

**US NAVY
ACTIVE DUTY
EYE INJURY SUMMARY
CALENDAR YEAR 2010**

Approved for public release, distribution unlimited

2013



CY 2010 US NAVY ACTIVE DUTY (AD) EYE INJURY 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>.

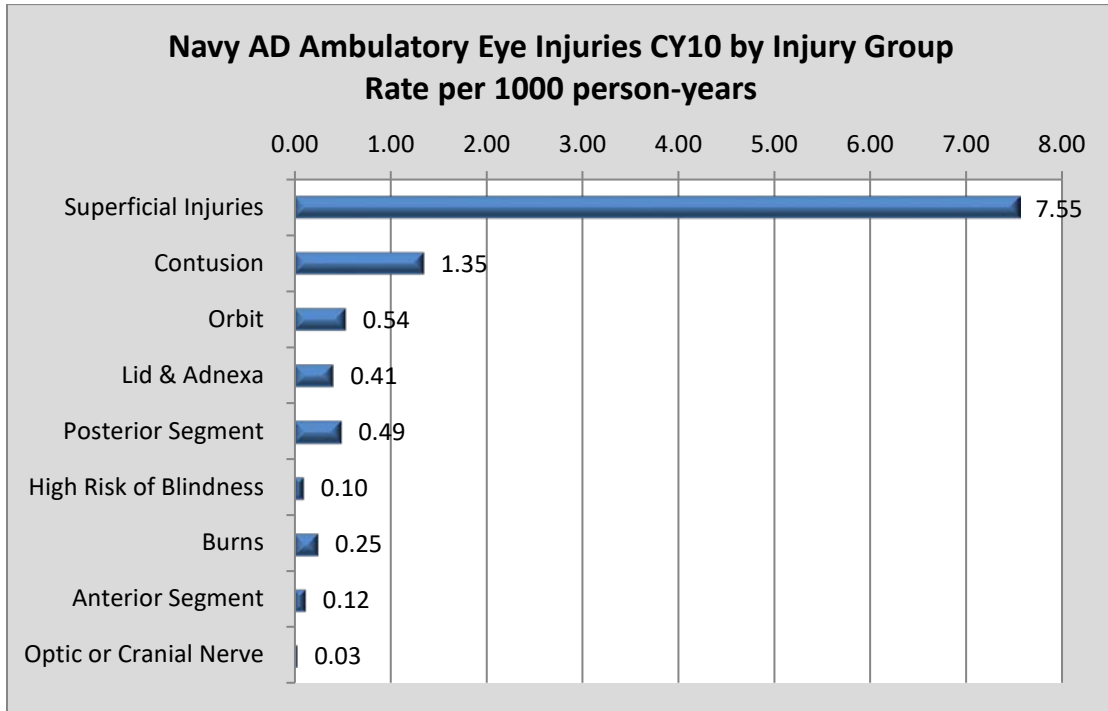
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating 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.

