

# Ability to Walk 1/4 Mile Predicts Subsequent Disability, Mortality, and Health Care Costs

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**BACKGROUND:** Mobility, such as walking 1/4 mile, is a valuable but underutilized health indicator among older adults. For mobility to be successfully integrated into clinical practice and health policy, an easily assessed marker that predicts subsequent health outcomes is required.

**OBJECTIVE:** To determine the association between mobility, defined as self-reported ability to walk 1/4 mile, and mortality, functional decline, and health care utilization and costs during the subsequent year.

**DESIGN:** Analysis of longitudinal data from the 2003–2004 Medicare Current Beneficiary Survey, a nationally representative sample of Medicare beneficiaries.

**PARTICIPANTS:** Participants comprised 5895 community-dwelling adults aged 65 years or older enrolled in Medicare.

**MAIN MEASURES:** Mobility (self-reported ability to walk 1/4 mile), mortality, incident difficulty with activities of daily living (ADLs), total annual health care costs, and hospitalization rates.

**KEY RESULTS:** Among older adults, 28% reported difficulty and 17% inability to walk 1/4 mile at baseline. Compared to those without difficulty and adjusting for demographics, socioeconomic status, chronic conditions, and health behaviors, mortality was greater in those with difficulty [AOR (95% CI): 1.57 (1.10–2.24)] and inability [AOR (CI): 2.73 (1.79–4.15)]. New functional disability also occurred more frequently as self-reported ability to walk 1/4 mile declined (subsequent incident disability among those with no difficulty, difficulty, or inability to walk 1/4 mile at baseline was 11%, 29%, and 47% for instrumental ADLs, and 4%, 14%, and 23% for basic ADLs). Total annual health care costs were \$2773 higher (95% CI \$1443–4102) in persons with difficulty and \$3919 higher (CI \$1948–5890) in those who were unable. For each 100 persons, older adults reporting difficulty walking 1/4 mile at baseline experienced an additional 14 hospitalizations (95% CI 8–20), and those who were unable experienced an additional 22 hospitalizations (CI 14–30) during the follow-up period, compared to persons without walking difficulty.

**CONCLUSIONS:** Mobility disability, a simple self-report measure, is a powerful predictor of future health, function, and utilization independent of usual health

and demographic indicators. Mobility disability may be used to target high-risk patients for care management and preventive interventions.

**KEY WORDS:** aging; mobility; mortality; disability; health care costs.  
J Gen Intern Med 26(2):130–5  
DOI: 10.1007/s11606-010-1543-2  
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## INTRODUCTION

The ability to walk 1/4 mile, a distance equivalent to one lap around a standard track or—more importantly—two to three city blocks, is vital to the independence and functional viability of older adults living in the community. In an urban setting, a person who can walk three blocks can likely reach a corner store or a bus stop; one who cannot, while perhaps not literally housebound, becomes constrained, isolated, and vulnerable. Walking 1/4 mile has been proposed as an indicator of mobility,<sup>1</sup> and an estimated 15.4 million older Medicare beneficiaries reported limited ability to walk 1/4 mile in 2003.<sup>2</sup> Despite mobility disability's emergence as an important health indicator among older adults,<sup>1</sup> little is known about its relationship to subsequent functional decline, mortality, and health care utilization. Although the time required to walk 400 meters (approximately 1/4 mile), a somewhat more objective measure of mobility disability, has been associated with subsequent disability in activities of daily living (ADLs) and other adverse outcomes,<sup>3,4</sup> such performance measures may be impractical in clinical settings or on a population level. Previous studies of self-reported mobility disability in older adults have focused on predictors of incident mobility disability rather than on outcomes.<sup>4–7</sup> In order to be successfully integrated into clinical practice and health policy, a marker of mobility disability must be easily accessible, such as self-report, and should predict subsequent health outcomes and health care utilization in a broad range of older adults.

