

# The CBHSQ Report

Short Report

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## ADULTS IN POOR PHYSICAL HEALTH REPORTING BEHAVIORAL HEALTH CONDITIONS HAVE HIGHER HEALTH COSTS

### AUTHORS

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### INTRODUCTION

Adults aged 18 to 64 who have been identified as being in poor physical health typically exhibit chronic health conditions such as diabetes, cardiovascular disease, heart disease, being overweight, or combinations of these conditions; chronic conditions such as these are linked with higher health care expenditures.<sup>1-5</sup> Additional studies have linked behavioral health conditions with poorer physical health outcomes for those with chronic health conditions<sup>6,7</sup> and suggest that a lack of health care insurance can also be linked to poorer outcomes for both behavioral and physical health.<sup>8</sup> Individuals with behavioral health conditions also have higher out-of-pocket costs than those without such conditions.<sup>4,9</sup>

People in poor physical health reporting behavioral health conditions have proportionately lower health insurance coverage and may face barriers to treatment access.<sup>10</sup> This report focuses on the insurance status and health care expenditures of adults aged 18 to 64 in poor physical health who reported behavioral health conditions.



### In Brief

- Adults aged 18 to 64 in poor physical health who also reported behavioral health conditions (i.e., mental health or substance use disorders) had higher total health care expenditures than adults in poor health without behavioral health conditions.
- The higher health costs for people with poor health and behavioral health problems were due to their higher physical health care expenditures.
- These higher costs hold true for all types of insurance coverage.

## DATA SOURCE, METHODS, AND DEFINITIONS

Estimates for this report were generated from the Medical Expenditure Panel Survey (MEPS), an annual survey conducted by the Agency for Healthcare Research and Quality within the U.S. Department of Health and Human Services. This survey has been conducted annually since 1996 and is designed to produce national and regional estimates for the U.S. civilian noninstitutionalized population. MEPS collects data on health care utilization, expenditures, sources of payment, insurance coverage, and health care quality.

This report uses 2012 data from the full-year consolidated files, medical condition files, and medical event files. Descriptions of these MEPS data files and detailed information on the MEPS survey design are available at <http://www.meps.ahrq.gov>.

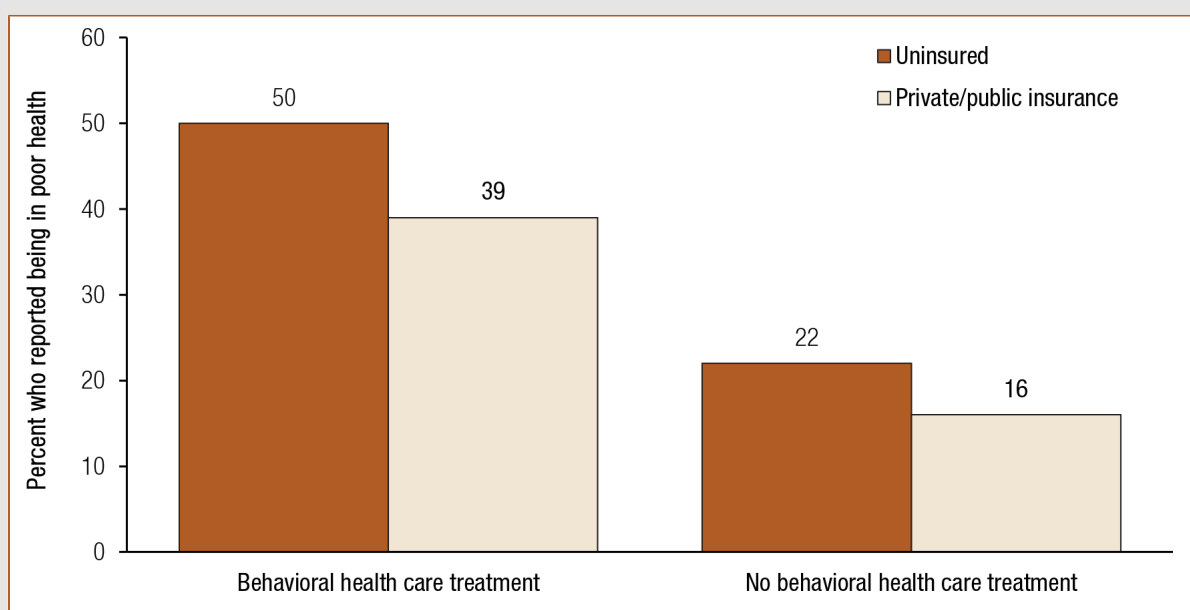
Respondents to MEPS self-report their health status in response to this question: “In general, compared to other people of (PERSON)'s age, would you say that (PERSON)'s health is excellent, very good, good, fair, or poor?” In this report, the term poor health covers both self-reported fair and poor health.

