Patterns of Healthcare Expenditures Among Older United States Adults with Pain and Different Perceived Health Status

David Rhys Axon, PhD, MPharm, MS, MRPharmS[1] and Anisa Kamel[1]

[1]The University of Arizona College of Pharmacy, Tucson, AZ

THE UNIVERSITY OF ARIZONA College of Pharmacy

Pharmacy

BACKGROUND

- The prevalence of pain has increased in recent years and is associated with advanced age[1], particularly among older adults aged ≥65 years[2]
- In 2017, an estimated $3.5 trillion was spent for healthcare costs due to chronic conditions in the United States (US)[3]
- It is unknown how healthcare costs of older US adults with pain change depending on perceived health status

OBJECTIVES

This study assessed the pattern of healthcare expenditures among older US adults with different levels of perceived health, postulating that expenditures would be lower among those with better perceived health

METHODS

- Cross-sectional, retrospective database study using 2018 Medical Expenditure Panel Survey (MEPS) data
- Included US adults aged ≥50 years with self-reported pain that interfered with normal work in the past 4 weeks and positive total healthcare expenditures
- Comparison groups were excellent, very good, good, and fair/poor health
- Unadjusted and adjusted linear regression models compared logarithmically transformed expenditures for total, office-based, outpatient, emergency room, inpatient, other, and prescription medications between health statuses
- Analyses were appropriately weighted to produce nationally representative estimates

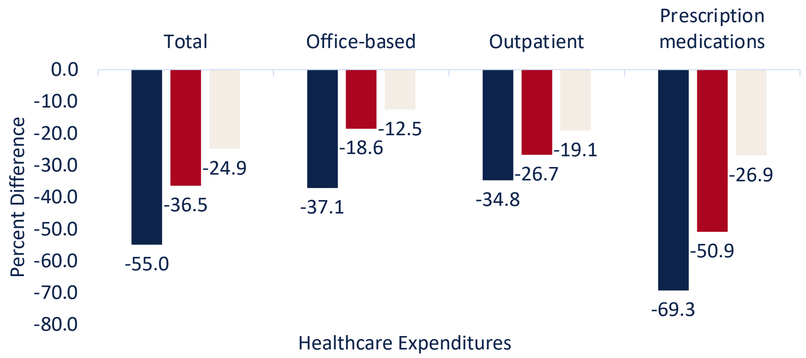
RESULTS

TABLE 1. Characteristics of study participants

Characteristics	Excellent Health (N=417) % (95% CI)	Very Good Health (N=1,320) % (95% CI)	Good Health (N=1,875) % (95% CI)	Fair/Poor Health (N=1,511) % (95% CI)	p
Age ≥65	51.3 (44.7, 58.0)	53.1 (49.5, 56.6)	50.1 (47.2, 53.1)	52.0 (48.8, 55.3)	0.6338
Female	53.7 (48.8, 58.6)	56.4 (53.7, 59.0)	55.2 (52.9, 57.6)	56.2 (53.2, 59.2)	0.7751
White	85.5 (81.9, 89.0)	84.7 (82.6, 86.8)	78.8 (76.1, 81.5)	78.3 (75.5, 81.1)	<0.0001
South census region	37.4 (30.8, 43.9)	34.6 (30.7, 38.5)	38.0 (34.9, 41.2)	43.4 (39.7, 47.1)	0.0407
Married	63.7 (57.9, 69.5)	63.8 (60.4, 67. 3)	54.7 (51.8, 57.7)	49.4 (45.9, 53.0)	<0.0001
More than high school education	67.6 (61.9, 73.2)	66.1 (62.9, 69.3)	53.0 (50.3, 55.8)	41.7 (37.6, 45.8)	<0.0001
Employed	53.9 (47.7, 60.2)	50.3 (46.7, 53.9)	41.2 (38.3, 44.1)	22.1 (18.9, 25.3)	<0.0001
Middle/high income	83.1 (79.4, 86.9)	81.5 (79.0, 84.0)	68.2 (65.7, 70.7)	52.2 (48.2, 56.1)	<0.0001
Private health insurance	66.8 (60.8, 72.9)	69.8 (66.4, 73.1)	57.0 (54.2, 59.9)	42.2 (39.0, 45.4)	<0.0001
Public health insurance	30.4 (24.5, 36.2)	27.7 (24.6, 30.8)	39.7 (36.9, 42.6)	54.4 (51.3, 57.5)	<0.0001
Frequent Exercise	64.1 (58.2, 70.0)	51.6 (47.9, 55.3)	39.9 (37.1, 42.7)	27.3 (24.4, 30.2)	<0.0001
Non-smoker	93.2 (90.2, 96.2)	89.3 (87.4, 91.2)	82.0 (79.9, 84.0)	78.0 (75.0, 81.0)	<0.0001
No functional limitations	87.5 (83.6, 91.3)	76.1 (73.2, 79.1)	60.4 (57.8, 63.0)	35.5 (32.7, 38.3)	<0.0001
Good mental health status	97.7 (96.2, 99.1)	96.6 (95.4, 97.9)	92.8 (91.5, 94.1)	60.1 (57.3, 62.9)	<0.0001
Little/moderate pain	91.7 (99.9, 94.4)	91.0 (88.3, 91.8)	77.6 (75.5, 79.8)	48.6 (45.5, 51.7)	<0.0001
>5 chronic conditions	65.3 (59.7, 70.9)	48.9 (45.8, 51.9)	37.4 (35.0, 39.8)	22.5 (19.9, 25.1)	<0.0001

RESULTS (CONT.)

FIGURE 1. Percent difference in healthcare expenditures



DISCUSSION

- Total, office-based, outpatient, and prescription medications expenditures were comparatively lower among those with better perceived health status
- Compared to those with fair/poor health, those with excellent health had the greatest reduction in healthcare costs, followed by those with very good and good health

CONCLUSION

- These findings add new knowledge to the relationships between perceived health status and healthcare expenditures among older US adults with pain
- Further research is needed to explore why some healthcare expenditure categories are lower with better perceived health status, yet others are not

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