

Journal of the American Psychiatric Nurses Association

<http://jap.sagepub.com/>

The Patient Protection and Affordable Care Act: Impact on Mental Health Services Demand and Provider Availability

Shoshannah A. Pearlman

Journal of the American Psychiatric Nurses Association 2013 19: 327 originally published online 11 November 2013
DOI: 10.1177/1078390313511852

The online version of this article can be found at:
<http://jap.sagepub.com/content/19/6/327>

Published by:



<http://www.sagepublications.com>

On behalf of:



American Psychiatric Nurses Association

Additional services and information for *Journal of the American Psychiatric Nurses Association* can be found at:

Email Alerts: <http://jap.sagepub.com/cgi/alerts>

Subscriptions: <http://jap.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>


Permissions: <http://www.sagepub.com/journalsPermissions.nav>

>> [Version of Record](#) - Nov 21, 2013

[OnlineFirst Version of Record](#) - Nov 11, 2013

[What is This?](#)

The Patient Protection and Affordable Care Act: Impact on Mental Health Services Demand and Provider Availability

Journal of the American Psychiatric Nurses Association
19(6) 327-334
© The Author(s) 2013
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/1078390313511852
jap.sagepub.com


Shoshannah A. Pearlman¹

Abstract

The Patient Protection and Affordable Care Act (ACA) will greatly increase the demand for mental health (MH) services, as 62.5 million Americans from relatively high-need populations will be newly eligible for MH benefits. Consequently, the supply of MH care provider services is expected to proportionately decrease by 18% to 21% in 2014. ACA funding does not demonstrate the ability to increase turnout of psychiatrists sufficiently to meet the need. Available data indicate that the numbers of advanced practice psychiatric nurses (APPNs) continue to increase at a much greater rate, but information from either a clinical perspective or a market perspective is complicated by the weak distinctions that are made between nurse practitioners (NPs) and other nonphysician care professionals. The following recommendations are made: (a) some of the ACA funding for research into efficient and effective care delivery systems should be allocated to acquiring data on APPNs in leadership roles or clinical settings in which they are ultimately responsible for management of MH care, as differentiated from settings in which they provide support for psychiatrists; and (b) since the available data indicate nurse practitioners achieve good outcomes and are more economically viable than psychiatrists, placement of psychiatric-mental health nurse practitioners in community settings should be recognized as a realistic solution to the shortfall of MH services.

Keywords

community mental health services, health care reform, health services, primary health care, public policy issues

The Patient Protection and Affordable Care Act (ACA) promises to bring health care to millions of uninsured Americans. The purpose of this article is to explain key points of the ACA and recognize their profound implications for Advanced Practice Psychiatric Nurses (APPNs) and their patients. The author will attempt to quantify the increase in demand for mental health (MH) services and explore how APPNs can help meet the need.

Better Mental Health Coverage

Many health insurance plans do not currently include benefits for MH services. According to the U.S. Department of Health and Human Services (DHHS), 5.1 million Americans are covered by insurance plans that do not include MH services and 30.4 million are covered by plans that include MH benefits below the standards set by the ACA (Beronio, Po, Skopec, & Glied, 2013; DHHS, 2011; Todd & Sommers, 2012). These individual or small group plans, which are not subject to the Mental Health Parity¹ and Addiction Equity Act of 2010, often have higher copayments, deductibles, and/or annual out-of-pocket limits (American Psychological Association,

2010), creating obstacles to mental health care. In addition to the 27 million currently uninsured citizens who will receive access to MH services as part of their new health coverage, these 35.5 million Americans will have new or improved MH services added to their existing coverage.

Better Detection of Depression and Other Mental Illness

Depression screening for adults and adolescents and behavioral screening for children are among the preventative care benefits that primary care providers are required to offer free of charge under the ACA. The DHHS 2013 budget plan proposes \$185 million for state and local programs that train teachers and other adults to help recognize the early signs of mental illness in

¹Shoshannah Pearlman, MSN, Columbia University School of Nursing, New York, NY, USA

Corresponding Author:

Shoshannah Pearlman, 100 Bennett Ave #1-C, New York, NY 10033, USA.
Email: spearlm1@gmail.com

students (DHHS, 2013). Patients are also more likely to seek diagnosis of their mental illness if treatment is available and covered (see below).