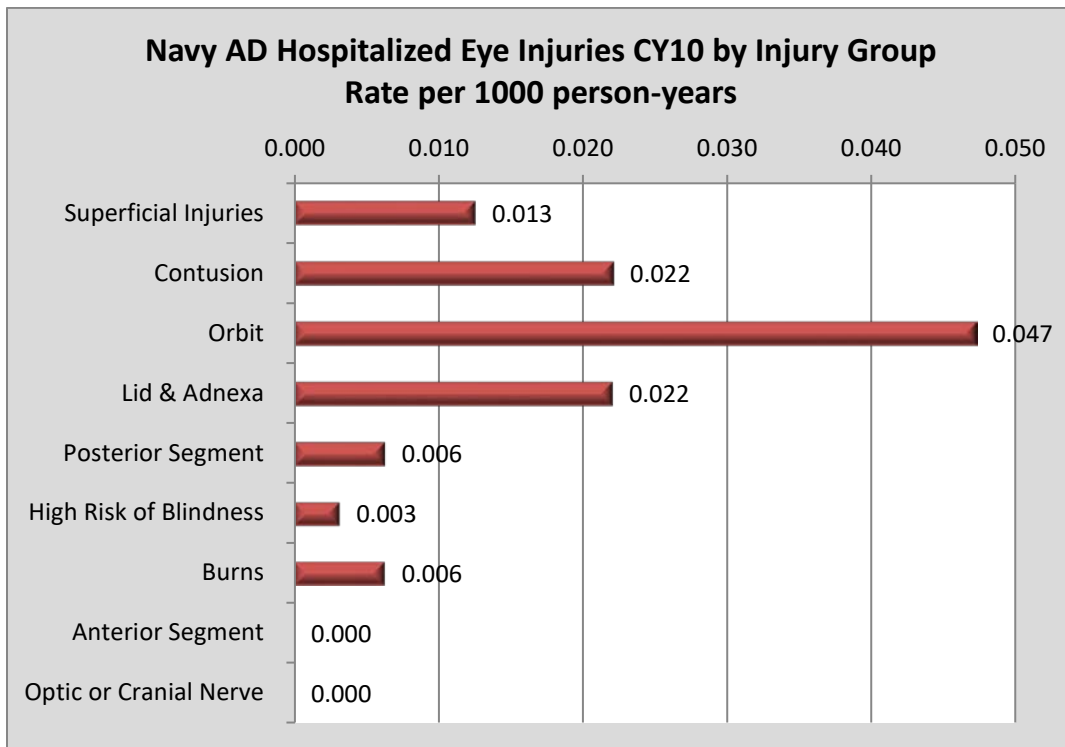
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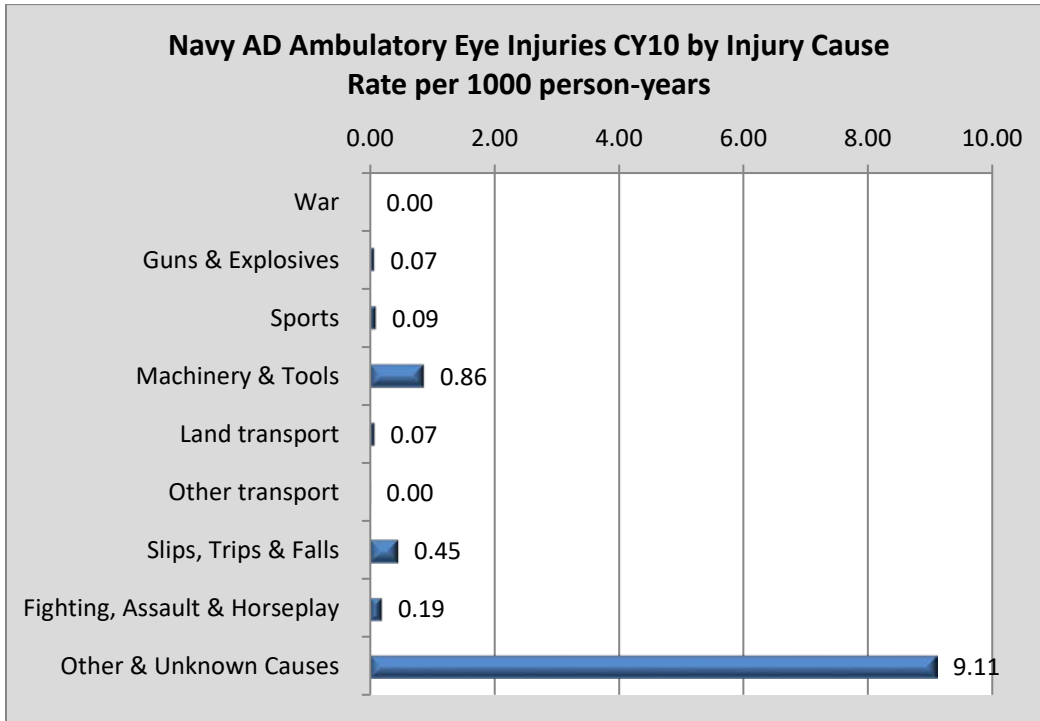
Please note the difference in scale between Ambulatory and Hospitalized graphs



