

# Impact of Mental Health Parity and Addiction Equity Act

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The Mental Health Parity and Addiction Equity Act was passed in 2008, building on earlier parity legislation by adding rules for cost sharing, treatment limitations, medical management protocols, the scope of covered services, and more.

Initially, guidance for health plans looking to comply with the new law was limited, but interim and final rules were slowly rolled out, with effective dates in 2010 and 2014, respectively.<sup>1</sup> So what has happened to utilization and costs for mental health and substance use disorder benefits as the parity laws and associated rules were slowly rolled out? In this paper we present an analysis of healthcare utilization and cost patterns during the six-year period from 2008 through 2013, and suggest that MHPAEA has driven increases in access to, and benefit richness for, mental health and substance use disorder benefits.

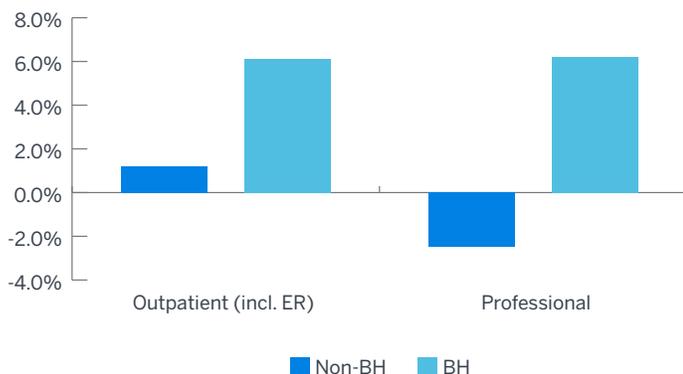
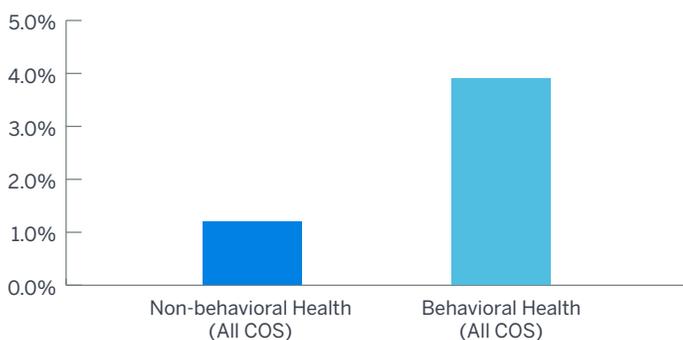
MHPAEA requires that for a health plan that covers both medical/surgical and mental health/substance use (behavioral) services, the financial requirements and treatment limitations applied to behavioral services must be no more restrictive than the predominant financial requirements and treatment limitations for substantially all medical/surgical services. With many health plans previously offering non-compliant products before MHPAEA, we expected to see a shift in covered benefits, cost sharing, and overall access to behavioral services. Using historical claim data for years 2008-2013, we analyzed the potential impact of MHPAEA and the implementation of the IFR.

<sup>1</sup> Interim final rules (IFR) providing more clarity and specific guidance were not published until February 2, 2010, applying to any plan year beginning on or after July 1, 2010. The MHPAEA final rule (FR) was later published on November 13, 2013, effective for plan years beginning on or after July 1, 2014.

## Overview

Prior to MHPAEA, limits were often imposed on behavioral health benefits that did not necessarily exist for medical/surgical benefits. Behavioral benefits also typically offered higher member cost sharing, fewer covered services, and stricter requirements regarding medical management. For example, our analysis showed that prior to MHPAEA members paid approximately 35% of benefit costs out of pocket for professional behavioral healthcare services, compared to only 21% for professional physical healthcare services. MHPAEA aimed to eliminate the difference in these benefit limits, cost-sharing, medical management requirements, covered services, and other limitations between behavioral and medical/surgical healthcare.