Mental health and substance use disorders, referred to in this report as behavioral health conditions, are defined based on the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) (<http://www.cdc.gov/nchs/icd/icd9cm.htm>) and the Clinical Classifications Software (CCS) for ICD-9-CM (<http://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp>). Persons who had any of the selected diagnostic codes<sup>10</sup> associated with treatment resulting in health care expenditures were defined as having a behavioral health condition.

## RESULTS

As Figure 1 shows, adults with behavioral health conditions were more likely to self-report poor physical health than those without such conditions. An estimated 50 percent of adults who were uninsured and reported behavioral health care treatment also reported being in poor physical health, whereas 22 percent of adults who were uninsured with no behavioral health care treatment reported poor physical health. Thirty-nine percent of adults who were insured and reported having behavioral health treatment reported being in poor physical health, whereas 16 percent of adults who were insured and reporting having no behavioral health care treatment reported poor physical health.

**Figure 1. Adults aged 18 to 64 self-reporting poor health status, by behavioral health care treatment and insurance coverage status: 2012**



Source: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey (MEPS), 2012.

Table 1 shows 2012 estimated health care expenditures for adults aged 18 to 64 in poor physical health with and without behavioral health care treatment, by health care insurance coverage status. Health care expenditures for both physical and behavioral health care treatment were higher for those adults who reported having had behavioral health care treatment than for adults without such treatment, regardless of their health insurance coverage.

**Table 1. Average health care expenditures for adults aged 18 to 64 in poor health, by health insurance status and treatment for behavioral health condition: 2012**

Insurance status	Treatment for behavioral health condition	Physical health expenditures	Behavioral health expenditures	Total expenditures
Uninsured	Yes	\$4,106	\$1,474	\$5,580
Uninsured	No	\$2,969	—	\$2,969
Private/public insurance	Yes	\$12,672	\$2,262	\$14,934
Private/public insurance	No	\$11,403	—	\$11,403

Notes: Standard deviations were calculated but are not reported. Behavioral health conditions are defined as mental health or substance use disorders.

Source: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey (MEPS), 2012.

## DISCUSSION

Adults in poor physical health who also reported behavioral health conditions had higher health care expenditures than adults in poor physical health who reported no behavioral health conditions, regardless of health care insurance status. More importantly, adults in poor physical health with behavioral health conditions had higher physical health care expenditures compared to adults in poor physical health with no behavioral health conditions. Several factors and causal pathways may contribute to this finding.<sup>11</sup> Adults in behavioral health care treatment may have limitations that challenge access to health care.<sup>12</sup> Individuals with major depressive disorder and a co-occurring chronic condition such as diabetes, cardiovascular disease, or other diseases may face challenges in adhering to treatment regimens.<sup>13,14</sup> Those who take antipsychotic medications to address the symptoms of psychoses are at increased risk for metabolic syndrome disorders and cardiovascular disease, as well as behavioral health risks of inactivity and tobacco.<sup>15-17</sup> Individuals reporting behavioral health conditions frequently report needing better access to appropriate treatment.<sup>18</sup> Expanded health care coverage following passage of the Affordable Care Act may improve opportunities for those with behavioral health conditions to access quality health care services for both their physical and behavioral health care needs. Initial analysis of the Act finds that it had the intended effect of eliminating quantitative limitations on access to behavioral health care without constraining behavioral health coverage.<sup>18</sup> Even after the implementation of the Act and parity legislation, access still remains elusive for many with behavioral health conditions.<sup>19</sup>

