

# Assessing the relationship between pain intensity and health status among older US adult opioid users with pain

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## Background & Objective

- The number of older adults in the United States (US) is increasing along with rates of morbidity and pain.
- Opioids are commonly used to manage moderate to extreme pain.
- The study objective was to assess the relationship between pain intensity and health status among older US adult opioid users with pain.

## Methods

- This was a retrospective cross-sectional study using 2020 Medical Expenditures Panel Survey (MEPS) data.<sup>1</sup>
- To be eligible for this study, participants had to be aged ≥50 years with pain and used an opioid in the calendar year.
- Chi-square tests were used to compare groups (good vs. poor health).
- The relationship between pain intensity and health status was assessed by a multivariate logistic model adjusting for demographic (age, sex, race, ethnicity), economic (education, employment, income, marriage), and health variables (weight, chronic conditions, regular physical activity, smoker).
- The MEPS complex survey design was taken into account during analyses to produce national estimates. The a priori alpha level = 0.05.

## Results Table 1

Characteristics of US adults ≥50 years with pain who used an opioid			
Characteristics	Good Health N = 6,384,326 weighted percent (95% CI)	Poor Health N = 4,217,719 weighted percent (95% CI)	p-value
Extreme Pain	8.3 (5.3,11.3)	30.5 (24.6,36.3)	<0.0001
Quite a bit of Pain	22.4 (18.3,26.6)	37.8 (31.7,43.9)	<0.0001
Moderate Pain	33.1 (27.7,38.5)	17.7 (12.7,22.8)	<0.0001
Little Pain	36.2 (30.9,41.5)	14.1 (10.0,18.1)	<0.0001
Age ≥65	56.5 (50.7,62.4)	47.4 (40.1,54.6)	0.0535
Female	63.0 (58.1,67.8)	56.9 (50.1,63.7)	0.1525
Non-Hispanic	95.9 (94.0,97.7)	90.0 (87.1,94.8)	0.0042
White	85.9 (82.4,89.5)	76.7 (71.4,82.0)	0.0026
More than High School Education	59.4 (55.1,63.7)	40.1 (33.0,47.2)	<0.0001
Unemployed	63.5 (58.2,68.8)	84.3 (79.6,89.1)	<0.0001
Mid-High Income	68.6 (63.6,73.6)	53.9 (47.3,60.6)	0.0003
Married	51.0 (45.7,56.3)	48.9 (42.2,55.6)	0.6462
Overweight/obese	74.7 (69.5,79.8)	78.0 (72.2,83.8)	0.3933
≥2 chronic conditions	84.6 (80.8,88.4)	95.7 (93.1,98.4)	<0.0001
Non-Regular Physical Activity	54.2 (49.2,59.2)	79.7 (74.2,85.1)	<0.0001
Non-smoker	89.9 (86.9,92.9)	76.9 (72.2,81.5)	<0.0001

## Results Table 2

Relationship between pain intensity and good health among US adults with pain and opioid use	
Variables	Adjusted Odds Ratio (95% Confidence Interval)
Extreme vs. little	0.19 (0.10,0.35)
Quite a bit vs. little	0.34 (0.19,0.60)
Sex, male vs. female	0.61 (0.40,0.91)
White race, yes vs. no	0.43 (0.22,0.84)
Education, high school or less vs. more than high school	0.61 (0.41,0.92)
Employment, employed vs. unemployed	1.88 (1.06,3.33)
Chronic conditions, <2 vs. ≥2	4.38 (1.91,10.02)
Regular physical activity, yes vs. no	2.69 (1.73,4.19)
Current smoker, yes vs. no	0.55 (0.32,0.93)

## Conclusions

- This study found that older adult opioid users who experience quite a bit of pain are less likely to report good health than those experiencing little pain.
- There are other variables that should be considered when assessing the needs of older adults using opioids.

## References

1. Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey Home. Retrieved from <https://meps.ahrq.gov/mepsweb/>