Better Access to Treatment Through Mandated Integration of Care

Integrated primary care settings, in which MH and other health care services are offered alongside primary care, are emphasized in the ACA. The model in which MH services are offered as a routine part of health care removes many geographic and economic barriers to care. Furthermore, it also removes a great deal of the stigma from treatment for mental illness, which is currently a significant obstacle to care (C. Brown et al., 2010; Conner et al., 2010; Cummings, Lucas, & Druss, 2013). When visits to the primary care center for counseling or psychotropic medication management are no more noteworthy than visits for follow-up lab draws or asthma monitoring, patients may be more likely to seek MH services. Furthermore, Americans are less willing to pay out-of-pocket for MH services than for other forms of health care (Smith, Damschroder, Scott, & Ubel, 2013; Ziller, Anderson, & Coburn, 2010; Zuvekas & Selden, 2010). Current underutilization of services will diminish with the knowledge that covered treatment is available.

The predicted increase in treatment and detection of MH conditions is a major benefit from the ACA. However, MH care resources are currently strained due to a shortage of psychiatric prescribers² (Health Resources and Services Administration [HRSA], n.d., 2010; Thomas et al., 2009) and the expansion of the demand for services will present a major challenge to the health care system. This article will discuss the critical role that APPNs can play to remedy the deficit.

Ratio of Mental Health Care Providers to the Population With Mental Health Insurance Parity

The HRSA currently defines an MH professional shortage area in terms of the ratio of psychiatrists to the general population (HRSA, n.d.). As Table 1 shows, the number of psychiatrists as a proportion of the population whose MH services are adequately covered will drop 21% to 24% in 2014 when 62.5 million consumers become newly eligible for MH services that meet parity requirements. Previously adequate proportions of providers will be insufficient when the percentage of the general population eligible for and actively seeking MH care increases. Regions not previously identified as shortage areas will effectively experience shortages, while previously identified shortages will be exacerbated.

The DHHS 2013 budget includes a \$50 million item to train MH professionals, including psychologists, social workers, and counselors, in order to get new providers into the workforce more quickly. Such master's-level providers literally have no impact on health care shortages (including MH) as they are currently defined by the HRSA. Furthermore, they cannot remedy the greatest MH care shortage, which the available data indicate is a lack of providers with prescriptive authority (Thomas et al., 2009). While the \$235 million allocated for MH is a step in the right direction, the majority of that budget goes toward improving detection and diagnosis, which will rapidly add to the unprecedented demand on the mental health care delivery system.

Mental Health Diagnosis and Usage of Mental Health Services Among Adults under the ACA

The impact of the proportionate drop in the number of MH providers depends on the usage of services by the newly insured. Actual rates of mental illness among the currently uninsured or underinsured may be different, rates of appropriate diagnosis may change, and/or usage patterns may be affected by the changing model of MH services. Any of these factors could affect the ratio of MH providers to insured population necessary to meet the need.

Limited available data obtained from the results of extending public assistance health benefits to lower-middle-income families in the 100% to 400% Federal Poverty Limit range (Byck, 2000; Decker, Kostova, Kenney, & Long, 2013) indicate that the health demographics of the newly insured families are more similar to those of the general population than they are to the existing Medicaid population, which tends to have higher rates of chronic illness. Suggesting that these demographics apply to MH conditions, as well, the study by Kessler, Tat Chui, Demler, and Walters (2005) of data from the National Comorbidity Survey Replication indicates no significant correlation between economic status and mild to moderate mental illness. However, they also found that adults with severe mental illness (SMI) experience significant functional/economic impairments and constitute approximately 6% of the total population. They are more likely to be uninsured pre-ACA (Seltzer, 2007), so the influx of previously uninsured patients into the health care system will include a higher percentage of individuals with SMI than the general population.

