

# **Analysis of VA Health Care Utilization Among US Global War on Terrorism (GWOT) Veterans**

***Operation Enduring Freedom  
Operation Iraqi Freedom***

**VHA Office of Public Health and Environmental Hazards  
January 2009**

# ***Current DoD Roster of Recent War Veterans***

- **Evolving roster development by DoD Defense Manpower Data Center (DMDC)**
  - In September 2003, DMDC developed an initial file of “separated” troops who had been deployed to the Iraqi and Afghan theater of operations using proxy files: Active Duty and Reserve Pay files, Combat Zone Tax Exclusion, and Imminent Danger Pay data.
  - In September 2004, DMDC revised procedures for creating periodic updates of the roster and now mainly utilizes direct reports from service branches of previously deployed OEF (Operation Enduring Freedom) and OIF (Operation Iraqi Freedom) troops.
  - DMDC is actively addressing the limitations of the current roster to improve the accuracy and completeness of future rosters.

# ***Current DoD Roster of Recent War Veterans***

- **Latest update of roster**
  - Provided to Dr. Kang, Veterans Health Administration (VHA) Environmental Epidemiology Service, on October 1, 2008
- **Qualifications of DoD's OEF/OIF deployment roster**
  - Contains list of veterans who have left active duty and does not include currently serving active duty personnel
  - Does not distinguish OEF from OIF veterans
  - Roster only includes separated OEF/OIF veterans with out-of-theater dates through August 2008
  - **4,537** veterans who died in-theater are not included

# ***Updated Roster of OEF and OIF Veterans Who Have Left Active Duty***

- **945,423** OEF and OIF veterans who have left active duty and become eligible for VA health care since FY 2002
  - **51% (483,136)** Former Active Duty troops
  - **49% (462,287)** Reserve and National Guard

# *Use of DoD Roster of War Veterans Who Have Left Active Duty*

- This roster is used to check the VA's electronic inpatient and outpatient health records, in which the standard ICD-9 diagnostic codes are used to classify health problems, to determine which OEF/OIF veterans have accessed VA health care as of September 30, 2008.
- The data available for this analysis are mainly administrative information and are not based on a review of each patient record or a confirmation of each diagnosis. However, every clinical evaluation is captured in VHA's computerized patient record. The data used in this analysis are excellent for health care planning purposes because the ICD-9 administrative data accurately reflects the need for health care resources, although these data cannot be considered epidemiologic research data.
- These administrative data have to be interpreted with caution because they **only apply to OEF/OIF veterans who have accessed VHA health care** due to a current health question. These data do not represent all 945,423 OEF/OIF veterans who have become eligible for VA healthcare since FY 2002 or the approximately 1.7 million troops who have served in the two theaters of operation since the beginning of the conflicts in Iraq and Afghanistan.

# *Use of DoD Roster of War Veterans Who Have Left Active Duty (2)*

- Because VA health data are not representative of the veterans who have not accessed VA health care, formal epidemiological studies will be required to answer specific questions about the overall health of recent war veterans.
- Analyses based on this updated roster are not directly comparable to prior reports because the denominator (number of OEF/OIF veterans eligible for VA health care) and numerator (number of veterans enrolling for VA health care) change with each update.
- This report presents data from VHA's health care facilities and does not include Vet Center data or DoD health care data.
- The following health care data are “***cumulative totals***” since FY 2002 and do not represent data from any single year.
- The numbers provided in this report should not be added together or subtracted to provide new data without checking on the accuracy of these statistical manipulations with VHA's Office of Public Health and Environmental Hazards.

