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Assessing the Impact of Parity in the Large Group Employer-Sponsored Insurance Market:

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Office of the Assistant Secretary for Planning and Evaluation

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This report was prepared under contract #HHSP223201600023I between HHS's ASPE/DALTCP and Truven Health Analytics. For additional information about this subject, you can visit the DALTCP home page at https://aspe.hhs.gov/office-disability-aging-and-long-term-care-policy-daltcp or contact the ASPE Project Officers, Laurel Fuller and D.E.B. Potter, at HHS/ASPE/DALTCP, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201; Laurel.Fuller@hhs.gov.

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TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

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STANDARD ABSTRACT

This study assessed the impact of the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) on the private, large group employer-sponsored insurance market. The impact of MHPAEA on mental health (MH) and substance use disorder (SUD) utilization and spending outcomes was assessed using interrupted time series regression analysis, focusing on outpatient services. In lieu of a control group, we compared MH and SUD services with non-behavioral health services. MHPAEA had significant and positive effects on any use of SUD services and the frequency of SUD services used. Increases in insurer and enrollee spending on SUD outpatient services were driven by increased utilization, and not enrollee cost sharing. When examined separately, similar effects were found for both opioid use disorder (OUD) and non-OUD SUD services, supporting the conclusion that effects can be attributed to parity and not to general trends related to the OUD crisis. Although MHPAEA had similar positive impacts on utilization of and spending on MH outpatient services, these effects were more moderate. MHPAEA led to a dramatic shift toward out-of-network spending for SUD outpatient services. In secondary analyses, we examined the impact of parity on three subgroups: individuals with serious mental illness, those with OUD, and high utilizers of behavioral health services. The effects on use and spending outcomes in these secondary analyses were consistent with overall findings. Sensitivity analyses were conducted by including only continuously contributing employers, which produced very similar results. Finally, the analyses provide evidence that the effects of parity on outpatient services were continuing up until the study end date of September 30, 2015, particularly for SUD services.

ABSTRACT

Summary: The Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) ensures that large group health plans and health insurance issuers offer comparable benefits for mental health (MH) and substance use disorder (SUD) services and medical/surgical services. This legislation builds on prior federal legislation from 1996, which extended parity to SUD services and provided a broader array of benefits, such as financial limits (e.g., unequal cost sharing), quantitative treatment limits (e.g., visit and stay limits), and processes and techniques for managing care (often called non-quantitative treatment limits). This report details an empirical investigation of the effects of MHPAEA on the large group employer-sponsored insurance market. Analyses focus on the impact of MHPAEA on access, frequency of use, and spending on outpatient behavioral health (BH) services.

Major Findings: MHPAEA had significant and positive effects on any use and frequency of SUD outpatient services and frequency of MH outpatient services. Although MHPAEA had a positive impact on average spending by insurer and enrollee, average out-of-pocket amount paid per outpatient visit by the enrollee did not increase. Hence, increases in utilization of MH and SUD outpatient services drove increases in spending due to MHPAEA, and not increased cost sharing by the enrollee. Analyses of opioid use disorder (OUD) and non-OUD SUD services supported the conclusion that effects on utilization and spending were attributable to parity and not to general trends related to the OUD crisis. In most cases, the impacts of MHPAEA were similar in direction across MH and SUD outpatient services, but the magnitude of effect was greater for SUD services. Finally, findings showed that parity resulted in a dramatic shift toward out-of-network providers for SUD outpatient services.

Purpose: This study empirically assessed the impact of the MHPAEA on the private, large group employer-sponsored insurance market. We analyzed whether MHPAEA had population-level effects on the following outcome dimensions for outpatient services: any use, frequency of use, spending, and reimbursement.

Methods: We used data from the Truven Health MarketScan® Commercial Claims and Encounters Database from January 1, 2005, through September 30, 2015. The study population consisted of enrollees younger than 65 years with continuous enrollment in employer-sponsored insurance plans. We designated January 1, 2011, as the beginning of the post-parity period (to align with the passage of the interim final rule). An interrupted time series regression framework was used to estimate the impact of parity on each outcome, with population-level summarized monthly measures of outcomes. Analysis focused on outcomes for MH and SUD outpatient services, but we also examined OUD and non-OUD SUD services and outcomes for high utilizers and vulnerable subpopulations. In lieu of a control group, results were compared with non-BH services.

