

**US DEPARTMENT OF
DEFENSE (DoD) COMBINED
ACTIVE DUTY
EYE INJURY SUMMARY
CALENDAR YEAR 2014**

Approved for public release, distribution unlimited

2014



CY 2014 DEPARTMENT OF DEFENSE (DoD) COMBINED ACTIVE DUTY (AD) EYE INJURY REPORT SUMMARY

INTRODUCTION: In 2010 the Armed Forces Health Surveillance Center (AFHSC) and Tri-Service Vision Conservation and Readiness Program (TSVCRP) of the US Army Public Health Command (USAPHC) began development of an Annual Active Duty Military Eye Injury Summary that would detail cause and type of injury along with demographics of eye injuries (Age, Gender, Rank, Occupational Group).

The first edition of the summary and annual summaries back through calendar year 2000, were produced in the spring of 2011. An analysis of years 2000-2010 was published in the May 2011 Medical Surveillance Monthly Report (MSMR). The AFHSC also developed a Case Definition for Eye Injuries that details the code set and methodology used to develop the summaries. Both the MSMR Article and Case Definition for Eye Injuries are available on the AFHSC website: <http://afhsc.army.mil/home>.

This summary contains detailed data, along with a set of summary tables detailing Ambulatory and Hospitalization rates (per 1000 person-years) for Injury Group, Cause of Injury and Occupational Group. Summary tables for Deployment-Associated Eye Injuries detailing frequency of Eye Injuries by Type of Injury and Occupational Group are also provided. Occupational Group data is for Enlisted members only. Deployment-Associated Eye Injuries are presented without regard to Ambulatory or Hospitalized status.

As one of the underlying goals of the summary is to make eye injury surveillance data accessible and useable, individual annual eye injury summaries for all years and all services (Combined DoD, Army, Navy, Air Force, Marine Corps and Coast Guard) are posted on the USAPHC public website.

For questions or additional information regarding the summaries please contact the TSVCRP:

By Email: usarmy.apg.medcom-phc.mbx.dcpm-tri-service-optometry@mail.mil

Telephone: 410-436-2714 FAX: 410-436-1325

Additional program information and educational materials can be found at: <http://dodvision.com/> and the USAPHC Public Website at: <http://phc.amedd.army.mil/Pages/default.aspx>

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INJURY CODE GROUP DETAILS: The following code groupings were used to develop the summary. Additional details may be found in the AFHSC Case Definition available at: <http://afhsc.army.mil/home>.