The goal of our analysis was to assess the potential impact of the MHPAEA on the utilization (access to care), member cost sharing, and total costs related to behavioral health services as a measure of whether MHPAEA was successful in its intended purpose. To do so, we examined paid-to-allowed ratios (a measure of benefit richness), healthcare costs, annual utilization rates, and resulting cost and utilization trends between 2008 and 2013 for both behavioral and non-behavioral services (i.e., physical healthcare services). We completed such analyses separately for inpatient facility, outpatient facility, professional, and prescription drug service categories. An important policy goal of MHPAEA was to eliminate disparities in financial requirements between behavioral and medical/surgical care. It would therefore be reasonable to expect that the implementation of MHPAEA would result in higher utilization of mental health and substance use benefits and higher trends for behavioral health services as compared to non-behavioral health services. Our analysis of a large nationwide claims database provides some evidence that this indeed has been happening. Figures 1a and 1b show a greater change in benefit richness for behavioral health (BH) services than non-behavioral health (non-BH) services, as measured by paid-to-allowed benefit ratios, for PPO plans between 2008 and 2013. This is particularly true for outpatient facility and professional services.

**FIGURE 1A: CHANGE IN BENEFIT RICHNESS<sup>2</sup> BY CATEGORY OF SERVICE 2008-2013****FIGURE 1B: CHANGE IN TOTAL BENEFIT RICHNESS<sup>3</sup> 2008-2013**

## Data used and plan types examined

We used commercial claim and membership data for years 2008-2013 to develop paid-to-allowed ratios, per member per month (PMPM) costs, and annual utilization rates per 1,000 members by major service category (inpatient, outpatient, professional, and Rx) for each year.<sup>4</sup> For behavioral services, the “inpatient” service category includes inpatient mental health and substance use care in an inpatient hospital or residential treatment facility. “Outpatient” includes mental health and substance use care in hospital outpatient settings, including partial hospitalization and intensive outpatient services. “Professional” includes mental health and substance use care provided by a professional in an office or other outpatient setting.

2 Measured by percentage in paid-to-allowed ratios between 2008-2013.

3 Ibid.

4 Truven MarketScan Commercial Claims and Encounters database is representative of the healthcare service use of individuals in the United States who are covered by the benefit plans of large employers, health plans, and government and public organizations. The MarketScan database links paid claims and encounter data to detailed patient information across sites, types of providers, and over time. The annual medical database includes private-sector health data from approximately 100 payers. Historically, more than 500 million claim records are available in the MarketScan database.

We identified behavioral (psychotropic) pharmacy claims based on their therapeutic class. Behavioral pharmacy claims include any therapeutic class that contains drugs largely used in the treatment of behavioral health services. A full list of therapeutic classes included for behavioral drugs is included in the Appendix.

The majority of our analysis was performed for PPO and HMO plans. We separate analyses for HMO and PPO plans due to standard differences between benefit richness, medical management, and utilization for these two plan types. We found much higher membership in PPO plans in the database. Our data on average contained about 60,000,000 member months annually for HMO plans and about 325,000,000 member months annually for PPO plans.

## Data adjustments

We examined the need to normalize our data for changes in demographic or geographic mixes between years of data. We also considered the need to normalize the data to compensate for varying data contributors year to year. We ultimately determined that no adjustments were needed, as the demographic and geographic distributions of members included in the data did not fluctuate to a significant degree year to year, and the metrics we examined were mostly on a per-member basis rather than absolute values.

## Cost sharing

In order to assess MHPAEA’s impact on benefit richness over time, we analyzed cost sharing metrics for each year of data, focusing on paid-to-allowed ratios. The paid-to-allowed ratio is a measure of benefit richness, and is calculated as the percentage of total allowed costs that are paid for by the insurer, with the balance being paid by the insured member. If MHPAEA were impactful on paid-to-allowed ratios, we would expect to see a larger increase in the paid-to-allowed ratio for behavioral health services compared to non-behavioral health services during the same period.

