

# U.S. Army Injury Surveillance 2017 Summary



Clinical Public Health and Epidemiology  
Injury Prevention

Website: <https://phc.amedd.army.mil/topics/discond/ptsaip/Pages/default.aspx>

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# Disclaimer

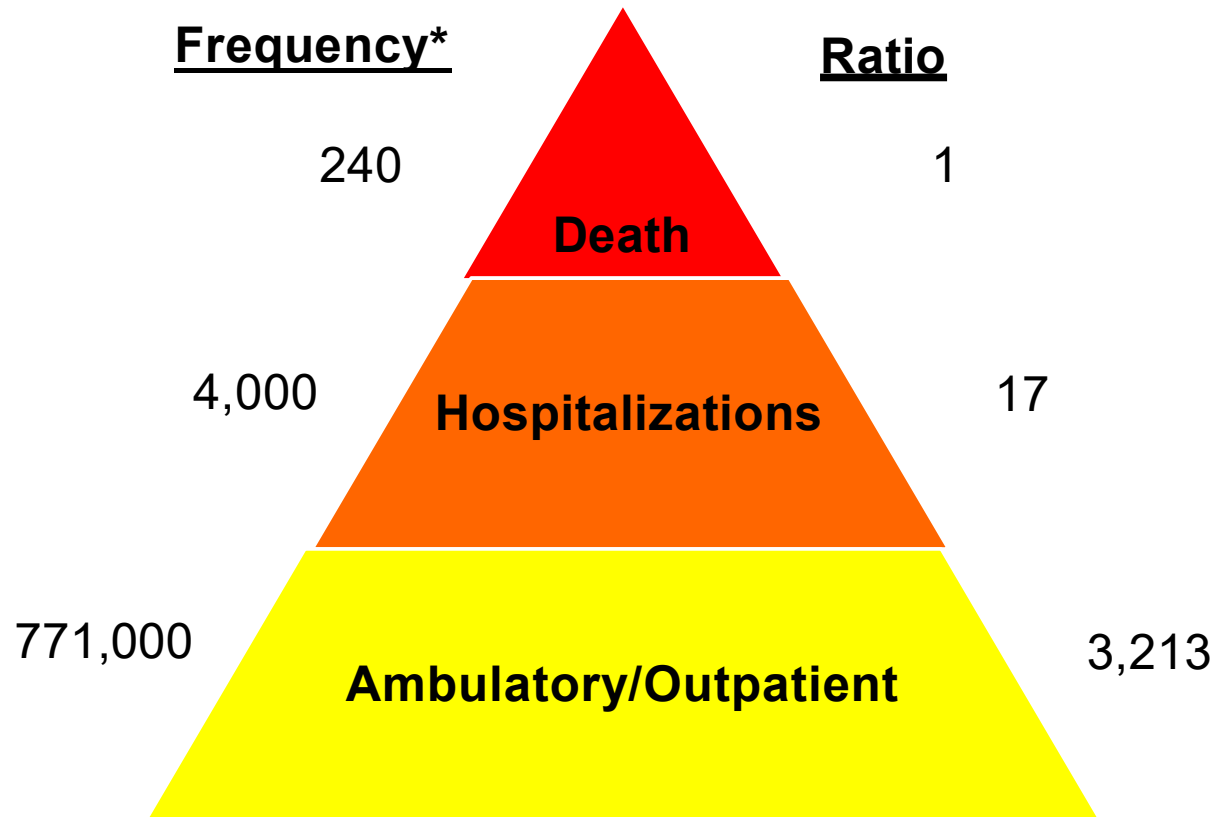


The views expressed in this presentation are those of the author(s) and do not necessarily reflect the official policy of the Department of Defense, Department of the Army, U.S. Army Medical Department or the United States.

- This document provides a summary of injury medical encounter surveillance data for Active Duty Soldiers from Calendar Year (CY) 2017
- Injuries are defined using the U.S. Army Public Health Center (APHC) Taxonomy of Injuries<sup>1</sup>
- This summary highlights Army Active Duty injury rates and distribution of injuries resulting from the applied Taxonomy of Injuries
- For additional details about data contained in these slides, please see the associated Technical Information Paper<sup>2</sup>

<sup>1</sup>APHC Public Health Information Paper (PHIP) No. 12-01-0717: A Taxonomy of Injuries for Public Health Monitoring & Reporting. December 2017. <http://www.dtic.mil/docs/citations/AD1039481>

<sup>2</sup>APHC Technical Information Paper (TIP) No. 12-109-0520: Annual Injury Surveillance Report 2017 Summary. July 2019. <https://apps.dtic.mil/sti/citations/AD1104197>



\*Frequencies are rounded

Data source: Defense Medical Surveillance System (DMSS) and Armed Forces Medical Examiner System (AFMES); injuries defined using the APHC Taxonomy of Injuries