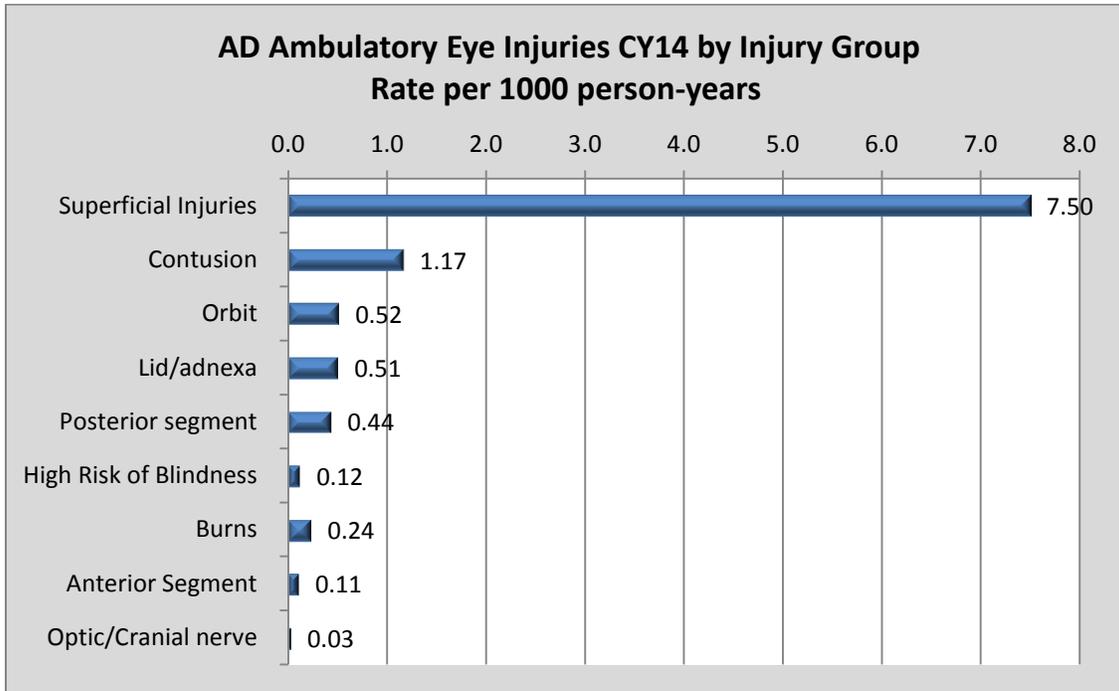
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating wound of orbit without and with foreign body) and 376.32 (orbital hemorrhage).
- 4) **Lid/adnexa:** all 870 series codes (open wound of ocular adnexa) with the exception of 870.3 and 870.4 (see orbit above).
- 5) **Posterior segment:** 362.81 (retinal hemorrhage), all 361.0x series codes (retinal detachment with retinal defect), 363.61 (choroidal hemorrhage, unspecified), 363.63 (choroidal rupture), 379.23 (vitreous hemorrhage), 360.00 and 360.01 (purulent and acute endophthalmitis).
- 6) **High risk of blindness:** all 871 series codes (open wound of eyeball).
- 7) **Burns:** all 940 series codes (burn confined to eye and adnexa) as well as all 940.x2 codes (burns to eye with other parts of face, head and neck).
- 8) **Anterior segment:** 364.41 (hyphema), 366.21 and 366.22 (localized and total traumatic cataract), and 364.76 (iridodialysis).
- 9) **Optic/cranial nerve:** 950.0 (optic nerve injury), 950.1 (injury to optic chiasm), 950.9 (injury to optic nerve and pathways, unspecified), 951.0 (injury to oculomotor nerve), 951.1 (injury to trochlear nerve) and 951.3 (injury to abducens nerve).

DETAILS FOR TOTAL NUMBERS: Because patients may have been coded with more than one injury group or cause of injury, the sum of cases by injury group and the sum of cases by causes of injury will be greater than the total number of patients.