When we compared paid-to-allowed ratios by major service category for each year for behavioral and non-behavioral services, we saw a greater increase over time for behavioral services. The paid-to-allowed ratios for non-behavioral and behavioral services for members with PPO plans are shown in Figure 1c and Figure 1d.

The greater increase in paid-to-allowed ratio for behavioral services is especially apparent for inpatient facility and outpatient facility services. Between 2008 and 2013, we saw a rise of 4 to 5 points in paid-to-allowed ratio for these service categories for behavioral services, compared with a rise of 1 point for non-behavioral services over the same time period. We see most of this increase occurring in calendar years 2008-2010 for these services categories, which is consistent with the timeframe in which MHPAEA was passed and the interim final rules went into effect.

The overall paid-to-allowed ratio for behavioral services increased more than that for non-behavioral services. In total, we saw an increase of 3 points, from 0.76 to 0.79, between 2008 and 2013 for behavioral health services, as compared to an increase of 1 point, from 0.82 to 0.83 for non-behavioral services over the same time period.

**FIGURE 1C: PAID-TO-ALLOWED RATIOS - NON-BEHAVIORAL SERVICES (PPO PLANS)**

	2008	2009	2010	2011	2012	2013
INPATIENT	0.91	0.91	0.92	0.93	0.92	0.92
OUTPATIENT (INCL. ER)	0.81	0.81	0.82	0.82	0.82	0.82
PROFESSIONAL	0.79	0.80	0.79	0.78	0.77	0.77
RX	0.77	0.78	0.79	0.79	0.80	0.83
TOTAL	0.82	0.83	0.83	0.83	0.82	0.83

**FIGURE 1D: PAID-TO-ALLOWED RATIOS - BEHAVIORAL SERVICES (PPO PLANS)**

	2008	2009	2010	2011	2012	2013
INPATIENT	0.83	0.85	0.87	0.87	0.86	0.87
OUTPATIENT	0.82	0.82	0.85	0.86	0.86	0.87
PROFESSIONAL	0.65	0.65	0.67	0.68	0.67	0.69
RX	0.79	0.78	0.78	0.78	0.78	0.80
TOTAL	0.76	0.76	0.77	0.77	0.77	0.79

The greatest changes in paid-to-allowed ratios for behavioral healthcare are observed in service categories that were typically subject to more restrictions prior to MHPAEA. This includes intermediate outpatient facility services, such as partial hospitalization and intensive outpatient care, as well as substance use services. When we compared paid-to-allowed ratios for substance use services compared to mental health services for inpatient and outpatient facility services, we sometimes saw a greater increase over time in the substance use service categories. These results are shown in Figure 1e.

**FIGURE 1E: PAID-TO-ALLOWED RATIOS (PPO PLANS)**

	2008	2009	2010	2011	2012	2013
INPATIENT MENTAL HEALTH	0.84	0.85	0.87	0.87	0.87	0.87
INPATIENT SUBSTANCE USE	0.82	0.85	0.86	0.86	0.85	0.87
OUTPATIENT MENTAL HEALTH	0.82	0.82	0.85	0.87	0.87	0.88
OUTPATIENT SUBSTANCE USE	0.82	0.81	0.85	0.85	0.85	0.87

Given that data was only available through 2013 at the time of this analysis, it is unclear the extent to which disparities between paid-to-allowed ratios for behavioral and non-behavioral services will remain in the future. While the gap may decrease further due to the final rules that took effect in 2014 and as regulators focus more attention on compliance, we would expect some gap to remain in the near future. This may be especially true for inpatient services, as non-behavioral inpatient episodes tend to be far more expensive than behavioral inpatient episodes, wherein plan features such as out-of-pocket maxima, deductibles, and daily copays frequently lower the effective cost sharing for non-behavioral stays.