Table 2 shows that schizophrenia is overrepresented in use of ambulatory and hospital-based services relative to prevalence in the population. Anxiety, the largest single contributor to mental illness prevalence and

Table 1. U.S. Population and Mental Health Care Providers, 1990-2014.

Population	1990	2000	2004	2010	2014 (Projected)
U.S. population (millions)	249	281 ^a	293 ^a	307 ^a	320 ^a
U.S. insured population (millions)		236.9 ^a	249.3 ^a	257.0 ^a	289-299 ^{a,b}
U.S. population whose MH benefits have parity with other services				221.5 ^{a,b}	289-299 ^{a,b}
Psychiatrists practicing in the United States (thousands)	39.2 ^a	39.5 ^a , 41.6 ^c , 33.1 ^d	40, 43.4 ^c , 33.6 ^d	40.5 ^a , 45.2 ^c , 34.4 ^d	41.5, 47.1 ^c , 35.5 ^d
APPNs practicing in the United States (thousands)			8.6 ^e	12.2 ^e	14.8 ^e
Psychiatrists per 100,000 insured population		16.7	16.0	15.8	13.9-14.4
Psychiatrists + PMHNP per 100,000 insured population			19.5	20.5	18.8-19.5
Psychiatrists per 100,000 with full MH coverage				18.3	13.9-14.4
Psychiatrists + PMHNP per 100,000 with full MH coverage				23.8	18.8-19.5

Note. MH = mental health; APPN = advanced practice psychiatric nurse; PMHNP = psychiatric-mental health nurse practitioner. Also see Figure 1.
a. From U.S. Census Bureau 2012a, 2012b, 2012c.
b. From Beronio et al. (2013).
c, d. Estimates and projections of total active psychiatrists (c) and estimates and projections of full-time equivalent active psychiatrists in clinical practice (d) for 2000, 2005, 2010, and 2015 from Health Resources and Services Administration, Bureau of Health Professions (2008).
e. From Oleck et al. (2011).

Table 2. Categories of Mental Illness as Percentage of All Mental Illness Cases and Proportional Use of MH Resources.

Mental illness	% of Population	Mild to moderate (% of MH cases) ^a	Severe (% of MH cases) ^a	% of Ambulatory care visits ^b	% of Hospital discharges ^b
Anxiety, stress, adjustment disorders	18.1 ^a	53.3	15.8	20	4.4
Mood disorders (depression, bipolar)	10.8 ^a , 8.2 ^c , 8.7 ^b	19.9	16.3	38	40
Schizophrenia and psychotic disorders	0.6 ^b	— ^d	— ^e	6	14.5

Note. MH = mental health.

a. Kessler et al. (2005).

b. Reeves et al. (2011). Mood disorder only reports depression. Schizophrenic and psychotic disorders only reports schizophrenia. Hospital discharges for mood disorders includes bipolar.

c. Kessler et al. (2005), depression only.

d. All schizophrenia is classed here as severe.

e. Data not available.

the most likely to present as mild to moderate using measures largely based on psychosocial functioning, is underrepresented in use of services. Since the increase in insured individuals is biased toward higher-severity and higher-need patients, use of MH coverage by the insured population may proportionately increase.

Increased rates of treatment for mild to moderate mental illness could be the greatest impact on mental health care resources, because these cases comprise the majority of mental illness cases (78%) and go frequently untreated (Substance Abuse and Mental Health Services Administration [SAMHSA], 2008, 2012a, 2012b). More

than half of those with mental illness who did not receive treatment said that they could not afford it or their insurance would not cover enough treatment. Others ($\geq 28\%$) had concerns relating to stigma and 16% did not know where to find treatment. If reducing the stigma, covering the cost, and removing the logistic barriers to MH services results in rates of treatment for mild to moderate mental illness comparable to current rates of treatment for those with severe MH, an additional 7.5 million people will receive MH treatment (Table 3). Compare this number to the entire MH patient volume of 13 million in 2007 (E. Brown, 2011).

Table 3. New Mental Health Patients Under ACA by Severity of Illness.