# ***VA Health Care Utilization from FY 2002 through 2008 (4<sup>th</sup> Qtr.) Among OEF and OIF Veterans***

- ***Among all 945,423 separated OEF/OIF Veterans***
  - **42% (400,304)** of total separated OEF/OIF veterans have obtained VA health care since FY 2002 (cumulative total)
    - **95% (382,039) of 400,304** evaluated OEF/OIF patients have been seen as outpatients only by VA and not hospitalized
    - **5% (18,265) of 400,304** evaluated OEF/OIF patients have been hospitalized at least once in a VA health care facility

# ***VA Health Care Utilization for FY 2002-2008 (4<sup>th</sup> Qtr.) by Service Component***

- **483,136 Former Active Duty Troops**
  - **43%** (209,099) have sought VA health care since FY 2002 (cumulative total)
- **462,287 Reserve/National Guard Members**
  - **41%** (191,205) have sought VA health care since FY 2002 (cumulative total)

# ***Comparison of VA Health Care Requirements***

The cumulative total of 400,304 OEF/OIF veterans evaluated by VA over approximately 7 years from FY 2002 through FY 2008 (4<sup>th</sup> Qtr.) represents about 7% of the 5.5 million individuals who received VHA health care in any one year (total VHA patient population of 5.5 million in 2007).

# Frequency Distribution of OEF and OIF Veterans According to the VISN Providing the Treatment

| Treatment Site |                                            | <i>OEF-OIF Veterans<br/>Treated at a VA Facility*</i> |     |
|----------------|--------------------------------------------|-------------------------------------------------------|-----|
|                |                                            | Frequency                                             | %   |
| • VISN 1       | VA New England Healthcare System           | 18,423                                                | 4.6 |
| • VISN 2       | VA Healthcare Network Upstate New York     | 10,923                                                | 2.7 |
| • VISN 3       | VA New York/New Jersey Healthcare System   | 14,757                                                | 3.7 |
| • VISN 4       | VA Stars & Stripes Healthcare System       | 19,018                                                | 4.8 |
| • VISN 5       | VA Capital Health Care System              | 11,984                                                | 3.0 |
| • VISN 6       | VA Mid-Atlantic Healthcare System          | 23,804                                                | 5.9 |
| • VISN 7       | VA Atlanta Network                         | 30,445                                                | 7.6 |
| • VISN 8       | VA Sunshine Healthcare Network             | 32,274                                                | 8.1 |
| • VISN 9       | VA Mid-South Healthcare Network            | 23,223                                                | 5.8 |
| • VISN 10      | VA Healthcare System of Ohio               | 11,669                                                | 2.9 |
| • VISN 11      | Veterans in Partnership Healthcare Network | 16,178                                                | 4.0 |
| • VISN 12      | VA Great Lakes Health Care System          | 22,794                                                | 5.7 |
| • VISN 15      | VA Heartland Network                       | 15,463                                                | 3.9 |
| • VISN 16      | South Central VA Health Care Network       | 35,379                                                | 8.8 |
| • VISN 17      | VA Heart of Texas Health Care Network      | 27,461                                                | 6.9 |
| • VISN 18      | VA Southwest Healthcare Network            | 20,990                                                | 5.2 |
| • VISN 19      | VA Rocky Mountain Network                  | 17,389                                                | 4.3 |
| • VISN 20      | VA Northwest Network                       | 22,031                                                | 5.5 |
| • VISN 21      | VA Sierra Pacific Network                  | 18,593                                                | 4.6 |
| • VISN 22      | VA Desert Pacific Healthcare Network       | 33,337                                                | 8.3 |
| • VISN 23      | VA Midwest Health Care Network             | 24,815                                                | 6.2 |

\* Veterans can be treated in multiple VISNs. A veteran was counted only once in any single VISN but can be counted in multiple VISN categories. The total number of OEF-OIF veterans who received treatment (n = 400,304) was used to calculate the percentage treated in any one VISN.

