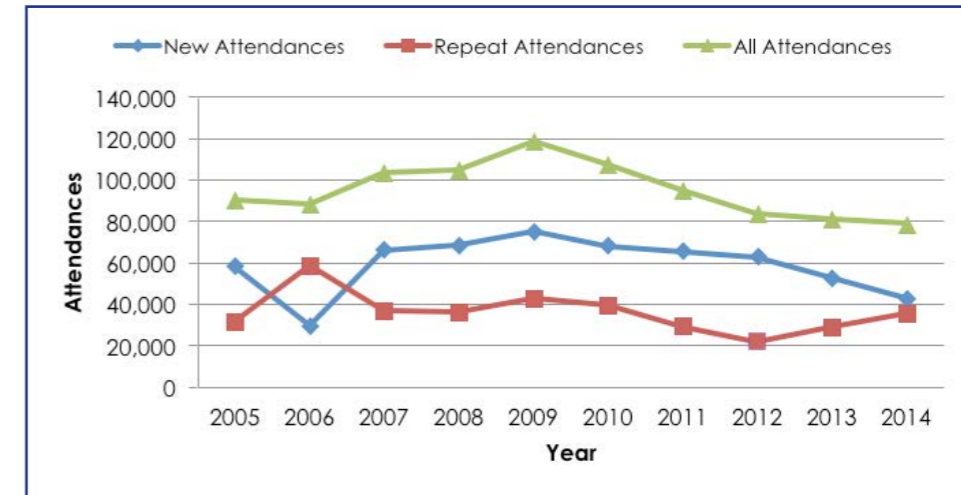
Age Group	Males	Females	Total	Percentage
0-4	131,646	128,797	260,443	12.1
5-9	113,180	110,935	224,115	10.4
10-14	106,286	104,414	210,700	9.8
15-19	104,879	103,963	208,842	9.7
20-24	101,619	104,452	206,071	9.6
25-29	99,207	105,022	204,229	9.5
30-34	96,356	99,840	196,196	9.1
35-39	77,910	77,317	155,227	7.2
40-44	60,030	58,997	119,027	5.5
45-49	43,076	46,905	89,981	4.2
50-54	33,791	40,986	74,777	3.5
55-59	26,970	33,480	60,450	2.8
60-64	20,943	25,283	46,226	2.1
65-69	14,199	17,120	31,319	1.5
70-74	10,154	13,526	23,680	1.1
75-79	7,464	10,889	18,353	0.9
80+	10,417	16,317	26,734	1.2
Total	1,058,125	1,098,241	2,156,366	100

Source: Botswana Population Projections 2011-2026

Summary on Major Eye Diseases/ Conditions

The report shows that the number of patients who presented eye conditions fluctuates for all attendances annually. Since 2009 eye attendances declined from 103,393 cases to 78,620 in 2014. All attendances as indicated in Figure 1 shows the same pattern as that of New attendances during the same period.

Figure 1: Eye Attendances Trends 2005-2014



NB: 2012 and 2013 are estimates

In addition, new attendances show a decline of 34.4 percent while repeat attendances increased by 21.6 percent for 2011 and 2014 respectively. Table 2. shows that outpatient eye morbidity was 78,620 in 2014 indicating a significant decrease of 17.1 percent, compared to 94,804 cases in 2011. According to the results there were more female cases for selected periods compared to male cases.

Table 2: Eye Attendances Trends, 2005-2014

Attendances	Sex	Year									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
New	Male	25,365	12,731	28,382	29,794	32,081	29,922	30,425	29,914	23,967	18,021
	Female	32,985	16,816	37,903	38,915	43,282	38,310	35,098	32,155	28,570	24,984
	Total	58,350	29,547	66,285	68,709	75,363	68,232	65,523	62,922	52,963	43,005
Repeat	Male	13,715	25,496	15,370	14,827	17,399	16,279	12,604	9,759	12,179	14,599
	Female	17,954	33,162	21,738	21,183	25,680	23,046	16,677	12,068	16,542	21,016
	Total	31,669	58,658	37,108	36,010	43,079	39,325	29,281	21,802	28,709	35,615
All attendances	Male	39,080	38,227	43,752	44,621	49,480	46,201	43,029	40,075	36,347	32,620
	Female	50,939	49,978	59,641	60,098	68,962	61,356	51,775	43,690	44,845	46,000
	Total	90,019	88,205	103,393	104,719	118,442	107,557	94,804	83,563	81,092	78,620

NB: 2012 and 2013 are estimates

3.0 Major Eye Diseases

3.1 Major Eye Diseases by Sex

Figures 2, 3 and 4 shows major Eye outpatient diseases for New, Repeat and All attendances in 2014. All diseases and conditions including related problems are presented in Table 14.

The report shows that major eye diseases in Botswana are; conjunctivitis, other disorders of conjunctiva, refractive error, cataract, glaucoma, hordeolum, chalazion, Blindness, vision loss and conjunctival growth (Table 8).

According to Figure 2, conjunctivitis constituted the highest proportion among All attendances accounting for 23.9 percent, followed by Refractive errors (11.8%), cataract (10.1%) Other disorders of conjunctiva (10.2%) and glaucoma (8.2%). Hordeolum, conjunctival growth chalazion and Blindness and vision loss each constituted a proportion less than 2 percent.

Figure 2: Proportions of Major Eye Diseases, All Attendances, 2014

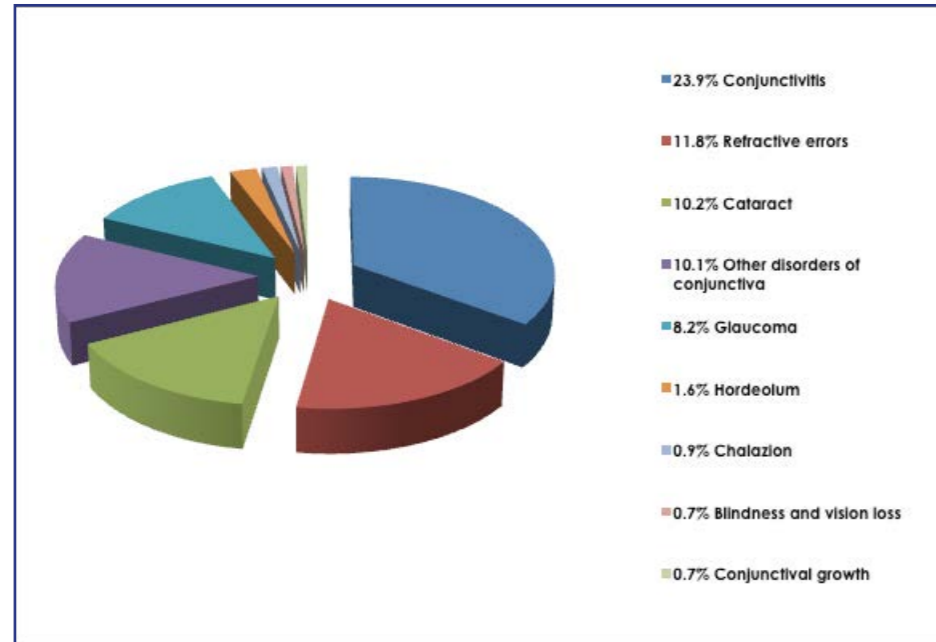


Figure 3: Major Eye Diseases New Attendances, 2014

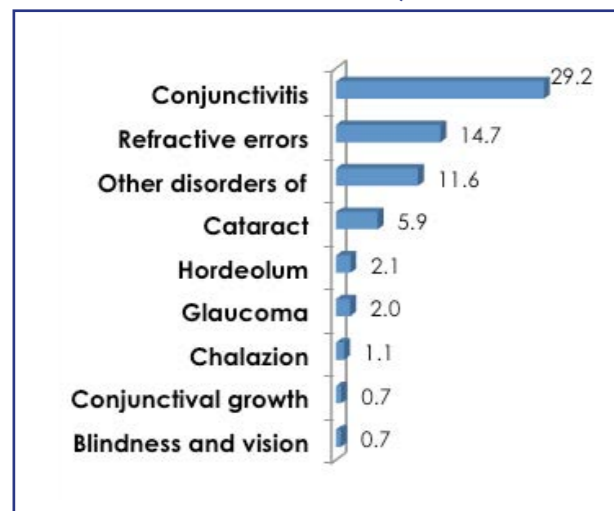
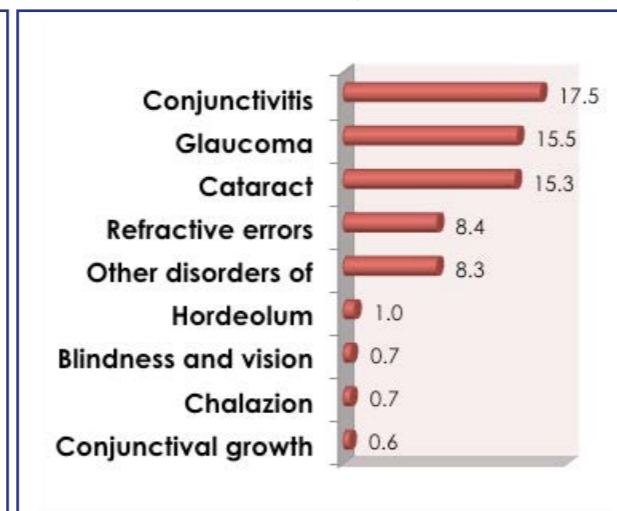


Figure 4: Major Eye Diseases Repeat Attendances, 2014



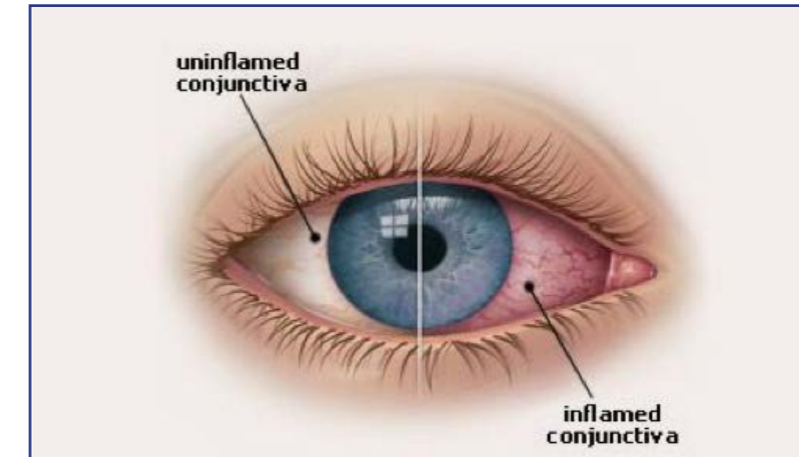
However, considering new eye diseases, conjunctivitis continued to be a leading major eye disease burden with a higher proportion of 29.2 percent. Refractive errors constituted 14.7 percent followed by other disorders of conjunctiva (11.6%), cataract (5.9%), hordeolum (2.1%) and glaucoma (2.0%), while conjunctival growth, chalazion and blindness each had a proportion less than 2 percent (Figure 3).