EXECUTIVE SUMMARY

Background

The Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) ensures that large group health plans and health insurance issuers offer comparable benefits for mental health (MH) and substance use disorder (SUD) services and medical/surgical services. This legislation builds on the Mental Health Parity Act of 1996, which removed annual and lifetime dollar limits applied to MH coverage that were not comparable to medical and surgical benefits. MHPAEA extended parity to a broader array of benefits. With MHPAEA, large group employer-sponsored insurance plans can no longer choose to cover only some types of MH/SUD treatments if the same plan covers comparable medical/surgical treatments. Large group employer-sponsored insurance plans that cover MH and SUD services now must provide comparable coverage in six treatment categories: in-network inpatient, out-of-network inpatient, in-network outpatient, out-of-network outpatient, emergency care, and prescription drugs.

Operationally, MHPAEA requires comparability in three specific areas related to insurance coverage.

- **Financial Requirements**: cost sharing (e.g., copayments and deductibles).
- **Quantitative Treatment Limits (QTLs)**: limits on the quantity of treatment covered (e.g., number of days or number of visits covered in a single year) .
- **Non-Quantitative Treatment Limits**: processes and procedures used to determine eligibility for insurance coverage (e.g., prior authorization requirements, determination of medical necessity).

The expectation is that by addressing comparability of coverage in these three areas and including SUD treatment in the parity requirements, MHPAEA potentially will affect the behavioral health (BH) delivery system in four areas: (1) access or any use of services (e.g., whether an individual enters MH/SUD treatment at all); (2) the total number of MH/SUD visits once an individual enters treatment; (3) the overall spending on MH/SUD treatment (both by the insurer and by the enrollee); and (4) the reimbursement paid to the provider (both by the insurer and by the enrollee as a function of cost sharing through deductibles, copayments, coinsurance and provider network status).

Approach to This Research

Some previous research has found that large group employer-sponsored insurance plans shifted their coverage patterns, particularly by eliminating QTLs. Although MHPAEA was passed in 2008, the implementation period has spanned a number of years, with the Final Interim Regulations becoming fully effective in January 2011. Thus, it was only recently that data

became available to test the long-term impact of MHPAEA. The research presented here advances the field by: (1) examining a broader range of outcomes potentially affected by parity; (2) conducting analyses according to various analytic groups to better understand how parity affects specific groups, including stratifying the SUD group into opioid use disorder (OUD) and other SUD (non-OUD); and (3) adding more years of data to better model pre-parity and post-parity trends.

Methods

Our primary data source was the Truven Health MarketScan® Commercial Claims and Encounters (CCAE) Database. This database contains private insurance claims from approximately 150 large employers for employees, their dependents, and early retirees, which covers roughly 50 million lives per year. We examined enrollees younger than 65 years with annual continuous enrollment who were covered under large group employer-sponsored private insurance plans that included prescription drug data in their files.

We used a population-level analytic approach. First, we graphically present population-level outcomes over the study period, during which time parity was implemented. We then used a regression model to estimate the size of the parity impact and the statistical significance of the estimated impacts for each outcome.

Primary analyses focused on the impact of MHPAEA on *outpatient services*. We examined the impact of parity for use and spending outcomes separately for MH and SUD outpatient services. We also examined OUD and non-OUD SUD services. In secondary analyses, we examined use and spending outcomes for high utilizers and for two subpopulations--individuals with serious mental illness (SMI) and separately, individuals with OUD. Population-level monthly outpatient services outcomes were assessed over the study period from January 1, 2005, through September 30, 2015. The following outcomes were assessed:

- Utilization outcomes:
  - Percentage of enrollees with any service use.
  - Number of services used per service user.

- Financial outcomes (insurer):
  - Average insurer spending per service user (over 1-month period).
  - Average insurer reimbursement amount paid per service use (visit).

- Financial outcomes (enrollee):
  - Average enrollee out-of-pocket spending per service user (over 1-month period).
  - Average enrollee out-of-pocket amount paid per service use (visit).