Cumulative thru 4th Quarter FY2008

# Demographic Characteristics of OEF and OIF Veterans Utilizing VA Health Care

**% OEF/OIF Veterans**

(n = 400,304)

|                  |               |      |
|------------------|---------------|------|
| <b>Sex</b>       |               |      |
|                  | Male          | 88 % |
|                  | Female        | 12   |
| <b>Age Group</b> |               |      |
|                  | <20           | 8    |
|                  | 20-29         | 50   |
|                  | 30-39         | 22   |
|                  | ≥40           | 20   |
| <b>Branch *</b>  |               |      |
|                  | Air Force     | 12   |
|                  | Army          | 64   |
|                  | Marine        | 13   |
|                  | Navy          | 12   |
| <b>Unit Type</b> |               |      |
|                  | Active        | 52   |
|                  | Reserve/Guard | 48   |
| <b>Rank</b>      |               |      |
|                  | Enlisted      | 92   |
|                  | Officer       | 8    |

- Due to the effects of rounding, the total percentage is greater than 100 percent.

# *Diagnostic Data*

- Veterans of recent military conflicts have presented to VHA with a wide range of possible medical and psychological conditions.
- Health problems have encompassed more than 8,000 discrete ICD-9 diagnostic codes.
- The three most common possible health problems of war veterans were musculoskeletal ailments (principally joint and back disorders), mental disorders, and “Symptoms, Signs and Ill-Defined Conditions.”
- As in other outpatient populations, the ICD-9 diagnostic category, “Symptoms, Signs and Ill-Defined Conditions,” was commonly reported. It is important to understand that this is not a diagnosis of a mystery syndrome or unusual illness. This ICD-9 code includes symptoms and clinical findings that are not coded elsewhere in the ICD-9. It is a diverse, catch-all category that is commonly used for the diagnosis of outpatient populations. It encompasses more than 160 sub-categories and primarily consists of common symptoms that do not have an immediately obvious cause during a clinic visit or isolated laboratory test abnormalities that do not point to a particular disease process and may be transient.

# *Frequency of Possible Diagnoses Among OEF and OIF Veterans*

| <b>Diagnosis<br/>(Broad ICD-9 Categories)</b>                  | (n = 400,304)<br><b>Frequency *</b> | <b>%</b> |
|----------------------------------------------------------------|-------------------------------------|----------|
| Infectious and Parasitic Diseases (001-139)                    | 49,272                              | 12.3     |
| Malignant Neoplasms (140-208)                                  | 3,988                               | 1.0      |
| Benign Neoplasms (210-239)                                     | 17,274                              | 4.3      |
| Diseases of Endocrine/Nutritional/ Metabolic Systems (240-279) | 93,028                              | 23.2     |
| Diseases of Blood and Blood Forming Organs (280-289)           | 9,677                               | 2.4      |
| Mental Disorders (290-319)                                     | 178,483                             | 44.6     |
| Diseases of Nervous System/ Sense Organs (320-389)             | 146,611                             | 36.6     |
| Diseases of Circulatory System (390-459)                       | 68,295                              | 17.1     |
| Disease of Respiratory System (460-519)                        | 83,771                              | 20.9     |
| Disease of Digestive System (520-579)                          | 129,656                             | 32.4     |
| Diseases of Genitourinary System (580-629)                     | 44,812                              | 11.2     |
| Diseases of Skin (680-709)                                     | 67,384                              | 16.8     |
| Diseases of Musculoskeletal System/Connective System (710-739) | 197,078                             | 49.2     |
| Symptoms, Signs and Ill Defined Conditions (780-799)           | 167,959                             | 42.0     |
| Injury/Poisonings (800-999)                                    | 92,023                              | 23.0     |

\*These are cumulative data since FY 2002, with data on hospitalizations and outpatient visits as of September 30, 2008; veterans can have multiple diagnoses with each healthcare encounter. A veteran is counted only once in any single diagnostic category but can be counted in multiple categories, so the above numbers add up to greater than 400,304.

