Mental Health Parity in Action? An Examination of Medical Expenditure 2009-2012

By: Kailin Koch
Cornell University class of 2015

Abstract

Well-intentioned policy does not always lead to effective policy outcomes. Mental health parity, the push for equal coverage of medical and mental health treatment, has a long history of unintended policy consequences that prevented the achievement of true parity. Given this discrepancy between policy and progress, I measure the effect of the more recent 2010 Mental Health Parity and Abuse Equity Act by analyzing Medical Expenditure Panel Survey data from 2009-2012 to see whether out-of-pocket burden is the same for mental health and medical care. While the proportion of coverage appeared fairly equivalent for people with mental health and medical conditions, the total out-of-pocket cost for health care was much higher for individuals with mental health conditions than for those with medical conditions, and this difference remained unchanged 2009-2012. A further analysis of the condition severity found the difference was not merely a function of a few individuals with severe illness and unusually high costs.

Background

Mental health parity legislation attempts to equalize treatment offerings between medical and mental health resources. Traditionally, insurance plans have covered a higher percentage of medical health care than mental health, leaving families with high out of pocket costs or no access to treatment at all. For example, a family could incur thousands of dollars of debt putting their child in an alcohol treatment center but get full coverage for their child's surgery. The 1996 Mental Health Parity Act required that insurers cover an equal amount of both if both were covered. Many worried this led to "loophole" measures of restricting mental health resources, such as insurance imposing higher co-pays, number of visit limitations or dollar limits on mental health. The 2008 Mental Health Parity and Abuse Equity law (MHPAEA) banned the use of these backdoor restrictions, and we are interested in the extent to which this has been successful. Before the 2008 parity law, a study from the Health Care Cost Institute found private employer insurance required much higher percentage of costs paid out of pocket for non-medical services, at 4% for medical and more than 10% for mental health or substance abuse treatment (HCCI 2014). Other studies have found similar patterns of inequality in coverage over the past 30 years.

Barry et al 2003 found a statistically significant increase in the percentage of plans with dollar/visit limitations on mental health treatment from 1999 to 2002, following the implementation of the Mental Health Parity Act. Zuvekas modeled parity legislation, and found under parity conditions out-of-pocket costs would decrease substantially, particularly for those covered by group insurance plans. Zuvekas and Meyerhoefer (2009) looked at how mental health out-of-pocket costs varied by state and region, and found little significant variation, which they attributed to prescription drug costs that remained fairly constant regardless of parity legislation. Nationally, Zhu and Heichen (2014) found with a decrease in proportion of out-of-pocket mental health costs from 1996 to 2011. With these previous studies in mind, we will now turn to the more recent parity legislation and available data sources.

Data Source and Variables of Interest

I am interested in whether the Mental Health Parity and Abuse Equity Act (MHPAEA) implemented in 2010 has pushed mental health costs to equal equivalent medical costs. I will examine data from the 2009, 2010, 2011, and 2012 Medical Expenditure Panel Surveys (MEPS), conducted by the Agency for Healthcare Research and Quality (a division of Health and Human

Services). This study surveys individuals as well as treatment centers and insurance companies. The data from this study come from the Household Component of the MEPS study. This nationally representative survey draws respondents from the National Health Interview Study in different panels throughout the year. The sample sizes are quite large; for example, the 2011 study surveyed 33,622 individuals and the 2012 surveyed 37,182. I will compare these results to data from the 2009 MEPS Survey, before the implementation of MHPAEA.

This large total sample size allows for divisions of the data without resulting in too small subpopulations. Given the separate parity requirements for public health care plans, I will restrict my analysis to individuals covered under private insurance. Similarly, given the prevalence of Medicare amongst individuals over 65, I will also limit my study to adults ages 18-64. These parameters allow for a large enough sample size while still narrowing the population sufficiently to have effective measurements.

An important note about the MHPAEA: it does not mandate insurance cover mental health costs. Indeed, it only requires that insurance plans that cover both medical and mental health do so equally. As such, I shall exclude individuals who have reported a mental health cost but report no cost covered by private insurance (although they have previously noted having private insurance coverage). While imperfect, this maneuver attempts to avoid including high mental health costs associated with individuals not receiving mental health coverage through their private insurance, and thus unaffected by the MHPAEA provision.