Conjunctivitis, glaucoma and cataract are the leading eye diseases for repeat cases constituting 17.5, 15.5 and 15.3 percent respectively (Figure 4).

3.1.1 Conjunctivitis

Conjunctivitis — also called Pink eye — is inflammation of the thin, clear covering of the white of the eye and the inside of the eyelids (conjunctiva).

Figure A: conjunctivitis Image



Source: www.organsofthebody.com

Although the conjunctiva is transparent, it contains blood vessels that overlay the sclera of the eye. Anything that triggers inflammation will cause these conjunctival blood vessels to dilate. This is what causes red, bloodshot eyes.

The primary types of conjunctivitis, based on cause, are:

Viral conjunctivitis: Caused by a virus, like the common cold. This type of pink eye is very contagious, but usually will clear up on its own within several days without medical treatment.

Bacterial conjunctivitis: Caused by bacteria, this type of conjunctivitis can cause serious damage to the eye if left untreated.

Allergic conjunctivitis: Caused by eye irritants such as pollen, dust and animal dander among susceptible individuals. Allergic conjunctivitis may be seasonal (pollen) or flare up year-round (dust; pet dander).

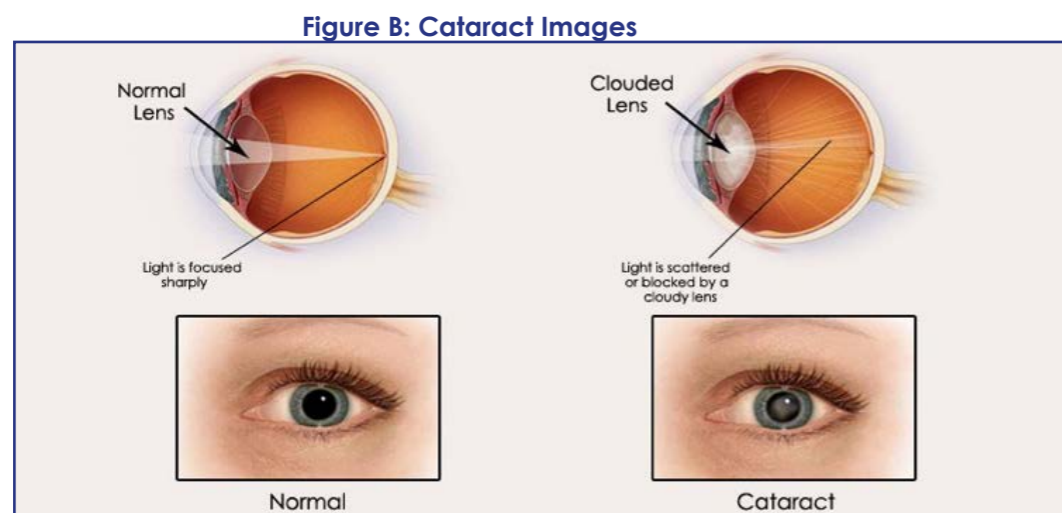
Table 3 shows different examples of the above stated types of conjunctivitis. Acute atopic conjunctivitis constituted the highest proportion with 74.5 percent followed by Conjunctivitis, unspecified (11.1%) and Mucopurulent conjunctivitis (10.2%).

Table 3: Conjunctivitis Diseases/ conditions, 2014

Diagnosis	New Attendances			Repeat Attendances			All Attendances			Percentage
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Conjunctivitis										
Acute atopic conjunctivitis	3,514	5,351	8,865	1,957	2,925	4,882	5,471	8,276	13,747	74.5
Conjunctivitis, unspecified	680	893	1,573	177	296	473	857	1,189	2,046	11.09
Mucopurulent conjunctivitis	585	804	1,389	216	319	535	801	1,123	1,924	10.43
Other conjunctivitis	80	105	185	48	63	111	128	168	296	1.6
Chronic conjunctivitis	33	69	102	20	15	35	53	84	137	0.74
Other viral conjunctivitis (H13.1*)	15	29	44	36	45	81	51	74	125	0.68
Keratoconjunctivitis	28	36	64	15	18	33	43	54	97	0.53
Trachoma, unspecified	7	8	15	1	4	5	8	12	20	0.11
Acute epidemic haemorrhagic conjunctivitis (enteroviral) (H13.1*)	4	10	14	0	4	4	4	14	18	0.1
Blepharoconjunctivitis	3	10	13	1	3	4	4	13	17	0.09
Other acute conjunctivitis	5	4	9	2	3	5	7	7	14	0.08
Acute conjunctivitis, unspecified	0	3	3	1	3	4	1	6	7	0.04
Active stage of trachoma	0	1	1	0	1	1	0	2	2	0.01
Neonatal conjunctivitis and dacryocystitis	0	1	1	0	0	0	0	1	1	0.01
Viral conjunctivitis, unspecified	0	1	1	1	0	1	0	0	0	0
Total	4,954	7,325	12,279	2,474	3,699	6,173	7,428	11,024	18,452	100

3.1.2 Cataract

The natural lens of the eye is responsible for focusing light and making images clear and sharp. A cataract is a clouding of this natural lens. This means vision becomes cloudy and both central and peripheral vision becomes blurred.



Source: www.organsofthebody.com

The main cause of cataracts is ageing and it is the leading cause of vision loss among the over 55 age bracket. Diseases such as diabetes, eye injuries and different types of medications may also cause cataracts.

Symptoms of cataracts include double or blurred vision, diminishing ability to distinguish colour, sensitivity to light and glare, frequent need to change your eyeglass or contact lens prescription.

Table 4 shows that 48.2 percent of cataracts were not specified. However, the other leading types of cataract in Botswana in 2014 among new and repeat cases are Senile cataracts, caused by ageing with 18.1 percent followed by Infantile, juvenile and presenile cataract (17.1%) Other specified cataract (9.3%) and Aphakia (3.3%).

Table 4: Cataract Diseases/ conditions by Sex, 2014

Diagnosis	New Attendances			Repeat Attendances			All Attendances			Percentage
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Cataract										
Cataract, unspecified	545	746	1,291	1,003	1,495	2,498	1,548	2,241	3,789	48.2
Other senile cataract	137	206	343	449	565	1,014	586	771	1,357	17.3
Infantile, juvenile and presenile cataract	170	229	399	428	517	945	598	746	1,344	17.1
Other specified cataract	109	150	259	184	291	475	293	441	734	9.3
Aphakia	19	19	38	106	112	218	125	131	256	3.3
Traumatic cataract	28	51	79	63	70	133	91	121	212	2.7
Senile cataract, unspecified	8	7	15	20	21	41	28	28	56	0.7
Congenital cataract	7	10	17	7	6	13	14	16	30	0.4
Senile cataract, morgagnian type	2	0	2	7	13	20	9	13	22	0.3
After-cataract	7	1	8	4	5	9	11	6	17	0.2
Dislocation of lens	6	2	8	4	4	8	10	6	16	0.2
Senile incipient cataract	2	0	2	4	5	9	6	5	11	0.1
Complicated cataract	0	2	2	3	6	9	3	8	11	0.1
Disorder of lens, unspecified	1	2	3	1	2	3	2	4	6	0.1
Hype mature cataract (age less than 65 years)	0	3	3	0	0	0	0	3	3	0
Other specified disorders of lens	0	0	0	0	1	1	0	1	1	0
Sub total	1,041	1,428	2,469	2,283	3,113	5,396	3,324	4,541	7,865	100

The symptoms of early cataract may be improved with new eyeglasses, brighter lighting, anti-glare sunglasses, or magnifying lenses. If these measures do not help, surgery is the only effective treatment. Surgery involves removing the cloudy lens and replacing it with an artificial lens. The lens is the clear part of the eye that focuses light and images, enabling a person to see. The implanted lens is called an intraocular lens (IOL) or pseudophakic IOL.

The condition of cataract surgery is known as Pseudophakia meaning "fake lens." It's a term that's used after you've had an artificial lens implanted in your eye to replace your own natural lens.

According to Table 4a, 21.3 percent of 2014 pseudophakic patients were new cases of which 59.4 percent were female. Patients 65 years and above contributed the highest proportion of 31.1 percent among all attendances.

Table 4a: Pseudophakia condition by Age and Sex, All Attendances, 2014

Age (Years)	New Attendances			Repeat Attendances			All Attendances		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<1	2	1	3	3	10	13	5	11	16
1-4	8	7	15	63	70	133	71	77	148
5-9	9	12	21	76	79	155	85	91	176
10-14	34	32	66	85	75	160	119	107	226
15-19	59	39	98	124	151	275	183	190	373
20-24	12	20	32	164	143	307	176	163	339
25-29	23	23	46	135	200	335	158	223	381
30-34	20	29	49	142	194	336	162	223	385
35-39	4	15	19	54	148	202	58	163	221
40-44	14	34	48	69	102	171	83	136	219
45-49	25	44	69	84	107	191	109	151	260
50-54	12	31	43	60	190	250	72	221	293
55-59	21	58	79	90	128	218	111	186	297
60-64	5	37	42	72	119	191	77	156	233
65+	199	273	472	478	661	1,139	677	934	1,611
Total	447	655	1,102	1,699	2,377	4,076	2,146	3,032	5,178

3.1.3 Other Disorders of Conjunctiva

Table 5 shows examples of other disorders of conjunctiva like Pterygium, Cyst, Conjunctival haemorrhage, deposit or conjunctival scar. Pterygium was the leading condition of disorders of conjunctiva contributing 44.2 percent and Cysts followed contributing 37.4 percent.

