

**US DEPARTMENT OF
DEFENSE (DoD)
ACTIVE DUTY
EYE INJURY SUMMARY
CALENDAR YEAR 2004**

Approved for public release, distribution unlimited

2013



CY 2004 DEPARTMENT OF DEFENSE (DOD) COMBINED 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>.

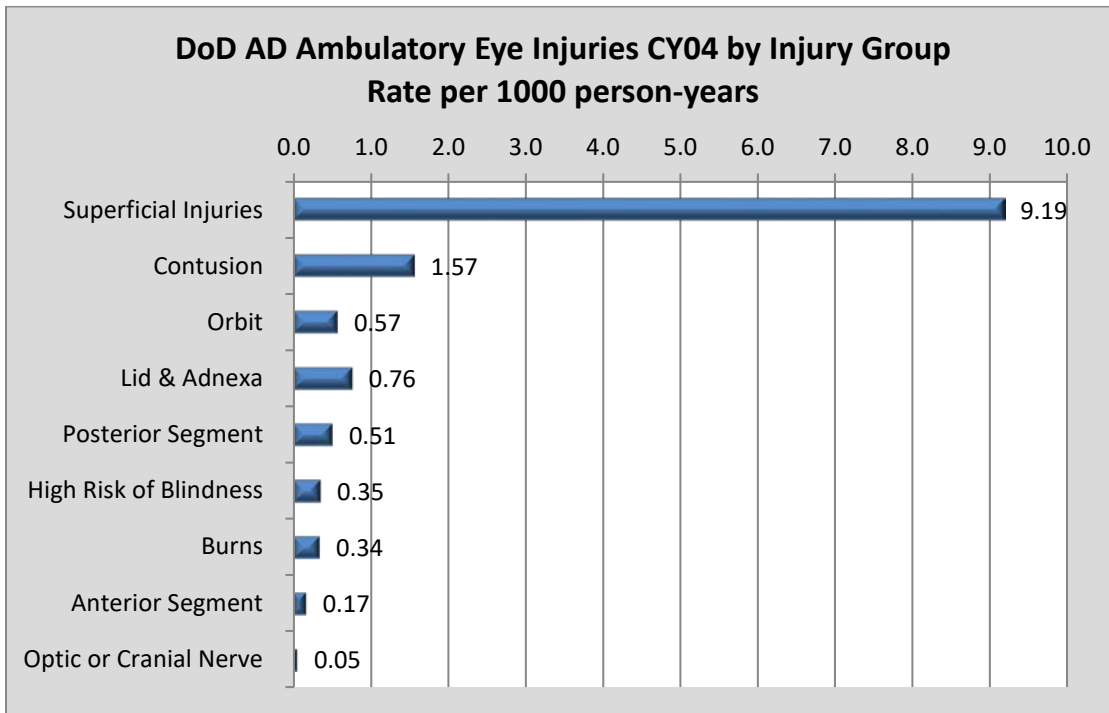
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating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

