Homeless **Incidence and Risk Factors for Becoming Homeless in Veterans**


Lin Clegg, Ph.D., M.S  
Lin.Clegg@VA.gov  
John Daigh, M.D., CPA  

Office of Inspector General  
U.S. Department of Veterans Affairs (VA)  

October 30, 2012
Outline

• Introduction
  – Background
  – Study objectives

• Methods
  – Study population
  – Identification of homeless Veterans

• Findings
  – Incidence of homelessness after military separation
  – Risk factors for homelessness after military separation
  – Utilization of VA specific homeless programs by homeless Veterans

• Discussions
Introduction

• On November 3, 2009, Secretary Shinseki announced a 5-year VA plan to end homelessness among veterans
  – Primary prevention of homelessness is an integral strategy of eliminating homelessness in veterans
  – The most challenging aspect of prevention efforts is to identify high-risk populations for outreach

• Objectives are to:
  – Estimate the incidence of veterans becoming homeless after military separation,
  – Identify risk factors associated with veterans becoming homeless after military separation, and
  – Describe the patterns and extent of the utilization VA specific homeless services by homeless veterans
Methods

• Retrospective longitudinal cohort study of the veteran population included in the LC database

• The population-based LC database identifies and captures every service member (~500,000) who separated from active military service during 7/1/05–9/30/06
  – Integrated details over 100 data files from DoD and VA sources from 10/1/2001 forward
  – Continued longitudinal follow-up
Figure 1. LC Database: ALLID + 18 Master Files

VADS: Veterans Assistance Discharge System
BIRLS: Beneficiary Identification Record Locator Subsystem
VADIR: VA/DOD Identity Repository
PEB: Physical Evaluation Board
WIPP: Work-In-Progress Processing
NED: National Enrollment Database
Methods (Continued)

• We defined **homeless veterans** as veterans who
  – Used specialized VA homeless program services,
  – Had a completed VA healthcare for homeless veterans intake assessment (VA Form X), and/or
  – Received a V60.0 ICD-9 diagnostic code (indicating lack of housing) at VA or DoD

• Our **study population** includes only those 310,685 veterans aged 17–64 in the LC database who
  – Used VA or DoD care **after** separation from the military
  – had **not** experienced any homeless episodes **before** separation

• We followed their experience encountering their **first** homeless episode (becoming homeless) from the time they left the military through September 30, 2010
Exhibit 1a. Study population, inclusions and exclusions

X – Homeless episode
Maximum follow-up time: from military discharge to 9/30/2010
Time to being homeless: from military discharge to first homeless episode
### Exhibit 1b. Study population, inclusions and exclusions

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LC Database population</strong></td>
<td>491,800</td>
</tr>
<tr>
<td><strong>Exclusions (Total)</strong></td>
<td>181,115</td>
</tr>
<tr>
<td>Veterans who did not use VA or DoD care after military separation</td>
<td>180,748</td>
</tr>
<tr>
<td>Homeless episode prior to military separation</td>
<td>320</td>
</tr>
<tr>
<td>Age is missing</td>
<td>2</td>
</tr>
<tr>
<td>Age is less than 17</td>
<td>1</td>
</tr>
<tr>
<td>Age is greater than 64</td>
<td>44</td>
</tr>
<tr>
<td><strong>Study population</strong></td>
<td>310,685</td>
</tr>
</tbody>
</table>
Findings
At 5 years of separation from the military, 3.7% the veterans in the study population experienced an initial episode of homelessness (the newly homeless). OEF/OIF and women veterans experienced higher incidences of homelessness than their non-OEF/OIF and male counterparts. The 5-year homeless incidence rates ranged from 3.2% for non-OEF/OIF men to 4.0% for OEF/OIF women veterans. OEF/OIF veterans experienced slight higher homeless incidences than non-OEF/OIF veterans at each year of the first 5 years after discharge.
Among the veterans who became homeless, the median times to the first episode of homelessness were close to 3 years, indicating half of new homeless episodes occurred 3 years after discharge from active duty. This suggests a window of opportunity for preventing veterans from becoming homeless after discharge from active duty. The median times varied from 34 months for OEF/OIF men to 38 months for non-OEF/OIF women. OEF/OIF homeless veterans encountered their first homeless episode slightly sooner than their non-OEF/OIF counterparts after discharge from active duty.
Exhibit 4. At the time of separation (baseline) from active duty, veterans who became homeless after military separation were younger and enlisted with lower pay grades.