Therefore, our study examines a nationally representative sample of Medicare beneficiaries aged 65 years or older to determine the association between mobility disability, defined as self-reported limitations in walking 1/4 mile, and subsequent mortality, incident basic and instrumental ADL disability, and health care utilization and costs. These findings

Received March 30, 2010

Revised September 7, 2010

Accepted September 21, 2010

Published online October 23, 2010

might be used to target high-risk populations for care management or disability prevention. Because this data can be used to impute national rates of mobility disability, the results can also be used to improve predictions of future health care needs and costs.

## METHODS

### Data Source and Sample

Data for this study are from the 2003 and 2004 Medicare Current Beneficiary Survey (MCBS) Cost and Use files. The MCBS is a nationally representative rotating-panel survey of aged, disabled, and institutionalized Medicare beneficiaries sponsored by the Center for Medicare and Medicaid Services (CMS). The stratified, three-stage area probability sample is selected to be representative of the Medicare population as a whole and within age groups, and therefore uniquely allows extrapolation to the entire Medicare population. A detailed description of the methods and survey questions in the MCBS is available from CMS.<sup>8</sup> Each fall, community-dwelling participants are interviewed in their homes about their health status and experiences with health care. Three times a year, detailed information on health care utilization and expenditures is collected. The overall response rate was 69.5% for 2003 and 70.9% for 2004.

Our analytic sample included all community-dwelling older adults without end stage renal disease who were eligible to be in both the 2003 and 2004 data (Fig. 1). Proxy respondents were used for 9% of the sample; participants requiring a proxy were older and had a higher burden of chronic disease, greater basic and instrumental ADL disability, and more limitations in walking 1/4 mile. Proxies were used when the participant was unable to answer questions due to illness or other reasons; the most common reason for proxy use was cognitive limitations.<sup>8</sup> Although proxy respondents are known to overestimate disability, this effect is small for observable activities such as mobility.<sup>9</sup> We felt it was important to include respondents who used a proxy as they represent the most vulnerable older adults.

Access to the MCBS data was obtained through a data use agreement with CMS, and the study was approved by the University of Pittsburgh Institutional Review Board.

### Study Variables

Ability to walk 1/4 mile was assessed with the question "How much difficulty do you have walking a quarter of a mile—that is, about 2 or 3 blocks?" Participants rated their ability on the following scale: no difficulty at all, a little difficulty, some difficulty, a lot of difficulty, or not able to do it. To have groups of sufficient size for analysis, we collapsed the 676 participants reporting 'a little', the 494 reporting 'some', and the 542 reporting 'a lot' of difficulty into a single category 'any difficulty'.

In addition to ability to walk 1/4 mile, the MCBS survey includes data on demographic characteristics, health insurance, self-reported chronic conditions, smoking status, basic and instrumental activities of daily living (ADLs/IADLs), and

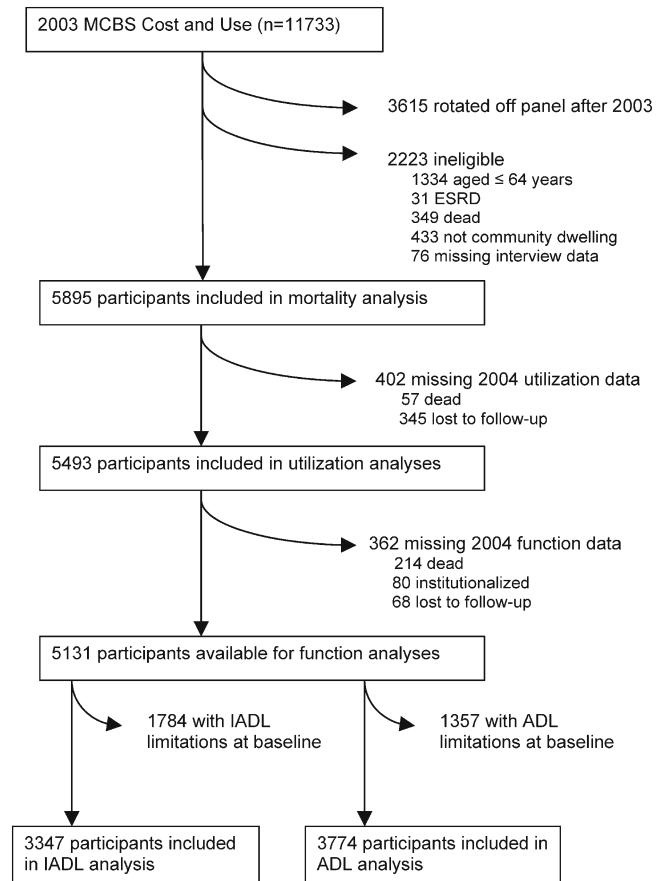


Figure 1. Derivation of the analytic sample.