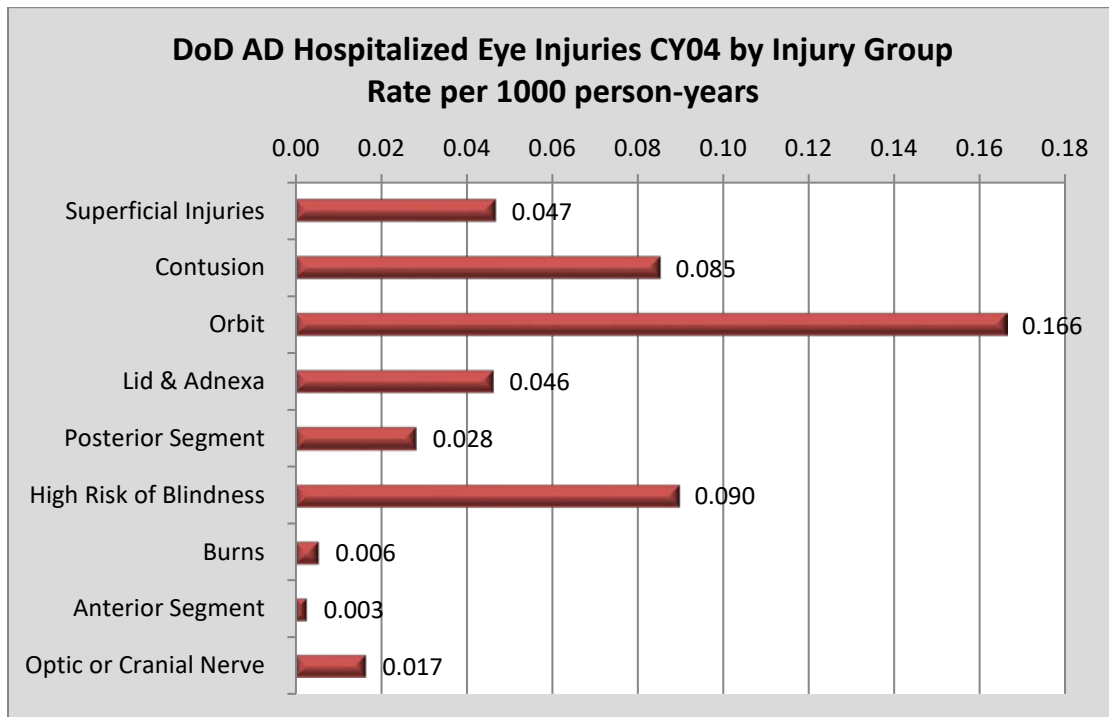
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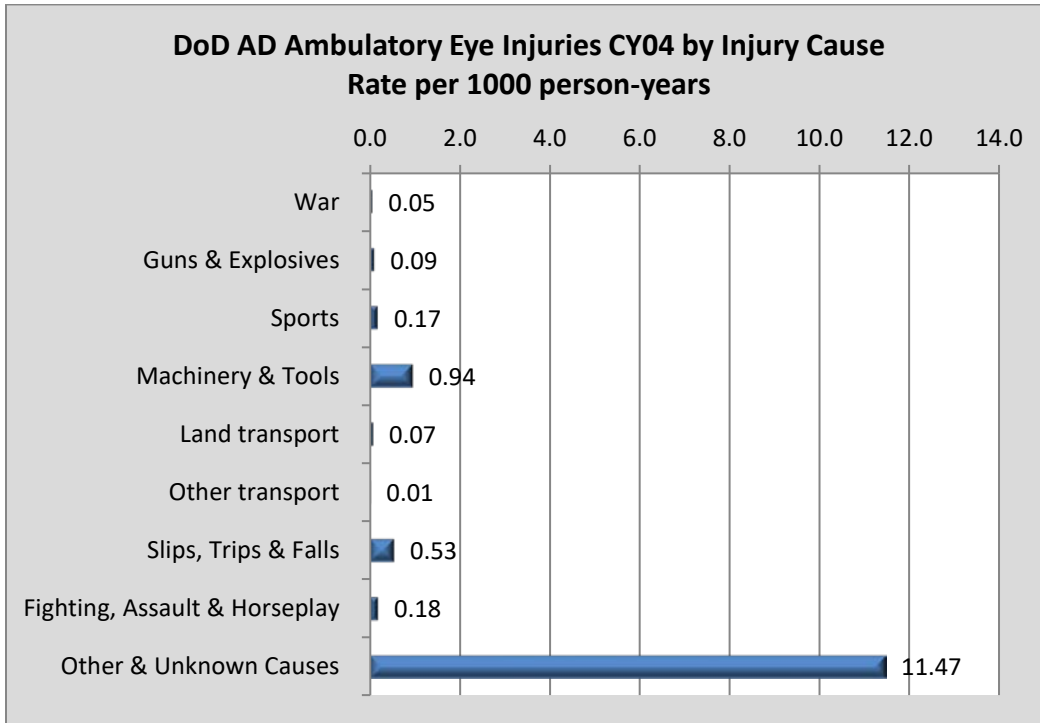
Please note the difference in scale between Ambulatory and Hospitalized graphs



