

# COMORBIDITIES AND PERCEIVED HEALTH STATUS IN PERSONS WITH CANCER – A RETROSPECTIVE ANALYSIS OF THE MEDICAL EXPENDITURE PANEL SURVEY (MEPS).

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## Background

- Comorbidities are prevalent among persons with cancer.<sup>1-3</sup>
- Comorbidities can further challenge prognosis and general wellbeing of cancer patients.<sup>1</sup>
- This study aimed to assess the association between comorbidities and perceived health status (PHS) of United States(US) persons with cancer.

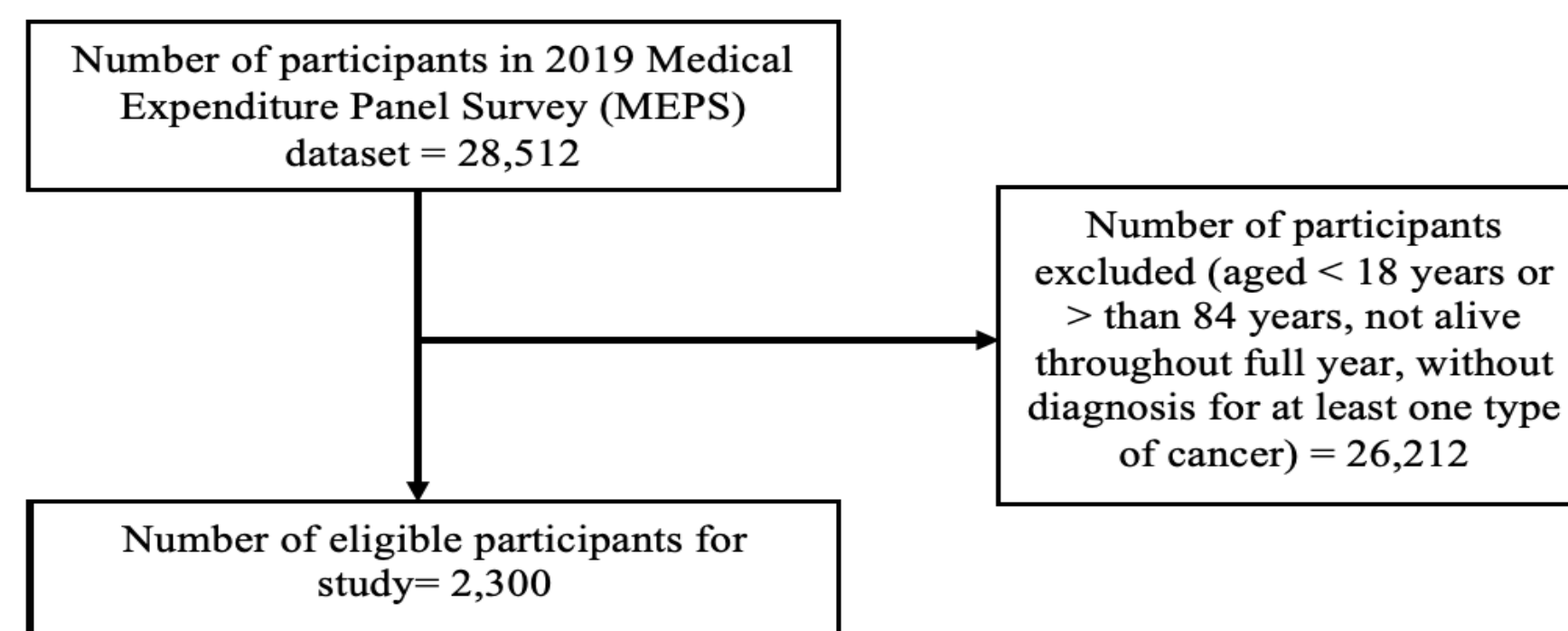
## Methods

- This was a retrospective, cross-sectional study
- Used 2019 Medical Expenditure Panel Survey (MEPS) data
- Adjusted logistic regression models were used for association of comorbidities (no, few [1/2], and more [>2] comorbidities) with PHS.
- Analyses were weighted and accounted for the complex design of MEPS.

## Eligibility criteria

- Adults (age 18 - 84 years)
- Alive during the specific survey calendar year.
- Persons with cancer: responded yes to “Have you ever been told by a doctor or other health professional that you had cancer or a malignancy of any kind?”