self-rated health. Body mass index (BMI) was calculated from self-reported height and weight. Participants were considered to have psychiatric comorbidity if they reported: 1) being told by a doctor that they had a psychiatric or mental condition; 2) feeling sad, blue, or depressed most or all of the time; or 3) two weeks or more when they lost interest or pleasure in things that they usually cared about or enjoyed. Participants were considered to have lower body arthritis if they reported arthritis in the back, hips, knees, feet, anywhere on legs, or all over. Finally, we constructed separate indices for the number of basic (bathing, dressing, eating, transferring, and using the toilet) and instrumental (using the telephone, light housework, heavy housework, preparing meals, shopping, and managing money) ADLs for which participants reported difficulty or inability. We excluded walking from our basic ADLs because of its high correlation with ability to walk 1/4 mile (Spearman's  $r=0.64$ ).

Mortality through 12/31/2004 was assessed using the date of death in the MCBS files, which is derived from Medicare and Social Security records. Functional status in 2004 was assessed as the number of basic and instrumental ADLs in which participants reported difficulty or dependence in the fall 2004 interview. Health care utilization and costs were assessed as the total payments from all sources for health care, the total out-of-pocket payments, and the number of inpatient events in 2004. These values, provided as part of the MCBS, are computed through a careful reconciliation of Medicare claims data and survey data. To improve the accuracy of the survey data, interviewers and respondents review explanation of benefit forms, statements from private health insurers, and receipts

from providers, as well as bottles, tubes, and prescription bags provided by the pharmacy.<sup>8</sup>

## Statistical Analyses

For analysis, we included BMI as a categorical variable using standard clinical cutpoints (<20, 20–25, 26–30, >30) due to its non-linear relationship with health outcomes. In order to maintain adequate cell sizes, we collapsed some categories of categorical variables for education and ADLs. Sampling weights provided by the producers of the MCBS data were used in all analyses to account for the complex multistage sample design and the oversampling of particular groups, such as the oldest old.<sup>10</sup> All means and percentages presented are weighted to reflect the sample design. We compared the characteristics of participants who had no difficulty, any difficulty, or were unable to walk 1/4 mile using unadjusted multinomial logistic regression models.

**Mortality and Disability.** We used multinomial logistic regression to evaluate the association between difficulty or inability walking 1/4 mile and subsequent mortality, incident IADL limitation, and incident ADL limitation. The analyses of incident basic and instrumental ADL disability were limited to those participants with no difficulty at baseline.

**Health Care Costs and Utilization.** To determine the association between walking ability and health care costs and utilization, we regressed total health care expenditures, total out-of-pocket expenditures, and number of hospitalizations for 2004 on walking ability in 2003. For the expenditure models, we used generalized linear models with gamma distribution and log link function. For the count of hospitalizations we used the Poisson distribution with the log link function. In addition, we explored whether the effect of walking difficulty was consistent when restricting the sample to only those people with no basic or instrumental ADL limitations and whether interaction terms between walking difficulty and the number of ADL or IADL limitations should be included in the model. Since the estimated parameters from the GLM model take the form of log-odds, we calculated the marginal effects for each level of walking difficulty on the original scale (dollars, number of events). To aid in interpretability, the marginal effects are calculated holding all other variables constant at the mean (e.g., age = 75.4, income = 29,727). Thus the results can be understood as the effect of increasing difficulty in walking, while holding all other variables constant.

All analyses were conducted with SAS version 9.2 (SAS Institute Inc., Cary, NC), SAS-callable SUDAAN, version 9.0.0 (Research Triangle Institute, Research Triangle Park, NC), or Stata version 11 (StataCorp LP, College Station, TX).