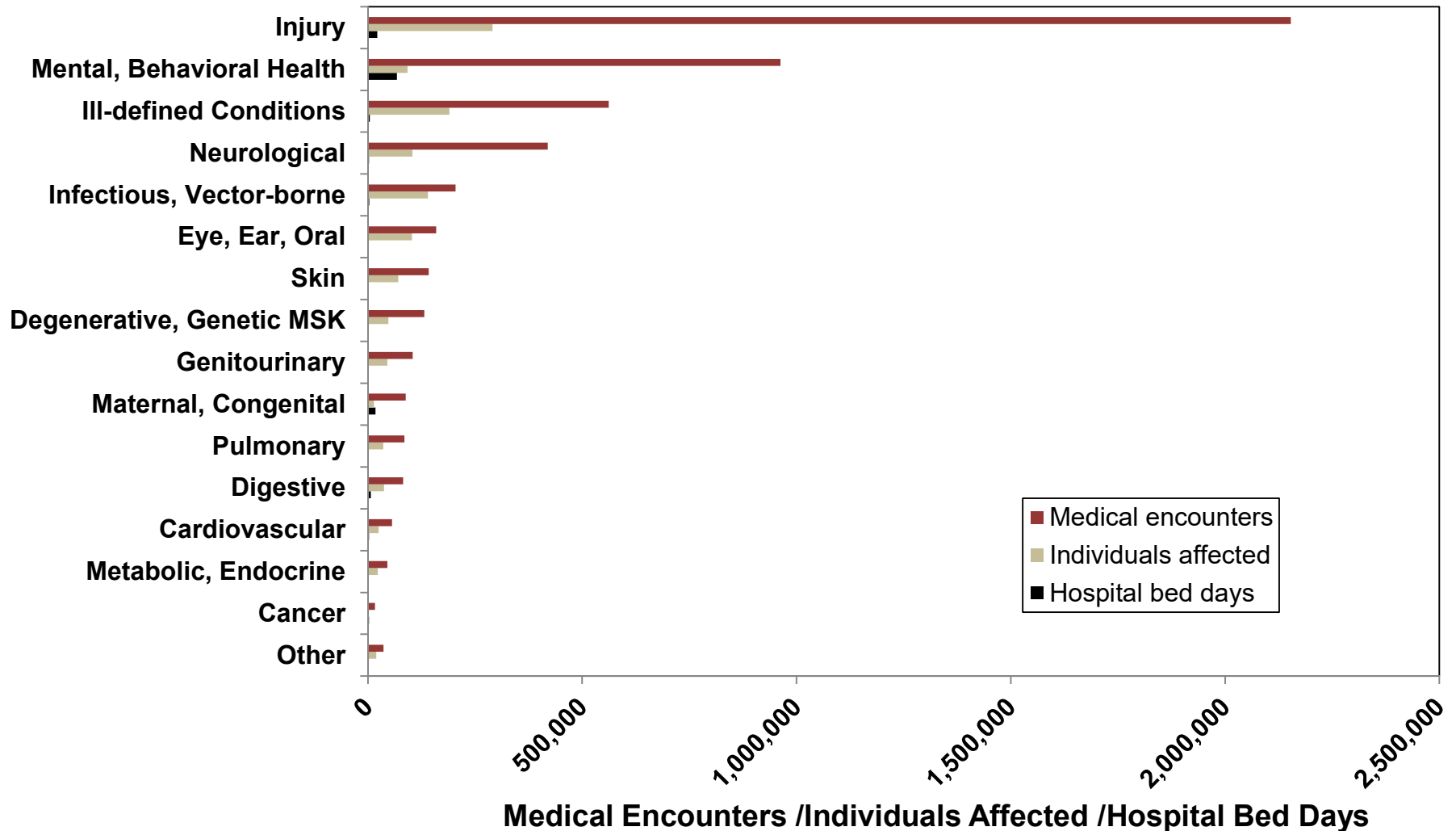
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# Relative Burden of Injuries and Diseases U.S. Army Active Duty, 2017



