

VETERANS HEALTH ADMINISTRATION

Cooperative Studies Program #505: Millennium Cohort Study

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VA Role in the Millennium Cohort Study

- The study was designed with the plan to follow-up participants using VA health care data after separation from the military
 - VA can provide objectively measured health outcomes and other information in addition to survey self-report
- Original IRB application included the plan to share data. This was approved.

Data Sharing Agreement



Approval was received from both DoD and VA in late 2018



Bilateral Millennium Cohort participant data sharing between these two agencies



Identifiers sent securely from NHRC to VA Puget Sound for matching



Millennium Cohort participant identifiers matched to VA care facility encounters nationally



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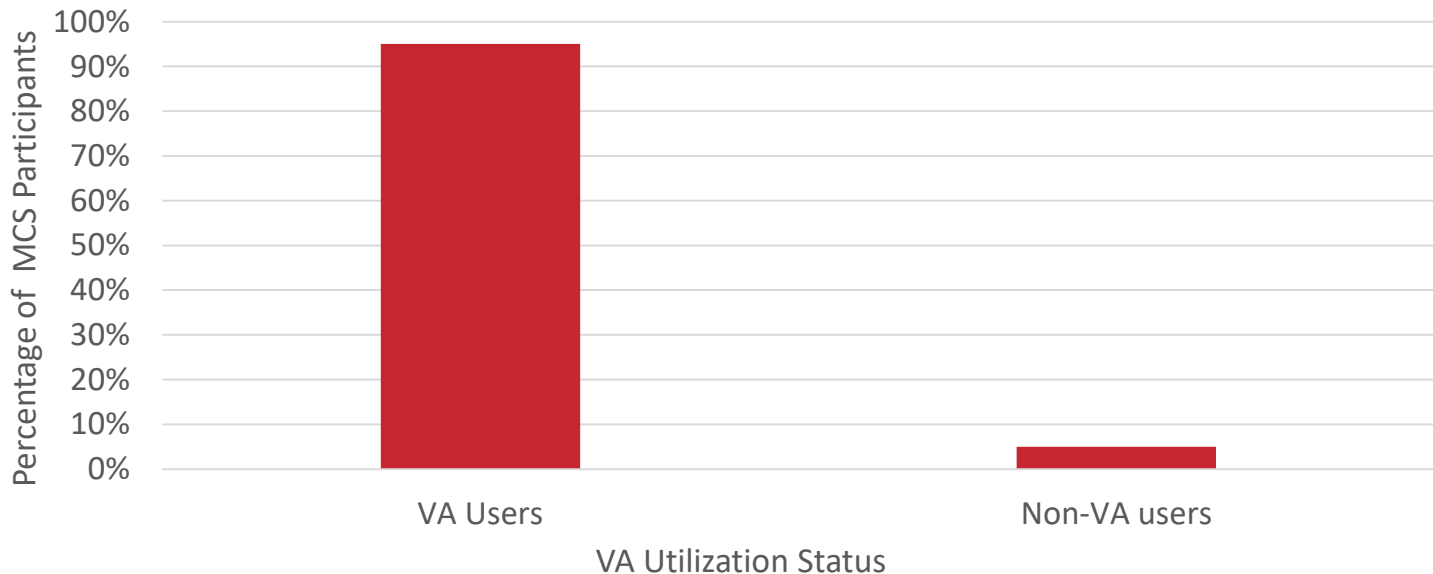
Millennium Cohort participant identifiers matched to VA care facility encounters nationally