- Other spending outcome (including insurer AND enrollee spending):
  - Ratio of total out-of-network spending to total overall spending.

The outpatient service category used in this report includes all services in the MarketScan CCAE outpatient file, with the exceptions of emergency department visits and laboratory and radiology tests. Thus, our outpatient service category was broad in scope and included such services as clinician office visits, intensive outpatient treatment, partial hospitalization, and outpatient residential services. We used a spending decomposition framework as a theoretical structure for interpreting results, which allowed us to explain what was driving any changes that we observed in spending at the population level.

For our regression analysis, we used a population-level interrupted time series (ITS) regression to estimate the impact of parity on each outcome, similar to methods used in other recent parity analyses.[1] We considered the pre-parity period as years 2005-2010 and the post-parity period as years 2011-2015. In each ITS regression, a linear time variable measured the overall slope of the trend line, whereas a parity pre-post indictor measured the one-time parity impact on the level of the trend line and a parity*month variable measured the impact of parity on the slope of the trend line. Additionally, we controlled for seasonality by including indicators for each month. In all spending-related outcomes, we controlled for inflation by including a quarterly measure of inflation. In lieu of a control group, results were compared with non-BH services, and sensitivity analyses were run on continuously contributing employers. We also performed tests for serial correlation on all models.

Summary of Results

Overall, findings from our primary analyses indicated that MHPAEA had a significant impact on utilization the outpatient visits for BH, particularly for SUD services.

- MHPAEA did not have an impact on any use of MH outpatient services (the percentage of enrollees who used one or more services). However, MHPAEA did have a small but meaningful positive effect on any use of SUD outpatient services, including both OUD and other non-OUD SUD services.

- MHPAEA had a significant positive impact on the frequency of outpatient services for both MH and SUD (average number of outpatient services used per service user). The magnitude of the impact of MHPAEA on SUD outpatient services was roughly ten times larger than the magnitude for MH outpatient services.

- The impact of parity on SUD outpatient services continued well into year 2015, which translates to an estimated increase of more than three additional SUD outpatient monthly services per service user, over the entire post-parity period.

- MHPAEA had a similar significant positive impact on frequency of outpatient services for both OUD and other SUD conditions, although the average number of outpatient

[1] Stuart EA, McGinty EE, Kalb L, et al. Increased service use among children with autism spectrum disorder associated with Mental Health Parity Law. Health Affairs. 2017; 36(2): 337-345.

services used per service user was slightly higher for the OUD diagnosis group than for the non-OUD diagnosis group.

Although MHPAEA had a positive and significant impact on average spending by the insurer (for both MH and SUD outpatient services) and the enrollee (for SUD outpatient services), there was little impact on enrollee cost sharing and no impact on reimbursement rates to providers.

- MHPAEA had a significant positive impact on average monthly insurer spending on MH and SUD outpatient services (both OUD and non-OUD services). For insurer spending on MH outpatient services, the impact was moderate, but the impact on SUD outpatient services was more substantial.

- MHPAEA had no impact on average out-of-pocket spending for MH. There was a small but non-trivial impact of MHPAEA on the average enrollee spending for SUD outpatient visits (both OUD and non-OUD services).

- There was no statistically significant effect of parity on the average reimbursement paid per outpatient visit for SUD. There was a statistically significant impact of MHPAEA on reimbursement rate paid per MH outpatient visit, but analyses indicated that this impact was not due to MHPAEA but rather to general health care trends.

- There was no statistically significant effect of parity on the average out-of-pocket amount paid per service by the enrollee for MH or SUD outpatient services. This result indicates that increases in spending were not due to increased cost sharing by the enrollee.

Analyses of out-of-network spending found significant and positive effects of MHPAEA on insurer and enrollee spending on SUD outpatient services.

- For SUD outpatient services, MHPAEA had a large and significant positive impact, demonstrating a shift in spending to out-of-network outpatient services. This large and significant impact was observed for both OUD and non-OUD SUD outpatient services, indicating that this impact was not driven exclusively by the opioid crisis.

- There was a general trend shifting spending to in-network for MH outpatient services as well as non-BH services. These findings suggest that this shift was due to general health trends and not to the impact of MHPAEA.