Major Diagnosis Category

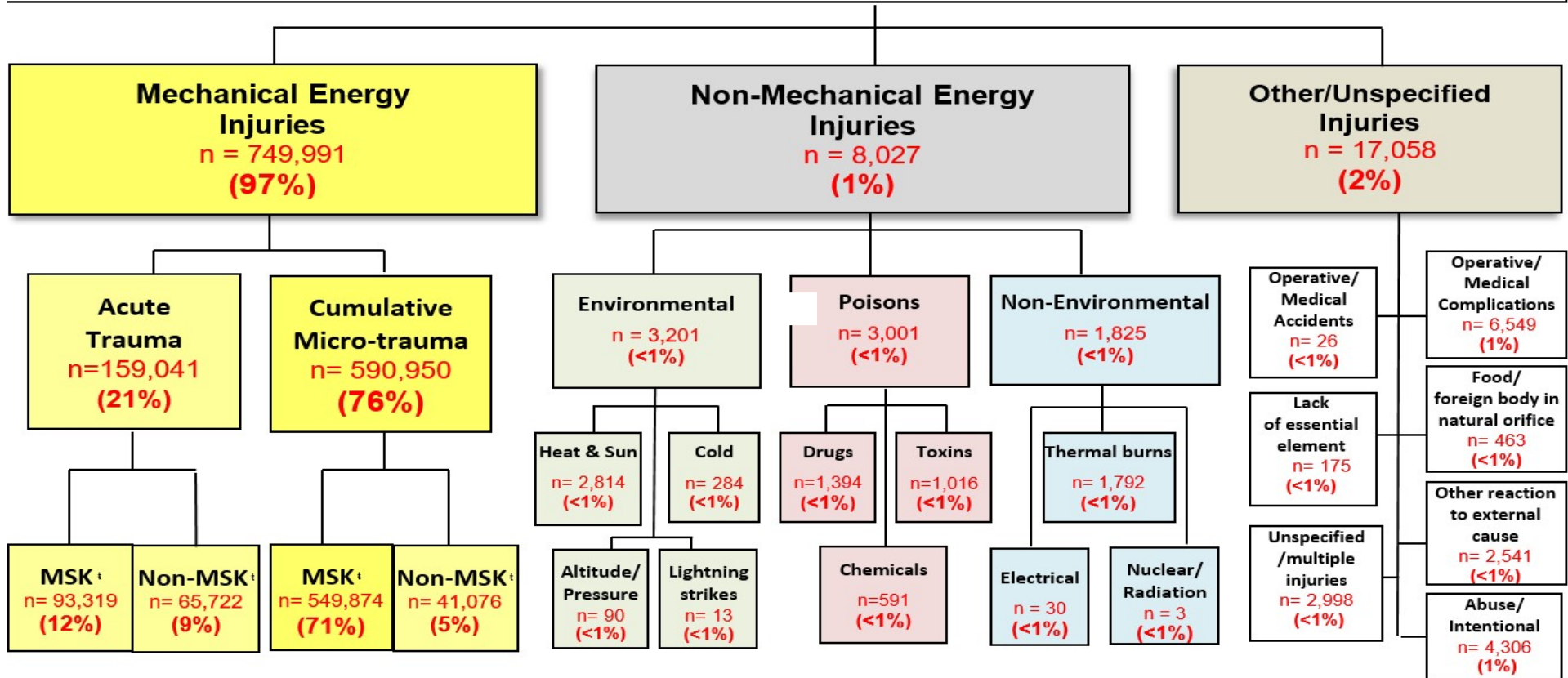


Diagnosis group "Other" includes adverse effects of drugs, blood disorders, and other neoplasms (not cancer)  
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### TAXONOMY OF INJURIES

**All Army Injuries: N = 775,076**

All Active Duty initial medical encounters, 2017



MSK = damage to tissue(s) of the musculoskeletal system i.e., bone, cartilage, muscle, tendon, fascia, joint, ligament, bursa, synovium

Data source: Defense Medical Surveillance System (DMSS)

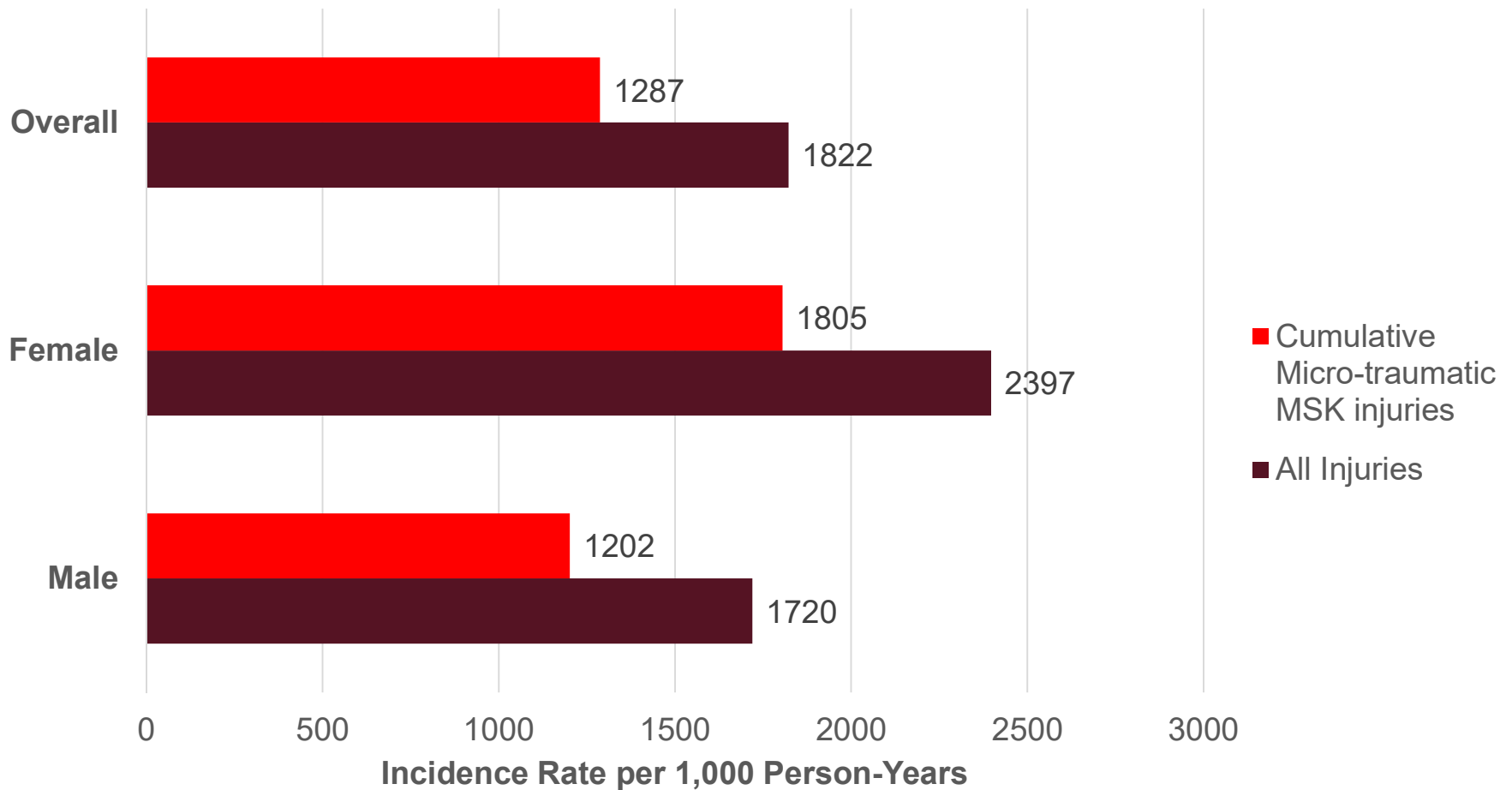
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# All Injury and Cumulative Micro-traumatic Musculoskeletal (MSK) Injury U.S. Army Active Duty, 2017