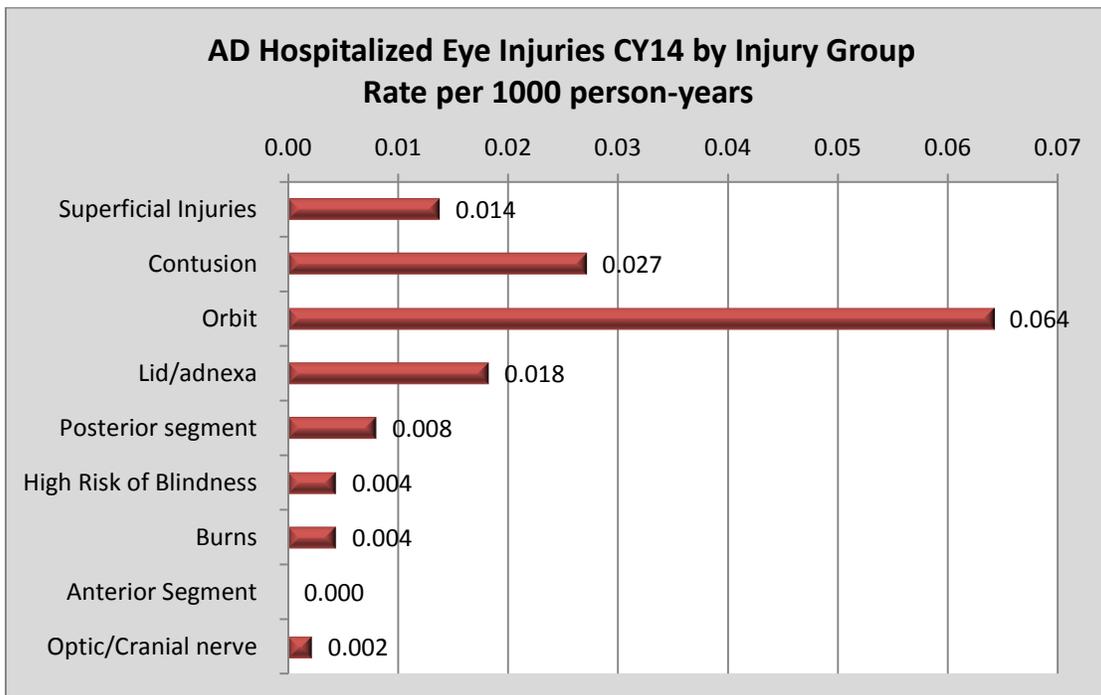
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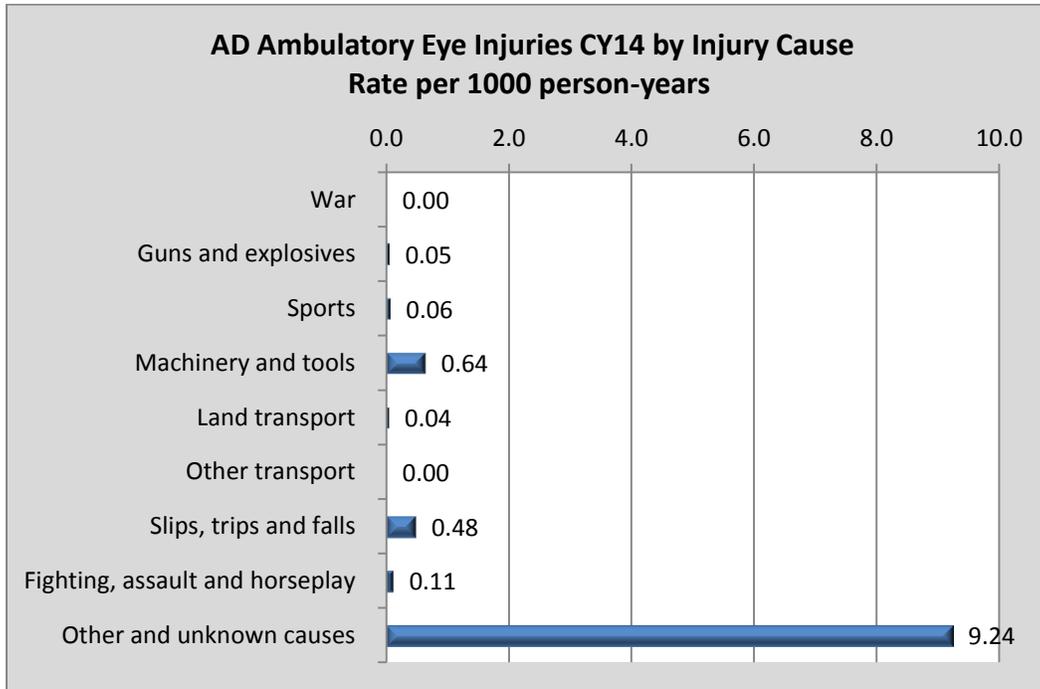
Please note the difference in scale between Ambulatory and Hospitalized graphs