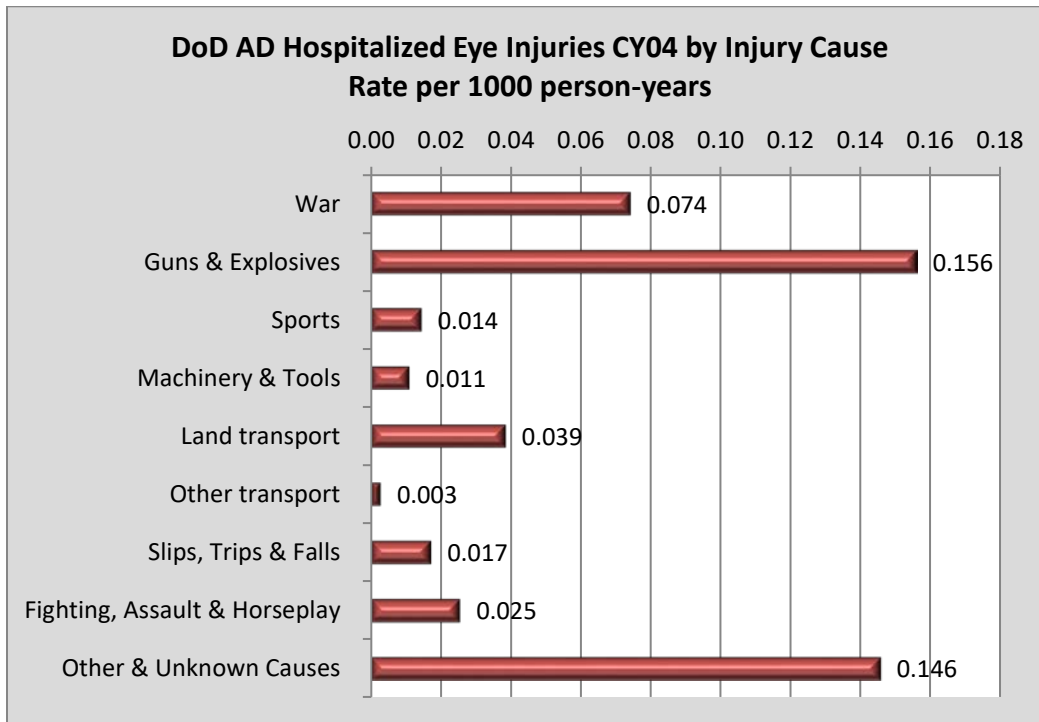
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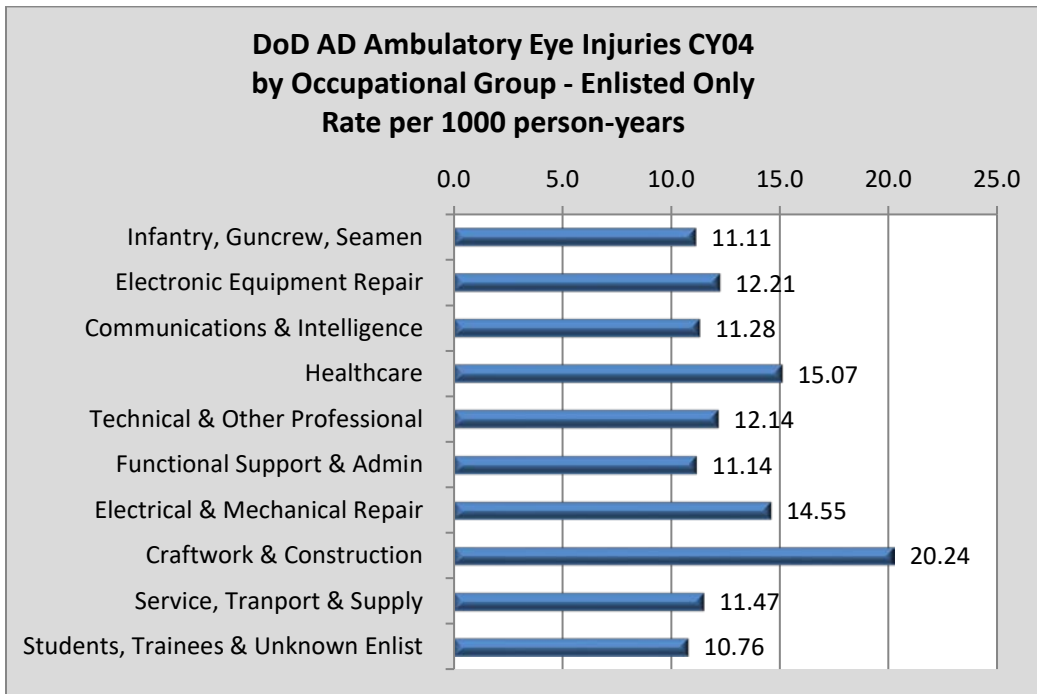
Please note the difference in scale between Ambulatory and Hospitalized graphs