	Mild	Moderate	Total
Current treatment rates	1.8	2.4	4.2
Treatment rates equal to current SMI patients	3.9	3.6	7.5

Note. ACA = Affordable Care Act; MH = mental health. Calculated from the estimated 62 million individuals with new or expanded MH coverage from DHHS (2011), prevalence rates from Kessler et al. (2005), and treatment rates from SAMHSA (2012a).

MH Diagnosis and Use of MH Services Among Children and Adolescents Under the ACA

An estimated 7.6 million children and adolescents under age 19 will gain new access to MH benefits (Beronio, Po, Skopec, & Glied, 2013; DHHS, 2011; Todd & Sommers, 2012). Prevalence data on children and adolescents indicates that rates of mental disorders are similar among the uninsured and privately insured populations (Child and Adolescent Health Measurement Initiative, 2012). As noted by Kelleher and Bridge (2012), population prevalence estimates are suspect when the surveyed populations include substantial minorities with limited access to care. Surveys tend to include rates of *diagnosed* or *clinically noted* mental illness, while many patients suffer from such poor health literacy and/or access to health care providers, particularly MH care providers, that such clinical observations could scarcely have been made in the first place (Child and Adolescent Health Measurement Initiative, 2012; Ghandour, Kogan, Blumberg, Jones, & Perrin, 2012; Reeves et al., 2011). Surveys based on parent-reported symptoms of mental illness in children and adolescents lack confirmation by validated measures. Keeping these facts in mind, most population prevalence estimates (when the population under consideration is the general, rather than clinical, population) should generally be viewed as lower bounds and not as hard numbers. The fact that states in which MH parity was introduced ahead of federal legislation have higher rates of diagnosed child and adolescent mental illness (Ghandour et al., 2012) supports the hypothesis that improvement in access to MH services among the general population will lead to rates of diagnosis reflecting greater prevalence than previously estimated.

Even among the insured, 45% of children and adolescents with depression, anxiety, or behavioral diagnoses do not receive treatment (Child and Adolescent Health Measurement Initiative, 2012; Ghandour et al., 2012). Forth-three percent of children and adolescents who

receive MH treatment do so in an educational setting, as opposed to a specialty or general medical setting (Ghandour et al., 2012), indicating that they are not receiving MH care at parity with medical services. While detailed information is lacking, available data suggest that, if the ACA achieves true parity of MH services, usage will be proportionately greater among the insured child and adolescent population than it is now.

Meeting the Need

Defining the true capacity of the mental health care system is complicated because of the widely varying and poorly understood scopes of practice of the various categories of mental health care professionals. According to the National Alliance on Mental Illness (Duckworth, 2013), mental health professionals include psychiatrists, psychologists, psychiatric-mental health nurse practitioners (PMHNPs), psychiatric/mental health nurses and clinical nurse specialists (PMHCNSs), social workers, licensed professional counselors, and peer specialists. Services provided by these professionals include medical, psychological, and psychiatric evaluations; psychotherapy/psychoanalysis; medication prescription and monitoring; behavioral treatment of emotional and behavioral disorders; and case management. The professionals whose scope of practice includes the full spectrum of MH services and the only ones with authority to prescribe medications, bringing MH care to parity with medical care, are psychiatrists and PMHNPs.³

Advanced practice psychiatric nursing is a relatively new field and is still low in number, but the number of certified APPNs increased more than 40% from 8,751 in 2004 to an estimated 12,200 in 2010 (Oleck et al., 2010).⁴ In contrast, the number of psychiatrists increased less than 3% between 2000 and 2009 (U.S. Census Bureau, 2012a). While the ratio of psychiatrists to the general population may at one time have been a valid measure of the population's access to MH services, Figure 1 and the data in Table 1 indicate that this is no longer the case.

The ACA emphasizes moving a great deal of MH care into the realm of primary care. Primary care management of common mental disorders works best in a collaborative model including input from an MH professional providing overall management or oversight of care (Cheung, 2007; Gilbody, Bower, Fletcher, Richards, & Sutton, 2006; Leslie, 2013; Schöttle, Karow, Schimmelmann, & Lambert, 2013). Recognizing that specialized psychiatry fills an irreplaceable role in integrated care, the Congressional Report, "Physician Supply and the Affordable Care Act" (Heisler, 2013) acknowledges the shortfall of psychiatrists and describes three provisions of the ACA that address this shortfall.