# ***Frequency of Possible Mental Disorders Among OEF/OIF Veterans since 2002\****

| <b>Disease Category (ICD 290-319 code)</b>                                 | <b>Total Number of<br/>GWOT Veterans**</b> |
|----------------------------------------------------------------------------|--------------------------------------------|
| PTSD (ICD-9CM 309.81)+                                                     | 92,998                                     |
| Depressive Disorders (311)                                                 | 63,009                                     |
| Neurotic Disorders (300)                                                   | 50,569                                     |
| Affective Psychoses (296)                                                  | 35,937                                     |
| Nondependent Abuse of Drugs (ICD 305)++                                    | 27,246                                     |
| Alcohol Dependence Syndrome (303)                                          | 16,217                                     |
| Special Symptoms, Not Elsewhere Classified (307)                           | 9,755                                      |
| Sexual Deviations and Disorders (302)                                      | 8,696                                      |
| Specific Nonpsychotic Mental Disorder<br>due to Organic Brain Damage (310) | 8,057                                      |
| Drug Dependence (304)                                                      | 7,412                                      |

\* Note – These are cumulative data since FY 2002. ICD diagnoses used in these analyses are obtained from computerized administrative data. Although diagnoses are made by trained healthcare providers, up to one-third of coded diagnoses may not be confirmed when initially coded because the diagnosis is provisional, pending further evaluation.

\*\* A total of 178,483 unique patients received a diagnosis of a possible mental disorder. A veteran may have more than one mental disorder diagnosis and each diagnosis is entered separately in this table; therefore, the total number above will be higher than 178,483.

+ This row of data does not include information on PTSD from VA's Vet Centers or data from veterans not enrolled for VHA health care. Also, this row does not include veterans who did not receive a diagnosis of PTSD (ICD 309.81) but had a diagnosis of adjustment reaction (ICD-9 309).

++ This category currently excludes 48,737 veterans who have a diagnosis of tobacco use disorder (ICD-9CM 305.1) and no other ICD-9CM 305 diagnoses.

# *Summary*

- Recent OEF and OIF veterans are presenting to VA with a wide range of possible medical and psychological conditions.
- Recommendations cannot be provided for particular testing or evaluation – veterans should be assessed individually to identify all outstanding health problems.
- **42%** of separated OEF/OIF veterans have sought VA health care since 2002 compared to **41%** in the last quarterly report three months ago. As in other cohorts of military veterans, the percentage of OEF/OIF veterans receiving health care from the VA and the percentage with any type of diagnosis will tend to increase over time as these veterans continue to enroll for VA health care and to develop new health problems.

# *Summary (2)*

- Because the 400,304 OEF and OIF veterans who have accessed VA health care were not randomly selected and represent just 24% of the approximately 1.7 million OEF/OIF veterans, they do not constitute a representative sample of all OEF/OIF veterans.
- Reported diagnostic data are only applicable to the 400,304 VA patients – a population actively seeking health care -- and not to all OEF/OIF veterans.

For example, the fact that about 45% of VHA patient encounters were coded as related to a possible mental disorder does not indicate that approximately 2/5 of all recent war veterans are suffering from a mental health problem. Only well-designed epidemiological studies can evaluate the overall health of OEF/OIF war veterans.

# ***Summary (3)***

- High rates of VA health care utilization by recent OEF/OIF veterans may be influenced by combat veterans' enhanced access to VA health care enrollment (recently extended from 2 years to 5 years post discharge) and exemption from copay charges for any health problem possibly related to their military service.
- Also, an extensive outreach effort has been developed by VA to inform these veterans of their benefits, including the mailing of a personal letter from the VA Secretary to war veterans identified by DoD when they separate from active duty and become eligible for VA benefits.
- When a combat veteran's enhanced health care eligibility expires, the veteran will be moved to their correct priority group and charged all co-payments as applicable. If their financial circumstances place them in Priority Group 8, their enrollment in VA will be continued, regardless of the date of their original VA application.

# *Follow-Up*

- VA will continue to monitor the health care utilization of recent Global War on Terrorism veterans using updated deployment rosters provided by DoD to ensure that VA tailors its health care and disability programs to meet the needs of this newest generation of OEF/OIF war veterans.