## Per member per month costs

With fewer restrictions in place to limit access to behavioral healthcare, increases in costs for these services are expected as well. We examined allowed costs PMPM by major service category and in total for behavioral and non-behavioral healthcare services. We then calculated year-over-year, as well as average annualized allowed cost trends, to measure changes over time. The cost trends observed for both HMO and PPO plans for non-behavioral healthcare services are in line with typical medical cost trends for commercially insured business. The cost trends for behavioral healthcare services were significantly higher at up to two or three times those of non-behavioral services. The trends for both HMO and PPO plans for behavioral and non-behavioral services are shown in Figures 2a and 2b. These trends are also shown graphically in Figures 2c and 2d.

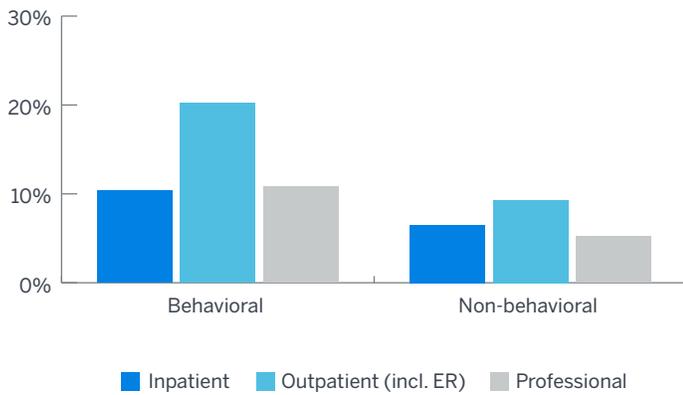
**FIGURE 2A: AVERAGE ANNUAL TOTAL COST TRENDS (2008-2013) FOR HMO PLANS**

	BEHAVIORAL	NON-BEHAVIORAL	DIFFERENTIAL
INPATIENT	10.4%	6.5%	3.9%
OUTPATIENT (INCL. ER)	20.2%	9.3%	10.9%
PROFESSIONAL	10.8%	5.2%	5.6%

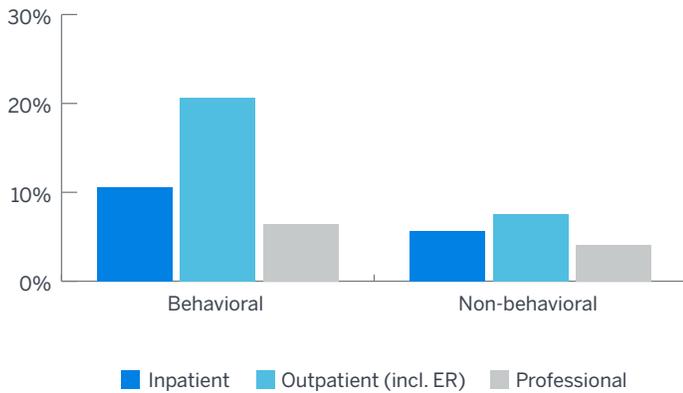
**FIGURE 2B: AVERAGE ANNUAL TOTAL COST TRENDS (2008-2013) FOR PPO PLANS**

	BEHAVIORAL	NON-BEHAVIORAL	DIFFERENTIAL
INPATIENT	10.6%	5.7%	4.9%
OUTPATIENT (INCL. ER)	20.6%	7.6%	13%
PROFESSIONAL	6.4%	4.1%	2.3%

**FIGURE 2C: AVERAGE ANNUAL TOTAL COST TRENDS (2008-2013) FOR HMO PLANS**



**FIGURE 2D: AVERAGE ANNUAL TOTAL COST TRENDS (2008-2013) FOR PPO PLANS**



Year-over-year total cost trends showed greater increases over time for services that were subject to greater restrictions prior to MHPAEA, such as partial hospitalization and intensive outpatient services, which are typically provided in an outpatient facility setting. Total cost trends for outpatient facility services are significantly higher for behavioral services than for non-behavioral services. Inpatient facility and professional services show a similar comparison. The difference in year-over-year total cost trends between behavioral and non-behavioral inpatient facility, outpatient facility, and professional services under PPO plans are shown in Figure 3. This figure clearly shows a rising cost trend for behavioral health services compared to non-behavioral health services following MHPAEA implementation.