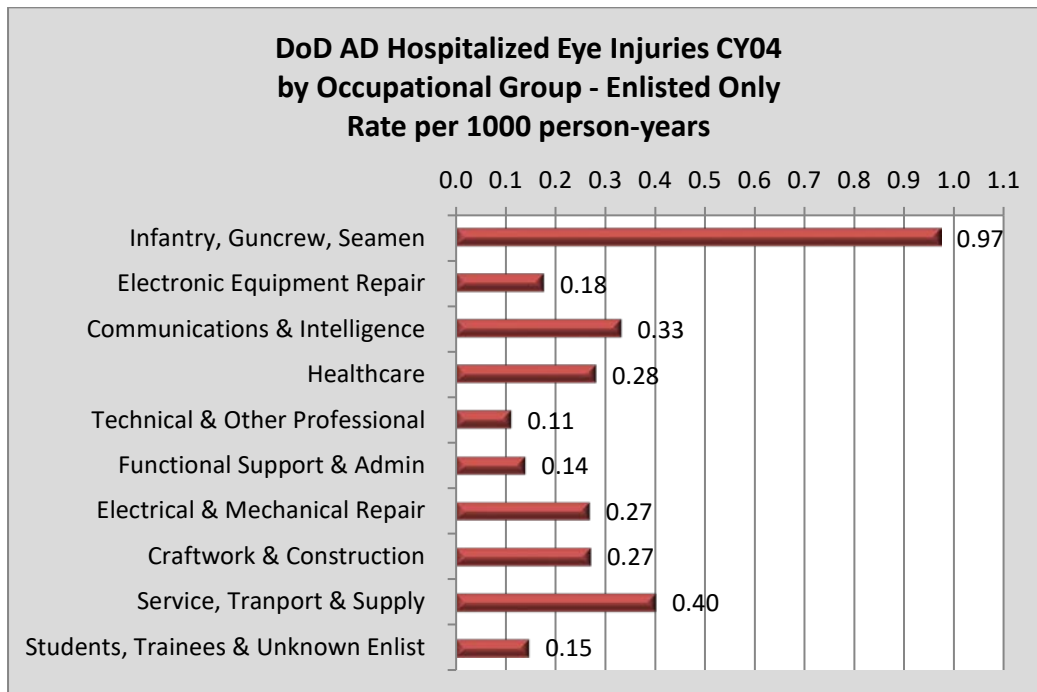
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Please note the difference in scale between Ambulatory and Hospitalized graphs



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CY 2004 DEPARTMENT OF DEFENSE (DOD) COMBINED ACTIVE DUTY (AD) EYE INJURY SUMMARY

