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Prevalence and Correlates of Smoking Status among Patients with Depression in VA Primary Care

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Prevalence and Correlates of Smoking Status among Individuals with Depression in Veterans Affairs Primary Care

Anayansi Lombardero

The University of Montana

April 2013



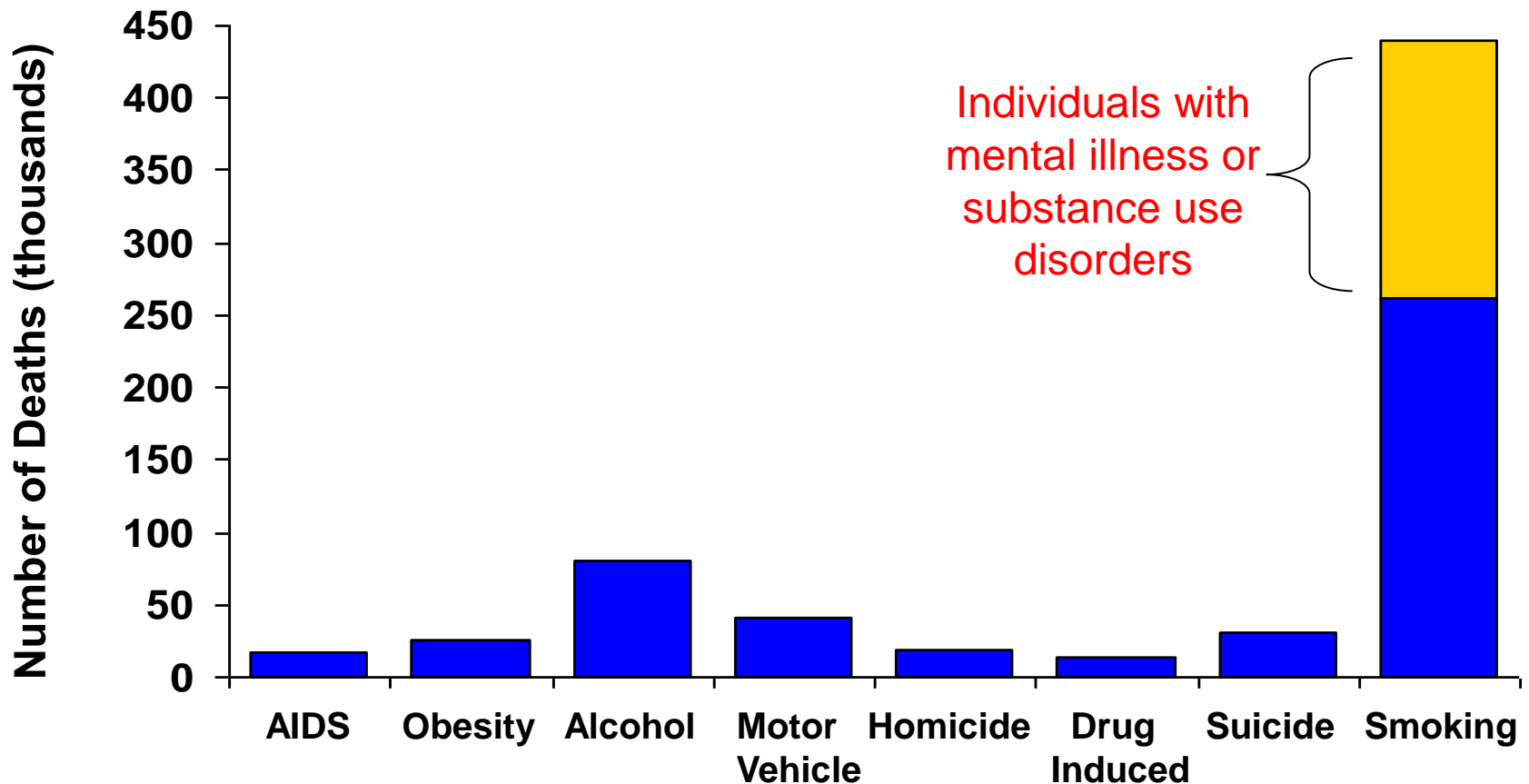
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Overview

- Background: Smoking and mental illness
- Smoking and mental illness among Veterans
- Research Questions: What do they look like?
Are their needs being met?
- Results: Bivariate and multivariate analyses
- Discussion