## RESULTS

Among our sample of community-dwelling Medicare beneficiaries, difficulty or inability to walk 1/4 mile was reported by a weighted 28% and 17%, respectively. Those older adults with

limited ability to walk 1/4 mile had lower socioeconomic status and worse health and function at baseline (Table 1).

## Mortality and Functional Status

Between the 2003 baseline interview and December 31, 2004, a period of 12–16 months, 330 participants (5%) died. Mortality rates were 2% for those reporting no difficulty walking, 4% for those with difficulty, and 15% for those who were unable. Even after adjusting for multiple potential confounders, limited ability to walk 1/4 mile was associated with increased mortality (Table 2). There were no significant interactions between ADL or IADL function and ability to walk 1/4 mile. When limiting the sample to participants with no basic or instrumental ADL limitations at baseline, who had a mortality rate of only 2%, the association between having difficulty or being unable to walk 1/4 mile and mortality was smaller in magnitude and no longer statistically significant (OR [95% CI] 1.26 [0.75–2.11] and 1.70 [0.64–4.52], respectively).

In 2004, 569 (16%) of the 3347 participants who reported no IADL limitations at baseline reported new difficulty or dependence with one or more IADLs. Incident IADL limitation rates were 11% for those reporting no difficulty walking, 29% for those with difficulty, and 47% for those who were unable. Similarly, 397 (8%) of the 4461 participants with no baseline ADL limitations reported new ADL difficulty or dependence in 2004. Incident ADL limitation rates were 4% for those reporting no difficulty walking, 14% for those with difficulty, and 23% for those who were unable. After adjustment for multiple confounders, walking limitation was strongly associated with incident basic and instrumental ADL limitations (Table 3).

## Health Care Costs and Utilization

Compared with participants reporting no difficulty walking 1/4 mile, participants who report difficulty or inability have greater total annual expenditures (OR [95% CI] 1.29 [1.15–1.45] and 1.41 [1.20–1.66], respectively) and more hospitalizations (OR [95% CI] 1.56 [1.28–1.89] and 1.88 [1.52–2.34], respectively). However, there was an effect on out-of-pocket expenditures for difficulty (OR [95% CI] 1.16 [1.02–1.31]), but not inability (OR [95% CI] 1.06 [0.88–1.26]). Table 4 presents the marginal effects of walking difficulty on expenditures and hospitalizations. Compared to beneficiaries reporting no difficulty walking 1/4 mile, those with difficulty had an additional \$2773 (95% CI \$1443–4102) in total health care expenditures, an additional \$274 (95% CI \$30–518) in out-of-pocket expenditures, and an additional 14 (95% CI 8–20) hospitalizations per 100 beneficiaries. Beneficiaries reporting inability to walk 1/4 mile had an additional \$3919 (95% CI \$1948–5890) in total health care expenditures and an additional 22 (95% CI 14–30) hospitalizations per 100 beneficiaries. For the 15.4 million Medicare beneficiaries with limited ability to walk 1/4 mile, the additional health care burdens amount to over \$42 billion in additional health care costs and over 2 million additional hospitalizations.

In the expenditure models, the confidence intervals for the effects of any difficulty and being unable to walk overlapped. We found no evidence that the coefficients were different