**FIGURE 3: DIFFERENCE BETWEEN BEHAVIORAL AND NON-BEHAVIORAL YEAR-OVER-YEAR TOTAL ALLOWED COST TREND (PPO PLANS)**

	2008 TO 2009	2009 TO 2010	2010 TO 2011	2011 TO 2012	2012 TO 2013
INPATIENT	-3.7%	9.4%	7.9%	5.1%	5.4%
OUTPATIENT (INCL. ER)	-3.0%	8.9%	16.9%	21.2%	21.0%
PROFESSIONAL	-4.8%	7.9%	5.9%	1.6%	0.4%

## Utilization

The disparity between the behavioral and non-behavioral total cost trends may be due to changes in unit cost, changes in utilization levels, or some combination of both. If the observed differences in total cost trends were due to MHPAEA, we would expect to see a similar disparity in utilization patterns for behavioral and non-behavioral services. As a result, we also looked at utilization rates for behavioral and non-behavioral services over time by calculating annualized trend rates for annual utilization per 1,000 members by service category. Annual utilization per 1,000 members is defined as the number of units of services per 1,000 members enrolled in a specific plan.

Again, average utilization trends for non-behavioral services were in line with typical trend rates for commercially insured business, while utilization trend rates for behavioral healthcare services were up to several times higher than the trends for non-behavioral services. With fewer restrictions in place for behavioral health services in certain plans, it is possible that more members used behavioral health benefits or these services were used to a greater extent, thus increasing annual utilization per 1,000 members at a faster rate than for non-behavioral services. Annualized utilization trends for both HMO and PPO plans for behavioral and non-behavioral services are shown in Figures 4a and 4b. These trends are also shown graphically in Figures 4c and 4d.

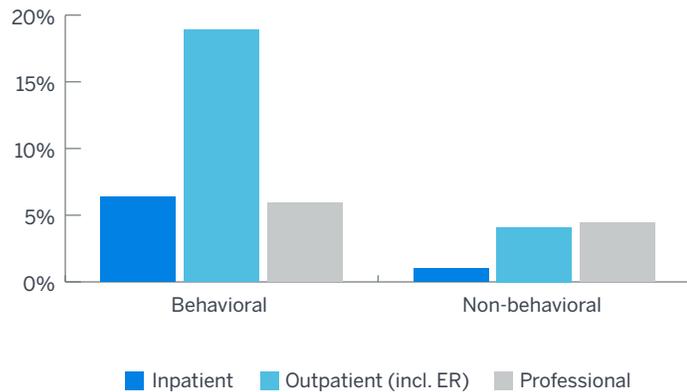
**FIGURE 4A: AVERAGE ANNUAL UTILIZATION TRENDS (2008-2013) FOR HMO PLANS**

	BEHAVIORAL	NON-BEHAVIORAL	DIFFERENTIAL
INPATIENT	6.4%	1.0%	5.4%
OUTPATIENT (INCL. ER)	18.9%	4.1%	14.8%
PROFESSIONAL	5.9%	4.4%	1.5%

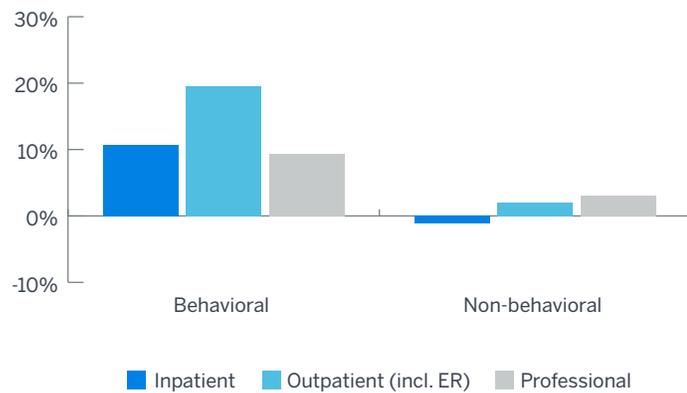
**FIGURE 4B: AVERAGE ANNUAL UTILIZATION TRENDS (2008-2013) FOR PPO PLANS**

	BEHAVIORAL	NON-BEHAVORIAL	DIFFERENTIAL
INPATIENT	10.7%	-1.1%	11.8%
OUTPATIENT (INCL. ER)	19.5%	2.0%	17.5%
PROFESSIONAL	9.4%	3.1%	6.3%