COMPARATIVE CAUSES of ANNUAL DEATHS in the UNITED STATES



Source: CDC

- **Prevalence of smoking among US military Veterans**
- **Depression and PTSD most common mental health diagnoses among Veterans²**
- **Chronic mental illness and smoking → Morbidity and mortality³**
- **Smoking cessation in VA**

Study Aims

- 1. To determine the prevalence of smoking among Veterans with major depression in primary care**
- 2. To identify demographic, psychiatric, psychosocial, and health care use correlates of smoking status**

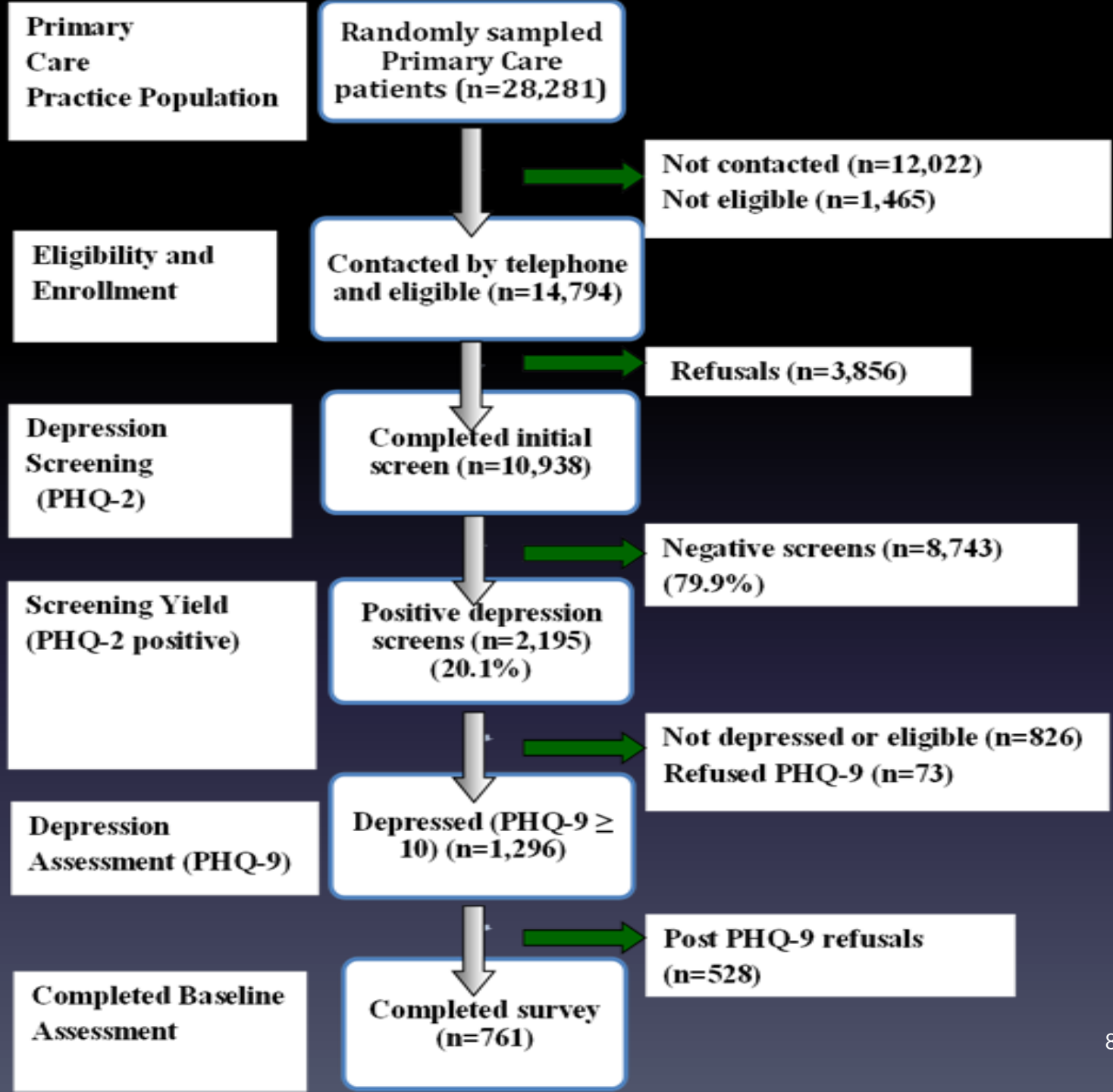
Hypotheses

Depressed smokers will differ from depressed nonsmokers:

- **Higher degrees of psychiatric illness**
- **Different patterns of health care use**

Methods

- **Data Analysis of longitudinal study -- Well-Being Among Veterans Enhancement Study (WAVES), a site randomized test of depression collaborative care.**



Measures

Smoking and Demographics

- **Cigarette Smoking**: (2 items) a. 100 cigarettes smoked in a lifetime and b. Current smoking status.
- **Demographic characteristics**: Gender, age, ethnicity, level of education, relationship status, and current employment status.