## Figure. Study participants' selection process



## Results

- Participants with no; few; and more comorbidities accounted for 11.1% (95% confidence interval [CI]=9.6-12.6%); 41.6% (95% CI=39.2-44.0%) and 47.3% (95% CI=44.9-49.7%), respectively.
- Compared with those who had more comorbidities, persons with no, and few comorbidities had 2.82 (95% CI=1.49-5.34) and 1.73 (95% CI=1.19-2.53) times greater odds of good PHS.

**Table1. Characteristics of cancer patients in the United States aged 18 – 84 years**

Characteristics	None (Weighted N=2,752,249) Weighted % (95% CI)	Less than 3 (Weighted N=10,297,074) Weighted % (95% CI)	3 or more (Weighted N=11,711,344) Weighted % (95% CI)
18 – 44 years	2.8 (2.0, 3.7)	4.6 (3.6, 5.7)	2.2 (1.4, 3.0)
45 – 64 years	5.8 (4.5, 7.0)	18.8 (16.9, 20.8)	12.7 (11.1, 14.3)
Male	3.8 (2.8, 4.8)	16.3 (14.6, 18.1)	23.9 (22.0, 25.7)
White	10.2 (8.8, 11.6)	37.2 (34.8, 39.6)	41.4 (39.1, 43.8)
< high school (HS)	0.4 (0.1, 0.7)	2.6 (1.8, 3.3)	6.2 (5.0, 7.4)
Completed HS	1.7 (1.0, 2.4)	10.5 (8.9, 12.0)	11.4 (9.9, 12.8)
Married	7.0 (5.8, 8.2)	25.4 (23.2, 27.5)	28.2 (26.0, 30.5)
Employed	8.0 (6.6, 9.4)	21.9 (19.7, 24.1)	14.6 (13.0, 16.3)
Low income	2.0 (1.3, 2.6)	8.1 (6.8, 9.3)	13.1 (11.5, 14.8)
Middle income	2.2 (1.6, 2.8)	10.2 (8.9, 11.6)	11.5 (9.8, 13.1)
Public insurance	1.7 (1.2, 2.2)	12.0 (10.3, 13.7)	20.4 (18.3, 22.5)
Limited activity	10.9 (9.4, 12.3)	35.1 (32.8, 37.4)	30.4 (28.1, 32.6)
Pain	0.5 (0.1, 0.9)	8.3 (6.9, 9.7)	18.1 (16.1, 20.1)

There were statistically significant differences in all groups for these characteristics except for race and marital status

**Table 2. Association of comorbidities with perceived health status among US patients with cancer**

	Adjusted odds ratio	95% confidence interval
No vs more comorbidities	<b>0.29</b>	<b>0.15, 0.54</b>
Few vs more comorbidities	<b>0.55</b>	<b>0.37, 0.84</b>
Age 18 – 44 vs 65 – 84 years	<b>0.29</b>	<b>0.15, 0.54</b>
Age 44 – 64 vs 65 – 84 years	<b>0.55</b>	<b>0.37, 0.84</b>
Male vs Female	0.89	0.66, 1.20
White vs other races	1.07	0.71, 1.61
Less than HS vs Beyond HS	<b>0.58</b>	<b>0.37, 0.92</b>
Completed HS vs Beyond HS	0.86	0.59, 1.24
Married vs Other	0.99	0.73, 1.36
Employed vs Unemployed	<b>1.61</b>	<b>1.13, 2.30</b>
Low-income vs High-income	<b>0.68</b>	<b>0.47, 0.98</b>
Middle-income vs High-income	1.02	0.70, 1.50
Public vs uninsured health insurance	0.72	0.24, 2.18
Functional limitation yes vs no	<b>0.62</b>	<b>0.44, 0.86</b>
Pain vs no pain	<b>0.28</b>	<b>0.20, 0.41</b>

*Boldened values show significant associations*

## Conclusions

- About 50% of the 2,300 US cancer patients aged 18-84 years reported having ≥2 comorbidities.
- Having more comorbidities, with several other variables, was associated with poor PHS.
- Comorbidities management must be given special consideration to improve the prognosis and general wellbeing of persons with cancer.

## References

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3. Fowler H, Belot A, Ellis L, et al. Comorbidity prevalence among cancer patients: a population-based cohort study of four cancers. *BMC Cancer.* 2020;20(1):2. doi:10.1186/s12885-019-6472-9.