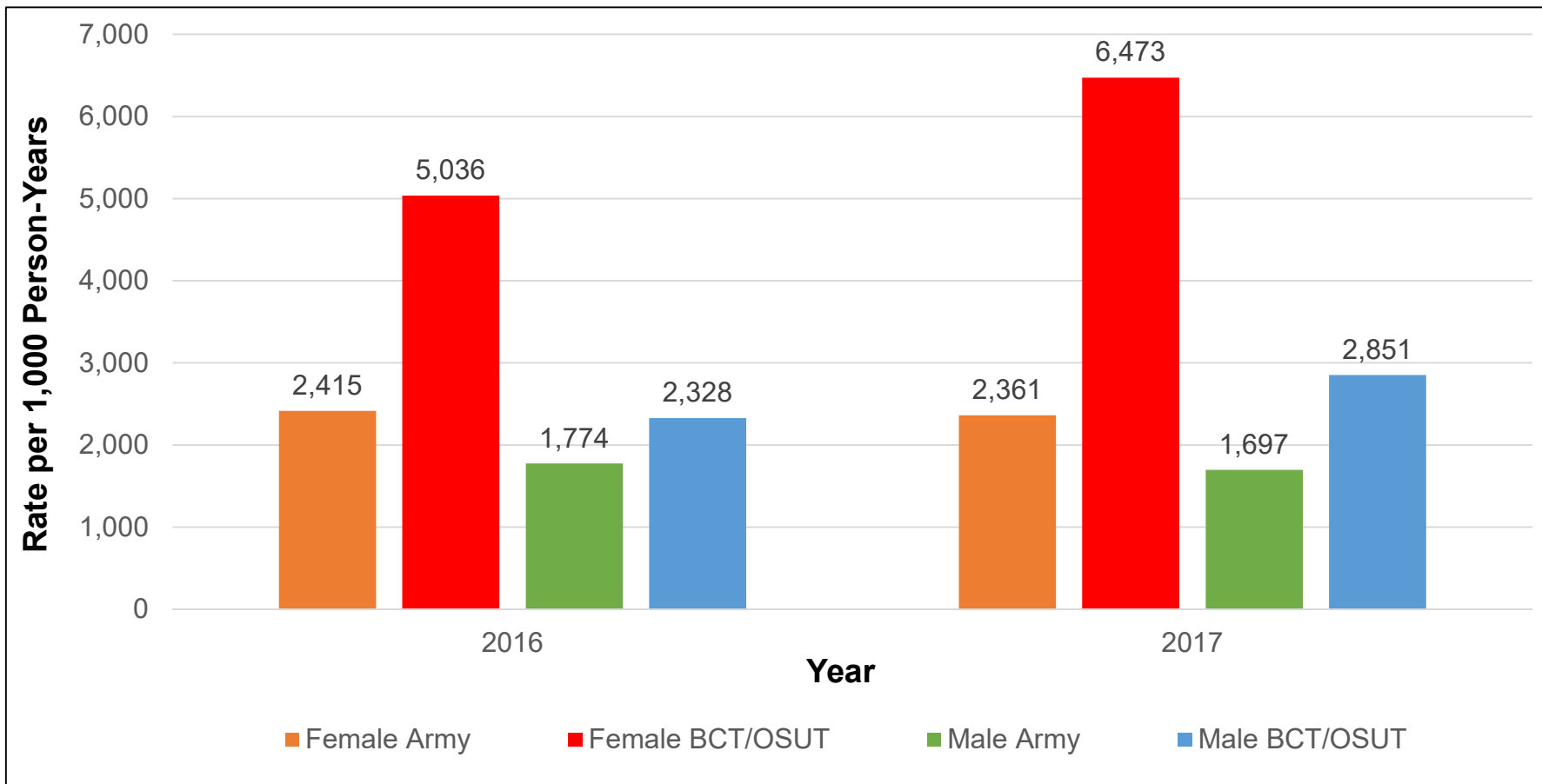


## Visit Rates by Sex



Data source: Defense Medical Surveillance System (DMSS); injuries defined using the APHC Taxonomy of Injuries  
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# Overall Incident Injury Visit Rates U.S. Army Active Duty vs. Trainee, 2016-2017



Active Duty injury adjusted to remove deployed injury and deployed person-time

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# Incident Mechanical Injuries by Body Region and Acute/Overuse U.S. Army Active Duty, 2017



Body Region	Acute Traumatic (Trauma)	Cumulative Micro-traumatic (Overuse)	All
Lower Extremity	65,447 (41.2%)	282,942 (48.1%)	351,000 (46.8%)
Spine & Back	8,340 (5.2%)	168,346 (28.6%)	176,687 (23.6%)
Upper Extremity	50,511 (31.8%)	107,531 (18.3%)	158,614 (21.1%)
Head, Face & Neck	24,983 (15.7%)	17,592 (3.0%)	42,575 (5.7%)
Torso	9,129 (5.7%)	871 (0.1%)	10,000 (1.3%)
Other	631 (0.4%)	10,458 (1.8%)	11,115 (1.5%)
<b>Total</b>	<b>159,041 (100%)</b>	<b>587,740 (100%)</b>	<b>749,991 (100%)</b>

Injuries defined using the APHC Injury Taxonomy; Acute traumatic (Trauma) and cumulative micro-traumatic (Overuse) injuries  
Data source: Defense Medical Surveillance System (DMSS) ; injuries defined using the APHC Taxonomy of Injuries  
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# Incident Mechanical Injury Diagnoses by Body Region U.S. Army Active Duty, 2017