**FIGURE 4C: AVERAGE ANNUAL UTILIZATION TRENDS (2008-2013) FOR HMO PLANS**



**FIGURE 4D: AVERAGE ANNUAL UTILIZATION TRENDS (2008-2013) FOR PPO PLANS**



While higher utilization trends were observed for behavioral services during this time period, we would expect these to plateau over time as MHPAEA's final rule is implemented and consistently enforced. It is unclear if, at that time, it will match cost trends of non-behavioral services. A number of external factors may have an impact on this, including changes of behavior of enrollees receiving these services or the supply of behavioral health professionals over time due to MHPAEA, which could lead to sustained higher utilization trends for many years.

## Evidence of an impact?

Given the requirements under MHPAEA, we believe there is strong evidence that many of the changes we observed between 2008 and 2013 are related to the parity regulations. While this analysis does not rule out the possibility that other factors influenced these changes, the observed changes in benefit richness, cost, and utilization trends are consistent with the impacts that MHPAEA was expected to have had on behavioral healthcare services. There has been without doubt more significant change occurring for behavioral services than for medical services, and changes over time seem to be greatest for benefits that were typically subject to the greatest restrictions prior to MHPAEA. The higher utilization trend rates suggest improvements in access to care, which in turn affect PMPM trends. Treatment limitations, step therapies, and preauthorization requirements may have been reduced or done away with entirely for certain plans under the new requirements of the law. Similarly, the higher allowed cost trend rates and notable increases in paid-to-allowed ratios may indicate a higher degree of benefit richness for members, resulting from increased coverage for behavioral healthcare services under the “cover one, cover all” requirement.<sup>5</sup>

## Other studies

The findings of our analysis are consistent with findings of similar studies that have been done by other groups and organizations on the same topic. We reviewed existing literature alongside our analysis, including published findings from a 2013 study performed by the Health Care Cost Institute (HCCI) titled, “The Impact of the Mental Health Parity and Addiction Equity Act on Inpatient Admissions.”<sup>6</sup> This study focused on inpatient services for years 2007-2011. Findings of HCCI that were consistent with our own analysis were related to utilization and per capita spending for mental health, substance use, and other inpatient services. HCCI observed a higher growth rate in admissions for mental health and substance use services than for medical/surgical services between years 2009 and 2011, with the highest growth being for substance use. This is consistent with the trend we observed in utilization rates for inpatient services. Similarly, HCCI observed a steady growth in the share of all inpatient per capita spending for mental health and substance use services over the course of its study. Our analysis expands on these findings and confirms that these effects have continued into more recent years as the market continues to adapt to MHPAEA.

5 The “cover one, cover all” requirement refers to the provision under MHPAEA that requires insurers that choose to cover a behavioral condition to cover it in all treatment classifications where medical/surgical benefits are provided.

6 Herrera, C., Hargraves, J., & Stanton, G. (February 2013). The Impact of the Mental Health Parity and Addiction Equity Act on Inpatient Admissions. Retrieved October 19, 2017, from: <http://www.healthcostinstitute.org/files/HCCI-Mental-Health-Parity-Issue-Brief.pdf>.