Analyses across analytic subgroups demonstrated different patterns in spending across the MH and SUD service categories.

- MHPAEA had a positive and significant impact on frequency of visits for high utilizers at the 95th percentile of service use. Total spending by the insurer for both MH and SUD treatment increased. However, there was no significant impact of parity on out-of-pocket costs to the enrollee for MH outpatient visits. For high utilizers of SUD services, there was a modest increase in out-of-pocket costs following parity.

- For those with SMI, MHPAEA had a positive impact on average insurer spending, primarily for SUD outpatient services. However, important for this group, there was no impact of MHPAEA on average out-of-pocket spending for either MH or SUD outpatient services.

- For those with an OUD, there was a positive impact of MHPAEA on insurer spending for both MH and SUD outpatient services. There also was a substantial positive impact on out-of-pocket spending for those receiving SUD services. Interestingly, MHPAEA also had a significant, positive impact on the level of out-of-pocket spending on MH outpatient services for those with SUD.

Conclusions

MHPAEA had a positive impact on utilization of outpatient BH services at the mean. Overall, the findings demonstrate a significant impact of MHPAEA on average utilization of MH and SUD outpatient services. Because we found effects for outcomes at the mean, we can conclude that the impacts of MHPAEA on outpatient service utilization were broad in scope and evident for the average user of outpatient BH services.

The impact of MHPAEA was particularly strong for SUD outpatient services. Although the impact of MHPAEA on utilization was evident for both MH and SUD outpatient services, we observed a much larger impact on SUD services. For example, the impact of MHPAEA on the frequency of SUD outpatient services was roughly ten times larger than the impact on MH outpatient services. This impact on utilization of SUD outpatient services was not unexpected, given that MHPAEA expanded parity to include SUD services and thus some insurance companies may have added SUD coverage where previously there was none.

The impact of MHPAEA on utilization of SUD outpatient services was not due to the OUD epidemic. MHPAEA affected both OUD and other non-OUD SUD diagnosis groups in a similar way, increasing confidence that the changes observed at the point of parity implementation were due to parity and not to the OUD crisis. However, we did observe a greater magnitude of impact of MHPAEA for OUD outpatient services, suggesting that the influx of individuals with OUD diagnoses during the same time frame as parity implementation interacted to some extent.

MHPAEA was not associated with a significant change in reimbursement rates to the providers or with increased out-of-pocket costs per service for the enrollee. Although we found that MHPAEA had a positive impact on both insurer and enrollee average monthly spending on outpatient BH services, the overall impact of parity on reimbursement rates per visit and enrollee out-of-pocket spending per visit was negligible. These findings demonstrate that MHPAEA's impact on increased outpatient service utilization was the driver of the impact on spending for BH outpatient services (both for the insurer and the enrollee).

MHPAEA led to a dramatic shift to out-of-network spending for outpatient SUD services. Analyses of in-network and out-of-network spending demonstrated that these increases in the ratio of out-of-network spending to total outpatient spending for SUD outpatient services were

not due primarily to the opioid epidemic. Although MHPAEA had a substantial and positive impact on spending for all SUD outpatient services, in the stratified analyses, this impact was evident primarily for non-OUD SUD services.

These analyses found no evidence that the effects of MHPAEA are leveling off over time. One methodological advantage of this study is that it extends the post-period to the third quarter of 2015, well beyond the point of other published studies in this area. Our analyses demonstrate that in the large employer-sponsored insurance market, the impact of parity, particularly on SUD outpatient services, is continuing to grow.

In sum, MHPAEA led to improved access and utilization of BH outpatient services, and increases in spending were driven primarily by overall increases utilization of outpatient services. Although spending for SUD services increased, it is important to note that use of SUD services is a small fraction of overall BH service use and is unlikely to have an impact on overall health care spending. Further analyses of the dramatic shift toward out-of-network outpatient SUD services is necessary. Future research should investigate the reasons for this shift and the implication that SUD provider networks may be inadequate. More research also is needed on the additional burden of the out-of-pocket spending for those with OUD, attributed to the increased outpatient service use that parity has facilitated. Given the current OUD crisis, it is critical to assess whether this cost sharing is a barrier to receipt of SUD outpatient treatment for those with OUD.