Table 5: Other Disorders of Conjunctiva Diseases/ conditions by Sex, 2014

Diagnosis	New Attendances			Repeat Attendances			All Attendances			Percentage
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Other Disorders of Conjunctiva										
Pterygium	742	1,101	1,843	614	989	1,603	1,356	2,090	3,446	44.2
Other conjunctival vascular disorders and cysts	863	1,176	2,039	325	552	877	1,188	1,728	2,916	37.4
Conjunctival haemorrhage	299	381	680	101	146	247	400	527	927	11.9
Conjunctival degenerations and deposits	105	154	259	59	110	169	164	264	428	5.5
Other specified disorders of conjunctiva	6	12	18	3	11	14	9	23	32	0.4
Conjunctival scars	2	5	7	12	11	23	14	16	30	0.4
Disorder of conjunctiva, unspecified	1	6	7	2	5	7	3	11	14	0.2
Total	2,018	2,835	4,853	1,116	1,824	2,940	3,134	4,659	7,793	100

Figure C: Myopia Image



Source: youtube.com

Hyperopia/ Hypermetropia (farsightedness) is a common type of refractive error where distant objects may be seen more clearly than objects that are near. However, people experience hyperopia differently. For people with significant hyperopia, vision can be blurry for objects at any distance, near or far. Symptoms of hyperopia are blurry vision for close objects and at night and squinting.

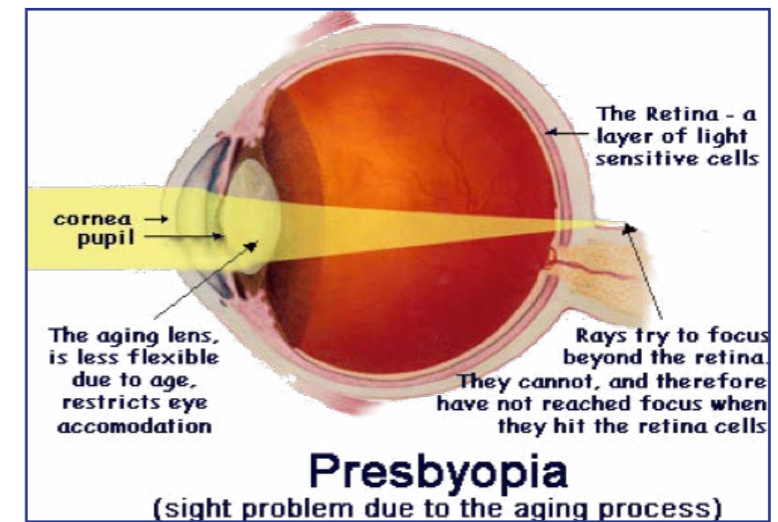
Figure D: Hyperopia Image



Source: crizal.ca

Presbyopia happens naturally in people as they age. The eye is not able to focus light directly on to the retina due to the hardening of the natural lens. Aging also affects muscle fibers around the lens making it harder for the eye to focus on up close objects. The ineffective lens causes light to focus behind the retina, causing poor vision for objects that are up close. Symptoms of presbyopia include: Hard time reading small print, holding reading material farther than arm's distance, problems seeing objects that are close to you, headaches and eyestrain.

Figure E: Presbyopia Image



Astigmatism is a condition in which the eye does not focus light evenly onto the retina, the light-sensitive tissue at the back of the eye. Astigmatism occurs when light is bent differently depending on where it strikes the cornea and passes through the eyeball. The cornea of a normal eye is curved like a basketball, with the same degree of roundness in all areas. An eye with astigmatism has a cornea that is curved more like a football, with some areas that are steeper or more rounded than others. This can cause images to appear blurry and stretched out.

Figure F: Astigmatism Image

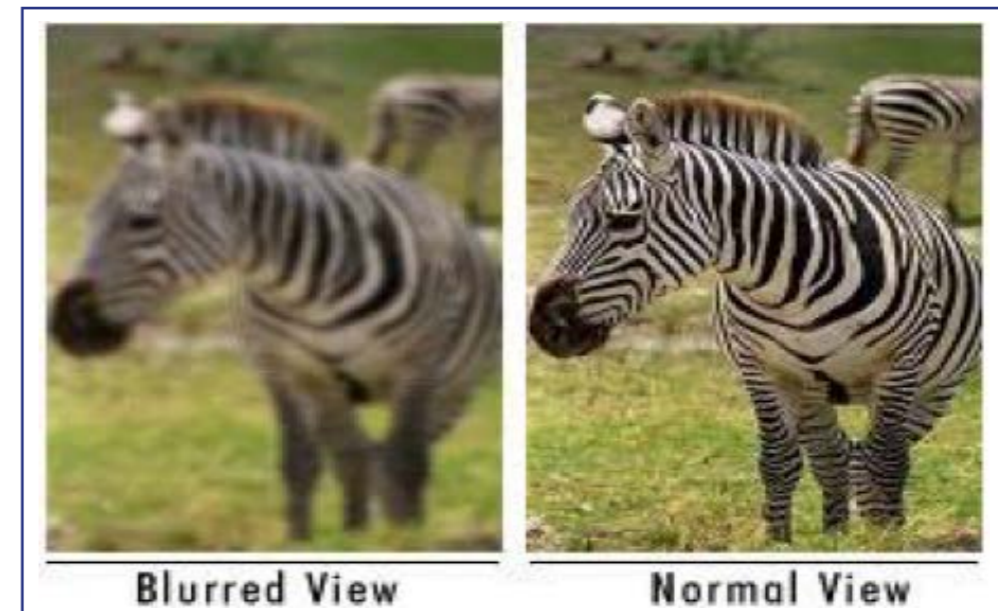


Table 6 shows that the leading type of refractive error from the 2014 eye patients was the unspecified disorder of refraction, which affected 4,215 of all patients (46.2%), followed by presbyopia and myopia which affected 17.9% and 15.1 % of all eye attendants. Females constituted the highest proportion of 58.6 percent compared to their male counterparts.

Male children less than 15 years were at higher risk for both new and repeat cases. Females dominated in all other age groups (Table 9a and Table 9b).

Table 6: Refractive Error Diseases/ conditions by Sex, 2014

Diagnosis	New Attendances			Repeat Attendances			All Attendances			Percentage
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Refractive errors										
Disorder of refraction, unspecified	1,238	1,614	2,852	544	819	1,363	1,782	2,433	4,215	46.2
Presbyopia	425	682	1,107	190	331	521	615	1,013	1,628	17.9
Myopia	406	512	918	194	262	456	600	774	1,374	15.1
Hypermetropia	345	458	803	133	231	364	478	689	1,167	12.8
Astigmatism	201	272	473	86	136	222	287	408	695	7.6
Anisometropia and aniseikonia	3	8	11	4	15	19	7	23	30	0.3
Disorders of accommodation	4	1	5	4	0	4	8	1	9	0.1
Total	2,622	3,547	6,169	1,155	1,794	2,949	3,777	5,341	9,118	100

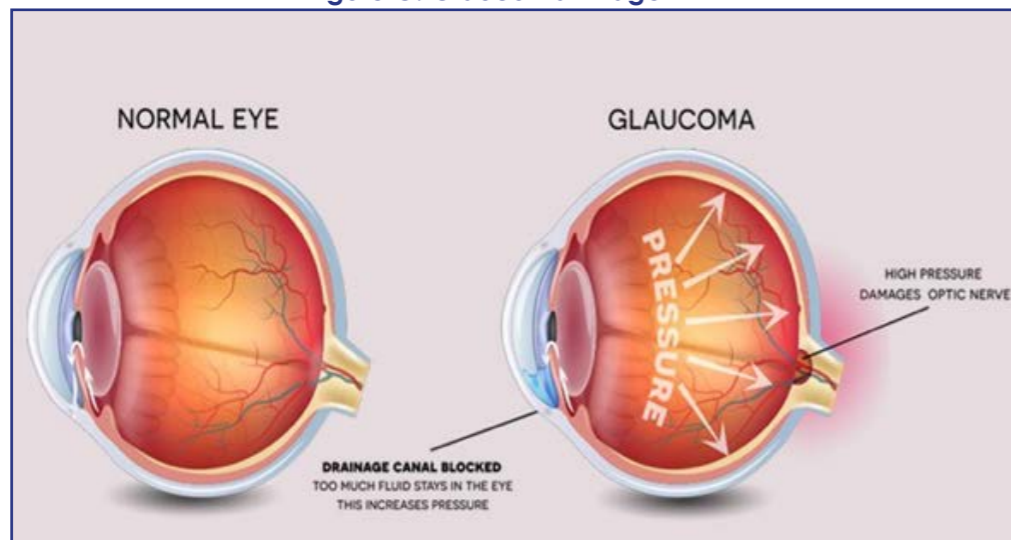
3.1.5 Glaucoma

Glaucoma is a group of eye diseases that affects the optic nerve of the eye; the nerve that sends information from the eye to the brain. There are two main forms: open angle and closed angle. Both forms result in the loss of peripheral vision. Elevated pressure in the eye can lead to glaucoma although not exclusively.

Different forms of glaucoma have different symptoms. However, the most common form, open-angle, has no symptoms initially. Gradually, peripheral vision loss will occur and if not treated properly will result in blindness. Other symptoms include;

- difficulty in adjusting to darkness and focusing on items up close,
- appearance of rainbow-colored circles around bright lights, severe eye and head pain nausea or vomiting (accompanying severe eye pain).