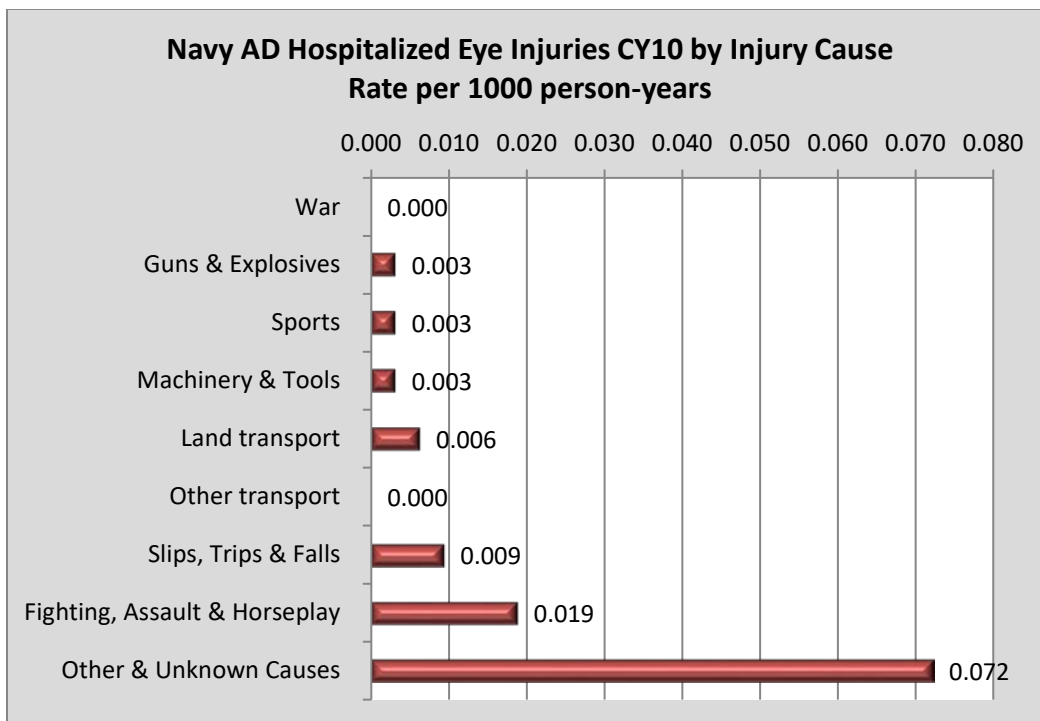
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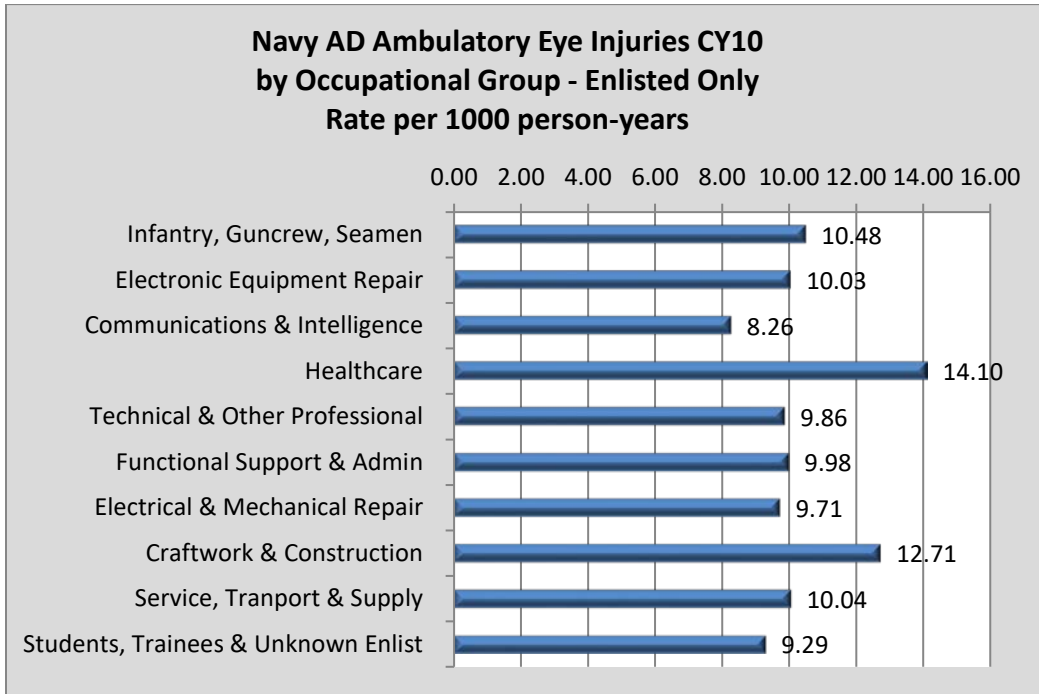
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