The MEPS data categorize medical conditions according to the Clinical Classification Software, which is used throughout government agencies to group similar diagnoses into a category. For example, the category of Mental Illness includes anxiety disorders, schizophrenia, and substance abuse, amongst others. I created a binary variable, where "1" indicated a self-reported mental health condition and "0" indicated not reporting a mental health condition and instead reporting a medical condition. If the MHPAEA was effective we would expect equivalent or at the very least a decreasing difference between out-of-pocket costs for individuals with mental health conditions and those with medical conditions.

Results

I ran 2 separate tests on the MEPS data for each year 2009-2012 to test the differences between these two groups. For each test I ran weighted tests using the person weight from each survey.

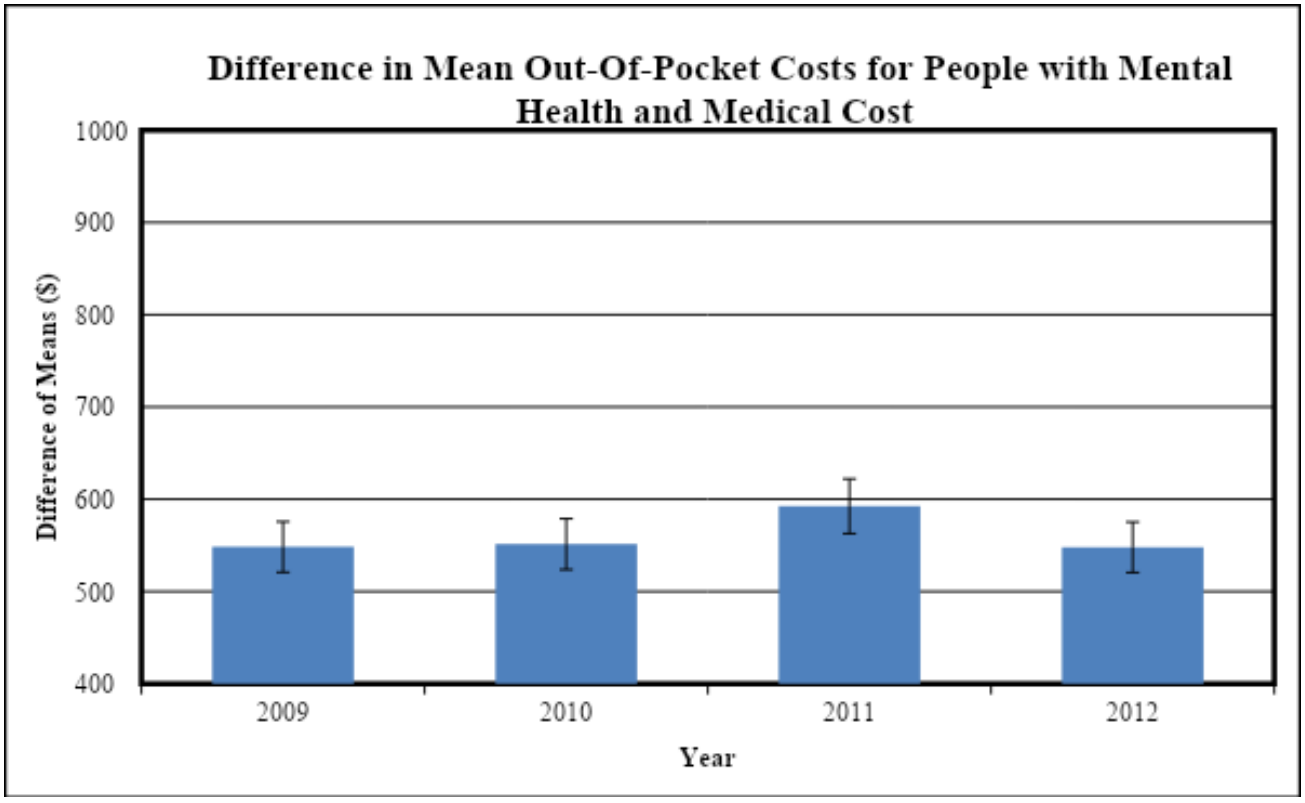
Test 1- Difference of Means (Total Out-Of-Pocket Cost) by Mental Health