Figure G: Glaucoma Image



Source: www.organsofthebody.com

The report shows that the most common form of glaucoma in 2014 was glaucoma of unspecified nature with 55.6 percent followed by open-angle with 25.3 percent. Eye disorders and trauma have been reflected as one of the causes of glaucoma. Congenital glaucoma (which is diagnosed at birth) constituted 0.2 Percent of all cases. For all eye attendances, there were more females than their male counterparts as they constituted 57.0 percent of all attendances.

Table 7: Glaucoma Diseases/ conditions Attendances by Sex, 2014

Diagnosis	New Attendances			Repeat Attendances			All Attendances			Percentage
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Glaucoma										
Glaucoma, unspecified	219	254	473	1,305	1,727	3,032	1,524	1,981	3,505	55.6
Primary open-angle glaucoma	37	67	104	567	921	1,488	604	988	1,592	25.3
Congenital glaucoma	51	55	106	282	279	561	333	334	667	10.6
Glaucoma suspect	66	66	132	79	100	179	145	166	311	4.9
Glaucoma secondary to other eye disorders	7	12	19	53	63	116	60	75	135	2.1
Other glaucoma	1	7	8	35	30	65	36	37	73	1.2
Primary angle-closure glaucoma	1	5	6	7	7	14	8	12	20	0.3
Total	382	466	848	2,328	3,127	5,455	2,710	3,593	6,303	100

3.1.6 Blindness and Low Vision

Low vision (vision impairment) refers to a severe visual impairment, not necessarily limited to distance vision. When a person has low vision, eyeglasses, contact lenses, medicine, or surgery may not help. Activities like reading, shopping, cooking, writing, and watching TV may be hard to do. Some individuals with low vision use a combination of vision and other senses to learn, although they may require adaptations in lighting or the size of print, and, sometimes, Braille.

Low vision is usually caused by eye diseases or health conditions. Some of these include age-related macular degeneration (AMD), cataract, diabetes, and glaucoma, eye injuries and birth defects. Whatever the cause, lost vision cannot be restored. It can, however, be managed with proper treatment and vision rehabilitation.

Blindness is defined as a presenting visual acuity of worse than 3/60 or a corresponding visual field loss to less than 10° in the better eye.

Table 8 shows that according to 2014 data, 63.3 percent of low vision including blindness was not specified. Of all attendances, 53.0 percent were new cases. Among the 126 patients who were diagnosed with low vision on both eyes, 54.8 percent were first time visitors of which 72.2 percent were females. Almost six percent were blind on both eyes for all attendances.

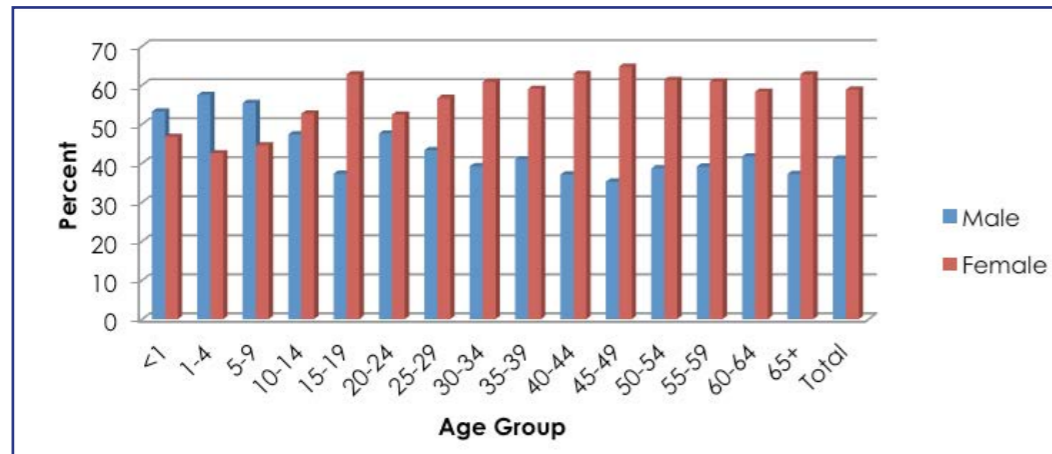
Table 8: Blindness and Vision Loss condition Attendances by Sex, 2014

Diagnosis	New Attendances			Repeat Attendances			All Attendances			Percentage
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Blindness and vision loss										
Unspecified visual loss	71	108	179	65	105	170	136	213	349	63.3
Low vision, both eyes	18	51	69	17	40	57	35	91	126	22.9
Blindness, one eye	9	13	22	5	5	10	14	18	32	5.8
Blindness, both eyes	6	8	14	10	7	17	16	15	31	5.6
Blindness, one eye, low vision other eye	5	1	6	2	2	4	7	3	10	1.8
Low vision, one eye	2	0	2	0	1	1	2	1	3	0.5
Total	111	181	292	99	160	259	210	341	551	100

3.2 Major Eye Diseases by Age and Sex

The report indicates that more of the elderly population was diagnosed with eye diseases than children and younger population (Figure 5). Conjunctivitis affected children and younger population as indicated in Table 9, 9a and 9b. Cataract and glaucoma were the major leading eye disease burden among people aged 65 years and above.

Figure 5: Proportion of Major Eye Diseases/ condition Attendances by Age, 2014



3.3 Major Eye Diseases by District

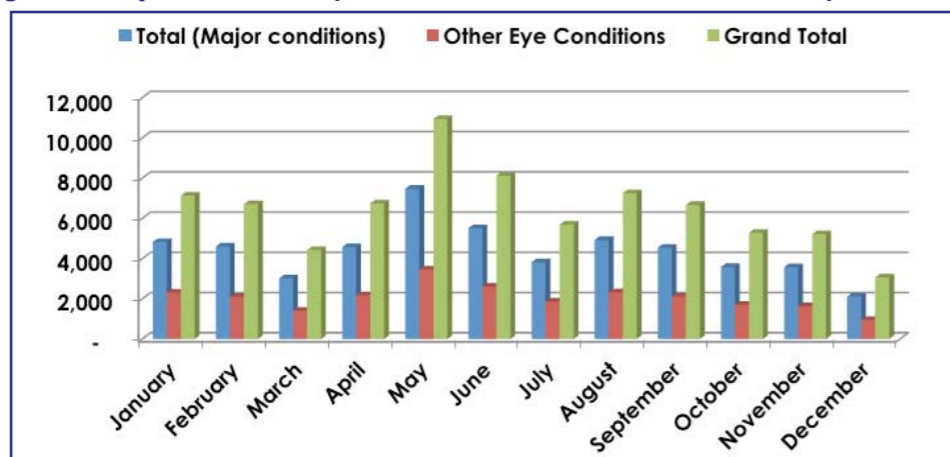
Table 10 shows major eye diseases and conditions for different districts. Gaborone district, having Princes Marina as a referral hospital, attended more cases compared to other facilities. The district attended 19,943 eye care cases, which was 25.8 percent of all eye attendances. The most prevalent eye disease was conjunctivitis which accounted for 23.9 percent of all eye diseases. The disease was more prevalent in Palapye district where it accounted for 25.8 percent followed by Chobe Tutume and North East with 25.1, 24.6 and 24.5 percent respectively.

Table 9 further shows that other eye diseases with significant prevalence were cataract and disorders of the conjunctiva with 11.8 and 10.2 percent respectively.

3.4 Major Eye Diseases by Month

Most eye conditions are aggravated by seasons. According to Figure 6 and Table 11, more cases of eye diseases were reported in the months of January, May, June, and August. These are the months of the season when plants are flowering and aggravate eye diseases like conjunctivitis, which are caused by eye irritants such as pollen, dust and animal dander among susceptible individuals.

Figure 6: Major and Other Eye Diseases/ condition Attendances by Month, 2014



4.0 Eye injuries

Eye injuries can range from the very minor causes, such as getting soap in one's eye, to the catastrophic, resulting in permanent loss of vision or loss of the eye. These types of injuries often occur in the workplace, at home, other accidents, or while participating in sports.

Causes of Eye Injuries

- Chemical exposures and burns.
- **Subconjunctival hemorrhage (bleeding).** This is a collection of blood lying on the surface of the white of the eye (sclera).
- **Corneal abrasions:** The cornea is the transparent tissue that is located in front of the pupil and iris. A corneal abrasion is a scratch or a traumatic defect in the surface of the cornea.
- **Traumatic iritis:** This type of injury can occur in the same way as a corneal abrasion but is more often a result of a blunt blow to the eye, such as from a fist, a club, or an air bag in a car.
- **Hyphemas and orbital blowout fractures:** These injuries are associated with significant force from a blunt object to the eye and surrounding structures, e.g hit in the face with a baseball or fist, kicked in the face.
- **Lacerations** (cuts) to the eyelids or conjunctiva (the clear covering over the white of the eye): These injuries commonly occur from sharp objects but can also occur from a fall.
- **Lacerations to the cornea and the sclera:** These injuries are potentially very serious and are frequently associated with trauma from sharp objects made of metal or glass.
- **Foreign bodies** in the eye e.g a small piece of metal, wood, or plastic.
- **Ultraviolet keratitis (or corneal flash burn):** The most common light-induced trauma to the eye is ultraviolet keratitis, which can be thought of as a sunburn of the cornea. Common sources of damaging ultraviolet (UV) light are welding arcs and sunlight reflected by snow, water, or other reflective surfaces, especially at higher altitudes where UV rays are more intense.
- **Solar retinopathy:** Damage to the central part of the retina can occur by staring at the sun. Common situations that may cause this are viewing solar eclipses or drug-induced states where the person looks at the sun for an extended period of time.

Figure 7 shows that the leading eye injury was 'injury of the conjunctiva and corneal abrasion' which was recorded in 48.0 percent of all eye patients. This was followed, at a distant' by foreign body in cornea, which was reported in 17.6 percent of cases. Other injuries which were reported by a significant number include injuries of eye and orbit, foreign body on external eye part and foreign body in conjunctival sac.