Mental Health

- *Depressive symptomatology*: PHQ-9⁴
- *Alcohol consumption*: AUDIT-C⁵
- *Posttraumatic Stress Disorder*: PC-PTSD⁶
- *Suicidality*: A single item from the PHQ-9

Psychosocial

Social support: Eight items from the Medical Outcomes Study Social Support Scale.⁷

Health and Health Care Utilization

- **Self-reported health care utilization:** Participants reported the frequency of medical care for physical and emotional problems used in the previous six months.
- ***Amenability to depression treatment:***
 - Currently in need of depression treatment?
 - Accept a diagnosis of depression?
 - Accept depression treatment?

Results

Participant Demographics

- Mean age = 60 (SD=12). 94% were male, 85.3% Caucasian, 49.4% had less than a high school education, and 60.1% were married.

Smoking Rates

- 39.8% reported current smoking, and 81.6% reported lifetime smoking (≥ 100 cigarettes). Only 7 (.95) smokers had quit at 6 months, and 16 (2.1%) had quit at 18 months.

Results

- Bivariate Comparisons
 - Demographics
 - Psychiatric and psychosocial measures
 - Health utilization patterns
- Multivariate Analysis
 - Variables of statistical and theoretical significance

Bivariate Analyses

Smokers were more likely to be younger ($p < .001$), less likely to be married ($p < .001$), and more likely to be employed ($p = .020$).

Smokers also:

- ❖ Had higher depressive symptomatology ($p = .023$)
- ❖ More likely to screen positive for comorbid PTSD ($p < .001$)
- ❖ More likely to drink heavily ($p < .001$)
- ❖ Less social support ($p < .001$)

Bivariate Analyses (cont.)

Health care utilization patterns for smokers:

- ❖ Higher numbers of hospitalizations for an emotional problem (1.1 vs. 0.4, $p = .05$)
- ❖ More likely to have visited a mental health specialist (51.7% vs. 40.8%, $p = .003$)
- ❖ More likely to have missed a healthcare appointment and to have missed medication doses (38.3% vs. 30.3%, $p = .02$)
- ❖ More amenable to depression treatment (1.95 vs. 2.3, $p < .001$)

Bivariate Analyses (cont.)

- ❖ No significant differences:
 - ❖ Presence of suicidal ideation

Concurrent Prediction of Smoking Status (smoker versus nonsmoker) among Veterans with Depression (n= 761).

Multivariate Analyses

Predictor Variables	Odds Ratio	95% Confidence Interval	P-value
Mental Health/Psychosocial			
Depression Severity	1.01	0.96 – 1.05	.74
Alcohol Misuse	1.20	1.06 – 1.35	.003
PTSD	1.10	0.75 – 1.61	.63
Total Social Support	0.83	0.70 – 0.98	.03
Health care utilization/amenability to treatment			
Visits to any mental health specialist—past 6 months (% yes)	0.82	0.55 – 1.23	.34
Missed an appointment—past 6 months (% yes)	1.17	0.82 – 1.66	.39
Missed doses of meds—past 6 months (%yes)	1.03	0.69 – 1.53	.89
Treatment Amenability (SD)	0.86	0.68 – 1.07	.16
% Veterans with depression who smoke		39.8	

Note: Controls included age, relationship status, and employment status (omitted from the table). LL-UL= Lower Limit-Upper Limit. Data are Weighted for Population and Probability of Enrollment

Discussion & Implications

- High smoking rates and low likelihood of quitting.
Patients' health likely to continue to deteriorate
- More negative psychiatric and psychosocial characteristics
- Higher number of emotional problem hospital admissions, more mental health specialist visits, and higher alcohol consumption

- Intervention efforts in this regard show promise, but:
 - Limited research
 - Integrated tobacco cessation treatment in all three settings
 - Lower cessation rates than general population in some cases⁸

Limitations and Future Directions

- Cross-sectional data, homogeneous sample
- Restriction of range in depression scores
- Smoking measures
- Unique population with unmet needs -- More comprehensive , integrated care in primary care, mental health settings, and substance abuse treatment settings

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QUESTIONS?