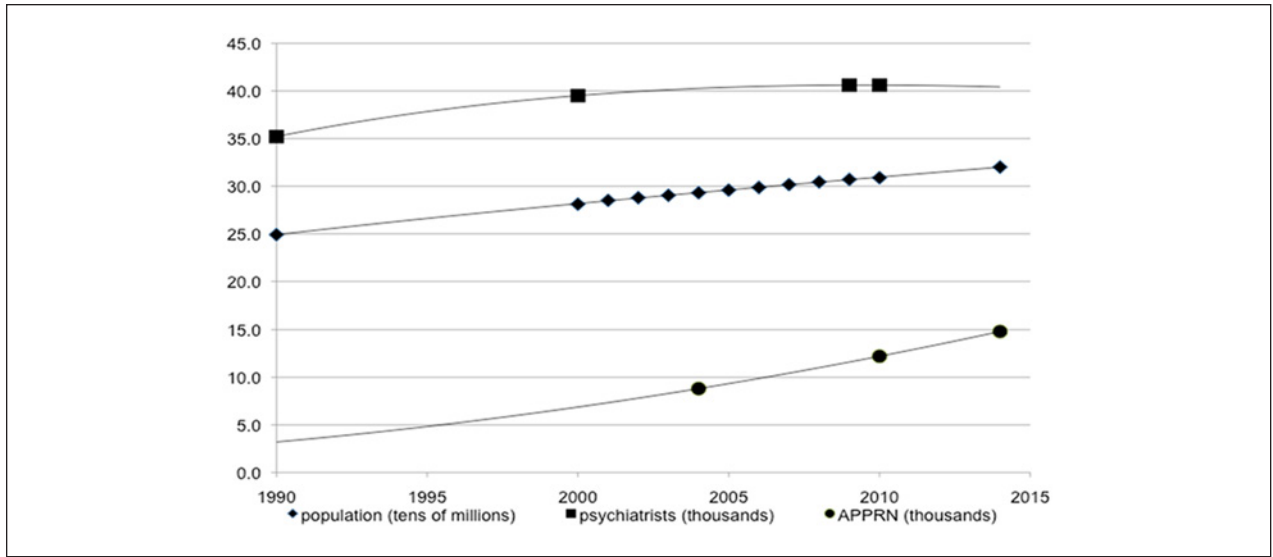


Figure 1. U.S. general and mental health provider populations.