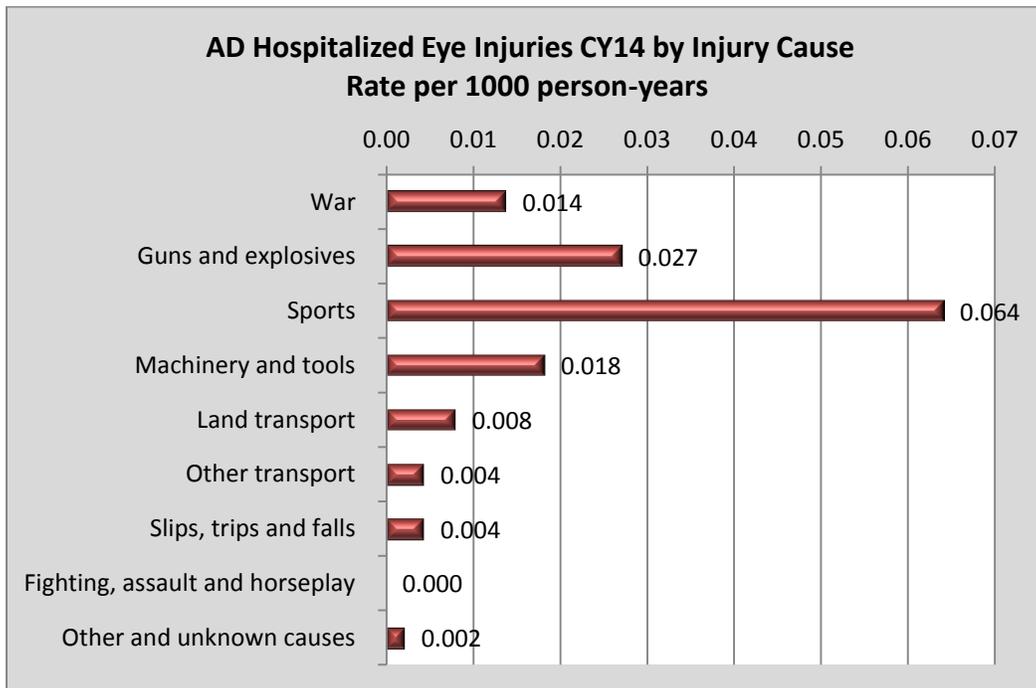
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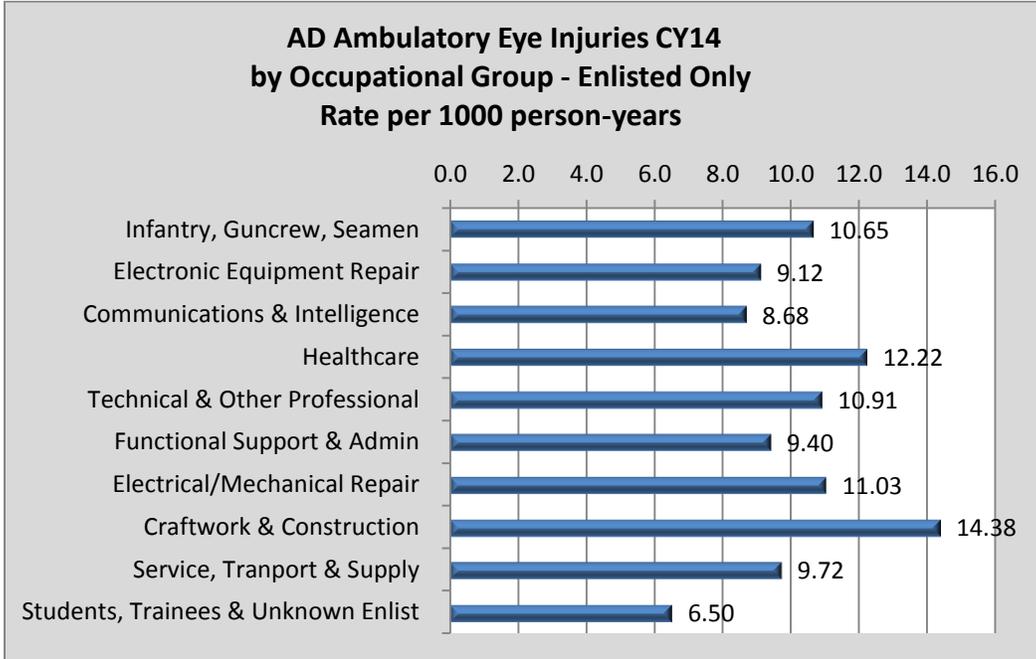
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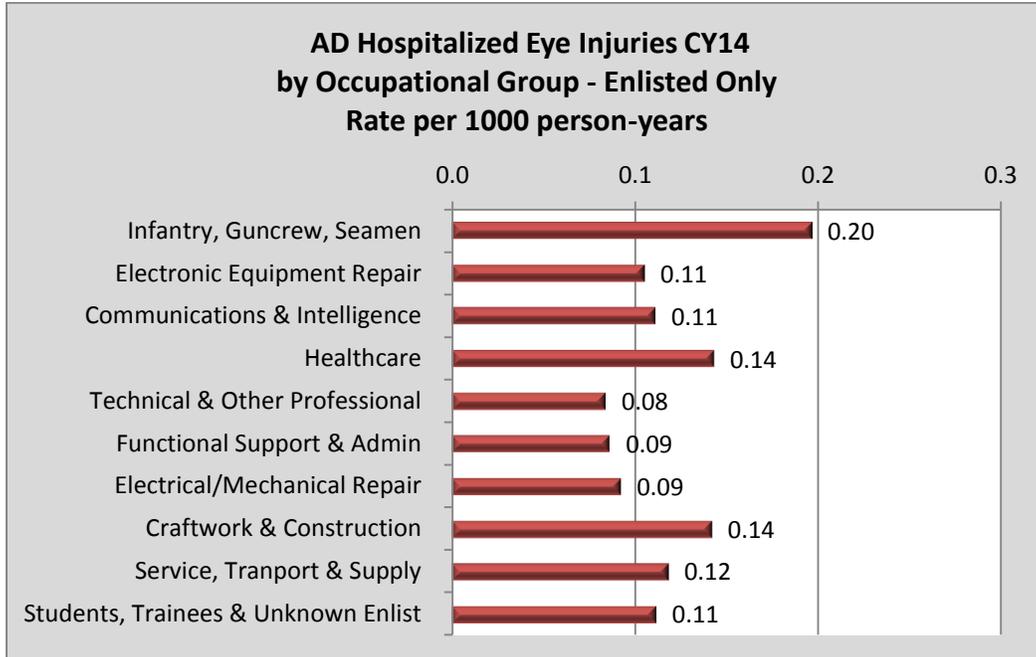
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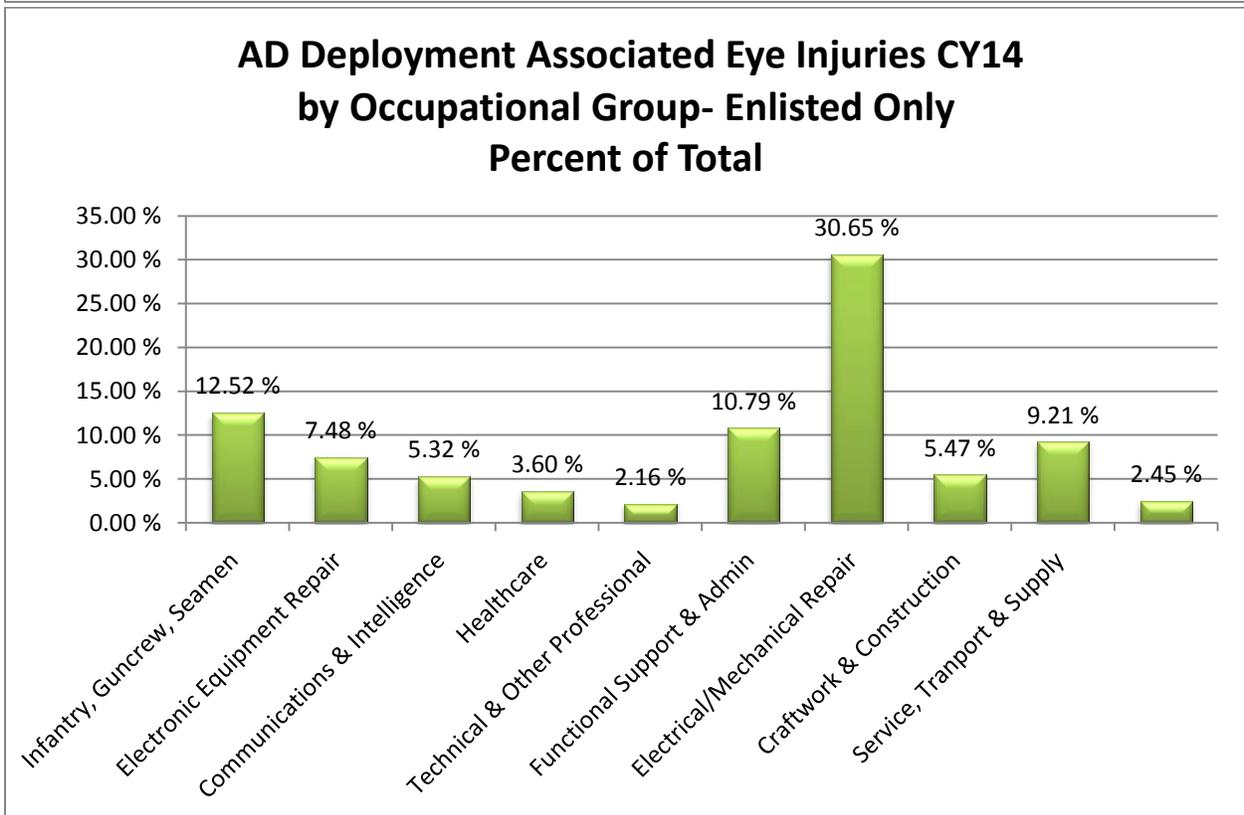
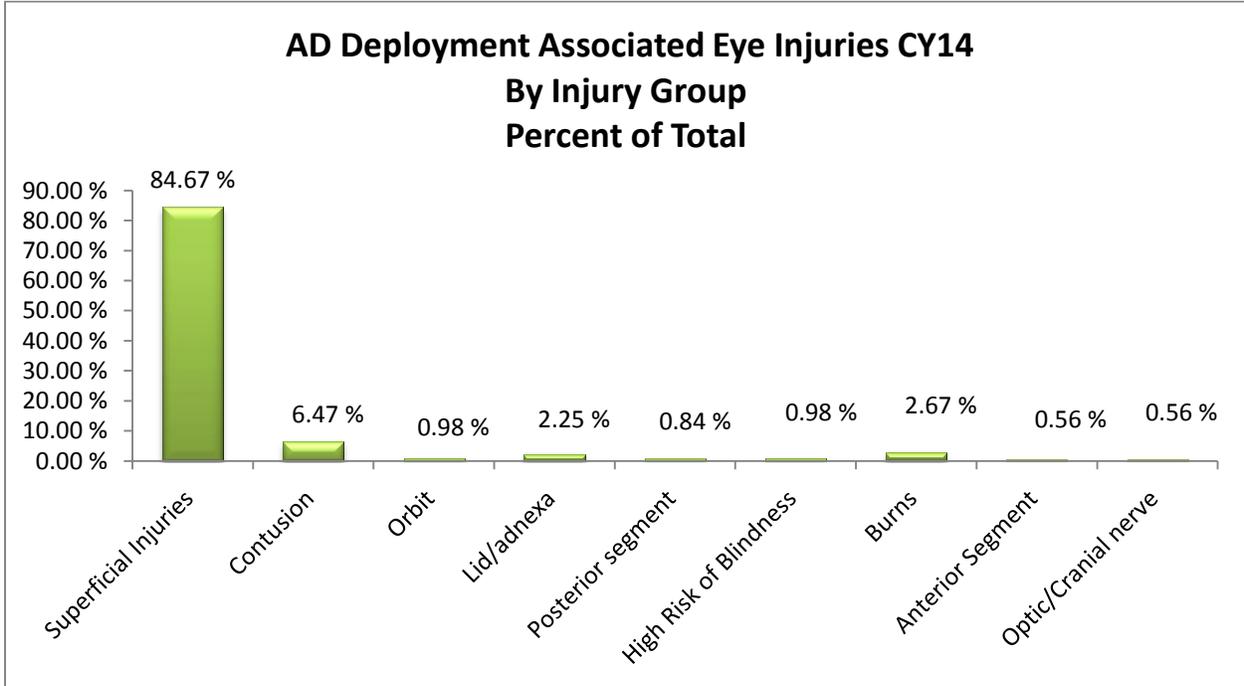
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	2014											
	Ambulatory MTF Visits				Deployment-Associated Healthcare				Hospitalizations			
	Primary		All Diagnoses		Primary		All Diagnoses		Primary		All Diagnoses	
	Count	Rate ¹	Count	Rate	Count	% total ³	Count	% total ³	Count	Rate	Count	Rate
ALL ACTIVE COMPONENT												
Total	11,488	8.34	13,728	9.97	652	100.00	695	100.00	40	0.03	152	0.11
Superficial Injuries	9,124	6.63	10,332	7.50	572	85.89	602	84.67	2	0.00	19	0.01
Contusion	1,208	0.89	1,595	1.17	40	6.01	46	6.47	7	0.01	37	0.03
Orbit	469	0.34	709	0.52	4	0.60	7	0.98	32	0.02	88	0.06
Lid/adnexa	556	0.41	696	0.51	15	2.25	16	2.25	7	0.01	25	0.02
Posterior segment	325	0.24	601	0.44	4	0.60	6	0.84	6	0.00	11	0.01
High Risk of Blindness	144	0.10	171	0.12	7	1.05	7	0.98	5	0.00	6	0.00
