Drug and Alcohol Dependence 124 (2012) 340–346

Contents lists available at SciVerse ScienceDirect

Drug and Alcohol Dependence

journal homepage: www.elsevier.com/locate/drugalcdep

What Oregon's parity law can tell us about the federal Mental Health Parity and Addiction Equity Act and spending on substance abuse treatment services☆

K. John McConnell[a,*], M. Susan Ridgely[b], Dennis McCarty[a]

[a] Oregon Health & Science University, United States
[b] RAND Corporation, United States

ARTICLE INFO

Article history:
Received 24 July 2011
Received in revised form
30 December 2011
Accepted 4 February 2012
Available online 28 February 2012

Keywords:
Parity
Health economics
Health policy
Alcohol treatment
Substance abuse treatment
Managed care

ABSTRACT

Background: The Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) requires commercial group health plans offering coverage for mental health and substance abuse services to offer those services at a level that is no more restrictive than for medical-surgical services. The MHPAEA is notable in restricting the extent to which health plans can use managed care tools on the behavioral health benefit. The only precedent for this approach is Oregon's 2007 state parity law. This study aims to provide evidence on the effect of comprehensive parity on utilization and expenditures for substance abuse treatment services.

Methods: A difference-in-difference analysis compared individuals in five Oregon commercial plans (n = 103,820) from 2005 to 2008 to comparison groups exempt from parity in Oregon (n = 19,633) and Washington (n = 39,447). The primary outcome measures were annual use and total expenditures.

Results: Spending for alcohol treatment services demonstrated statistically significant increase in comparison to the Oregon and Washington comparison groups. Spending on other drug abuse treatment services was not associated with statistically significant spending increases, and the effect of parity on overall spending (alcohol plus other drug abuse treatment services) was positive but not statistically significant from zero.

Conclusions: Oregon's experience suggests that behavioral health insurance parity that places restrictions on how plans manage the benefit may lead to increases in expenditures for alcohol treatment services but is unlikely to lead to increases in spending for other drug abuse treatment services.

1. Introduction

The 2008 enactment of the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act (PL 110-343) (MHPAEA) represents a new era for coverage of substance abuse treatment services. The MHPAEA is a comprehensive federal "parity" law, requiring group insurers that offer coverage for behavioral health services to offer those services at a level that is no more restrictive than for medical-surgical services. In other words, health plans may not impose a visit or spending limit for mental health or substance abuse treatment unless a similar limit exists for an analogous general medical condition. While the law has some exclusions (for example, group health plans covering less than 50 employees), it is substantially more comprehensive than the 1996 Mental Health Parity Act (PL 104-204) and considerably stronger than most state parity laws. It is noteworthy, in particular, in that it applies to alcohol and other drug abuse treatment services, services that were excluded from the 1996 federal parity law and many state parity laws.

Although the MHPAEA became effective beginning in October 2009, its reach has been substantially enhanced with the 2010 enactment of the Patient Protection and Affordable Care Act (PL 111-148) (ACA). Provisions of the ACA specify "minimum essential coverage" that applies to the Medicaid expansions, individual mandate, and health insurance exchanges. This essential benefit package includes coverage of mental health and substance abuse treatment services. Taken together, the ACA and MHPAEA will substantially increase in the number of people whose insurance will cover substance abuse treatment services, as well as assure that these services will be covered at parity with general medical-surgical services.

Although the ACA has received more media attention around its most contentious provision – the individual mandate – the MHPAEA has also generated controversy. The most vigorously

☆ Supplementary tables can be found by accessing the online version of this paper at http://dx.doi.org. Please see Appendix A for more information.

* Corresponding author at: Oregon Health & Science University, 3181 SW Sam Jackson Park Rd., Mail Code CR-114, Portland, OR 97239, United States. Tel.: +1 503 494 1989; fax: +1 503 494 4640.
E-mail address: mcconnjo@ohsu.edu (K.J. McConnell).