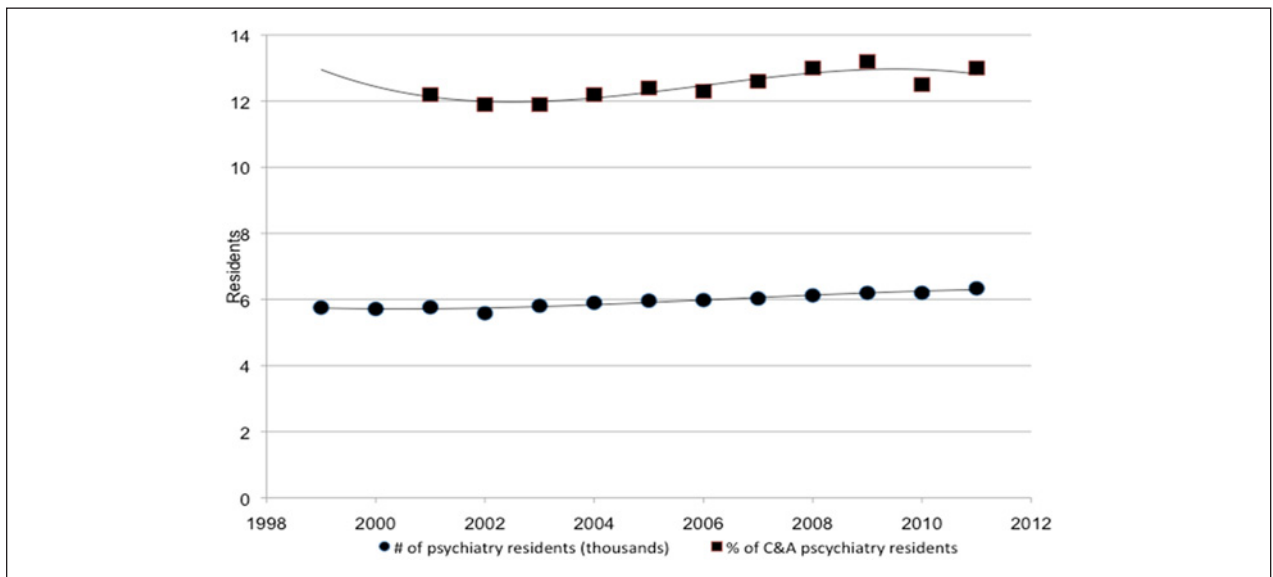


Figure 2. General and child and adolescent psychiatry residents.

Sections 5306 and 756 provide \$35 million for training and education of MH professionals and paraprofessionals, including \$10 million annually through 2013 to institutions that train master’s-level or above psychiatric/MH professionals. Section 5203 provides for \$20 million annually, 2010 to 2013, in loan repayment for physicians specializing in pediatric psychiatry or behavioral pediatrics. Sections 5604 and 520k provide \$50 million for co-location of primary care and MH services in community settings.

Data from the American Psychiatric Association (2003-2011) indicate that the number of psychiatric

residents in practice has been slowly increasing since approximately 2003, while the percentage of psychiatric residents specializing in child and adolescent psychiatry has fluctuated between 12% and 13% during that time (Figure 2). Increases in each figure reflected in the 2011-2012 report, while encouraging, are modest enough to be consistent with previous increases and do not demonstrate the ability of ACA funding to increase turnout of psychiatrists sufficiently to meet the increased need or to effectively incentivize the child and adolescent psychiatry specialty.

Table 4. Costs of Expanding the MH Care Provider Workforce.

Amount	Psychiatrist (MD)	PMHNP
Total tuition (public, in-state)	\$100,000 ^a	\$20,000 ^b
Total tuition (private)	\$170,000 ^a	\$60,000 ^b
Median annual salary	\$177,000 ^c , \$178,700 ^d	\$91,400 ^c
Median annual salary for all professionals with equivalent licensing/degree	\$202,400 ^c (general/family), \$356,900 ^c (specialty)	\$86,000 ^d , \$90,000 ^c

a. Data retrieved from <https://www.aamc.org/students/aspiring/paying/283080/pay-med-school.html>

b. Data retrieved from <http://www.middlelevelu.com/blog/how-much-does-it-cost-become-nurse-practitioner>

c. Data retrieved from <http://www.bls.gov/>

d. Data retrieved from <http://www.payscale.com>

In contrast, data from accredited nursing schools and the ANCC, the main credentialing body for NPs, indicates that the number of psychiatric NPs continues to increase at a much greater rate (Figure 1; Oleck et al., 2011). This difference may be partly because NPs who specialize in psychiatry can expect to earn as much as or more than their colleagues in other specialties or general practice, while psychiatrists can expect to make less than other MDs and substantially less than other specialties (Table 4). Although existing evidence indicates that NPs achieve outcomes comparable to physicians in clinical settings (Baradell, 1995; Baradell & Bordeaux, 2001; Parrish & Peden, 2009), data from either a clinical perspective or a market perspective is complicated by the weak distinctions that are made between NPs and other nonphysician providers, such as physician assistants and CNSs, in surveys and other studies of clinical settings (Park, Cherry, & Decker, 2011). To achieve parity of mental health services with other essential health care benefits, valid information is needed about the clinical and economic impact of PMHNPs in leadership and gatekeeper roles currently dominated by psychiatrists.