First, I tested the difference in mean out-of-pocket cost for individuals with a mental health condition versus those without. In 2009, before the implementation of MHPAEA, showed a difference of means almost $550. That is, on average an individual with a mental health condition paid almost $550 more annually in out-of-pocket cost than an individual with a medical cost and no mental health condition. The results of each of these differences of means tests are displayed below in Graph 1 as well as in Table 1 with associated standard errors and confidence intervals. As evident by the overlapping confidence intervals, the difference in mean cost for individuals with mental health and medical cost is not statistically different across the four years. Thus despite the intentions of the MHPAEA to limit the high out-of-pocket burden for mental health cost, these data suggest that individuals with mental health conditions still appear to carry a higher cost for their treatment than those with medical costs.

Table 1

	Mean	Standard Error	Confidence Interval
2009	548.2	75.65	399.90-696.50
2010	551.28	55.36	442.76-659.80
2011	592.4	62.73	469.44-715.36
2012	547.9	81.63	387.90-707.90

Graph 1



Test 2- Comparison of Means (Total Out-Of-Pocket Cost) by Mental Health and Days of Work Missed

Given this apparent inequity in total cost burden faced by individuals with mental health, I then wanted to test this same phenomena trying to impose equivalency. For example, mental health conditions are notoriously specific and have strict criteria, and thus likely only represent more extreme cases, such as bi-polar disorder or schizophrenia. These serious—and expensive—conditions should not be compared to individuals diagnosed with seasonal allergies, which are generally inexpensive and fairly simple to treat. The MHPAEA only states that insurance "may not apply any financial requirement or treatment limitation to mental health or substance use disorder benefits in any classification that is more restrictive than the predominant financial requirement or treatment limitation of that type applied to substantially all medical/surgical benefits in the same classification."

In order to model the "same classification" described in the MHPAEA, as well as to ensure the severity of the condition is roughly equivalent, I ran the same comparison of means test by both mental health status and the number of days of work missed. That is, comparing the mean out-of-pocket cost for mental health and medical that had missed the same number of days from work. This is not a perfect measurement of severity or equivalency, but it provides some indication for the seriousness of condition. Even the MHPAEA itself notes, "Cross-walking or pairing specific mental health or substance use disorder benefits with specific medical/surgical benefits is a static approach that the Departments do not believe is feasible, given the difficulty in determining ``equivalency'' between specific medical/ surgical benefits"(Final Rule of MHPAEA, p. 68244). The Center for Disease Control reports that healthier individuals on average miss less work, and thus this can serve as a general indicator of condition severity for both mental and medical conditions (Workplace Health Promotion). Events were top coded at 5 days in order to have sufficiently large sample sizes.

The results varied little by the number of workdays missed. With the exception of 3 or 4 days in 2011 and 2012, there were statistically significant differences between out-of-pocket costs for mental health or medical treatment regardless of days work missed. These differences are shown below in Table 2, and suggest that it is not just extremely sever mental health conditions with more days work missed that produce the difference in out-of-pocket costs found in test 1. This provides some information about the nature of mental health treatment as well as the cost distribution within the two groups, and suggests the discrepancy in total out-of-pocket costs does not just come from a few costly and severe mental health conditions.

Table 2 Difference in Mean Out-of-Pocket Cost for Individuals with Mental health versus Medical cost by the number of days work missed

Number of Days Work Missed	2009	2010	2011	2012
0	500.78*	629.79*	680.38*	587.45*
1	356.50*	304.93*	655.86*	466.30*
2	353.02*	370.69*	405.27*	421.32*
3	272.06*	431.32*	305.64	291.77*
4	559.48*	774.58*	445.82	297.35
5+	700.41*	334.19*	301.50*	470.26*

* Significant at the 0.05 level

Limitations

These data provide us with a broad sense of out-of-pocket cost distribution and inequities, but have certain limitations, particularly about the definition of mental health and medical, the exclusion of total cost and proportions, and the problems with the "work days missed" variable.