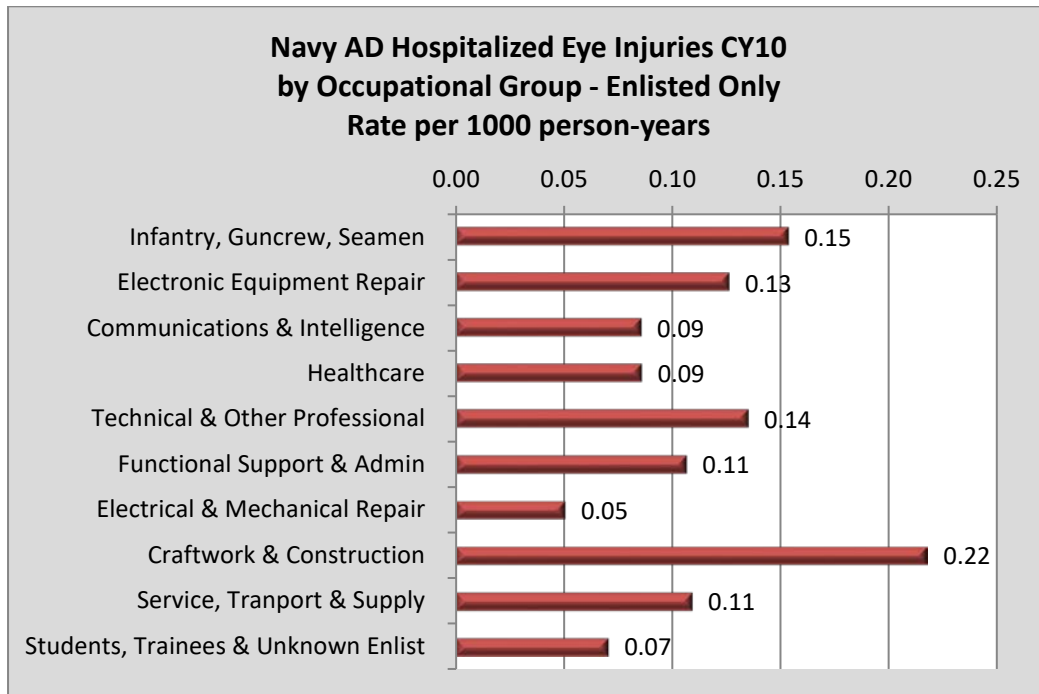
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Please note the difference in scale between Ambulatory and Hospitalized graphs