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## END NOTES

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1. Huber, M. B., Wacker, M. E., Vogelmeier, C. F., & Leidl, R. (2015). Excess costs of comorbidities in chronic obstructive pulmonary disease: A systematic review. *PLoS One*, *10*(4), e0123292. doi: 10.1371/journal.pone.0123292
2. Kent, S., Schlackow, I., Lozano-Kühne, J., Reith, C., Emberson, J., Haynes, R., Gray, A., Cass, A., Baigent, C., Landray, M. J., Herrington, W., & Mihaylova, B. (2015). What is the impact of chronic kidney disease stage and cardiovascular disease on the annual cost of hospital care in moderate-to-severe kidney disease? *BMC Nephrology*, *16*, 65.
3. Meraya, A. M., Raval, A. D., & Sambamoorthi, U. (2015). Chronic condition combinations and health care expenditures and out-of-pocket spending burden among adults, Medical Expenditure Panel Survey, 2009 and 2011. *Preventing Chronic Disease*, *12*, E12. doi: 10.5888/pcd12.140388.
4. Soni, A. (2015). *Trends in the five most costly conditions among the U.S. civilian noninstitutionalized population, 2002 and 2012* (Statistical Brief No. 470). Rockville, MD: Agency for Healthcare Research and Quality.
5. Cohen, S. B. (2014). *The concentration and persistence in the level of health expenditures over time: Estimates for the U.S. population, 2011-2012* (Statistical Brief No. 449). Rockville, MD: Agency for Healthcare Research and Quality.
6. Mitchell, A. J., Vancampfort, D., Sweers, K., van Winkel, R., Yu, W., & De Hert, M. (2013). Prevalence of metabolic syndrome and metabolic abnormalities in schizophrenia and related disorders—A systematic review and meta-analysis. *Schizophrenia Bulletin*, *39*(2), 306–318.
7. Correll, C. U., Robinson, D. G., Schooler, N. R., Brunette, M. F., Mueser, K. T., Rosenheck, R. A., Marcy, P., Addington, J., Estroff, S. E., Robinson, J., Penn, D. L., Azrin, S., Goldstein, A., Severe, J., Heinssen, R., & Kane, J. M. (2014). Cardiometabolic risk in patients with first-episode schizophrenia spectrum disorders: Baseline results from the RAISE-ETP study. *JAMA Psychiatry*, *71*(12), 1350–1363.
8. Cohen, S.B. & Yu, W. (2012). *The concentration and persistence in the level of health expenditures over time: Estimates for the U.S. population, 2008-2009* (Statistical Brief No. 354). Rockville, MD: Agency for Healthcare Research and Quality
9. Ettner, S. L., Frank, R. G., & Kessler, R. C. (1997). The impact of psychiatric disorders on labor market outcomes. *Industrial and Labor Relations Review*, *51*(1), 64–81.
10. In MEPS, ICD-9-CM condition codes are aggregated into clinically meaningful categories that group similar conditions using the CCS software. Categories are collapsed when appropriate. The reported ICD-9-CM condition code values are mapped to the appropriate clinical classification category prior to being collapsed to three-digit ICD-9-CM condition codes. The result is that every record which has an ICD-9-CM diagnosis code also has a clinical classification code. The relevant CCS codes used for this analysis were: 67, 75, 657, 658, 660, 661, 662, 663, and 670. Likewise, ICD-9 codes included the range 291–316, V11, V40, V61, V62, V79.
11. Walker, E. R., Cummings, J. R., Hockenberry, J. M., & Druss, B. G. (2015). Insurance status, use of mental health services, and unmet need for mental health care in the United States. *Psychiatric Services*, *66*(6), 578–584.
12. Ostrow, L., Manderscheid, R., & Mojtabai, R. (2014). Stigma and difficulty accessing medical care in a sample of adults with serious mental illness. *Journal of Health Care for the Poor and Underserved*, *25*(4), 1956–1965.
13. Bradley, S. M., & Rumsfeld, J. S. (2015). Depression and cardiovascular disease. *Trends in Cardiovascular Medicine*, *25*(7), 614-622. doi: 10.1016/j.tcm.2015.02.002.
14. Rodwin, B. A., Spruill, T. M., & Ladapo, J. A. (2013). Economics of psychosocial factors in patients with cardiovascular disease. *Progress in Cardiovascular Diseases*, *55*(6), 563–573.
15. Schöttle, D., Schimmelmann, B. G., Karow, A., Ruppelt, F., Sauerbier, A. L., Bussopulos, A., Frieling, M., Golks, D., Kerstan, A., Nika, E., Schödlbauer, M., Daubmann, A., Wegscheider, K., Lange, M., Ohm, G., Lange, B., Meigel-Schleiff, C., Naber, D., Wiedemann, K., Bock, T., & Lambert, M. (2014). Effectiveness of integrated care including therapeutic assertive community treatment in severe schizophrenia spectrum and bipolar I disorders: The 24-month follow-up ACCESS II study. *Journal of Clinical Psychiatry*, *75*(12), 1371–1379.
16. Planner, C., Gask, L., & Reilly, S. (2014). Serious mental illness and the role of primary care. *Current Psychiatry Reports*, *16*(8), 458.
17. Rollman, B. L., & Huffman, J. C. (2013). Treating anxiety in the presence of medical comorbidity: Calmly moving forward. *Psychosomatic Medicine*, *75*(8), 710–712.
18. Horgan CM, Hodgkin D, Stewart MT, Quinn A, Merrick EL, Reif S, Garnick DW, Creedon TB (2015). Health Plans' Early Response to Federal Parity Legislation for Mental Health and Addiction Services. *Psychiatr Serv*. 2015 Sep 15:appips201400575. [Epub ahead of print].
19. Goodell S, "Mental Health Parity," Health Policy Brief, Health Affairs, November 9, 2015.