0376-8716/$ – see front matter © 2012 Elsevier Ireland Ltd. All rights reserved.
doi:10.1016/j.drugalcdep.2012.02.006

debated provision of the law defines "treatment limitations" to include not only frequency of treatment (i.e., number of visits and days of coverage) but also "similar limits on the scope or duration of treatment." The regulations implementing the MHPAEA distinguished these limitations as "non-quantitative treatment limitations" (NQTLs), with the implication that behavioral health benefits could not be managed differently than the physical health benefit without a clinical justification. While under the federal parity rules literal equivalence is not required, the "criteria, processes and evidentiary standards" used by an insurer in determining when and how an NQTL is applied must be comparable.

The NQTL restriction is controversial because studies of parity have almost exclusively tested implementations where visit and spending limitations were removed but behavioral health services received *greater* oversight and management (Azzone et al., 2011; Barry et al., 2006; Goldman et al., 2006; Ma and McGuire, 1998; Rosenbach et al., 2003; Sturm et al., 1998). The partnering of parity and managed care was often seen as "a Faustian bargain" (Goode, 2001), with managed care and carve-outs substituting for the traditional "quantitative" limitations on behavioral health services.

Thus, there are two aspects of the MHPAEA that distinguish it from its predecessor and from state parity laws. First, the MHPAEA limits "differential management" of behavioral health benefits. Second, the MHPAEA extends parity to include coverage for substance use disorders. Previous studies provide little evidence on what to expect for spending on substance abuse treatment services in the context of the MHPAEA.

This study aims to fill that gap. We examine the effects of the Oregon's comprehensive state parity law, enacted in 2007. Oregon's law is among the most comprehensive, including coverage of benefits for the treatment of alcohol and other drug use disorders, as well as restricting management of the behavioral health benefit, which in 2007 was a significant departure from both federal and state parity laws and policies.

An evaluation of the Oregon parity law found no significant increases in aggregate behavioral health spending associated with its implementation (McConnell et al., 2012). In this paper we examine the effect of Oregon's parity law on utilization and spending for alcohol and other drug abuse treatment services, independent of utilization and spending on treatment of other mental disorders.

2. Methods

Oregon's parity law was enacted in 2005 and went into effect on January 1, 2007. Prior to the law, Oregon did require plans to offer substance abuse treatment services and to cover visits up to a minimum actuarial value of $13,125 for adults and $15,625 for children under 18 years old. However, the parity law represented a substantial improvement in coverage, moving Oregon from being among seven states with minimum parity mandates to a state with the most comprehensive parity law in the country. The parity law effectively removed quantitative treatment limitations on the number of visits and length of stay for *all* substance abuse treatment: outpatient, inpatient, and residential.

The law applied to commercial group plans that were not self-insured and contained a broad definition of mental health and substance use disorders, including almost all disorders in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, revised in 2000). The parity law also eliminated separate and unequal deductibles and unequal out-of-pocket copayments or coinsurance.

In contrast to most implementations of parity, Oregon's law was noteworthy for the ways in which the Oregon statute restricted the management of the behavioral health benefit. The Oregon Insurance Division interpreted the statute to mean that managed care tools such as "selectively contracted panels of providers, health policy benefit differential designs, preadmission screening, prior authorization, case management, utilization review, or other mechanisms designed to limit eligible expenses to treatment that is medically necessary" could not be used unless there was an analog in the management of medical-surgical benefits (Oregon Insurance Division, 2008).

We studied the utilization and expenditures of enrollees between the ages of 4 and 64 who were continuously enrolled in one of five Preferred Provider Organization (PPO) health plans affected by the 2007 Oregon parity law. We examined changes in access, total spending, and out-of-pocket spending on substance abuse treatment services. To account for changes over time unrelated to the parity law, we used a comparison group of Oregonians who were continuously enrolled in self-insured commercial PPO plans. Our study was conducted prior to the implementation of the MHPAEA, and as health plans regulated under the Employee and Retirement Income Security Act of 1974 (so-called ERISA plans), these self-insured plans were exempt from state parity laws.