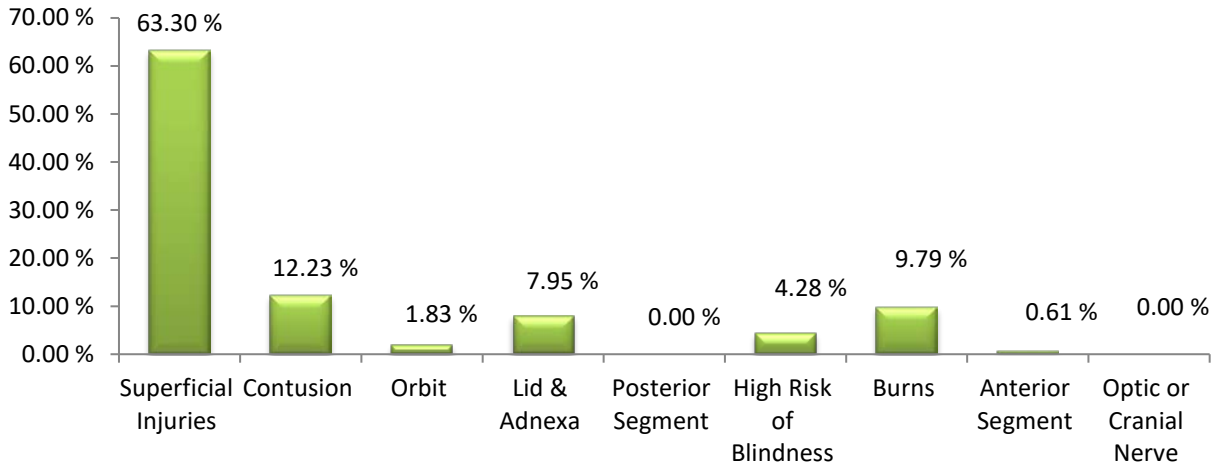


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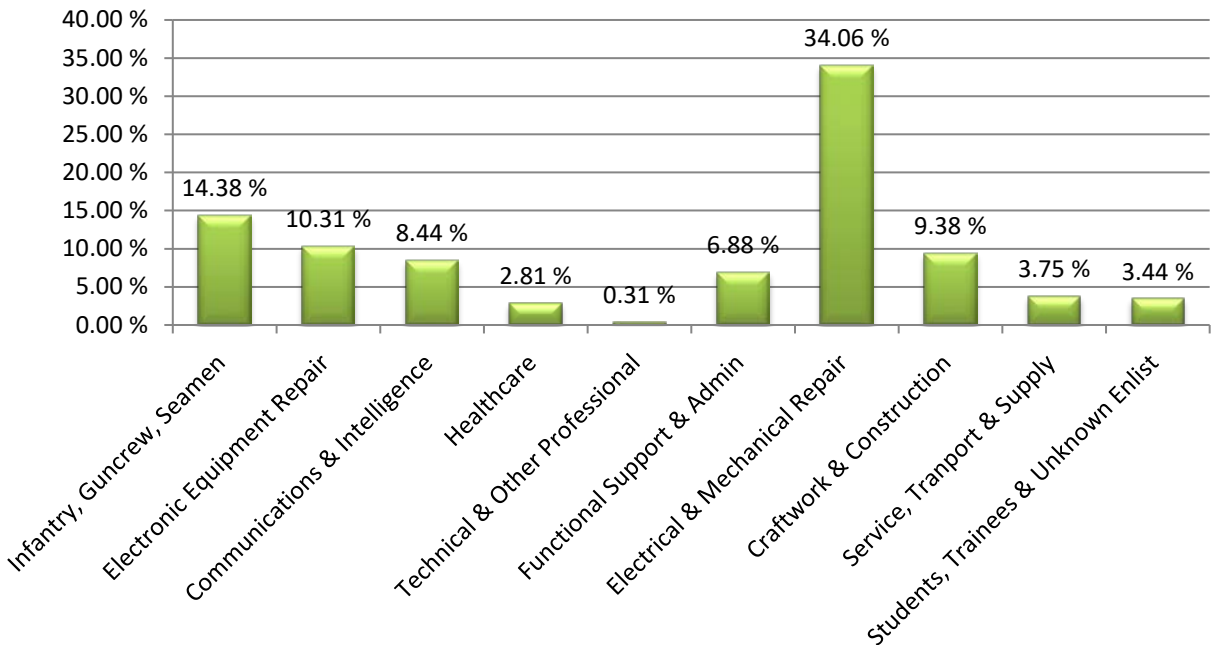


CY 2010 US NAVY ACTIVE DUTY (AD) EYE INJURY SUMMARY

Navy AD Deployment Associated Eye Injuries CY10 by Injury Group Percent of Total



Navy AD Deployment Associated Eye Injuries CY10 by Occupational Group- Enlisted Only Percent of Total