Primarily, in this analysis I generate a binary variable of having a mental health condition, or not having one and having a medical condition. The MHPAEA mandates equivalence not among individuals but between a single individual's mental health and medical care. Thus my reasoning was if this individual equivalency were effective, on average individuals with mental health costs would have the same out-of-pocket costs as those with medical costs, or at least they would be becoming more similar over time. While in the aggregate this is not an unreasonable assumption, it does mean that certain individuals included in the sample could have actually parity in their plans that would not have shown up in the analysis.

For example, an individual with a mental health condition lists his/her total out-of-pocket health costs, even though some of them may have been actual medical costs. Still, overall we would have expected to see similarities between medical and mental health expenditure as a result of this legislation.

Additionally, using number of days work missed likely underestimates the severity of mental health conditions. Previous research has found individuals with mental health conditions on average miss more work due to health than those with medical conditions, and someone with depression missing twice as much work as someone without (Gannon 2013). Thus, a high number of workdays missed likely overinflates the severity of medical conditions and underreports the severity of mental health conditions. Thus moving forward, it would be helpful to crosscheck this variable with other indicators of severity, such as number of health events per year.

Discussion

The Mental Health Parity and Abuse Equity Act of 2008 aimed to eliminate the loophole measures from the Mental Health Parity Act of 1996, which continued to saddle mental health patients with high out-of-pocket costs and barriers to treatment. This analysis, which compares the years since implementation (2010-2012) to the one directly previous (2009), finds that in terms of cost the law has failed to make a meaningful impact in discrepancies in out-of-pocket costs.

Many factors could contribute to these findings. First, the high out-of-pocket costs could point to continued barriers to insurance coverage for mental health treatment, barriers not effectively contained by the MHPAEA. Additionally, if as Zuvekas and Meyerhoefer suggest in 2009 and much of the cost comes from prescription drugs, the MHPAEA may not effectively limit the costs of these drug costs. Potentially despite the implementation of the law, insurance agencies are actively not complying, or making coverage for mental health so difficult that many do not attempt it. Lastly, the ongoing stigma associated with mental health treatment could be preventing individuals with mental health costs from reporting them to their insurance provider.

Much of the MHPAEA has been replaced recently with the 2010 Affordable Care Act. While this expands the MHPAEA and mandates coverage of mental health and substance abuse treatments, it operates on the same underlying assumption as the MHPAEA: mandating parity will force insurance to cover individuals with all types of health costs equally. Yet if our findings hold, it seems likely that such an assumption—at least in the short term—will not come to fruition. Thus examining the effectiveness of the MHPAEA can help us predict the impact of the Affordable Care Act, and suggest further measures will be needed in order to ensure true parity in out-of-pocket cost burden.

Works Cited

Barry, C. L., J. R. Gabel, R. G. Frank, S. Hawkins, H. H. Whitmore, and J. D. Pickreign. "Design Of Mental Health Benefits: Still Unequal After All These Years." *Health Affairs* 22.5 (2003): 127-37. Web.

An, Ruopeng, and Huichen Zhu. "U.S. Out-of-Pocket Health Care Expenses ForMental Disorders, 1996–2011." *Psychiatric Services* 65.5 (2014): n. pag. Web.

Final Rules Under the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008; Technical Amendment to External Review for Multi-State Plan Program, 78 U.S. Dept. of Labor § 219 (2013). Print.

Gannon, Megan. "Depression Doubles Missed Work Days." *LiveScience*. TechMedia Network, 24 July 2013. Web.

Zuvekas, S. H., and C. D. Meyerhoefer. "State Variations In The Out-Of-Pocket Spending Burden For Outpatient Mental Health Treatment." *Health Affairs* 28.3 (2009): 713-22. Web.

Zuvekas, Samuel H., Jessica S. Banthin, and Thomas M. Selden. "Mental Health Parity: What Are the Gaps in Coverage?" *The Journal of Mental Health Policy and Economics* 1.3 (1998): 135-46. Web.

Appendix

Data file citations – All data files included here are publically available.

Medical Expenditure Panel Survey (MEPS) Household Component. Agency for Healthcare Research and Quality, Rockville, MD. http://meps.ahrq.gov/mepsweb/index.jsp

- Full Year Consolidated Data Files- 2009, 2010, 2011, 2012
- Medical Conditions File- 2009, 2010, 2011, 2012