

**US DEPARTMENT OF  
DEFENSE (DoD)  
ACTIVE DUTY  
EYE INJURY SUMMARY  
CALENDAR YEAR 2003**

Approved for public release, distribution unlimited

2013



## CY 2003 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](mailto: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>.

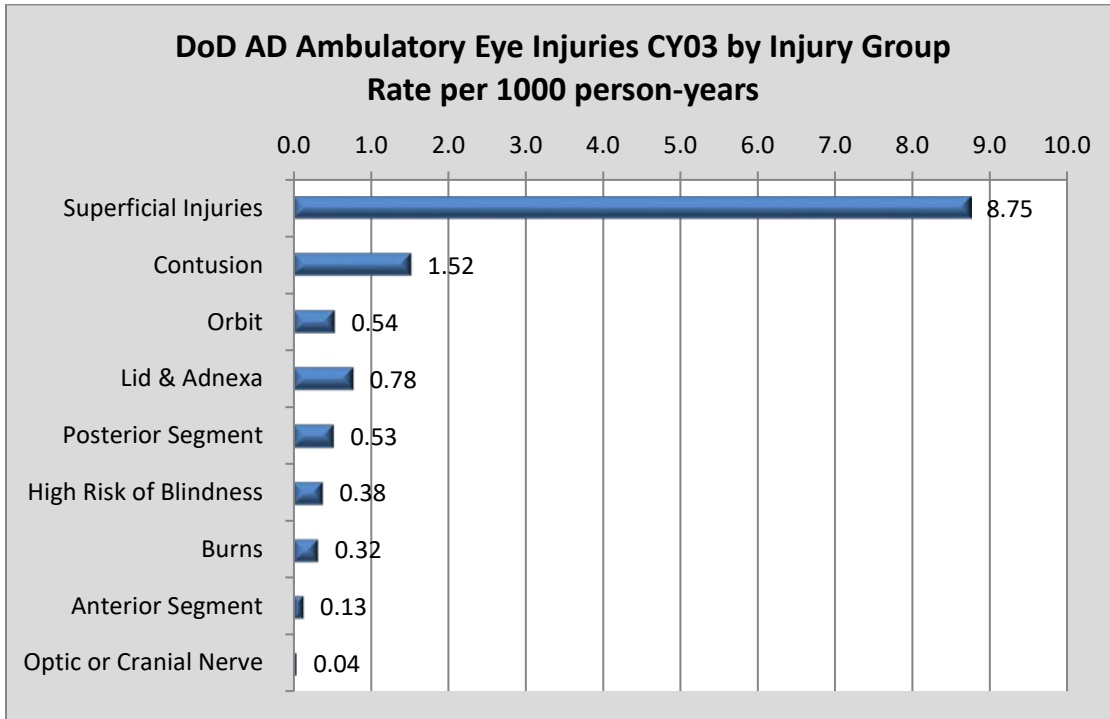
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating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

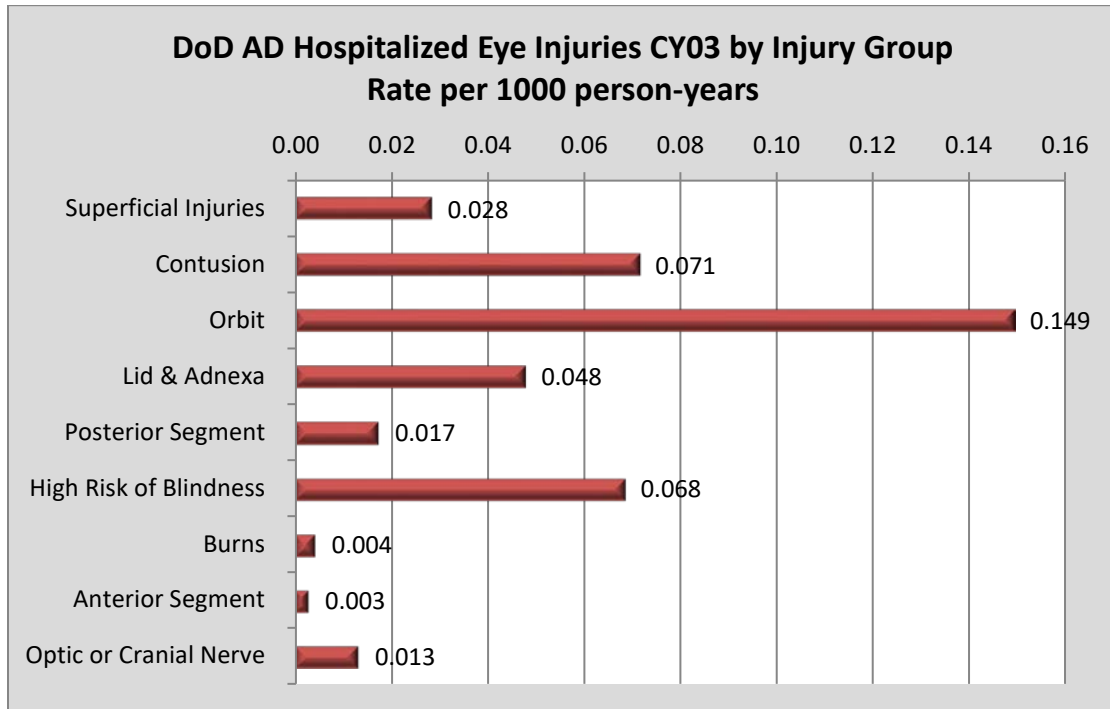
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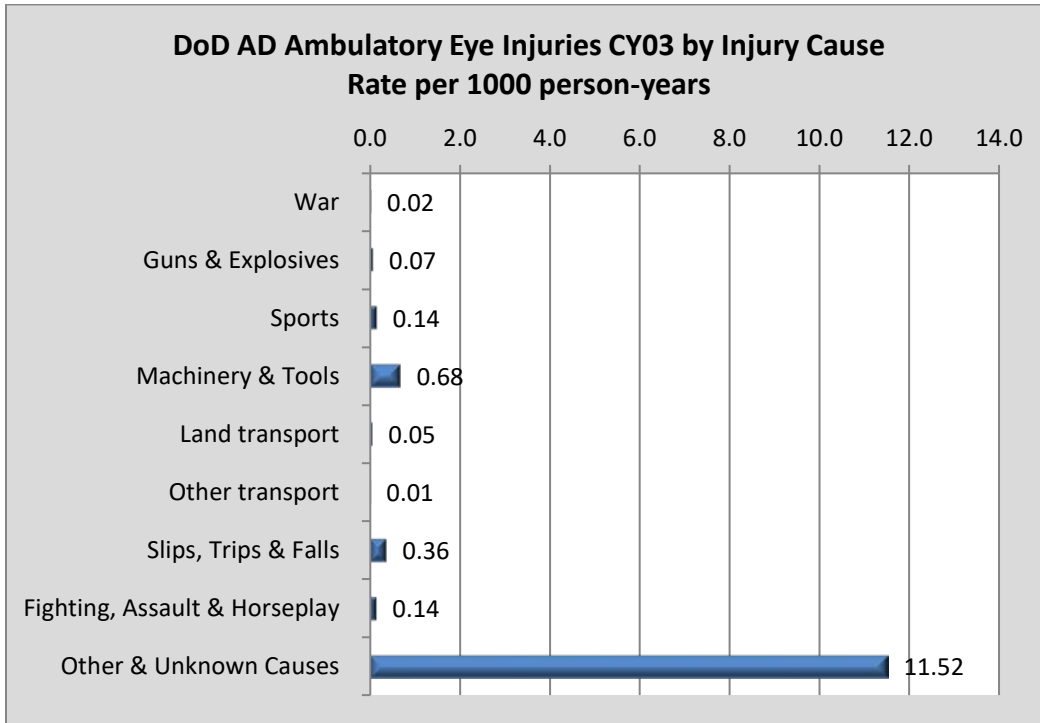
Please note the difference in scale between Ambulatory and Hospitalized graphs



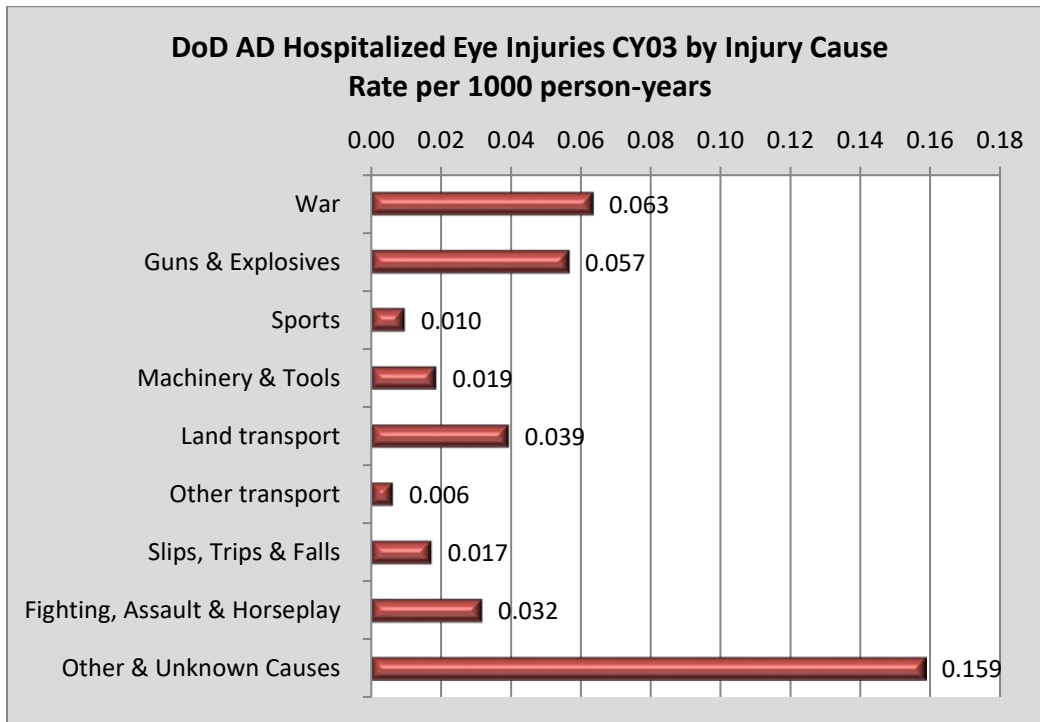
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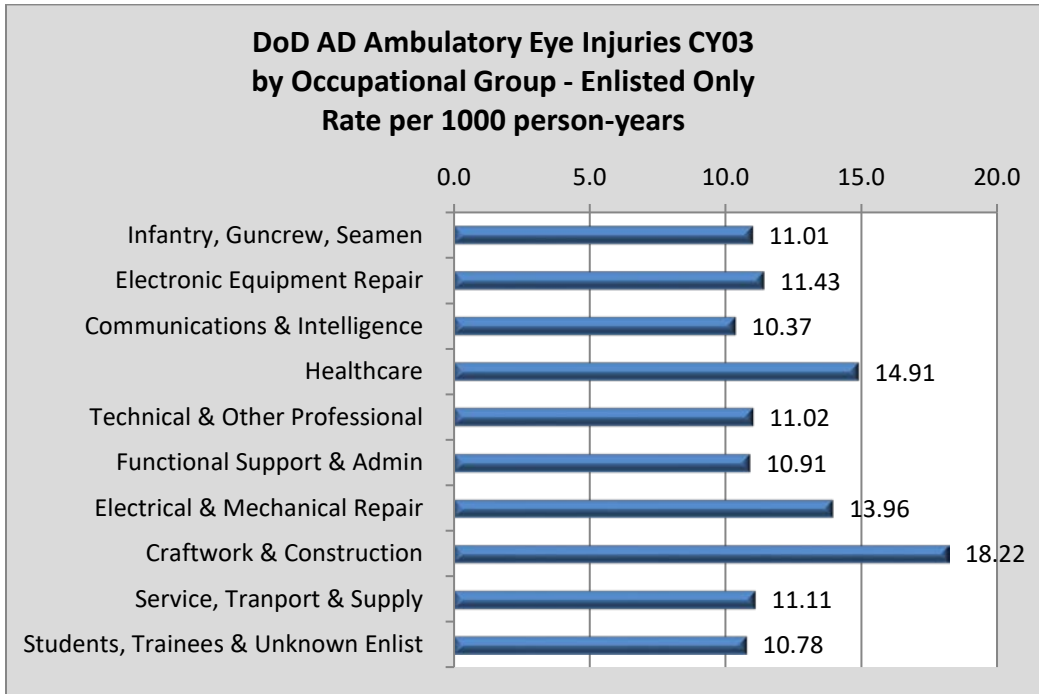
Please note the difference in scale between Ambulatory and Hospitalized graphs



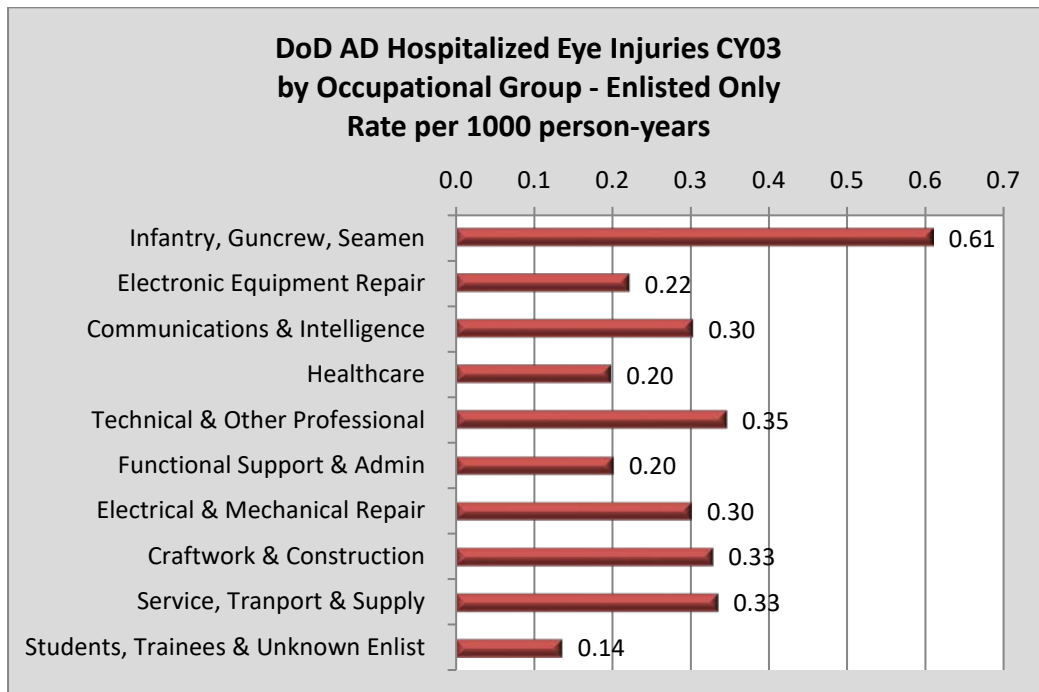
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Please note the difference in scale between Ambulatory and Hospitalized graphs