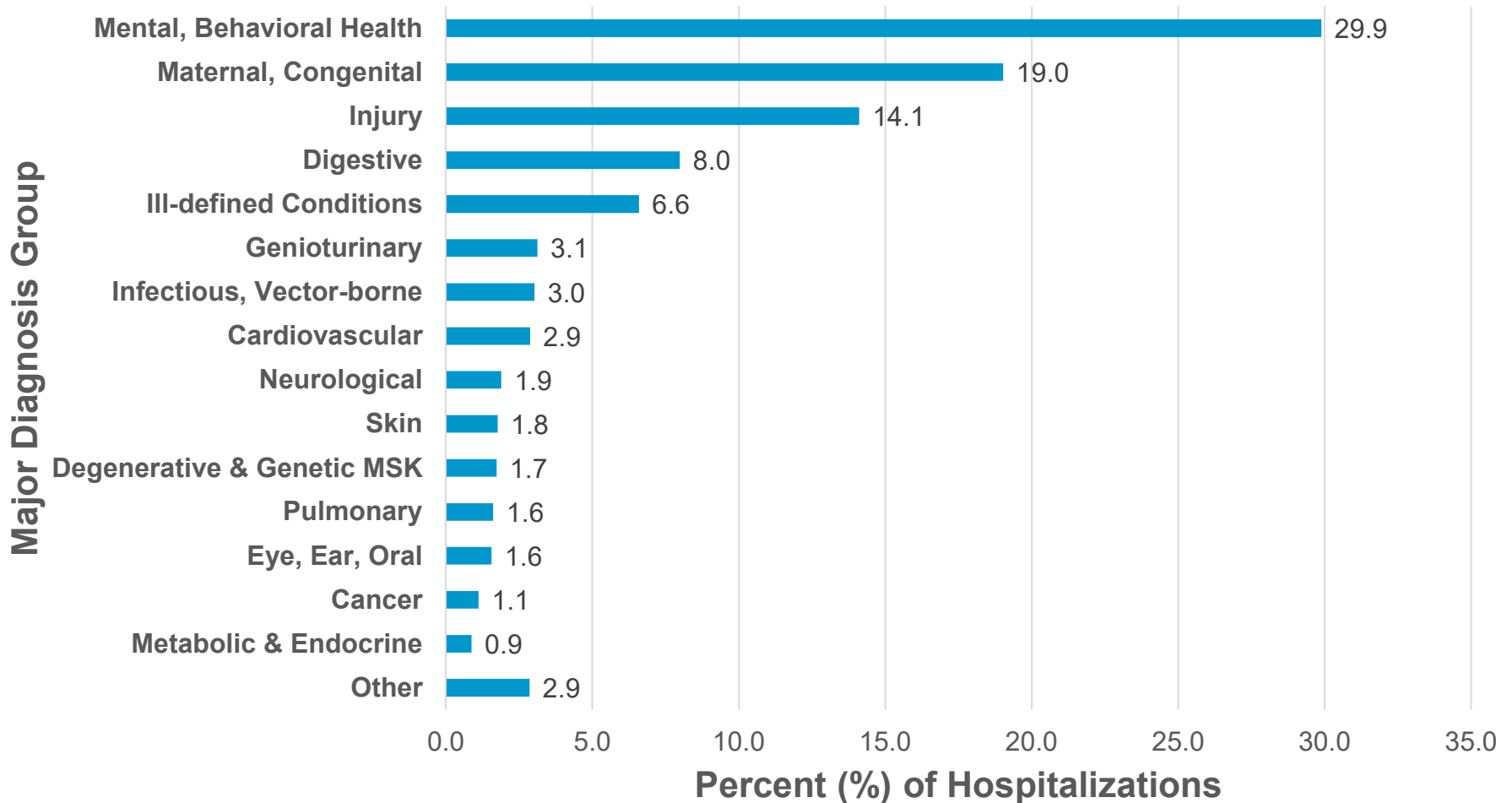


Diagnosis	Head, Face & Neck		Spine & Back		Torso		Upper Extremity		Lower Extremity		Other		Total n (%)
	Acute Trauma (ACT)	Cumulative Micro- trauma (CMT)	ACT	CMT	ACT	CMT	ACT	CMT	ACT	CMT	ACT	CMT	
MSK Tissue Damage	26	0	53	152,395	56	1	3,370	100,478	7,777	276,261	130	10371	<b>550,918 (73.5)</b>
Sprain/Joint Damage	13	0	2,253	1	787	0	7,118	572	26,626	2,611	49	26	<b>40,056 (5.3)</b>
Tissue Damage, Other	6,213	17567	1,820	0	1703	0	4,453	0	3,454	0	418	2	<b>35,630 (4.8)</b>
Strain/Tear	2,353	0	3,192	0	2,199	0	5,458	4,132	8,803	11	34	5	<b>26,187 (3.5)</b>
Contusion/Superficial	5,688	25	0	0	2,343	17	6,354	111	7,343	3,314	0	0	<b>25,195 (3.4)</b>
Nerve	59	0	14	15,926	3	430	3,845	2797	979	887	0	0	<b>24,940 (3.3)</b>
Fracture	1,507	0	882	25	724	423	8,884	13	6,899	2,469	0	80	<b>21,906 (2.9)</b>
Open Wound	4,071	0	0	0	525	0	7,897	0	2,577	0	0	0	<b>15,070 (2.0)</b>
Internal Organ & Blood Vessel	4,996	0	100	0	728	0	95	0	37	0	0	0	<b>5,956 (0.8)</b>
Dislocation	44	0	26	0	49	0	2,226	0	703	0	0	0	<b>3,048 (0.4)</b>
Crush	10	0	0	0	12	0	615	0	215	0	0	0	<b>852 (0.1)</b>
Amputation	3	0	0	0	0	0	196	0	34	0	0	0	<b>233 (&lt;0.1)</b>
<b>Total</b>	<b>24,983</b>	<b>17,592</b>	<b>8,340</b>	<b>168,347</b>	<b>9,129</b>	<b>871</b>	<b>50,511</b>	<b>108,103</b>	<b>65,447</b>	<b>285,553</b>	<b>631</b>	<b>10,484</b>	<b>749,991</b>
<b>% Total</b>	<b>3.3%</b>	<b>2.3%</b>	<b>1.1%</b>	<b>22.4%</b>	<b>1.2%</b>	<b>0.1%</b>	<b>6.7%</b>	<b>14.4%</b>	<b>8.7%</b>	<b>38.1%</b>	<b>0.1%</b>	<b>1.4%</b>	