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CY 2010 US NAVY ACTIVE DUTY (AD) EYE INJURY SUMMARY

	2010													
	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	2,724	8.56	3,247	10.20	309	100.00	320	100.00	8	0.03	28	0.09		
Superficial Injuries	2,109	6.63	2,404	7.55	203	64.24	207	63.30	2	0.01	4	0.01		
Contusion	324	1.03	427	1.35	35	11.08	40	12.23	2	0.01	7	0.02		
Orbit	122	0.38	171	0.54	5	1.58	6	1.83	6	0.02	15	0.05		
Lid & Adnexa	105	0.33	130	0.41	25	7.91	26	7.95	2	0.01	7	0.02		
Posterior Segment	93	0.29	157	0.49	0	0.00	0	0.00	1	0.00	2	0.01		
High Risk of Blindness	28	0.09	32	0.10	14	4.43	14	4.28	1	0.00	1	0.00		
Burns	72	0.23	80	0.25	32	10.13	32	9.79	1	0.00	2	0.01		
Anterior Segment	34	0.11	39	0.12	2	0.63	2	0.61	0	0.00	0	0.00		
Optic or Cranial Nerve	8	0.03	11	0.03	0	0.00	0	0.00	0	0.00	0	0.00		
Male	2,304	8.59	2,737	10.21	249	80.58	258	80.63	7	0.03	24	0.09		
Female	420	8.40	510	10.19	60	19.42	62	19.38	1	0.02	4	0.08		
War	0	0.00	0	0.00	not assessed²				0	0.00	1	0.00		
Guns & Explosives	19	0.06	21	0.07					1	0.00	1	0.00	1	0.00
Sports	23	0.07	29	0.09					1	0.00	1	0.00	1	0.00
Machinery & Tools	263	0.83	275	0.86					0	0.00	0	0.00	1	0.00
Land transport	10	0.03	22	0.07					1	0.00	1	0.00	2	0.00
Other transport	1	0.00	1	0.00					0	0.00	0	0.00	0	0.00
Slips, Trips & Falls	127	0.40	143	0.45					2	0.01	3	0.01	3	0.00
Fighting, Assault & Horseplay	44	0.14	60	0.19					3	0.01	6	0.01	6	0.01
Other & Unknown Causes	2,408	7.57	2,900	9.11					7	0.02	23	0.02	23	0.07
ENLISTED (all diagnoses combined)														
Enlisted	2,293	8.63	2,730	10.27	291	94.17	300	93.75	8	0.03	26	0.10		
<20	107	5.27	132	6.50	17	5.50	17	5.31	0	0.00	1	0.05		
20-24	837	8.15	994	9.68	148	47.90	152	47.50	5	0.05	9	0.09		
25-29	598	9.57	715	11.45	58	18.77	59	18.44	1	0.02	9	0.14		
30-34	353	9.33	419	11.07	35	11.33	38	11.88	1	0.03	2	0.05		
35-39	239	8.58	282	10.13	17	5.50	18	5.63	0	0.00	3	0.11		
>=40	159	10.79	188	12.76	16	5.18	16	5.00	1	0.07	2	0.14		
E0-E4	1,070	8.49	1,297	10.29	181	58.58	185	57.81	5	0.04	12	0.10		
E5-E9	1,223	8.75	1,433	10.26	110	35.60	115	35.94	3	0.02	14	0.10		
Infantry, Guncrew, Seamen	240	9.22	273	10.48	43	13.92	46	14.38	1	0.04	4	0.15		
Electronic Equipment Repair	264	8.33	318	10.03	32	10.36	33	10.31	2	0.06	4	0.13		
Communications & Intelligence	166	7.10	193	8.26	27	8.74	27	8.44	0	0.00	2	0.09		
Healthcare	270	11.57	329	14.10	9	2.91	9	2.81	1	0.04	2	0.09		
Technical & Other Professional	58	7.83	73	9.86	1	0.32	1	0.31	0	0.00	1	0.14		
Functional Support & Admin	233	8.27	281	9.98	22	7.12	22	6.88	0	0.00	3	0.11		
Electrical & Mechanical Repair	651	8.19	772	9.71	106	34.30	109	34.06	2	0.03	4	0.05		
Craftwork & Construction	155	11.26	175	12.71	29	9.39	30	9.38	1	0.07	3	0.22		
Service, Transport & Supply	159	8.68	184	10.04	11	3.56	12	3.75	1	0.05	2	0.11		
Students, Trainees & Unknown Enlist	97	6.82	132	9.29	11	3.56	11	3.44	0	0.00	1	0.07		
OFFICER (all diagnoses combined)														
Officer	431	8.22	517	9.87	18	5.83	20	6.25	0	0.00	2	0.04		
<20	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00		
20-24	34	6.14	40	7.22	0	0.00	0	0.00	0	0.00	0	0.00		
25-29	68	6.06	86	7.67	4	1.29	4	1.25	0	0.00	1	0.09		
30-34	96	9.97	110	11.43	4	1.29	5	1.56	0	0.00	0	0.00		
35-39	76	7.45	95	9.31	4	1.29	4	1.25	0	0.00	0	0.00		
>=40	157	9.93	186	11.76	6	1.94	7	2.19	0	0.00	1	0.06		
O0-O3,W0-W3	237	7.61	289	9.28	10	3.24	12	3.75	0	0.00	1	0.03		
O4-O10,W4-W5	194	9.12	228	10.72	8	2.59	8	2.50	0	0.00	1	0.05		
General/Flag Ofc & Executives	2	7.99	2	7.99	0	0.00	0	0.00	0	0.00	0	0.00		
Tactical Operations Off.	157	7.77	179	8.86	6	1.94	7	2.19	0	0.00	1	0.05		
Intelligence Off.	13	4.89	17	6.40	1	0.32	1	0.31	0	0.00	1	0.38		
Engineering & Maintenance Off.	47	7.95	55	9.31	1	0.32	2	0.63	0	0.00	0	0.00		
Healthcare Off.	95	9.48	119	11.87	3	0.97	3	0.94	0	0.00	0	0.00		
Scientists & Professional Off.	21	9.56	26	11.83	4	1.29	4	1.25	0	0.00	0	0.00		
Administrative Off.	26	11.48	30	13.24	1	0.32	1	0.31	0	0.00	0	0.00		
Supply & Logistics Off.	23	8.78	30	11.45	0	0.00	0	0.00	0	0.00	0	0.00		
Students, Trainees & Unknown Off.	47	7.49	59	9.41	2	0.65	2	0.63	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.

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