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# CY 2003 DEPARTMENT OF DEFENSE (DOD) COMBINED ACTIVE DUTY (AD) EYE INJURY SUMMARY

	2003											
	Ambulatory MTF Visits				Deployment-Associated Healthcare				Hospitalizations			
	Primary		All Diagnoses		Primary		All Diagnoses		Primary		All Diagnoses	
	Count	Rate <sup>1</sup>	Count	Rate	Count	% total <sup>2</sup>	Count	% total <sup>2</sup>	Count	Rate	Count	Rate
<b>ALL ACTIVE COMPONENT</b>												
<b>Total</b>	<b>15,453</b>	<b>10.66</b>	<b>17,514</b>	<b>12.09</b>	-	-	-	-	<b>142</b>	<b>0.10</b>	<b>420</b>	<b>0.29</b>
Superficial Injuries	11,555	7.97	12,680	8.75	-	-	-	-	17	0.01	41	0.03
Contusion	1,777	1.23	2,196	1.52	-	-	-	-	36	0.02	103	0.07
Orbit	594	0.41	778	0.54	-	-	-	-	69	0.05	216	0.15
Lid & Adnexa	967	0.67	1,121	0.78	-	-	-	-	23	0.02	69	0.05
Posterior Segment	519	0.36	761	0.53	-	-	-	-	16	0.01	25	0.02
High Risk of Blindness	494	0.34	553	0.38	-	-	-	-	63	0.04	99	0.07