Note:

Injuries of conjunctiva and corneal abrasion include traumatic conjunctival/ corneal abrasion, subconjunctival hemorrhage.

Other injuries of eye and orbit included; blunt trauma, corneal laceration, traumatic iritis, traumatic uveitis and sclera laceration or perforation.

Figure 7: Percentage Distribution of Eye Injuries, 2014

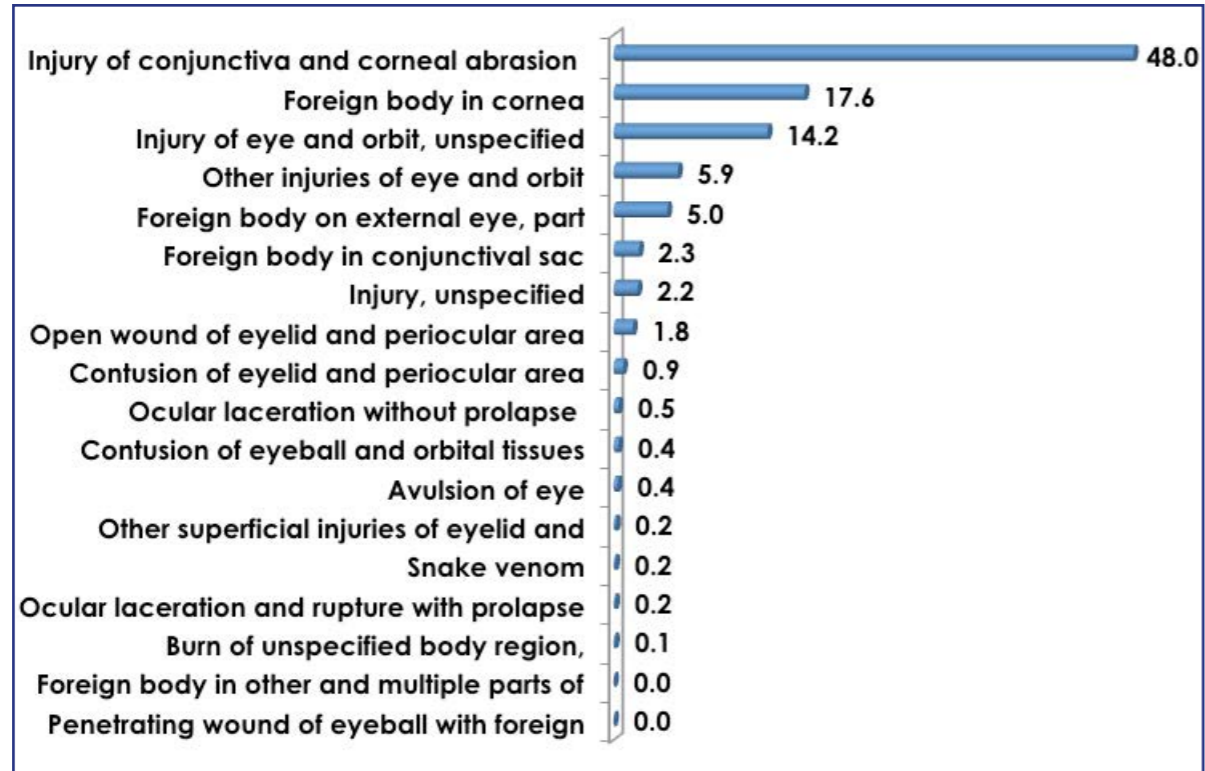
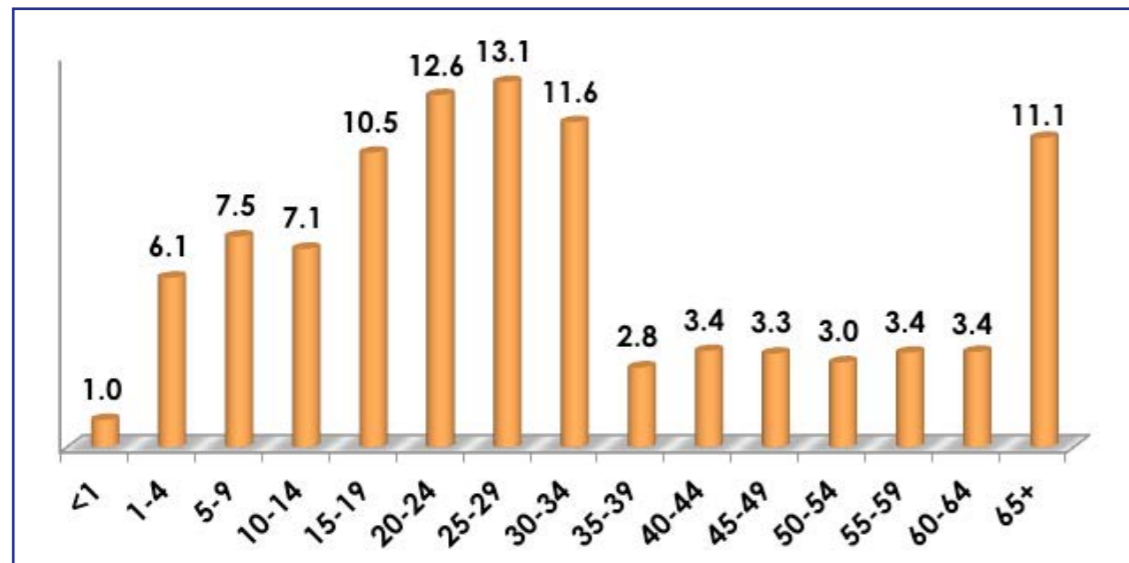


Table 12 shows eye injuries by sex. The table shows that 56.0% of females reported eye injuries as compared to 44.0 percent for their female counterparts. Figure 8 and Table 13 shows that the most affected are adults in the age 25-29 bracket with 13.1%, followed by age groups 30-34 and 20-24 years with 11.6 and 10.5 percent respectively. The report notes that 21.7% of children aged less than 15 years and the older people 50 years and above reported eye injuries.

Figure 8: Percentage Distribution of Eye Injuries by Age group, 2014



The injuries occurred due to some external causes such as, Exposure to unspecified factor - Unspecified place, Foreign body entering into or through eye or natural orifice - Unspecified place, Accidental poisoning by and exposure to other and unspecified chemicals and - Unspecified place, contacts with hot fluids and assault by explosive material (Figure 9, Table 14 and 15).

5.0 LIST OF TABLES

Table 9: Major Eye Diseases/ Conditions by Age Group and Sex (All Attendances), 2014

Sex of patient	Diagnosis	Age group of Patient (Years)															Total
		<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	
Male	Conjunctivitis	65	339	485	384	418	656	762	733	296	356	291	406	348	456	1,433	7,428
	Refractive errors	38	168	214	183	233	285	182	269	245	306	187	232	255	231	749	3,777
	Cataract	15	156	147	154	146	268	279	304	155	184	150	108	155	165	938	3,324
	Other disorders of conjunctiva	20	134	190	140	157	215	188	241	181	173	159	176	193	211	756	3,134
	Glaucoma	28	132	180	156	173	219	274	290	149	148	101	131	125	125	479	2,710
	Hordeolum	4	32	29	20	22	43	54	57	27	28	18	30	30	32	91	517
	Chalazion	0	13	20	14	31	24	35	22	19	16	10	16	22	20	42	304
	Conjunctival growth	1	12	9	4	12	19	25	19	16	11	12	16	11	14	52	233
	Blindness and vision loss	2	13	22	8	13	20	13	20	11	4	6	6	19	10	43	210
	Major Eye Diseases/Conditions	173	999	1,296	1,063	1,205	1,749	1,812	1,955	1,099	1,226	934	1,121	1,158	1,264	4,583	21,637
	Other Eye Conditions	63	515	790	618	787	999	834	896	407	533	424	418	481	453	2,172	10,390
	Non Ophthalmic Conditions	4	33	41	45	38	69	54	37	24	24	32	19	45	22	106	593
Sub total		240	1,547	2,127	1,726	2,030	2,817	2,700	2,888	1,530	1,783	1,390	1,558	1,684	1,739	6,861	32,620
Female	Conjunctivitis	49	258	358	489	831	802	1,005	1,080	490	717	537	558	655	510	2,685	11,024
	Refractive errors	15	120	159	155	302	290	244	535	337	419	362	399	391	440	1,173	5,341
	Other disorders of conjunctiva	18	99	139	165	269	240	228	410	250	327	309	317	264	290	1,334	4,659
	Cataract	33	87	129	166	238	245	390	452	248	290	232	236	232	217	1,346	4,541
	Glaucoma	24	133	190	125	257	235	363	370	159	225	175	170	155	202	810	3,593
	Hordeolum	4	15	25	23	53	46	71	84	32	38	41	33	45	45	159	714
	Chalazion	0	6	10	25	39	33	30	36	30	23	25	25	32	29	84	427
	Blindness and vision loss	5	12	20	28	27	24	9	34	23	21	16	24	19	15	64	341
	Conjunctival growth	4	9	12	6	14	12	31	34	15	19	18	16	11	20	71	292
	Major Eye Diseases/Conditions	152	739	1,042	1,182	2,030	1,927	2,371	3,035	1,584	2,079	1,715	1,778	1,804	1,768	7,726	30,932
	Other Eye Conditions	90	473	649	652	1,207	955	1,142	1,332	710	890	720	782	675	664	3,337	14,278
	Non Ophthalmic Conditions	1	12	41	16	54	39	60	61	51	58	59	49	34	59	196	790
Sub total		243	1,224	1,732	1,850	3,291	2,921	3,573	4,428	2,345	3,027	2,494	2,609	2,513	2,491	11,259	46,000

Table 9: Major Eye Diseases/ Conditions by Age Group and Sex (All Attendances), 2014 (cont'd)