**Table 1. Characteristics of Aged Medicare Beneficiaries by Ability to Walk 1/4 Mile\***

Characteristic	Total N=5895	No Difficulty n=3090	Difficulty n=1712	Unable n=1093
Age in years	75.5 (0.1)	74.0 (0.1)	76.6 (0.2)	78.3 (0.2)
Female	3325 (57)	1554 (52)	1034 (62)	737 (68)
Race/ethnicity				
Non-Hispanic	4788 (81)	2573 (83)	1345 (78)	870 (80)
White				
Non-Hispanic Black	439 (8)	170 (6)	167 (10)	102 (9)
Hispanic	420 (7)	223 (7)	126 (8)	71 (7)
Other	241 (4)	121 (4)	70 (4)	50 (4)
Married	3132 (55)	1871 (62)	819 (50)	442 (42)
Annual income in \$1,000 s	29.5 (0.6)	34.5 (0.9)	25.3 (0.8)	20.6 (0.6)
Education				
Not high school graduate	1788 (29)	695 (21)	619 (35)	474 (43)
High school graduate	1780 (31)	950 (31)	524 (31)	306 (28)
Any post-secondary	2309 (40)	1438 (48)	562 (33)	309 (29)
Insurance status				
Medicaid	729 (12)	194 (6)	284 (17)	251 (22)
Private	3981 (68)	2207 (72)	1098 (64)	676 (62)
HMO <sup>†</sup>	1403 (24)	801 (27)	384 (23)	218 (20)
Chronic conditions				
Coronary artery disease	1518 (24)	592 (18)	513 (29)	413 (37)
Hypertension	3659 (61)	1698 (54)	1163 (67)	798 (72)
Heart failure	455 (7)	98 (3)	164 (9)	193 (17)
Other cardiac disease	1977 (32)	829 (26)	656 (37)	492 (45)
Diabetes	1175 (20)	431 (14)	416 (24)	328 (31)
Cancer	1109 (19)	520 (16)	338 (20)	251 (24)
Chronic lung disease	865 (14)	302 (10)	308 (18)	255 (24)
Neurological disease	848 (13)	258 (8)	283 (16)	307 (27)
Lower-body arthritis	2786 (46)	1087 (35)	982 (58)	717 (66)
Osteoporosis	1332 (22)	556 (18)	414 (23)	362 (33)
Psychiatric comorbidity	1272 (21)	417 (13)	438 (26)	417 (40)
Smoking status				
Former	2928 (49)	1591 (51)	817 (47)	520 (48)
Current	601 (11)	278 (9)	191 (12)	132 (13)
Body mass index				
Underweight (<20)	405 (6)	191 (6)	107 (6)	107 (9)
Normal (20-25)	1975 (33)	1126 (36)	541 (30)	308 (27)
Overweight (26-30)	2249 (39)	1281 (42)	633 (38)	335 (30)
Obese (>30)	1234 (22)	482 (16)	418 (26)	334 (34)
IADL <sup>‡</sup> limitations				
None	3690 (65)	2654 (87)	884 (53)	152 (15)
1-2	1451 (23)	388 (12)	631 (36)	432 (40)
3 or more	754 (11)	48 (1)	197 (11)	509 (45)
ADL <sup>§</sup> limitations				
None	4799 (83)	2969 (96)	1376 (81)	454 (43)
1-2	733 (12)	112 (3)	269 (15)	352 (32)
3 or more	363 (6)	9 (0)	67 (4)	287 (26)
Self-rated health fair or poor	1271 (21)	224 (7)	467 (28)	580 (54)

\*Values represent survey n (weighted %) for categorical variables or estimated population mean (SE) for continuous variables. Wald F tests from unadjusted multinomial logistic regression models were used to compare characteristics across walking categories, all p<0.001

<sup>†</sup>HMO: health maintenance organization

<sup>‡</sup>IADL: instrumental activities of daily living (using the telephone, light housework, heavy housework, preparing meals, shopping, and managing money)

<sup>§</sup>ADL: basic activities of daily living (bathing, dressing, eating, transferring, and using the toilet)

**Table 2. Association of Baseline Walking Ability with Mortality (N=5895)\***

Ability to Walk 1/4 Mile	Unadjusted OR (95% CI)	Adjusted <sup>†</sup> OR (95% CI)
Difficulty	2.51 (1.91-3.31)	1.57 (1.10-2.24)
Inability	8.72 (6.56-11.59)	2.73 (1.79-4.15)

\*N represents the total number of participants included in the analyses  
<sup>†</sup>Adjusted for age, sex, race/ethnicity, marital status, education, income, insurance status, chronic conditions, smoking status, body mass index, basic and instrumental activities of daily living, and self-rated health

based on formal adjusted Wald tests (p=0.275 and p=0.293, respectively). Participants reporting inability to walk 1/4 mile did have significantly more hospitalizations than those reporting difficulty (F<sub>1,473</sub>, p=0.046). Finally, interaction terms between walking difficulty and ADL and IADL limitation were not statistically significant in any of the three models.