	2004											
	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	15,958	10.98	18,175	12.50	-	-	-	-	154	0.11	488	0.34
Superficial Injuries	12,151	8.36	13,361	9.19	-	-	-	-	21	0.01	68	0.05
Contusion	1,842	1.27	2,263	1.57	-	-	-	-	45	0.03	123	0.09
Orbit	605	0.42	831	0.57	-	-	-	-	82	0.06	241	0.17
Lid & Adnexa	947	0.65	1,107	0.76	-	-	-	-	20	0.01	67	0.05
Posterior Segment	488	0.34	738	0.51	-	-	-	-	19	0.01	41	0.03
High Risk of Blindness	448	0.31	515	0.35	-	-	-	-	67	0.05	130	0.09
Burns	436	0.30	495	0.34	-	-	-	-	4	0.00	8	0.01
Anterior Segment	181	0.12	243	0.17	-	-	-	-	2	0.00	4	0.00
Optic or Cranial Nerve	46	0.03	79	0.05	-	-	-	-	11	0.01	24	0.02
Male	13,708	11.07	15,613	12.61	-	-	-	-	149	0.12	459	0.37
Female	2,250	10.46	2,562	11.91	-	-	-	-	5	0.02	29	0.13
War	28	0.02	72	0.05	not assessed ²				33	0.02	108	0.07
Guns & Explosives	125	0.09	134	0.09					104	0.07	227	0.16
Sports	224	0.15	251	0.17					12	0.01	21	0.01
Machinery & Tools	1,317	0.91	1,373	0.94					13	0.01	16	0.01
Land transport	66	0.05	97	0.07					16	0.01	56	0.04
Other transport	8	0.01	9	0.01					3	0.00	4	0.00
Slips, Trips & Falls	701	0.48	773	0.53					10	0.01	25	0.02
Fighting, Assault & Horseplay	188	0.13	257	0.18					15	0.01	37	0.03
Other & Unknown Causes	14,487	9.97	16,666	11.47					65	0.04	212	0.15
ENLISTED (all diagnoses combined)												
Enlisted	13,465	11.05	15,363	12.61	-	-	-	-	143	0.12	448	0.37
<20	1,059	7.23	1,227	8.38	-	-	-	-	11	0.08	40	0.27
20-24	5,262	10.98	6,105	12.73	-	-	-	-	80	0.17	238	0.50
25-29	2,825	12.07	3,210	13.72	-	-	-	-	32	0.14	95	0.41
30-34	1,737	11.27	1,927	12.51	-	-	-	-	10	0.06	42	0.27
35-39	1,582	12.08	1,748	13.35	-	-	-	-	6	0.05	24	0.18
>=40	1,000	13.68	1,146	15.68	-	-	-	-	4	0.05	9	0.12
E0-E4	6,950	10.85	8,041	12.55	-	-	-	-	106	0.17	315	0.49
E5-E9	6,515	11.28	7,322	12.68	-	-	-	-	37	0.06	133	0.23
Infantry, Guncrew, Seamen	1,957	9.39	2,315	11.11	-	-	-	-	65	0.31	203	0.97
Electronic Equipment Repair	1,175	10.92	1,314	12.21	-	-	-	-	6	0.06	19	0.18
Communications & Intelligence	1,088	9.77	1,257	11.28	-	-	-	-	11	0.10	37	0.33
Healthcare	1,083	13.24	1,233	15.07	-	-	-	-	6	0.07	23	0.28
Technical & Other Professional	380	10.55	437	12.14	-	-	-	-	0	0.00	4	0.11
Functional Support & Admin	1,905	9.83	2,159	11.14	-	-	-	-	8	0.04	27	0.14
Electrical & Mechanical Repair	3,275	12.92	3,690	14.55	-	-	-	-	21	0.08	68	0.27
Craftwork & Construction	886	18.49	970	20.24	-	-	-	-	3	0.06	13	0.27
Service, Transport & Supply	1,096	10.00	1,257	11.47	-	-	-	-	18	0.16	44	0.40
Students, Trainees & Unknown Enlist	620	9.13	731	10.76	-	-	-	-	5	0.07	10	0.15
Army	4,137	10.04	4,828	11.71	-	-	-	-	75	0.18	214	0.52
Navy	3,962	12.52	4,412	13.94	-	-	-	-	17	0.05	63	0.20
Air Force	3,347	11.15	3,797	12.65	-	-	-	-	12	0.04	40	0.13
Marine Corps	1,525	9.66	1,782	11.29	-	-	-	-	37	0.23	125	0.79
Coast Guard	494	15.72	544	17.31	-	-	-	-	2	0.06	6	0.19
OFFICER (all diagnoses combined)												
Officer	2,493	10.58	2,812	11.94	-	-	-	-	11	0.05	40	0.17
<20	0	0.00	0	0.00	-	-	-	-	0	0.00	0	0.00
20-24	184	7.20	228	8.92	-	-	-	-	1	0.04	3	0.12
25-29	473	8.95	531	10.05	-	-	-	-	5	0.09	14	0.27
30-34	528	10.17	590	11.37	-	-	-	-	5	0.10	11	0.21
35-39	511	10.98	564	12.12	-	-	-	-	0	0.00	4	0.09
>=40	797	13.58	899	15.32	-	-	-	-	0	0.00	8	0.14
O0-O3, W0-W3	1,443	9.95	1,638	11.30	-	-	-	-	11	0.08	28	0.19
O4-O10, W4-W5	1,050	11.60	1,174	12.97	-	-	-	-	0	0.00	12	0.13
General/Flag Ofc & Executives	29	13.79	31	14.74	-	-	-	-	0	0.00	0	0.00
Tactical Operations Off.	902	10.70	1,011	11.99	-	-	-	-	7	0.08	19	0.23
Intelligence Off.	111	9.16	124	10.23	-	-	-	-	1	0.08	3	0.25
Engineering & Maintenance Off.	350	10.59	390	11.80	-	-	-	-	0	0.00	1	0.03
Healthcare Off.	421	11.50	474	12.95	-	-	-	-	2	0.05	8	0.22
Scientists & Professional Off.	112	9.03	131	10.56	-	-	-	-	0	0.00	2	0.16
Administrative Off.	159	10.26	181	11.68	-	-	-	-	0	0.00	0	0.00
Supply & Logistics Off.	209	10.34	235	11.63	-	-	-	-	1	0.05	5	0.25
Students, Trainees & Unknown Off.	200	10.39	235	12.21	-	-	-	-	0	0.00	2	0.10
Army	669	8.33	780	9.71	-	-	-	-	4	0.05	16	0.20
Navy	837	15.26	894	16.29	-	-	-	-	1	0.02	9	0.16
Air Force	692	9.35	817	11.04	-	-	-	-	1	0.01	7	0.09
Marine Corps	200	10.65	221	11.77	-	-	-	-	5	0.27	8	0.43
Coast Guard	95	12.49	100	13.14	-	-	-	-	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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