Burns	432	0.30	468	0.32	-	-	-	-	1	0.00	6	0.00
Anterior Segment	156	0.11	195	0.13	-	-	-	-	4	0.00	4	0.00
Optic or Cranial Nerve	41	0.03	65	0.04	-	-	-	-	8	0.01	19	0.01
Male	13,135	10.65	14,901	12.08	-	-	-	-	136	0.11	394	0.32
Female	2,318	10.75	2,613	12.12	-	-	-	-	6	0.03	26	0.12
War	24	0.02	30	0.02	not assessed <sup>2</sup>				53	0.04	92	0.06
Guns & Explosives	85	0.06	95	0.07					43	0.03	82	0.06
Sports	184	0.13	210	0.14					8	0.01	14	0.01
Machinery & Tools	941	0.65	979	0.68					22	0.02	27	0.02
Land transport	47	0.03	73	0.05					19	0.01	57	0.04
Other transport	8	0.01	8	0.01					3	0.00	9	0.01
Slips, Trips & Falls	482	0.33	525	0.36					10	0.01	25	0.02
Fighting, Assault & Horseplay	151	0.10	204	0.14					18	0.01	46	0.03
Other & Unknown Causes	14,613	10.08	16,693	11.52					61	0.04	230	0.16
<b>ENLISTED (all diagnoses combined)</b>												
<b>Enlisted</b>	<b>12,999</b>	<b>10.69</b>	<b>14,751</b>	<b>12.13</b>	-	-	-	-	<b>133</b>	<b>0.11</b>	<b>387</b>	<b>0.32</b>
<20	1,115	7.20	1,280	8.27	-	-	-	-	14	0.09	34	0.22