When restricting the dataset to people with no ADL limitation, the same pattern of findings was apparent. The effect of walking difficulty (combining any and unable) was statistically significant in predicting total expenditures (OR 1.25; 95% CI 1.07-1.45) and hospitalizations (OR 1.38; 95% CI 1.11-1.73), but not out-of-pocket expenditures (OR 1.06; 95% CI 0.93-1.22).

### CONCLUSIONS

Limited ability to walk 1/4 mile, reported by almost half of community-dwelling older adults, is a strong independent predictor not only of future disability in activities of daily

**Table 3. Association of Baseline Walking Ability with Subsequent IADL\* and ADL<sup>†</sup> Difficulty or Dependence Among Older Adults with no Difficulty at Baseline (IADL N=3347; ADL N=4461)**

Ability to Walk 1/4 Mile	Difficulty in 1-2 Tasks		Difficulty in 3 or More Tasks	
	Unadjusted OR (95% CI)	Adjusted <sup>§</sup> OR (95% CI)	Unadjusted OR (95% CI)	Adjusted <sup>§</sup> OR (95% CI)
<b>IADLs</b>				
Difficulty	3.21 (2.57-4.02)	2.11 (1.66-2.67)	5.43 (3.17-9.31)	2.78 (1.53-5.07)
Inability	6.85 (4.66-10.09)	3.25 (2.10-5.01)	11.70 (5.48-24.96)	2.92 (1.43-5.95)
<b>ADLs</b>				
Difficulty	4.08 (3.16-5.27)	2.38 (1.73-3.26)	5.49 (2.90-10.39)	2.35 (1.19-4.62)
Inability	6.62 (4.59-9.54)	2.59 (1.71-3.91)	15.78 (8.02-31.04)	3.88 (1.54-9.74)

\*IADL: instrumental activities of daily living (using the telephone, light housework, heavy housework, preparing meals, shopping, and managing money)

<sup>†</sup>ADL: basic activities of daily living (bathing, dressing, eating, transferring, and using the toilet)

<sup>‡</sup>N represents the total population included in these analyses

<sup>§</sup>Adjusted for age, sex, race/ethnicity, marital status, education, income, insurance status, chronic conditions, smoking status, body mass index, and self-rated health

**Table 4. Adjusted 2004 Health Care Costs and Hospitalization Rates for Community-Dwelling Medicare Beneficiaries Aged 65 or Older by Self-Reported Ability to Walk 1/4 Mile (N=5493)\***

	Ability to Walk 1/4 Mile		
	No Difficulty	Difficulty	Unable
Mean annual cost, in \$1000 s <sup>†</sup>			
Total	9.51 (8.80- 10.21)	12.28 (11.17- 13.39)	13.42 (11.73- 15.12)
Out-of-pocket	1.75 (1.60- 1.91)	2.03 (1.79- 2.26)	1.85 (1.61- 2.10)
Hospitalizations per 100 persons <sup>‡</sup>	25.1 (21.8- 28.4)	39.2 (34.0- 44.3)	47.3 (40.6- 54.0)

\*N represents the total population included in these analyses. Models are adjusted for age, sex, race/ethnicity, marital status, education, income, insurance status, chronic conditions, smoking status, body mass index, basic and instrumental activities of daily living, and self-rated health. The 95% CI are presented in parentheses

<sup>†</sup>Predicted costs for each level of walking ability from a generalized linear model with gamma distribution and log link, holding all other variables constant at the mean

<sup>‡</sup>Predicted number of hospitalizations for each level of walking ability from a generalized linear model with Poisson distribution and log link, holding all other variables constant at the mean

living, but also of mortality, health care costs, and health care utilization. These data demonstrate the critical importance of mobility disability as a clear, conspicuous marker of high risk among older adults, including those whose capacity to manage their activities of daily living might otherwise conceal more precarious health. In an era of increasingly complex health care challenges, self-reported mobility offers providers a rare advantage: a powerful assessment tool that is simple, discrete, quick, unburdensome, and effectively free. Mobility disability can be easily assessed in any clinical setting, allowing providers to identify vulnerable older adults for preventive interventions or extra services.