Since there is the potential that the Oregon parity law may have led to changes in provider or insurance behavior that affected the treatment of self-insured individuals in Oregon, we also conduct a second set of analyses that use self-insured individuals from the State of Washington. These additional analyses provide a measure of robustness, since Washington is similar in its delivery system and blend of rural and urban populations, but commercially insured individuals in Washington should not have been affected by Oregon's law.

2.1. Data

We collected information on benefit design and management from structured, on-site interviews with key informants at each of the five PPO plans. We adapted the semi-structured interview developed for the evaluation of parity in the Federal Employees Health Benefits Program (Goldman et al., 2006). We collected data on a variety of non-quantitative treatment limitations that are common to both the Oregon regulations and the MHPAEA, including prior authorization, the use of treatment plans as a utilization management tool, and the use of "carve outs" (management of the behavioral health benefit by a specialty organization).

From each of the five PPOs, we obtained four years of data on enrollment and medical and pharmacy claims, including 2 years before and 2 years after the implementation of the Oregon parity law. We also obtained claims data on a comparison cohort of individuals continuously enrolled in self-insured plans in Oregon and Washington from the Thomson Reuters' MarketScan database.

Alcohol use disorders were defined as those with diagnostic codes 291 and 303 in the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). Other drug use disorders were defined as those with diagnostic codes 292, 304, 305.0, and 305.2–305.9. An inpatient visit was classified as alcohol or other drug abuse treatment if the primary diagnosis was an alcohol use or substance use disorder. An outpatient visit was classified as alcohol abuse or substance abuse treatment if the primary diagnosis was an alcohol or substance use disorder or there was a procedure code specific to alcohol or substance abuse treatment.

2.2. Statistical analysis

We estimated the effect of parity on utilization and spending on three outcomes – overall substance abuse services, alcohol treatment services, and other drug abuse treatment services – using the difference-in-differences method. The difference-in-differences is the average difference (occurring with the implementation of parity) in outcomes of interest among Oregonians affected by parity, subtracted by the average difference (after the parity implementation) among the comparison group (self-insured individuals in plans not affected by the parity legislation). The first difference reflects changes in the outcome of interest (access, utilization, or cost) that occur after the parity implementation. By subtracting the second difference – the changes that occur in the comparison group – we net out the secular changes that may have occurred for reasons not related to the parity law. Any remaining significant differences in outcome – the difference-in-differences – are attributed to the parity legislation.

To estimate the difference-in-differences model, we used a two-part model that accommodated two important characteristics of health care spending (Duan et al., 1983). First, in any given year, many individuals will not have any episodes of treatment or expenditures for alcohol or substance abuse treatment. Thus, our dependent variable will have a large cluster of observations at zero. Second, among individuals who do use care, the distribution tends to be skewed, with a small proportion of individuals having high levels of spending. We examined a number of competing approaches that have been discussed in the literature to account for this skewed distribution (Manning, 1998; Manning and Mullahy, 2001). After testing competing models, we settled on the generalized linear model with a log link and gamma variance distribution. The overall estimate of spending is based on the product of part one (the probability of accessing care, estimated by a logistic regression with the dependent variable taking a value of 1 if any substance abuse treatment services were accessed, and 0 otherwise), and part two (spending, conditional on accessing care, estimated by a generalized linear model). To generate our estimates of interest, we used the method of recycled predictions, using clustered bootstrapping to generate 95% confidence intervals that account for correlation among repeated annual observations.

In our analyses of out-of-pocket spending, we also use a difference-in-difference analysis with median regressions to test for changes in median co-payments that might not be detected by mean changes driven by large outlier payments.

Our unit of observation was the person year. In our regressions, we adjusted for age, sex, and the person's relationship to the policyholder (e.g., child or dependent). The key variables of interest were an indicator variable assigned a value of one for the post-parity period and zero for the pre-parity period, an indicator variable assigned a value of one for individuals in fully insured plans (i.e. covered by the