20-24	5,157	10.92	5,880	12.45	-	-	-	-	70	0.15	207	0.44
25-29	2,581	11.46	2,900	12.88	-	-	-	-	25	0.11	76	0.34
30-34	1,647	10.64	1,827	11.81	-	-	-	-	14	0.09	36	0.23
35-39	1,540	11.13	1,760	12.72	-	-	-	-	7	0.05	18	0.13
>=40	959	13.60	1,104	15.65	-	-	-	-	3	0.04	16	0.23
E0-E4	6,947	10.84	7,931	12.38	-	-	-	-	96	0.15	263	0.41
E5-E9	6,052	10.52	6,820	11.86	-	-	-	-	37	0.06	124	0.22
Infantry, Guncrew, Seamen	1,950	9.58	2,240	11.01	-	-	-	-	52	0.26	124	0.61
Electronic Equipment Repair	1,132	10.00	1,294	11.43	-	-	-	-	4	0.04	25	0.22
Communications & Intelligence	1,010	8.97	1,168	10.37	-	-	-	-	12	0.11	34	0.30
Healthcare	1,055	13.02	1,208	14.91	-	-	-	-	5	0.06	16	0.20
Technical & Other Professional	333	9.58	383	11.02	-	-	-	-	2	0.06	12	0.35
Functional Support & Admin	1,878	9.66	2,120	10.91	-	-	-	-	10	0.05	39	0.20
Electrical & Mechanical Repair	3,166	12.51	3,533	13.96	-	-	-	-	29	0.11	76	0.30
Craftwork & Construction	814	16.67	890	18.22	-	-	-	-	7	0.14	16	0.33