Capturing VA Utilization

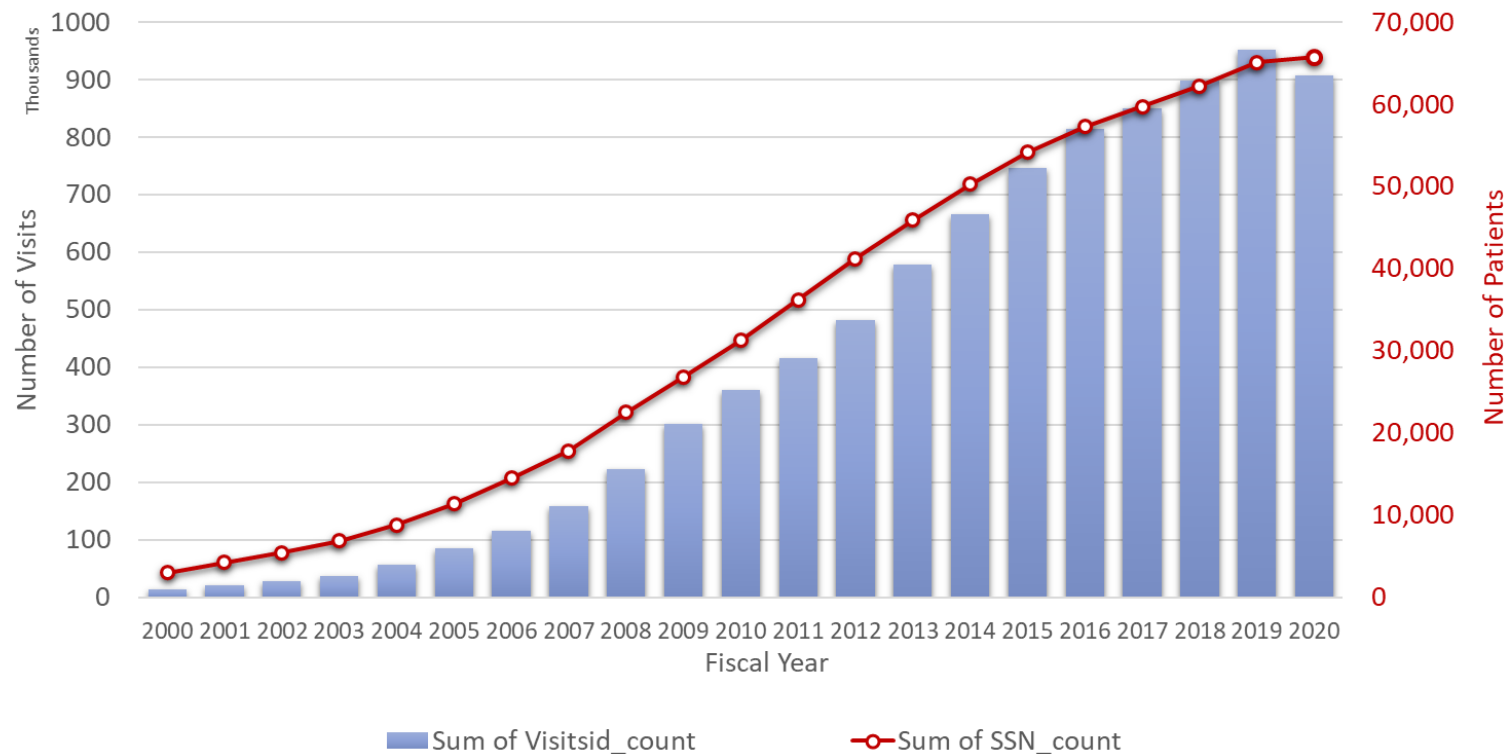
- Of the 147,190 Millennium Cohort Study participants who have separated from military service, approximately 92% (135,781) have registered in a VA facility

Percentage of MCS Participants Utilizing VA Care



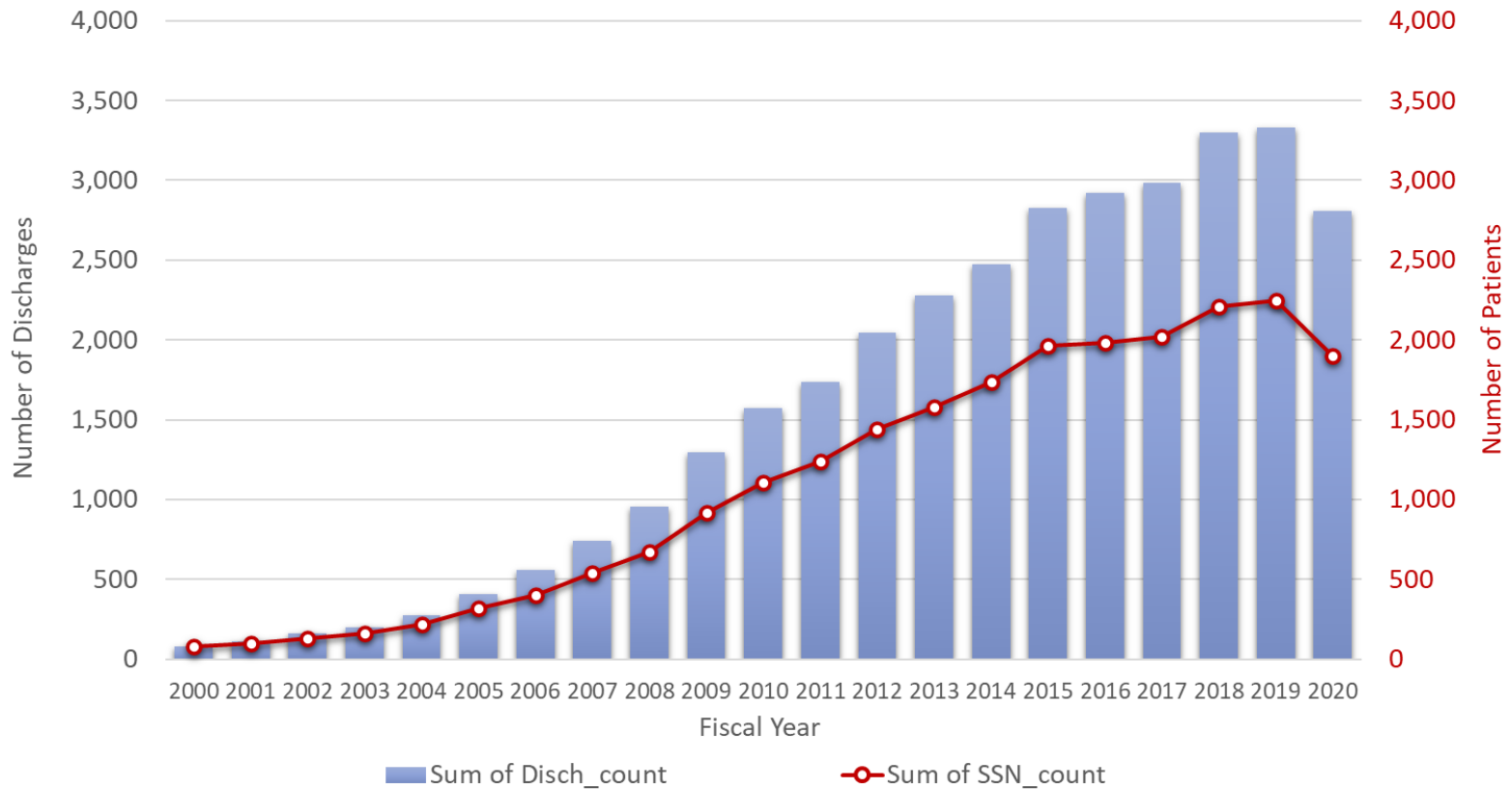
Millennium Cohort Study - VA Outpatient Encounters