<table>
<thead>
<tr>
<th></th>
<th>Homeless Veterans (5,574)</th>
<th>Domiciled Veterans (305,111)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not OEF/OIF</td>
<td>OEF/OIF</td>
</tr>
<tr>
<td>Age at separation (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean</td>
<td>27.1</td>
<td>27.7</td>
</tr>
<tr>
<td>median</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Age categories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17–24</td>
<td>48.5</td>
<td>49.1</td>
</tr>
<tr>
<td>25–34</td>
<td>35.5</td>
<td>30.3</td>
</tr>
<tr>
<td>35–44</td>
<td>11.2</td>
<td>15.3</td>
</tr>
<tr>
<td>45–54</td>
<td>4.6</td>
<td>4.7</td>
</tr>
<tr>
<td>55–64</td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Branch (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Army</td>
<td>49.8</td>
<td>58.7</td>
</tr>
<tr>
<td>Navy</td>
<td>27.4</td>
<td>19.0</td>
</tr>
<tr>
<td>Air Force</td>
<td>17.3</td>
<td>9.5</td>
</tr>
<tr>
<td>Marines</td>
<td>4.0</td>
<td>10.3</td>
</tr>
<tr>
<td>other</td>
<td>1.5</td>
<td>2.6</td>
</tr>
<tr>
<td>Character of service (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honorable/General</td>
<td>90.1</td>
<td>86.6</td>
</tr>
<tr>
<td>Other than Honorable</td>
<td>1.8</td>
<td>5.1</td>
</tr>
<tr>
<td>BC/Dishonorable</td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Uncharacterized/missing</td>
<td>7.9</td>
<td>7.8</td>
</tr>
<tr>
<td>Military pay grade (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E1–E4</td>
<td>73.7</td>
<td>77.7</td>
</tr>
<tr>
<td>E5–E9</td>
<td>22.4</td>
<td>19.0</td>
</tr>
<tr>
<td>O1–O3</td>
<td>2.2</td>
<td>1.7</td>
</tr>
<tr>
<td>O4–O10</td>
<td>1.3</td>
<td>0.9</td>
</tr>
<tr>
<td>other</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Military component (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td>90.8</td>
<td>87.9</td>
</tr>
<tr>
<td>Reserve/Guard</td>
<td>9.2</td>
<td>12.1</td>
</tr>
</tbody>
</table>
Exhibit 5. Veterans who became homeless after military separation were more likely to be diagnosed with mental disorders (ICD-9-CM: 290.0--319.0) and/or traumatic brain injury (TBI) prior to separation from active duty.
Mental disorders included substance-related disorders and all mental illness

- We included in the study the following 6 specific mental illness categories for separate examination:
  - Anxiety disorders
    - Anxiety disorders excluding post-traumatic stress disorder (PTSD) (ICD-9-CM: 300.00, 300.01, 300.02, 300.21, 300.22, 300.23, 300.29, 300.3, 308.3)
    - PTSD (ICD-9-CM: 309.81)
  - Adjustment disorders (ICD-9-CM: 309.0, 309.24, 309.28, 309.3, 309.4, 309.9)
  - Major depression (ICD-9-CM: 296.2, 296.3)
  - Mood disorders (ICD-9-CM: 296.0, 296.2–296.7, 296.80, 296.89, 296.90, 300.4, 301.13, 311)
  - Personality disorders (ICD-9-CM: 301.0, 301.2, 301.4, 301.50, 301.6, 301.7, 301.81–301.84, 301.89, 301.9), and
  - Psychotic disorders (ICD-9-CM: 295.1–295.4, 295.6, 295.7, 295.9, 297.1, 297.3, 298.8, 298.9)
- Substance-related disorders (ICD-9-CM: 291, 292 (except 292.2), 303–305 (except 305.1 and 305.8)
  - Alcohol-related disorders (ICD-9-CM: 291, 303, 305.0)
  - Drug-related disorders (ICD-9-CM: 292 (except 292.2), 304, 305.2–305.7, 305.9)
Exhibit 13. Presence of mental disorders (substance-related disorders and/or mental illness) is the strongest predictor of becoming homeless after discharge from active duty.

Consistently, a much higher percent of the newly homeless veterans are diagnosed over time (Prior to Military Separation, before Becoming Homeless, as of 9/30/2010) than their domiciled counterparts in each of the four separate subpopulations defined by OEF/OIF status and gender. Thus, it may be beneficial for VA homelessness primary prevention efforts to focus on the treatment of veterans with mental disorders as well as on their housing risk.
Exhibit 14. Veterans Diagnosed with Anxiety, PTSD, and Adjustment Disorders Over Time (Prior to Military Separation, before Becoming Homeless, as of 9/30/2010) by Homeless Status, OEF/OIF Status, and Gender
Exhibit 15. Veterans Diagnosed with Mood, Personality, and Psychotic Disorders Over Time (Prior to Military Separation, before Becoming Homeless, as of 9/30/2010) by Homeless Status, OEF/OIF Status, and Gender
Exhibit 16. Veterans Diagnosed with Substance-Related Disorders Over Time (Prior to Military Separation, before Becoming Homeless, as of 9/30/2010) by Homeless Status, OEF/OIF Status, and Gender
The percentages of mental disorder diagnoses among newly homeless OEF/OIF veterans are higher than those of their non-OEF/OIF counterparts over time.