Service, Transport & Supply	1,041	9.66	1,197	11.11	-	-	-	-	9	0.08	36	0.33
Students, Trainees & Unknown Enlist	620	9.31	718	10.78	-	-	-	-	3	0.05	9	0.14
Army	3,821	9.31	4,373	10.65	-	-	-	-	74	0.18	181	0.44
Navy	3,791	11.79	4,240	13.18	-	-	-	-	22	0.07	77	0.24
Air Force	3,424	11.62	3,895	13.22	-	-	-	-	13	0.04	46	0.16
Marine Corps	1,501	9.49	1,730	10.94	-	-	-	-	23	0.15	78	0.49
Coast Guard	462	14.92	513	16.56	-	-	-	-	1	0.03	5	0.16
<b>OFFICER (all diagnoses combined)</b>												
<b>Officer</b>	<b>2,454</b>	<b>10.52</b>	<b>2,763</b>	<b>11.85</b>	-	-	-	-	<b>9</b>	<b>0.04</b>	<b>33</b>	<b>0.14</b>
<20	0	0.00	0	0.00	-	-	-	-	0	0.00	0	0.00
20-24	171	6.79	200	7.94	-	-	-	-	1	0.04	4	0.16
25-29	476	9.02	532	10.08	-	-	-	-	3	0.06	9	0.17
30-34	485	9.41	544	10.56	-	-	-	-	2	0.04	5	0.10
35-39	533	11.45	597	12.82	-	-	-	-	1	0.02	7	0.15
>=40	789	13.81	890	15.57	-	-	-	-	2	0.03	8	0.14
O0-O3, W0-W3	1,414	9.90	1,581	11.07	-	-	-	-	7	0.05	25	0.17
O4-O10, W4-W5	1,040	11.51	1,182	13.08	-	-	-	-	2	0.02	8	0.09