Similarly, a systematic review of 30 separate studies examining the impact of mental health-related legislation, including MHPAEA, performed by the American Journal of Preventive Medicine found evidence to suggest that such legislation does have an effect on utilization, access to care, and healthcare outcomes.<sup>7</sup>

## Achieving full compliance

The results described above suggest that implementation of MHPAEA has reduced barriers to care for behavioral health conditions. In fact, from our experience assisting health plans and employers with MHPAEA compliance testing, we have seen first-hand the changes in benefit designs that have been required to bring plans into compliance. However, although interim final rules implementing MHPAEA have been in effect since July 1, 2010, and final rules went into effect in July 1, 2014, we continue to observe health plan issuers and employers offering benefits that are not fully compliant with the regulations regarding cost-sharing requirements. And because the requirements of the law affect both quantitative and non-quantitative aspects of health plans, determining compliance can both be highly technical and nuanced, and it may be difficult to assess compliance without performing an appropriately detailed analysis of each benefit plan.

While we observed substantial cost and utilization trends for behavioral healthcare following the implementation of MHPAEA, behavioral healthcare is only a small portion of total healthcare cost. That said, it has been shown that untreated behavioral conditions can substantially increase medical expenses for comorbid medical conditions. We have completed significant work studying the effect of behavioral and medical comorbidities, as demonstrated in the 2014 publication, “Economic Impact of Integrated Medical-Behavioral Healthcare.”<sup>8</sup>

With so many changes occurring in the marketplace under the Affordable Care Act (ACA) in recent years, the enforcement of MHPAEA has not been consistently applied in all areas of the country; however, we have observed a growing emphasis on MHPAEA compliance from state divisions of insurance and exchanges. There have been several notable enforcement actions in recent years against health insurance plans that have been found to be non-compliant with either quantitative or non-quantitative requirements. Insurers and employers for self-funded plans can be fined up to \$100 per member per day if found to be non-compliant with MHPAEA. Given our

experience working with plans’ compliance initiatives, we have seen that more changes may be expected in the future among new plan designs and those offered today.

## Caveats

The trends and paid-to-allowed ratios developed herein will likely not represent those of any particular plan, population, or geographic region. Actual trends and paid-to-allowed ratios for patients with different medical and behavioral conditions will likely vary from those developed for this paper. This is a retrospective analysis and is not intended to provide projections of future utilization, cost, or trend levels. In particular, this analysis focuses on the 2008-2013 period. The legal and regulatory landscape changed considerably starting in 2014 due to implementation of the ACA. Additionally, this paper focuses on the large employer market, which is the main market segment represented in our data source. MHPAEA originally only applied in that market but has since been extended to the individual and small group markets by the ACA. The results in this paper are not necessarily representative of trends, utilization, and costs in the individual and small group markets (and MHPAEA did not apply there during the time period being studied).

This briefing paper presents an analysis of behavioral and non-behavioral healthcare metrics in relation to MHPAEA, based on the authors’ review, which does not represent conclusive findings on the direct effects of this legislation or legal advice. Milliman does not intend to benefit or create a legal duty to any recipient of its work.

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## Appendix

### IDENTIFICATION OF BEHAVIORAL PRESCRIPTION DRUGS

Any claims identified by the following criteria were allocated to these categories.

- **Anti-anxiety drugs:** Therapeutic classes of “ASH, Benzodiazepines,” “Anticonvulsant, Benzodiazepine,” and “Anxiolytic/Sedative/Hypnot NEC.”
- **Central nervous system (CNS) agents:** Therapeutic classes of “Analg/Antipyr, Opiate Agonists,” “Anticonvulsants, Misc.,” and “CNS Agents, Misc.”
- **Anti-psychotics:** Therapeutic classes of “Antimanic Agents, NEC” and “Psychother, Tranq/Antipsychotic.”
- **Anti-depressants:** Therapeutic class of “Psychother, Antidepressants.”
- **Anorexiant:** Therapeutic class of “Stimulant, Amphetamine Type.”

### IDENTIFICATION OF NONBEHAVIORAL PRESCRIPTION DRUGS

Any prescription drug claim not categorized as a behavioral drug above is tagged under this category.