Self-reported mobility provides short-term prognostic information above and beyond demographic factors, chronic diseases, and health behaviors. This information can identify Medicare beneficiaries for enrollment in demonstration projects designed to improve health outcomes or prevent recurrent hospitalizations. For example, older adults with chronic diseases and mobility limitations might benefit more from disease management programs than otherwise similar mobile patients. In addition, inability to walk 1/4 mile can help identify older adults at high risk of mortality and thus unlikely to benefit from selected screening or preventive therapies.

Ours is the first study of which we are aware to examine the relationship between ability to walk 1/4 mile and subsequent ADL difficulty and health care utilization and costs. In fact, relatively few prior studies of self-reported mobility disability have looked at subsequent outcomes. Inability to walk 1/2 mile (after adjustment for age and sex) has been associated with greater mortality in community-dwelling adults aged 70 years or older.<sup>11</sup> Bowen and Gonzalez found that higher self-reported health care utilization predicted greater mobility disability.<sup>7</sup>

Although difficulty walking 1/4 mile is unlikely to directly cause mortality and increased health care utilization, mobility disability likely reflects a greater burden of underlying preclinical disease or physiologic abnormalities not captured by

assessment of chronic diseases and other health risk factors. Cumulative burden of subclinical physiologic abnormalities<sup>12</sup>, metabolic syndrome (without cardiovascular disease or diabetes),<sup>13</sup> high levels of inflammatory markers,<sup>14,15</sup> and limitations in peak expiratory flow<sup>16</sup> have all been associated with incidence of mobility disability in large epidemiologic studies of older adults. Self-reported mobility may offer a simple proxy for clinically significant risk factors and conditions that providers usually lack the resources to assess.

Difficulty walking 1/4 mile may also be a simple way of monitoring changes over time in health and function, although further study would be needed to assess this measure's sensitivity to change. Mobility disability is a dynamic condition and transitions between different levels of ability to walk 1/4 mile are common among older adults.<sup>17</sup> Interventions can improve objective ability to walk 1/4 mile; further studies are needed to determine if improvements in self-reported walking ability are associated with corresponding decreases in mortality and health care utilization. In addition, future studies should compare the performance of walking difficulty with other methods of screening risk of disability, death, and future utilization.

The nationally representative sample and thorough data on health care utilization and costs are strengths of our study. However, several limitations should also be noted. First, due to sample size limitations, we collapsed 'a little', 'some', and 'a lot' of difficulty walking 1/4 mile into a single category. There are likely differences among those reporting different levels of difficulty, which should be further investigated. Second, the MCBS contains no standardized assessment of cognition; older adults with cognitive impairment may not be accurate in their assessment of their walking ability and other self-report items. Third, 12% of the interviews were completed by a proxy. However, despite the significant differences between respondents with or without a proxy in walking ability, exclusion of proxy responses did not substantively alter the results (data not shown). Finally, the data presented, with the exclusion of total costs and hospitalizations, are self-reported. We are unable to relate self-reported ability to walk 1/4 mile to any measures of physical performance. However, previous studies have shown that performance-based and self-report measures provide complementary information about function.<sup>18,19</sup>

In conclusion, older adults who report limited ability to walk 1/4 mile are at high risk for mortality, basic and instrumental ADL disability, high health care utilization, and high costs within the next year. This increased risk is not explained by age, socioeconomic status, chronic conditions, smoking, BMI, or self-rated health. Fortunately, self-reported limitation in walking 1/4 mile can be assessed easily, and therefore can be a potential tool to improve the targeting of care management and preventive interventions to the older adults who need them most.

**Acknowledgments:** This research was supported by the National Institute on Aging (R03AG032291) and the Pittsburgh Claude D. Pepper Older Americans Independence Center (NIA P30 AG-024827). Dr. Hardy is supported by a Beeson Career Development Award (K23AG030977) from the NIA, the John A. Hartford Foundation, the Atlantic Philanthropies, and the Starr Foundation. The funders had no role in the design or conduct of the study. Portions of this work were presented at the Gerontological Society of America Annual Meeting in Atlanta, GA, on November 19, 2009.

**Conflict of Interest:** None disclosed.

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