Burns	285	0.21	326	0.24	18	2.70	19	2.67	2	0.00	6	0.00
Anterior Segment	99	0.07	153	0.11	4	0.60	4	0.56	0	0.00	0	0.00
Optic/Cranial nerve	28	0.02	45	0.03	2	0.30	4	0.56	0	0.00	3	0.00
Male	9,789	8.37	11,662	9.97	543	83.28	579	83.31	38	0.03	134	0.11
Female	1,699	8.19	2,066	9.95	109	16.72	116	16.69	2	0.01	18	0.09
War	1	0.00	1	0.00	not assessed ²				3	0.00	4	0.003
Guns and explosives	61	0.04	66	0.05					2	0.00	4	0.003
Sports	67	0.05	88	0.06					3	0.00	4	0.003
Machinery and tools	825	0.60	876	0.64					2	0.00	3	0.002
Land transport	33	0.02	56	0.04					2	0.00	12	0.009
Other transport	3	0.00	5	0.00					2	0.00	3	0.002
Slips, trips and falls	589	0.43	659	0.48					1	0.00	8	0.006
Fighting, assault and horseplay	101	0.07	157	0.11					5	0.00	8	0.006
Other and unknown causes	10,558	7.67	12,720	9.24					41	0.03	149	0.108
ENLISTED (all diagnoses combined)												
Enlisted	9,608	8.48	11,528	10.18	586	89.88	623	89.64	35	0.03	137	0.12
<20	492	4.36	605	5.36	22	3.37	24	3.45	1	0.01	10	0.09
20-24	3,253	7.83	3,974	9.56	265	40.64	282	40.58	20	0.05	67	0.16
25-29	2,598	9.75	3,065	11.51	148	22.70	154	22.16	6	0.02	33	0.12