MILCO Cohort Outpatient Utilizations
Count of Encounter and Patient



Millennium Cohort Study -VA Inpatient Discharges

**MILCO Cohort Inpatient Utilizations
Count of Encounter and Patient**



How Often Do Millennium Cohort Participants Newly Enroll in VA?

- New VHA enrollment, March 2020 to March 2021
 - N = 2,639
- 51 per week

Medical Encounter Data

- Military Health System Data Repository (MDR)
 - Active duty service members and activated reservists
 - Inpatient and outpatient ICD-9, ICD-10, CPT codes, etc.
 - All care paid for by TRICARE, both at military treatment and private facilities
- Veterans Health Administration
 - Data Use Agreement established in 2018



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Agreement Between Self-Reported Respiratory Conditions and VA and DoD Medical Records

	Self Report (%)	VA Records (%)	Positive Agreement	Negative Agreement
Asthma	10,844 (9.3)	9,890 (8.5)	47.90%	94.90%
Chronic bronchitis	7,442 (6.4)	4,753 (4.1)	16.10%	95.40%
Emphysema	1,112 (1.0)	3,508 (3.0)	13.10%	98.20%
Sinusitis	23,333 (20.1)	15,412 (13.3)	30.20%	86.00%



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	VA and DoD Records (%)			
Asthma		16,295 (14.0)	50.20%	93.40%
Chronic bronchitis		21,022 (18.1)	22.70%	89.20%
Emphysema		5,777 (5.0)	12.30%	97.30%
Sinusitis		47,672 (41.0)	44.10%	75.40%

Airborne Hazards Open Burn Pit Registry (AHOBPR) – Millennium Cohort Study Linkage

- Performed February 2020
- AHOBPR finder file, n(rows)=193,993
- Valid unique SSN =193,962, (excludes 2 duplicate SSNs and 29 missing SSNs from the finder file)

Millennium Cohort Study VA user	Social security number match	SSN, last name, first name, and date of birth match
Yes	10,042	6,690
No	2,485	1,503
Totals	12,527	8,193



Mortality Data Sources

- Cause-specific deaths
 - National Death Index
 - Current and former service members
 - Source: Defense Suicide Prevention Office
 - Armed Forces Medical Examiner System
 - Active duty and activated Reserve/National Guard
 - Includes deaths occurring OCONUS
 - Source: Armed Forces Health Surveillance Board
- Vital Status
 - Social Security Administration Death Master File
 - Veterans Affairs Death Files



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What VA-DoD Data Sharing Will Accomplish

- VA data will be matched to Millennium Cohort Study participants including information on:
 - Service-connected conditions
 - Pharmacy prescription fills
 - Laboratory results
 - Other diagnostic and illness severity information
- Sharing will enable much better assessment of these outcomes in relation to military service



Impact of DoD/VA Data Sharing

- Improve ability to validate survey information obtained from Millennium Cohort Study using objective VA data
- Expand the types of health outcomes we can identify in relation to military service beyond what is available in the Millennium Cohort survey that is conducted every 3-5 years
- Enhance the ability of Millennium Cohort Study to assess long-term health effects of military service



Future Plans and Possibilities

- Millennium Cohort is planned to continue until 2068 – no end state in the foreseeable future
- Biomarkers
 - MVP
 - Shield (for COVID)
- Remote collection (Saliva, TASSO system)
- Linkage with cancer registries
- Consider collaborations with other research under planning or development



**THANK YOU FOR YOUR
ATTENTION!**



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