General/Flag Ofc & Executives	23	11.57	25	12.57	-	-	-	-	0	0.00	0	0.00
Tactical Operations Off.	869	10.41	963	11.53	-	-	-	-	7	0.08	14	0.17
Intelligence Off.	103	8.62	114	9.54	-	-	-	-	0	0.00	0	0.00
Engineering & Maintenance Off.	355	10.83	388	11.83	-	-	-	-	0	0.00	5	0.15
Healthcare Off.	398	10.86	456	12.45	-	-	-	-	1	0.03	5	0.14
Scientists & Professional Off.	124	10.44	155	13.05	-	-	-	-	0	0.00	2	0.17
Administrative Off.	155	10.31	175	11.64	-	-	-	-	1	0.07	2	0.13
Supply & Logistics Off.	198	9.88	232	11.57	-	-	-	-	0	0.00	2	0.10
Students, Trainees & Unknown Off.	229	11.81	255	13.15	-	-	-	-	0	0.00	3	0.15
Army	588	7.40	687	8.65	-	-	-	-	6	0.08	12	0.15
Navy	834	15.14	915	16.61	-	-	-	-	1	0.02	7	0.13
Air Force	710	9.77	812	11.18	-	-	-	-	1	0.01	9	0.12
Marine Corps	233	12.48	256	13.72	-	-	-	-	1	0.05	5	0.27
Coast Guard	89	12.07	93	12.61	-	-	-	-	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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**TRI-SERVICE  
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