30-34	1,615	9.72	1,906	11.47	82	12.58	86	12.37	6	0.04	13	0.08
35-39	976	9.35	1,141	10.93	44	6.75	46	6.62	1	0.01	9	0.09
>=40	674	10.05	837	12.48	25	3.83	31	4.46	1	0.01	5	0.07
E0-E4	4,740	8.06	5,788	9.85	348	53.37	370	53.24	21	0.04	81	0.14
E5-E9	4,868	8.94	5,740	10.54	238	36.50	253	36.40	14	0.03	56	0.10
Infantry, Guncrew, Seamen	1,635	8.68	2,007	10.65	76	11.66	87	12.52	13	0.07	37	0.20
Electronic Equipment Repair	804	7.68	955	9.12	52	7.98	52	7.48	3	0.03	11	0.11
Communications & Intelligence	829	7.07	1,018	8.68	36	5.52	37	5.32	2	0.02	13	0.11
Healthcare	874	10.41	1,026	12.22	22	3.37	25	3.60	2	0.02	12	0.14
Technical & Other Professional	332	9.26	391	10.91	14	2.15	15	2.16	1	0.03	3	0.08
Functional Support & Admin	1,166	7.72	1,421	9.40	68	10.43	75	10.79	0	0.00	13	0.09
Electrical/Mechanical Repair	2,154	9.44	2,517	11.03	208	31.90	213	30.65	6	0.03	21	0.09
Craftwork & Construction	528	12.49	608	14.38	35	5.37	38	5.47	3	0.07	6	0.14
Service, Transport & Supply	1,005	7.91	1,235	9.72	59	9.05	64	9.21	4	0.03	15	0.12
Students, Trainees & Unknown Enlist	281	5.22	350	6.50	16	2.45	17	2.45	1	0.02	6	0.11