Sex of patient	Diagnosis	Age group of Patient (Years)															Total
		<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	
Both Sexes	Conjunctivitis	114	597	843	873	1,249	1,458	1,767	1,813	786	1,073	828	964	1,003	966	4,118	18,452
	Refractive errors	53	288	373	338	535	575	426	804	582	725	549	631	646	671	1,922	9,118
	Cataract	48	243	276	320	384	513	669	756	403	474	382	344	387	382	2,284	7,865
	Other disorders of conjunctiva	38	233	329	305	426	455	416	651	431	500	468	493	457	501	2,090	7,793
	Glaucoma	52	265	370	281	430	454	637	660	308	373	276	301	280	327	1,289	6,303
	Hordeolum	8	47	54	43	75	89	125	141	59	66	59	63	75	77	250	1,231
	Chalazion	0	19	30	39	70	57	65	58	49	39	35	41	54	49	126	731
	Blindness and vision loss	7	25	42	36	40	44	22	54	34	25	22	30	38	25	107	551
	Conjunctival growth	5	21	21	10	26	31	56	53	31	30	30	32	22	34	123	525
	Total (Major conditions)	324	1,736	2,338	2,245	3,235	3,676	4,183	4,990	2,683	3,305	2,649	2,899	2,962	3,032	12,309	52,569
	Total (Other Eye Conditions)	153	988	1,439	1,270	1,994	1,954	1,976	2,228	1,117	1,423	1,144	1,200	1,156	1,117	5,509	24,668
	Total (Non Ophthalmic conditions)	5	45	82	61	92	108	114	98	75	82	91	68	79	81	302	1,383
	Grand Total		482	2,769	3,859	3,576	5,321	5,738	6,273	7,316	3,875	4,810	3,884	4,167	4,197	4,230	18,120

Table 9a: Major Eye Diseases/ Conditions by Age Group and Sex (New Attendances), 2014

Age (Years)	Glaucoma		Refractive errors		Conjunctivitis		Other disorders of conjunctiva		Cataract		Hordeolum		Conjunctival growth		Chalazion		Blindness and vision loss		Sub total		Table Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
<1	2	3	27	10	44	33	12	12	10	13	1	4	1	0	0	0	0	1	97	76	173
1-4	12	21	105	86	211	156	87	59	43	31	19	8	3	4	8	4	7	10	495	379	874
5-9	37	31	150	124	266	219	106	83	37	54	17	14	6	5	14	8	8	8	641	546	1,187
10-14	21	28	124	122	221	309	82	104	43	69	10	12	1	5	5	19	3	15	510	683	1,193
15-19	25	39	169	228	261	516	90	178	51	81	15	35	10	9	16	25	6	17	643	1,128	1,771
20-24	32	33	183	166	440	534	137	153	99	66	34	35	10	7	16	19	13	9	964	1,022	1,986
25-29	29	22	88	131	558	745	141	165	67	118	49	60	19	25	22	15	6	8	979	1,289	2,268
30-34	36	49	183	360	516	739	161	248	88	128	49	63	12	22	16	24	9	18	1,070	1,651	2,721
35-39	32	19	200	179	230	277	126	116	59	54	21	17	10	4	11	18	7	14	696	698	1,394
40-44	25	22	264	239	260	401	103	159	74	83	17	27	5	7	11	15	3	12	762	965	1,727
45-49	15	27	141	273	191	361	94	168	54	86	14	27	5	11	6	17	2	7	522	977	1,499
50-54	19	35	161	275	239	344	99	166	41	78	17	23	11	7	9	19	4	12	600	959	1,559
55-59	23	15	204	261	245	426	137	148	61	86	25	30	6	7	16	20	15	14	732	1,007	1,739
60-64	21	26	146	310	251	327	106	192	62	95	19	22	10	8	10	25	8	9	633	1,014	1,647
65+	53	96	477	783	1,021	1,938	537	884	252	386	66	113	33	44	31	62	20	27	2,490	4,333	6,823
Total	382	466	2,622	3,547	4,954	7,325	2,018	2,835	1,041	1,428	373	490	142	165	191	290	111	181	11,834	16,727	28,561

Table 9b: Major Eye Diseases/ Conditions by Age Group and Sex (Repeat Attendances), 2014

Age (Years)	Glaucoma		Refractive errors		Conjunctivitis		Other disorders of conjunctiva		Cataract		Hordeolum		Conjunctival growth		Chalazion		Blindness and vision loss		Sub total		Table Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
<1	26	21	11	5	21	16	8	6	5	20	3	0	0	4	0	0	2	4	76	76	152
1-4	120	112	63	34	128	102	47	40	113	56	13	7	9	5	5	2	6	2	504	360	864
5-9	143	159	64	35	219	139	84	56	110	75	12	11	3	7	6	2	14	12	655	496	1,151
10-14	135	97	59	33	163	180	58	61	111	97	10	11	3	1	9	6	5	13	553	499	1,052
15-19	148	218	64	74	157	315	67	91	95	157	7	18	2	5	15	14	7	10	562	902	1,464
20-24	187	202	102	124	216	268	78	87	169	179	9	11	9	5	8	14	7	15	785	905	1,690
25-29	245	341	94	113	204	260	47	63	212	272	5	11	6	6	13	15	7	1	833	1,082	1,915
30-34	254	321	86	175	217	341	80	162	216	324	8	21	7	12	6	12	11	16	885	1,384	2,269
35-39	117	140	45	158	66	213	55	134	96	194	6	15	6	11	8	12	4	9	403	886	1,289
40-44	123	203	42	180	96	316	70	168	110	207	11	11	6	12	5	8	1	9	464	1,114	1,578
45-49	86	148	46	89	100	176	65	141	96	146	4	14	7	7	4	8	4	9	412	738	1,150
50-54	112	135	71	124	167	214	77	151	67	158	13	10	5	9	7	6	2	12	521	819	1,340
55-59	102	140	51	130	103	229	56	116	94	146	5	15	5	4	6	12	4	5	426	797	1,223
60-64	104	176	85	130	205	183	105	98	103	122	13	23	4	12	10	4	2	6	631	754	1,385
65+	426	714	272	390	412	747	219	450	686	960	25	46	19	27	11	22	23	37	2,093	3,393	5,486
Total	2,328	3,127	1,155	1,794	2,474	3,699	1,116	1,824	2,283	3,113	144	224	91	127	113	137	99	160	9,803	14,205	24,008

Table 10: Eye Diseases/ Conditions by District (All Attendances), 2014

District	Glaucoma	Refractive errors	Conjunctivitis	Other disorders of conjunctiva	Cataract	Hordeolum	Conjunctival growth	Chalazion	Blindness and vision loss	Sub Total	Other Eye Conditions	Table Total
Gaborone	1,627	2,297	5,021	1,970	1,894	305	124	189	140	13,567	6,376	19,943
Kgatleng	457	662	1,317	627	608	88	49	57	30	3,895	1,785	5,680
Francistown	367	627	1,176	521	539	75	36	40	35	3,416	1,498	4,914
Lobatse	345	531	994	420	433	58	32	39	35	2,887	1,392	4,279
Southern	338	506	930	395	442	76	28	41	28	2,784	1,351	4,135
Selebi Phikwe	336	504	977	418	379	79	29	42	25	2,789	1,329	4,118
Bobirwa	325	423	899	416	441	66	25	40	35	2,670	1,435	4,105
North East	268	430	884	359	386	60	32	30	30	2,479	1,123	3,602
Kweneng East	292	427	831	349	358	47	25	31	27	2,387	1,073	3,460
South East	286	365	825	357	356	62	23	29	29	2,332	1,079	3,411
Boteti	279	397	711	288	348	40	14	30	24	2,131	988	3,119
Okavango	282	357	755	277	311	51	21	26	22	2,102	989	3,091
Gantsi	190	248	515	243	224	39	10	25	13	1,507	647	2,154
Mahalapye	169	242	464	231	223	40	13	19	17	1,418	680	2,098
Chobe	170	198	493	178	201	39	10	20	13	1,322	643	1,965
GoodHope	135	219	409	193	159	24	17	20	13	1,189	554	1,743
Kgalagadi South	139	202	370	182	164	29	11	17	9	1,123	553	1,676
Tutume	115	181	349	141	152	19	11	13	12	993	427	1,420
Hukuntsi	82	125	227	118	100	16	7	8	2	685	290	975
Jwaneng	26	62	82	35	40	7	2	1	5	260	109	369
Kweneng West	23	37	69	19	37	5	2	6	3	201	119	320
Moshupa Sub District	25	29	55	27	31	1	2	4	0	174	80	254
Palapye	13	23	64	20	24	1	1	3	3	152	96	248
Mabutsane	14	26	35	9	15	4	1	1	1	106	52	158
Total	6,303	9,118	18,452	7,793	7,865	1,231	525	731	551	52,569	24,668	77,237

Table 11: Major Eye Diseases/ Conditions by Month (All Attendances), 2014

Diagnosis	Month												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Glaucoma													
Glaucoma, unspecified	324	348	214	288	521	363	265	324	266	222	248	122	3,505
Primary open-angle glaucoma	141	148	98	175	225	167	115	122	116	121	112	52	1,592
Congenital glaucoma	71	45	51	37	55	66	50	79	78	45	51	39	667
Glaucoma suspect	26	34	17	30	50	28	24	26	28	14	25	9	311
Glaucoma secondary to other eye disorders	16	9	6	8	22	9	8	21	11	11	11	3	135
Other glaucoma	6	9	8	6	15	2	4	6	5	5	6	1	73
Primary angle-closure glaucoma	4	3	0	0	1	4	2	0	0	5	0	1	20
Sub total	588	596	394	544	889	639	468	578	504	423	453	227	6,303
Refractive errors													
Disorder of refraction, unspecified	372	396	240	345	611	429	329	386	382	274	268	183	4,215
Presbyopia	116	144	84	114	237	180	112	177	139	131	121	73	1,628
Myopia	114	127	99	113	181	139	92	111	131	100	109	58	1,374
Hypermetropia	133	113	62	105	140	122	77	106	113	70	83	43	1,167
Astigmatism	62	64	36	64	68	71	61	64	72	50	57	26	695
Anisometropia and aniseikonia	6	5	3	3	4	0	1	1	3	1	1	2	30
Disorders of accommodation	2	2	0	1	1	1	0	0	1	0	0	1	9
Sub total	805	851	524	745	1,242	942	672	845	841	626	639	386	9,118
Conjunctivitis													
Acute atopic conjunctivitis	1,276	1,201	755	1,184	2,036	1,423	984	1,283	1,200	911	912	582	13,747
Conjunctivitis, unspecified	167	161	101	216	293	247	136	192	173	141	133	86	2,046
Mucopurulent conjunctivitis	178	177	117	161	301	196	126	185	150	120	128	85	1,924
Other conjunctivitis	28	19	18	33	43	35	25	28	21	16	19	11	296
Chronic conjunctivitis	11	15	7	13	15	23	13	6	14	9	8	3	137
Other viral conjunctivitis (H13.1*)	12	11	9	9	9	13	9	18	12	8	11	4	125