Injuries defined using the APHC Injury Taxonomy; Acute traumatic (Trauma) and cumulative micro-traumatic (Overuse) injuries  
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# Major Diagnosis Groups Resulting in Hospitalizations U.S. Army Active Duty, 2017



Total number of hospitalizations = 28,111

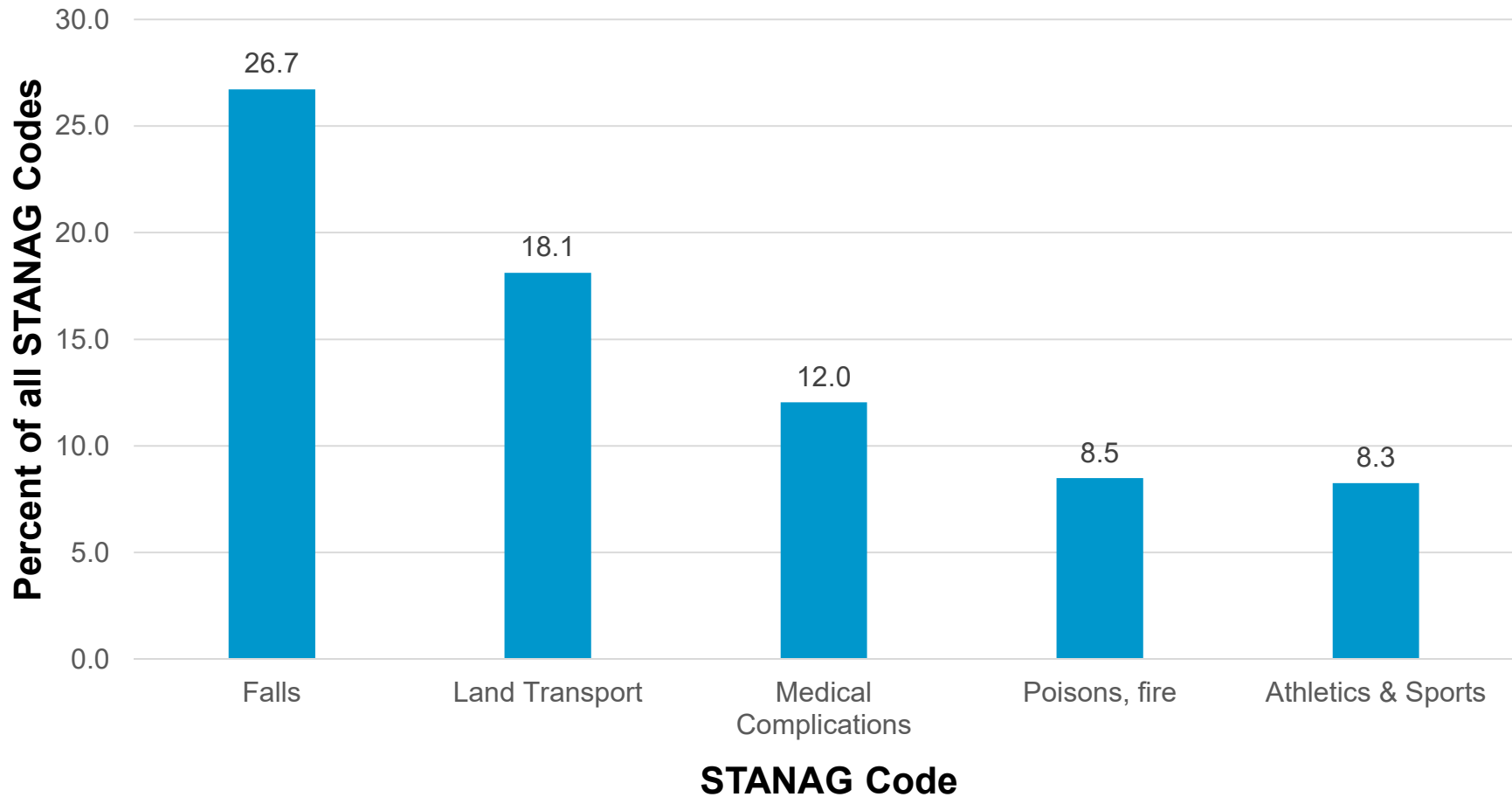
Diagnosis group "Other" includes adverse effects of drugs, blood disorders, and other neoplasms (not cancer)

Data source: Defense Medical Surveillance System (DMSS); injuries defined using the APHC Taxonomy of Injuries

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# Leading Standardized Agreement (STANAG) Cause Codes for Injury Hospitalizations U.S. Army Active Duty, 2017