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## SUGGESTED CITATION

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## SUMMARY

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**Background:** Adults who have been identified as being in poor health typically exhibit chronic health conditions and concomitant higher health care expenditures. These adults have proportionately lower health insurance coverage and may face barriers to treatment access. **Method:** Estimates for this report were generated from the Medical Expenditure Panel Survey (MEPS), which is an annual survey conducted by the Agency for Healthcare Research and Quality within the U.S. Department of Health and Human Services. **Results:** Adults with behavioral health conditions were more likely to self-report poor health than those without such conditions. Health expenditures for both physical and behavioral health treatment were higher for those adults who reported having behavioral health care treatment than for adults without such treatment, regardless of their health insurance coverage. **Conclusion:** Expanded health coverage following passage of the Affordable Care Act may improve opportunities for those with behavioral health conditions to access quality health services for both their physical and behavioral health care needs.

**Keywords:** behavioral health expenditures, poor health, health insurance status

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## KEYWORDS

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Age Group, Household Income, Short Report, Client-Level Data, Population Data, 2012, Health Insurance Providers, People with Alcohol Use or Abuse Problems as Audience, People with Mental Health Problems as Audience, Policymakers, Professional Care Providers, Public Officials, Researchers, Mental Illness, Substance Abuse, Uninsured or Underinsured, Access to Care, Costs of Treatment Services or Programs, Health and Health Care-Related Laws, Health Care System, Health Insurance, Health Reform, Non-SAMHSA Data Set, All US States Only, Insurance Coverage Status, Federal Poverty Level

The Substance Abuse and Mental Health Services Administration (SAMHSA) is the agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the behavioral health of the nation. SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities.

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