- Although the percent of OEF/OIF veterans diagnosed with mental disorders and specific categories (except for PTSD) of mental illness before discharge from active duty are generally lower than their non-OEF/OIF counterparts.
- This signifies that the impact of serving in OEF/OIF on becoming homeless is partly manifested as the intermediate outcomes of mental disorders.
- Thus, our study implies that enhanced access to effective mental health services and substance use treatment may facilitate a reduction in occurrences of newly homeless veterans and should remain a focus of primary prevention efforts.
Homeless veterans, especially women, had received disproportionately higher military sexual trauma (MST)-related treatment than domiciled veterans as of 9/30/2010.

At the end of the study, the percentages of homeless veterans who had received MST-related treatment were over 3 times higher than those of their domiciled counterparts.
Exhibit 22. Majority of the newly homeless women veterans who received MST-related treatment had received the treatment prior to they became homeless.

This reveals that MST is a risk factor in veterans for becoming homeless, especially in women veterans.
Exhibit 23. Homeless veterans were more likely to receive compensation for service-connected disabilities (as of September 30, 2010)

Over half (51–62%) of the homeless veterans were receiving VA compensation for their service-connected disabilities at the end of the study, higher than their domiciled counterparts (35–40%)
Exhibit 25. Majority (83–95%) of the homeless veterans who were receiving VA compensation at the end of the study (9/30/2010) were receiving the compensation prior to their first episode of homelessness.
The findings are new, and they are surprising in that a higher (46–59) percent of the homeless veterans than their domiciled (35–40 percent) counterparts (at the end of the study) had access to some stable and seemingly moderate funds before their first homeless episode to prevent becoming homeless. More studies are called for to investigate the relationship between service-connected disability payments and their impact on homelessness.
Exhibit 26. Utilization of VA homeless programs by homeless veterans

Approximately 65% of homeless veterans utilized the VA’s Health Care for Homeless Veterans (HCHV)/Homeless Chronically Mentally Ill (HCMI) Program. OEF/OIF and women homeless veterans were more likely to utilize the Department of Housing and Urban Development-VA Supportive Housing (HUD-VASH) Program.
Discussions

• By incorporating DoD treatment data with VA data, for the first time, we are able to identify veterans who did not experience any homeless episodes before discharge from active duty to
  – study the occurrence rate of the newly homeless and
  – investigate the effect of mental disorders and TBI diagnoses during military service on becoming homeless

• We innovatively looked at risk factors at the time of becoming homeless for the homeless veterans, in addition to the two points in time—at discharge from active duty (baseline) and at the end of the study
  – This provides us broader insights on the pathways of the risk factors and their effect on veteran homelessness
Discussions (Continued)

• The **longitudinal** cohort nature of our study eliminates the limitations of most studies that employ a cross-sectional design
  – In cross-sectional studies, participants were assessed for homelessness and risk factors simultaneously at a particular time period
    • We cannot **distinguish** the newly homeless from the chronically homeless
    • We cannot **determine** causality or temporal sequence of risk factors and homelessness
    • It thus remains unclear whether the newly homeless and chronically homeless share the same risk factors and whether, say, a diagnosis of substance-related disorders and/or mental illness preceded homelessness, or whether substance-related disorders and/or mental illness are the result of adaptations to the stresses and dangers associated with the homeless experience
  – Our longitudinal cohort study allows us to exclusively investigate risk factors over time to better understand their pathways and effects on veteran homelessness
    • We clearly demonstrate that the presence of a diagnosis of substance-related disorders and/or mental illness is a **predictor** of becoming homeless in veterans
Acknowledgments

• VAOIG report (May 4, 2012):
  Homeless Incidence and Risk Factors for Becoming Homeless in Veterans, May 4, 2012
• Lin Clegg, Ph.D., Director
• Nathan McClafferty, MS
• Patrick Smith, MS
• Jarvis Yu, MS
• Karen McGoff-Yost, MSW, LCSW
• Elizabeth Bullock

• Special Acknowledgement:
  The National Center for Homelessness Among Veterans
  U.S. Department of Veterans Affairs