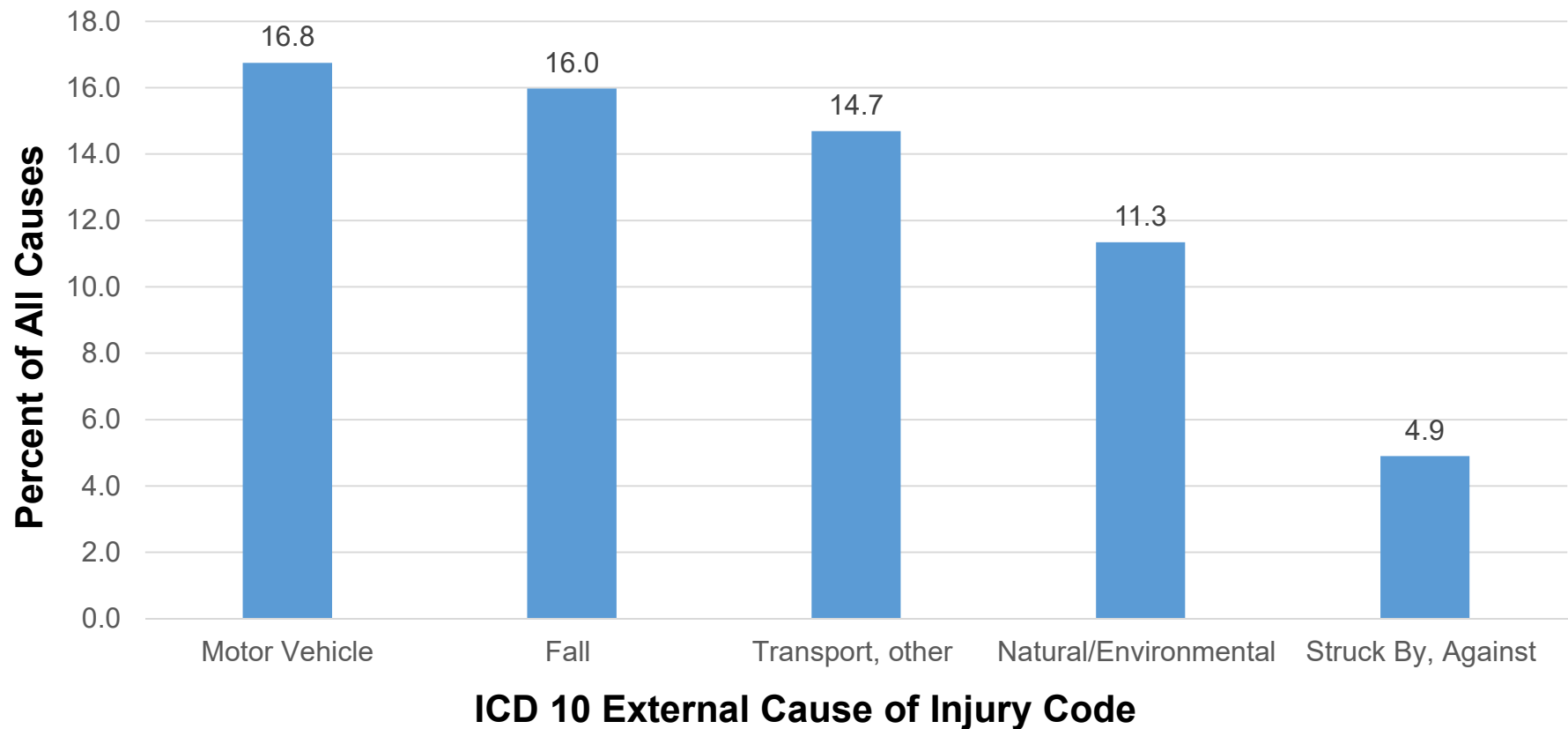
Total number of STANAG-coded injury hospitalizations = 872; may not be representative of the distribution of causes for all injuries

Data source: Defense Medical Surveillance System (DMSS); injuries defined using the APHC Taxonomy of Injuries

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# Leading External Causes of Unintentional Hospitalizations U.S. Army Active Duty, 2017



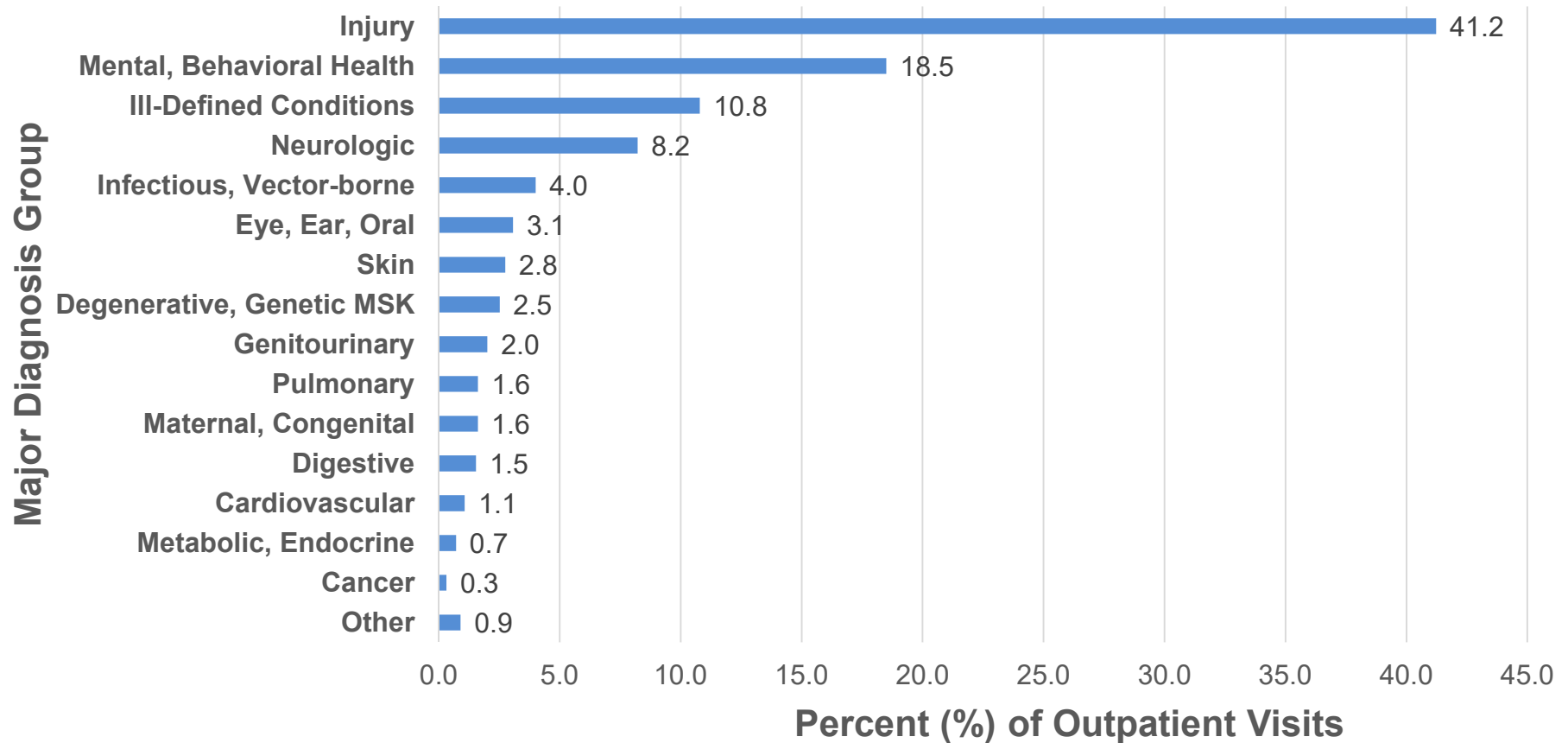
Total number of cause-coded unintentional injury hospitalizations = 388; may not be representative of the distribution of causes for all injuries