Table 11: Major Eye Diseases/ Conditions by Month (AllAttendances), 2014 (cont'd)

Diagnosis	Month												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Keratoconjunctivitis	8	4	4	12	20	8	6	9	9	6	7	4	97
Trachoma, unspecified	1	2	0	3	3	1	1	0	3	2	2	2	20
Acute epidemic haemorrhagic conjunctivitis (enteroviral) (H13.1*)	1	2	2	0	4	1	1	1	0	3	0	3	18
Blepharoconjunctivitis	0	3	2	5	1	1	0	2	1	1	0	1	17
Other acute conjunctivitis	0	3	0	0	0	3	1	3	1	1	1	1	14
Acute conjunctivitis, unspecified	0	0	0	1	2	0	0	0	1	3	0	0	7
Active stage of trachoma	0	0	0	1	0	0	1	0	0	0	0	0	2
Viral conjunctivitis, unspecified	0	0	1	0	0	0	0	0	0	0	0	0	1
Neonatal conjunctivitis and dacryocystitis	1	0	0	0	0	0	0	0	0	0	0	0	1
Sub total	1,683	1,598	1,016	1,638	2,727	1,951	1,303	1,727	1,585	1,221	1,221	782	18,452
Other disorders of conjunctiva													
Pterygium	291	280	197	295	467	399	263	317	297	258	239	143	3,446
Other conjunctival vascular disorders and cysts	294	227	160	253	400	291	223	277	264	210	212	105	2,916
Conjunctival haemorrhage	99	78	64	81	110	103	62	92	87	61	54	36	927
Conjunctival degenerations and deposits	41	40	22	31	49	52	26	38	55	23	38	13	428
Other specified disorders of conjunctiva	2	2	0	3	10	4	1	3	3	4	0	0	32
Conjunctival scars	1	3	1	1	5	2	2	3	4	3	4	1	30
Disorder of conjunctiva, unspecified	0	0	0	1	3	3	1	1	1	0	3	1	14
Sub total	728	630	444	665	1,044	854	578	731	711	559	550	299	7,793
Cataract													
Cataract, unspecified	372	338	216	345	541	395	281	349	305	250	244	153	3,789
Other senile cataract	97	115	79	112	210	163	116	147	91	105	69	53	1,357
Infantile, juvenile and presenile cataract	155	108	102	110	169	113	96	116	108	104	103	60	1,344
Other specified cataract	64	61	35	61	103	79	52	82	61	59	54	23	734
Aphakia	26	18	13	26	48	24	19	16	20	19	17	10	256
Traumatic cataract	25	20	11	22	18	22	14	21	27	11	15	6	212
Senile cataract, unspecified	5	6	5	6	9	10	1	3	3	6	0	2	56
Congenital cataract	2	3	1	4	6	3	2	3	2	1	3	0	30
Senile cataract, morgagnian type	3	1	0	5	2	4	0	2	2	0	1	2	22
After-cataract	2	2	0	1	2	4	3	1	1	0	1	0	17
Dislocation of lens	0	1	1	1	2	3	0	5	2	1	0	0	16
Senile incipient cataract	2	0	0	1	3	2	0	1	0	1	1	0	11
Complicated cataract	1	3	0	1	1	0	0	0	0	3	1	1	11
Disorder of lens, unspecified	0	1	1	2	0	0	0	1	0	0	0	1	6
Hype mature cataract (age less than 65 years)	0	1	0	0	1	0	0	1	0	0	0	0	3
Other specified disorders of lens	0	0	0	0	0	0	0	0	0	0	0	1	1
Sub total	754	678	464	697	1,115	822	584	748	622	560	509	312	7,865

Table 11: Major Eye Diseases/ Conditions by Month (AllAttendances), 2014 (cont'd)

Diagnosis	Month												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Hordeolum													
Hordeolum and other deep inflammation of eyelid	112	103	64	115	208	124	87	115	114	77	66	46	1,231
Conjunctival growth													
Neoplasm of uncertain or unknown behaviour of other specified sites	53	46	27	44	69	58	39	54	50	35	30	20	525
Chalazion	56	62	38	71	108	81	54	69	71	47	48	26	731
Blindness and vision loss													
Unspecified visual loss	24	29	29	34	50	27	25	42	30	24	26	9	349
Low vision, both eyes	15	8	11	10	15	8	3	14	10	7	16	9	126
Blindness, one eye	0	2	3	3	3	7	1	0	3	2	5	3	32
Blindness, both eyes	5	0	1	3	5	3	0	5	3	2	3	1	31
Blindness, one eye, low vision other eye	0	0	0	0	3	0	2	1	1	1	2	0	10
Low vision, one eye	0	0	0	0	2	1	0	0	0	0	0	0	3
Sub total	44	39	44	50	78	46	31	62	47	36	52	22	551
Total (Major conditions)	4,823	4,603	3,015	4,569	7,480	5,517	3,816	4,929	4,545	3,584	3,568	2,120	52,569
Other Eye Conditions	2,310	2,100	1,411	2,175	3,458	2,607	1,868	2,323	2,122	1,701	1,646	947	24,668
Grand Total	7,133	6,703	4,426	6,744	10,938	8,124	5,684	7,252	6,667	5,285	5,214	3,067	77,237

Table 12: Eye Injuries Attendance by Sex , 2014

Diagnosis	New Attendances			Repeat Attendances			All Attendances		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Injury of conjunctiva and corneal abrasion without mention of foreign body	407	529	936	254	346	600	661	875	1,536
Foreign body in cornea	171	184	355	94	115	209	265	299	564
Injury of eye and orbit, unspecified	116	158	274	71	110	181	187	268	455
Other injuries of eye and orbit	50	55	105	43	42	85	93	97	190
Foreign body on external eye, part unspecified	29	46	75	43	41	84	72	87	159
Foreign body in conjunctival sac	27	30	57	6	12	18	33	42	75
Open wound of eyelid and periocular area	21	23	44	6	7	13	27	30	57
Injury, unspecified	18	15	33	18	20	38	36	35	71
Contusion of eyelid and periocular area	10	11	21	1	6	7	11	17	28
Contusion of eyeball and orbital tissues	4	9	13	0	1	1	4	10	14
Ocular laceration without prolapse or loss of intraocular tissue	4	6	10	1	4	5	5	10	15
Other superficial injuries of eyelid and periocular area	1	4	5	1	1	2	2	5	7
Ocular laceration and rupture with prolapse or loss of intraocular tissue	1	3	4	0	1	1	1	4	5
Avulsion of eye	2	1	3	5	4	9	7	5	12
Snake venom	1	2	3	1	1	2	2	3	5
Foreign body in other and multiple parts of external eye	0	1	1	0	0	0	0	1	1
Burn of unspecified body region, unspecified degree	0	1	1	1	2	3	1	3	4
Penetrating wound of eyeball with foreign body	0	0	0	0	1	1	0	1	1
Total	862	1,078	1,940	545	714	1,259	1,407	1,792	3,199

Table13: Eye Injuries Attendances by Age Group, 2014

Diagnosis	Age Group of patient															Total
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	
Injury of conjunctiva and corneal abrasion without mention of foreign body	9	78	103	89	134	183	211	195	50	51	61	54	53	66	199	1,536
Foreign body in cornea	9	46	62	53	93	74	72	60	6	11	14	15	13	10	26	564
Injury of eye and orbit, unspecified	7	33	31	48	56	69	21	36	17	28	17	16	23	13	40	455
Other injuries of eye and orbit	0	8	9	6	10	21	43	39	4	3	6	3	4	7	27	190
Foreign body on external eye, part unspecified	1	14	12	13	19	19	28	13	3	5	2	1	6	1	22	159
Foreign body in conjunctival sac	1	2	1	6	4	9	19	8	2	3	2	1	1	1	15	75
Injury, unspecified	1	5	11	4	8	11	3	4	7	1	2	4	3	3	4	71
Open wound of eyelid and periocular area	3	4	4	3	5	8	8	5	0	1	2	1	2	3	8	57
Contusion of eyelid and periocular area	0	0	1	3	3	1	5	3	0	5	0	0	1	0	6	28
Ocular laceration without prolapse or loss of intraocular tissue	0	0	1	1	2	2	4	0	0	0	0	0	0	3	2	15
Contusion of eyeball and orbital tissues	0	3	1	0	1	1	0	2	1	0	0	0	1	1	3	14
Avulsion of eye	0	0	1	1	2	0	2	4	0	1	0	0	1	0	0	12
Other superficial injuries of eyelid and periocular area	0	0	2	0	0	1	0	1	0	0	1	0	0	0	2	7
Ocular laceration and rupture with prolapse or loss of intraocular tissue	0	0	0	0	0	0	2	1	0	0	0	2	0	0	0	5
Snake venom	0	0	0	0	0	3	0	1	0	1	0	0	0	0	0	5
Burn of unspecified body region, unspecified degree	0	1	2	0	0	0	0	0	0	0	0	0	0	1	0	4
Penetrating wound of eyeball with foreign body	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Foreign body in other and multiple parts of external eye	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	31	194	241	227	337	403	418	372	91	110	107	97	108	109	354	3,199

