# Identifying and Addressing Health Disparities in the Low-Income Workforce within the Veterans Health Administration

Tamara Schult, MPH; Ebi Awosika, MD, MPH; Sandra Schmunk, MA, MS; Michael Hodgson, MD, MPH

Occupational Health Strategic Healthcare Group, Office of Public Health, Veterans Health Administration, Washington D.C.

## Background and Objectives

- The Department of Veterans Affairs (VA) provides federal benefits for Veterans and their families. The Veterans Health Administration (VHA), the health care arm of VA, is the largest integrated health care delivery system in the U.S.
- In 2008, recognizing the need to improve employee health, VHA funded the development of a worksite health promotion program, including a national wellness survey.
- The objectives of the survey were to:
  1. provide results on the prevalence of health behaviors and chronic health conditions in VHA employees;
  2. highlight disparities that exist between occupations;
  3. identify strategic implications based on key findings and disparities to guide national program development; and
  4. explore whether health behaviors and chronic conditions vary by worksite (VHA location).

## Methods

- National wellness survey of employees (n = 29,834 responses) was administered in 2010 to employees in VHA.
- Age-standardized prevalence estimates for VHA employees were compared to national estimates from the Behavioral Risk Factor Surveillance System (BRFSS) surveys.
- VHA estimates were also analyzed for:
  - Physicians (MDs) and dentists;
  - Physician assistants (PAs) and nurse practitioners (NPs);
  - Registered nurses (RNs);
  - Licensed practical nurses (LPNs) and nursing assistants (NAs);
  - Other clinical staff;
  - Non-clinical staff; and
  - Wage grade (WG) staff who include trade, craft, and labor workers.
- Further subgroups within occupations were defined by ethnicity, race, and gender.
- To incorporate worksite, multilevel logistic regression models were employed with VHA location included as a random effect.
  - Proc glimmix, in SAS 9.2 (SAS Institute Inc., Cary, NC).

| Health Behavior or Chronic Condition | MDs/ Dentists (%) | PAs/NPs (%) | LPNs/NAs (%) | WG Staff (%) | VHA | U.S. Population |
|---|---|---|---|---|---|---|
| Current Smokers | 3.5% | 5.8% | 28.9% | 26.4% | 15.2% | 20.9% |
| Obese | 15.1% | 24.9% | 44.7% | 40.8% | 32.5% | 27.1% |
| Physically Inactive | 16.3% | 20.4% | 33.6% | 31.5% | 25.3% | 22.8% |
| Diabetic | 3.9% | 2.7% | 9.3% | 7.7% | 6.0% | 5.5% |
| Have High Blood Pressure | 19.6% | 19.9% | 26.5% | 27.7% | 22.0% | 21.2% |
| Arthritic | 17.1% | 31.7% | 32.5% | 32.3% | 26.9% | 18.7% |
| Average Base Salary† | $120,856 | $82,220 | $35,542 | $38,520 | | |

†Salary estimates do not include benefits or locality pay adjustments.

## Results

- Overall, VHA employees have higher rates of unhealthy behaviors and chronic health conditions than U.S. adults, except for smoking (15.2% in VHA vs. 20.4% of U.S. adults).
- Within VHA comparisons between the highest income workers (MDs and dentists; PAs and NPs) and the lowest income workers (LPNs and NAs; WG staff) are quite disparate (see table above).

### What Drives Disparities?

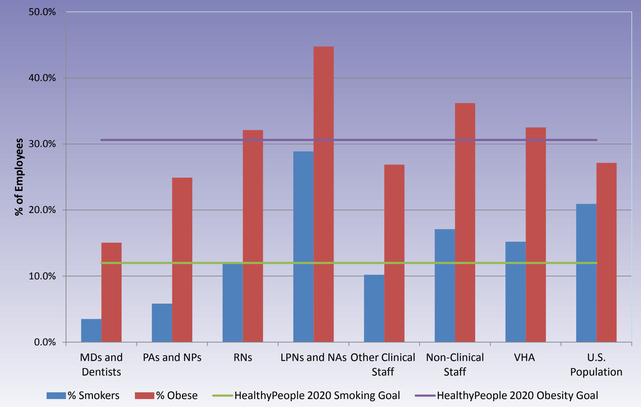
**Occupation Matters.**

**Demographics Matter.**

**Location also Matters.**

- Results from multilevel logistic regression models indicate variability in outcomes by VHA location.
- Median odds ratios for location effects on par or of same order of magnitude as demographics.
- Simple predictors of location effect s suggest urban/rural differences may be important.

**Occupation Matters - Smoking and Obesity by Occupation.**




**Demographics Matter – Provider Health Behaviors and Chronic Conditions by Ethnicity, Gender, & Race.**

| MDs, Dentists, PAs and NPs (Professionally Licensed Providers) | Current Smokers (%) | Obese (%) | Physically Inactive (%) | Diabetic (%) | Have HBP (%) | Arthritic (%) |
|---|---|---|---|---|---|---|
| Hispanic | 7.9%† | 28.8%† | 29.6%† | 4.5% | 24.6% | 22.2% |
| Non-Hispanic | 3.9% | 17.2% | 16.7% | 3.5% | 19.3% | 22.5% |
| Male | 4.7% | 15.8% | 15.3%† | 3.8% | 22.4%† | 18.2%† |
| Female | 3.7% | 20.3% | 19.2% | 3.2% | 18.6% | 25.9% |
| White | 4.5% | 19.2% | 16.5%† | 2.9%† | 19.5%† | 23.9%† |
| Non-White | 4.0% | 15.1% | 22.3% | 7.3% | 23.2% | 17.7% |

†Differences between demographic groups are statistically significant ($p < 0.05$).

## How Do We Address Disparities Moving Forward?

- Disparities between occupation groups support the establishment of targeted health promotion programs within VHA.
- New initiatives with the Office of Nursing Services and Veterans' Canteen Service (VCS) (food service).
- Design of culturally appropriate interventions to address differences by demographics.
- Future research on the effect of VHA location will include more sophisticated measures of organizational culture, job satisfaction, and organizational performance.

EmployeeHealthPromotion Disease Prevention

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