Army	3,828	9.32	4,674	11.38	191	29.29	209	30.07	18	0.04	60	0.15
Navy	1,897	7.13	2,280	8.57	250	38.34	257	36.98	9	0.03	29	0.11
Air Force	2,183	8.51	2,569	10.01	109	16.72	117	16.83	2	0.01	17	0.07
Marine Corps	1,294	7.69	1,536	9.13	36	5.52	40	5.76	6	0.04	28	0.17
Coast Guard	406	13.00	469	15.02	0	0.00	0	0.00	0	0.00	3	0.10
OFFICER (all diagnoses combined)												
Officer	1,880	7.69	2,200	9.00	66	10.12	72	10.36	5	0.02	15	0.06
<20	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
20-24	161	6.03	194	7.26	6	0.92	6	0.86	0	0.00	1	0.04
25-29	387	6.97	456	8.21	16	2.45	17	2.45	1	0.02	2	0.04
30-34	400	7.80	465	9.07	20	3.07	23	3.31	0	0.00	1	0.02
35-39	346	7.75	389	8.72	11	1.69	11	1.58	2	0.04	4	0.09
>=40	586	8.83	696	10.48	13	1.99	15	2.16	2	0.03	7	0.11
OD-O3,W0-W3	1,144	7.57	1,334	8.83	48	7.36	53	7.63	2	0.01	7	0.05
O4-O10,W4-W5	736	7.87	866	9.26	18	2.76	19	2.73	3	0.03	8	0.09
General/Flag Ofc & Executives	15	8.05	18	9.66	0	0.00	0	0.00	0	0.00	0	0.00
Tactical Operations Off.	609	7.15	724	8.50	27	4.14	29	4.17	1	0.01	4	0.05
Intelligence Off.	91	5.88	107	6.91	3	0.46	4	0.58	1	0.06	1	0.06
Engineering & Maintenance Off.	263	8.23	301	9.42	9	1.38	10	1.44	0	0.00	1	0.03