Table 14: External Eye Injuries by Age group and Sex, 2014

External Causes of Injuries	Sex of patient		Total
	Male	Female	
Exposure to unspecified factor - Unspecified place	1,033	1,376	2,409
Foreign body entering into or through eye or natural orifice - Unspecified place	371	419	790
Accidental poisoning by and exposure to other and unspecified chemicals and - Unspecified place	61	90	151
Exposure to unspecified smoke, fire and flames - Unspecified place	19	39	58
Bitten or stung by nonvenomous insect and other nonvenomous arthropods - Unspecified place	11	11	22
Assault by bodily force - Unspecified place	6	6	12
Antimycobacterial drugs	4	7	11
Environmental-pollution-related condition	6	1	7
Exposure to other specified smoke, fire and flames - Unspecified place	3	3	6
Contact with venomous snakes and lizards - Unspecified place	2	4	6
Exposure to unspecified factor - Home	5	1	6
Accidental poisoning by and exposure to other and unspecified drugs, medicaments - Unspecified place	1	4	5
Contact with other specified venomous arthropods - Unspecified place	3	0	3
Surgical operation with anastomosis, bypass or graft	3	0	3
Person injured in unspecified motor-vehicle accident, traffic	0	2	2
Foreign body entering into or through eye or natural orifice - Residential institution	0	2	2
Contact with hornets, wasps and bees - Unspecified place	2	0	2
Assault by unspecified means - Unspecified place	0	2	2
Drug or medicament, unspecified	0	2	2
Bitten or struck by dog - Unspecified place	1	0	1
Contact with hot engines, machinery and tools - Unspecified place	1	0	1
Surgical operation with implant of artificial internal device	0	1	1
Surgical procedure, unspecified	1	0	1
Sequelae of unspecified external cause	0	1	1
Total	1,533	1,971	3,504

Table 15: External Causes of Eye Injuries by Sex (All Attendances), 2014

External Causes of Injuries	Age group of patient															Total	Percentage
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+		
Exposure to unspecified factor - Unspecified place	20	133	168	156	227	304	299	286	74	95	91	80	90	95	291	2,409	68.8
Foreign body entering into or through eye or natural orifice - Unspecified place	10	63	74	70	113	103	119	81	10	17	18	17	20	12	63	790	22.5
Accidental poisoning by and exposure to other and unspecified chemicals and - Unspecified place	0	1	8	7	9	11	34	20	4	3	2	6	1	4	41	151	4.3
Exposure to unspecified smoke, fire and flames - Unspecified place	2	6	5	6	3	4	4	2	3	3	4	2	5	2	7	58	1.7
Bitten or stung by nonvenomous insect and other nonvenomous arthropods - Unspecified place	0	1	2	4	0	2	3	2	3	0	0	1	0	0	4	22	0.6
Assault by bodily force - Unspecified place	0	0	1	1	0	1	0	2	0	2	0	0	1	1	3	12	0.3
Antimycobacterial drugs	0	0	1	1	0	1	0	0	1	2	1	0	1	1	2	11	0.3
Environmental-pollution-related condition	0	1	1	0	2	0	0	0	0	0	0	0	1	2	0	7	0.2
Exposure to other specified smoke, fire and flames - Unspecified place	0	2	0	2	1	1	0	0	0	0	0	0	0	0	0	6	0.2
Contact with venomous snakes and lizards - Unspecified place	0	0	0	0	0	3	0	1	0	1	0	0	0	1	0	6	0.2
Exposure to unspecified factor - Home	0	0	0	0	0	0	0	0	2	0	0	0	1	1	2	6	0.2
Accidental poisoning by and exposure to other and unspecified drugs, medicaments - Unspecified place	0	0	0	1	1	0	0	0	1	1	0	0	0	0	1	5	0.1
Contact with other specified venomous arthropods - Unspecified place	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3	0.1
Surgical operation with anastomosis, bypass or graft	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	3	0.1
Person injured in unspecified motor-vehicle accident, traffic	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0.1
Foreign body entering into or through eye or natural orifice - Residential institution	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0.1
Contact with hornets, wasps and bees - Unspecified place	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	0.1
Assault by unspecified means - Unspecified place	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0.1
Drug or medicament, unspecified	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0.1
Bitten or struck by dog - Unspecified place	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Contact with hot engines, machinery and tools - Unspecified place	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Surgical operation with implant of artificial internal device	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Surgical procedure, unspecified	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Sequelae of unspecified external cause	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
Total	32	207	261	251	358	432	461	395	101	126	118	106	120	119	417	3,504	100

Table 16: Eye Diseases/ Conditions by Age Group (All Attendances), 2014

Code	Diagnosis	Age group of patient														Total	
		<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64		65+
A01	Typhoid and paratyphoid fevers																
	Acute sphenoidal sinusitis	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	Sub total	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
A18	Tuberculosis of other organs																
	Tuberculosis of eyes	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	Sub total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
A52	Late syphilis																
	Late syphilis	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	Other symptomatic late syphilis	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	Sub total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
A71	Trachoma																
	Active stage of trachoma	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
	Trachoma, unspecified	0	0	1	0	4	2	0	1	1	1	2	1	2	1	4	20
	Sub total	0	0	1	0	4	2	0	1	2	1	2	1	3	1	4	
B00	Herpesviral [herpes simplex] infections																
	Herpesviral ocular disease	2	3	0	4	8	14	11	7	2	9	4	4	7	1	24	100
	Sub total	2	3	0	4	8	14	11	7	2	9	4	4	7	1	24	
B02	Zoster [herpes zoster]																
	Zoster with other nervous system involvement	0	0	0	3	0	2	0	0	0	1	1	0	0	1	0	8
	Zoster ocular disease	2	2	16	15	17	16	11	28	9	24	14	12	14	20	44	244
	Zoster without complication	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	Sub total	2	2	16	18	17	19	11	28	9	25	15	12	14	21	44	
B05	Measles																
	Measles with other complications	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	3
	Measles without complication	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2
	Sub total	0	0	1	0	0	1	0	0	0	0	0	1	1	0	1	
B08	Other viral infections characterized by skin and mucous membrane lesions, not																
	Molluscum contagiosum	0	0	0	0	0	0	0	0	0	0	0	2	0	1	9	12
	Sub total	0	0	0	0	0	0	0	0	0	0	0	2	0	1	9	
B25	Cytomegaloviral disease																
	Other cytomegaloviral diseases	0	2	1	0	2	2	0	2	1	2	0	1	0	0	7	20
	Sub total	0	2	1	0	2	2	0	2	1	2	0	1	0	0	7	
B30	Viral conjunctivitis																
	Other viral conjunctivitis (H13.1*)	4	6	11	6	11	18	6	7	9	11	5	7	4	4	16	125
	Acute epidemic haemorrhagic conjunctivitis (enteroviral) (H13.1*)	0	0	0	0	0	2	5	2	0	0	2	0	2	0	5	18
	Viral conjunctivitis, unspecified	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	Sub total	4	6	11	6	12	20	11	9	9	11	7	7	6	4	21	
C44	Other malignant neoplasms of skin																
	Malignant neoplasm of skin of eyelid, including canthus	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	4
	Sub total	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	

Table 16: Eye Diseases/ Conditions by Age Group (All Attendances), 2014 (cont'd)

Code	Diagnosis	Age group of patient														Total		
		<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64		65+	
C46	Kaposi's sarcoma																	
	Kaposi's sarcoma of other sites	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	3
	Sub total	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	3	
C69	Malignant neoplasm of eye and adnexa																	
	Malignant neoplasm of orbit	0	0	1	0	0	1	0	0	2	2	2	1	0	0	1	10	
	Malignant neoplasm of conjunctiva	1	0	0	0	0	1	1	0	1	1	0	1	0	1	0	6	
	Malignant neoplasm of eye, unspecified	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	1	6
	Malignant neoplasm of retina	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	Sub total	1	0	1	1	0	2	1	0	3	5	3	2	2	0	2	23	
D09	Carcinoma in situ of other and unspecified sites																	
	Carcinoma in situ of eye	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	Sub total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
D18	Haemangioma and lymphangioma, any site																	
	Haemangioma, any site	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Sub total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
D22	Melanocytic naevi																	
	Melanocytic naevi of other and unspecified parts of face	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	Melanocytic naevi, unspecified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	Sub total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
	Zoster without complication	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	Sub total	2	2	16	18	17	19	11	28	9	25	15	12	14	21	44	253	
D23	Other benign neoplasms of skin																	
	Other benign neoplasms of skin of other and unspecified parts of face	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	Sub total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
D31	Benign neoplasm of eye and adnexa																	
	Benign neoplasm of eye, unspecified	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	4	
	Benign neoplasm of orbit, unspecified	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	
	Sub total	0	0	0	0	0	2	0	2	0	0	1	0	0	0	1	6	
D48	Neoplasm of uncertain or unknown behaviour of other and unspecified sites																	
	Neoplasm of uncertain or unknown behaviour of other specified sites	5	21	21	10	26	31	56	53	31	30	30	30	32	22	34	123	525
	Sub total	5	21	21	10	26	31	56	53	31	30	30	30	32	22	34	123	
E05	Thyrotoxicosis [hyperthyroidism]																	
	Thyrotoxicosis with diffuse goitre	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	5
	Thyrotoxicosis, unspecified	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
	Sub total	0	0	0	0	0	0	0	0	0	0	2	0	0	3	2	1	
E10	Insulin-dependent diabetes mellitus																	
	Insulin-dependent diabetes mellitus, with unspecified complications	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	3
	Insulin-dependent diabetes mellitus, with ophthalmic complications	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
	Insulin-dependent diabetes mellitus, with neurological complications	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	Sub total	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0	2	

Private Bag 0024, Gaborone.
Tel: 3671300 **Fax:** 3952201
E-mail: info@statsbots.org.bw
Website: <http://www.statsbots.org.bw>

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