

## PREVALENCE, PATIENT-PHYSICIAN COMMUNICATION, TREATMENT, AND HEALTH OUTCOMES OF URINARY INCONTINENCE AMONG THE VULNERABLE ELDERLY IN THE UNITED STATES

### Hypothesis / aims of study

To assess the prevalence, patient-physician communication, treatment, and health outcomes associated with urinary incontinence (UI) among the vulnerable elderly (VE) in the United States.

### Study design, materials and methods

This study used 2006–2012 Medicare Health Outcomes Survey (HOS) data to identify VE patients with and without UI. VE were defined as 65+ years with a HOS VE survey score of 3 or greater. Participants reported their recent experience (in the past 6 months) with UI as a Small, Big, or No problem. Prevalence of UI was reported annually. Physical Component Summary (PCS) and Mental Component Summary (MCS) scores were calculated using the Veterans RAND 12-Item Health Survey. Descriptive statistics were used to assess patient-physician communication and treatment. Logistic regression assessed the association between UI problems and health outcomes; odds ratios (OR) and 95% confidence interval (CI) were computed. Multiple regression analyses were performed to assess the association between UI problems and PCS/MCS scores.

### Results

A total of 829,614 respondents in the HOS were identified as VE from 2006–2012. The annual UI prevalence increased steadily among the VE (35.78% [2006] to 38.60% [2012]), with 26.53% reporting a Small UI problem and 12.06% reporting a Big UI problem in 2012. Patients with a Big UI problem communicated with their physicians more often than those with a Small UI problem (77.87% and 49.62%, respectively), but treatment rates remained low (48.50% and 29.09%, respectively). PCS and MCS scores were reduced with Small or Big UI problem (Table 1). The reductions in PCS and MCS scores associated with Big UI problems were the greatest of all conditions being assessed (Table 1).

Compared with patients with No UI Problem, patients with UI were more likely to report falls (OR=1.82; 95% CI: 1.80, 1.84), depression (OR=1.53; 95% CI: 1.51, 1.55), and activity daily living limitations (OR=1.81; 95% CI: 1.79, 1.83).

### Interpretation of results

The prevalence of UI among the VE steadily increased from 2006 to 2012 although treatment of UI remains low. UI Problem, particularly the Big UI problem negatively impacts health outcomes and status.

### Concluding message

Increased efforts to better identify and manage UI among the vulnerable elderly are needed.

**Table 1. Change in PCS and MCS scores from the absence to the presence of major chronic conditions among VE respondents (N= 829,614)**

Condition (Reference: No UI Problem)	Change in PCS (95% CI)	Change in MCS (95% CI)
Small UI problem	-1.17 (-1.22, -1.12) <sup>†</sup>	-1.89 (-1.95, -1.83) <sup>†</sup>
Big UI problem	-4.47 (-4.53, -4.40) <sup>†</sup>	-5.95 (-6.03, -5.87) <sup>†</sup>
<b>Comorbid Conditions (Reference: No Condition)</b>		
Hypertension	-1.01 (-1.06, -0.96) <sup>†</sup>	0.26 (0.20, 0.32) <sup>†</sup>
Angina pectoris or Coronary artery disease	-0.92 (-0.98, -0.86) <sup>†</sup>	-0.74 (-0.81, -0.66) <sup>†</sup>
Congestive heart failure	-2.48 (-2.55, -2.41) <sup>†</sup>	-1.66 (-1.74, -1.57) <sup>†</sup>
Myocardial Infarction	-0.83 (-0.90, -0.76) <sup>†</sup>	0.02 (-0.06, 0.10)
Other heart conditions	-1.00 (-1.05, -0.95) <sup>†</sup>	-0.25 (-0.31, -0.19) <sup>†</sup>
Stroke	-2.47 (-2.53, -2.41) <sup>†</sup>	-2.20 (-2.27, -2.12) <sup>†</sup>
Emphysema/asthma/COPD	-3.15 (-3.20, -3.10) <sup>†</sup>	-0.97 (-1.03, -0.91) <sup>†</sup>
inflammatory bowel disease	-0.24 (-0.32, -0.15) <sup>†</sup>	-2.99 (-3.09, -2.89) <sup>†</sup>
Arthritis of hip or knee	-3.23 (-3.27, -3.18) <sup>†</sup>	0.19 (0.14, 0.25) <sup>†</sup>
Arthritis of hand or wrist	-1.14 (-1.19, -1.09) <sup>†</sup>	-1.17 (-1.22, -1.11) <sup>†</sup>
Osteoporosis	-1.42 (-1.48, -1.37) <sup>†</sup>	-1.47 (-1.53, -1.41) <sup>†</sup>
Sciatica	-1.93 (-1.98, -1.88) <sup>†</sup>	-1.85 (-1.91, -1.79) <sup>†</sup>
Diabetes	-1.60 (-1.64, -1.55) <sup>†</sup>	-0.68 (-0.73, -0.62) <sup>†</sup>
Cancer (except skin cancer)	-1.08 (-1.14, -1.03) <sup>†</sup>	-0.06 (-0.13, 0.00)

PCS= Physical Component Summary; MCS= Mental Component Summary; UI= Urinary Incontinence; COPD=chronic obstructive pulmonary disease.

The changes in PCS and MCS were generated by respective multiple regression models controlling for age, gender, race, education, and marital status.

<sup>†</sup>Statistically significant (two-sided  $p < 0.0001$ ).

### Disclosures

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