Healthcare Off.	333	8.70	388	10.14	6	0.92	6	0.86	1	0.03	3	0.08
Scientists & Professional Off.	113	7.89	137	9.57	5	0.77	6	0.86	1	0.07	1	0.07
Administrative Off.	115	7.31	136	8.64	4	0.61	5	0.72	0	0.00	2	0.13
Supply & Logistics Off.	146	7.31	173	8.66	9	1.38	9	1.29	1	0.05	2	0.10
Students, Trainees & Unknown Off.	195	8.94	216	9.91	3	0.46	3	0.43	0	0.00	1	0.05
Army	787	8.04	919	9.39	41	6.29	44	6.33	4	0.04	10	0.10
Navy	372	6.88	436	8.06	12	1.84	14	2.01	0	0.00	2	0.04
Air Force	460	7.30	546	8.66	11	1.69	12	1.73	1	0.02	3	0.05
Marine Corps	173	8.17	199	9.40	2	0.31	2	0.29	0	0.00	0	0.00
Coast Guard	88	10.55	100	11.98	0	0.00	0	0.00	0	0.00	0	0.00

1. Rates are per 1,000 person-years.
 2. Use of ICD-9-CM E-codes for "cause of injury" is largely incomplete for theater healthcare records and therefore omitted.
 3. Person-time is not available for deployers so the proportion of the total number of diagnoses is shown.

Prepared by Armed Forces Health Surveillance Center (AFHSC)
 Source: Defense Medical Surveillance System (DMSS) as of 25-MAR-2015

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