Data source: Defense Medical Surveillance System (DMSS); injuries defined using the APHC Taxonomy of Injuries

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# Major Diagnosis Groups Resulting in Outpatient Visits U.S. Army Active Duty, 2017



Total number of outpatient visits = 5,471,286

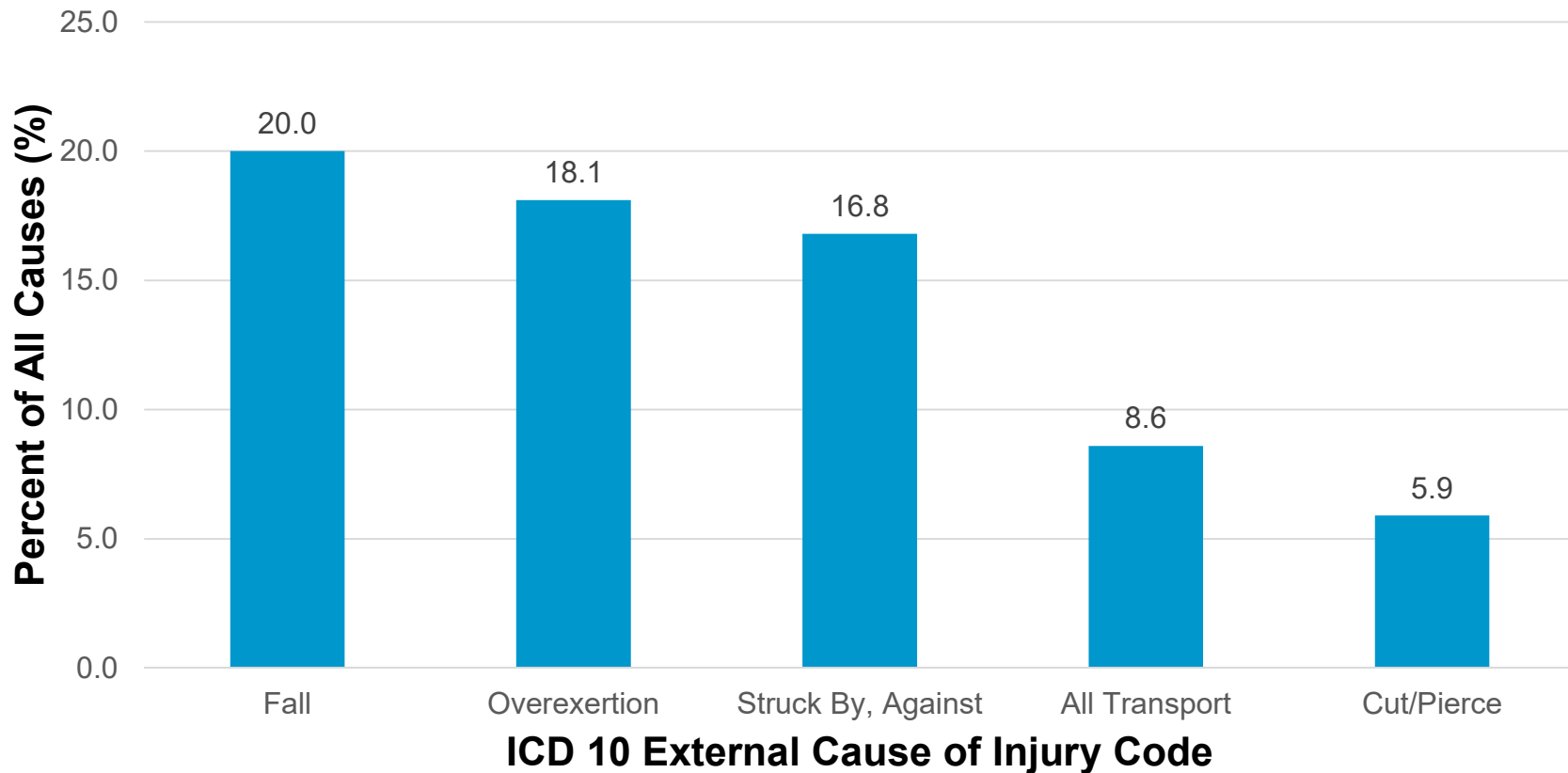
Diagnosis group "Other" includes adverse effects of drugs, blood disorders, and other neoplasms (not cancer)

Data source: Defense Medical Surveillance System (DMSS); injuries defined using the APHC Taxonomy of Injuries

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# Leading External Causes of Unintentional Injury Outpatient Visits U.S. Army Active Duty, 2017



Total number of cause-coded unintentional outpatient visits = 65,581; may not be representative of the distribution of causes for all injuries

Data source: Defense Medical Surveillance System (DMSS); injuries defined using the APHC Taxonomy of Injuries

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# Points of Contact



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