Summary and Conclusions

The U.S. health care industry is about to experience a dramatic shortage of MH providers, for the following reasons:

1. Increase in the number of citizens with medical coverage and MH coverage at parity without corresponding increase in the number of psychiatrists. This change will result in an 18% to 21% proportional decrease in the number of full spectrum MH providers, which should be seen as a lower bound on the shortage.
2. Greater rates of diagnosis of existing mental illness.
3. Small but costly increase in high-needs MH patients.
4. Large increase in lower-acuity patients who receive treatment.

Recommendations

1. The ACA provides significant funding for research into efficient and effective care delivery systems. These funds should be proportionately allocated to acquiring data on APPNs in clinical settings in which they practice to the full extent of their education and training, in which the services they provide are not limited by the availability of a psychiatrist as supervisor or gatekeeper of care.
2. Since the available data indicate NPs get good outcomes and are more economically viable than psychiatrists, widespread placement of PMHNPs in community settings as a realistic solution to the shortfall of MH services should be considered.

Allocation of resources to MH services is part of the forward-thinking, population-based approach to health care that informs the ACA. In time, these measures may result in a healthier population overall through the synergy of mental health and primary care.

Acknowledgment

Special thanks to Penelope Buschman, PMHCNS-BC, FAAN, and Sarah Delaney, PMHNP-BC, MSN, NP-P, for their help in the preparation of this article.

Author's Note

Shoshannah Pearlman is now at the Doctor of Nursing Practice Program, Hunter-Bellevue School of Nursing, New York.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Notes

1. "Parity" refers to the same level of benefits for mental illness or substance abuse as for other physical disorders and diseases, including visit limits, deductibles, co-payments, and lifetime and annual limits (National Conference of State Legislatures, 2012). The 2010 Mental Health Parity and Addiction Act mandates that MH services be covered at parity in group health plans with more than 50 employees (American Psychological Association, 2010).
2. "Psychiatric prescribers" is used here to mean psychiatrists and APPNs with prescriptive authority, who were categorized together as "prescribers" by Thomas, Ellis, Thomas, Holzer, and Morrissey (2009). The authors' data showed that 96% of U.S. counties have unmet need for prescribers, with the median unmet need measured in hours of care estimated at 74%.
3. PMHCNSs also have prescriptive authority in some states. Physician assistants can prescribe with direct oversight from physicians. As of 2004, almost all NPs routinely prescribe (Goolsby, 2004).
4. This figure includes both PHMNHPs and PMHCNSs, but the former are increasing in number, while the latter are declining.

References

- American Psychiatric Association. (2003-2011). *Resident census: Characteristics and distribution of psychiatry residents in the U.S.* Retrieved <http://www.psychiatry.org/learn/research-training/resident-census>
- American Psychological Association. (2010). *Mental health insurance under the federal parity law.* Retrieved from <http://www.apa.org/helpcenter/federal-parity-law.aspx>
- Baradell, J. G. (1995). Clinical outcomes and satisfaction of patients of clinical nurse specialists in psychiatric mental health nursing. *Archives of Psychiatric Nursing, 9*, 240-250.
- Baradell, J. G., & Bordeaux, B. R. (2001). Outcomes and satisfaction of patients of psychiatric clinical nurse specialists. *Journal of the American Psychiatric Nurses Association, 7*(3), 67-75.
- Beronio, K., Po, R., Skopec, L., & Glied, S. (2013, February 20). *Affordable Care Act expands mental health and substance use disorder benefits and parity protections for 62 million Americans.* Retrieved from http://aspe.hhs.gov/health/reports/2013/mental/rb_mental.cfm
- Brown, C., O'Conner, K., Copeland, V.C., Grote, N., Beach, S., Battista, D., & Reynolds, C.F. (2010). Depression Stigma, Race, and Treatment Seeking Behavior and Attitudes. *J Community Psychol, 38*(3): 350-368. doi: 10.1002/jcop.20368
- Brown, E. (2011, March). *Health care expenditures for adults ages 18-64 with a mental health or substance abuse related expense: 2007 versus 1997* (Statistical Brief No. 319). Retrieved from http://meps.ahrq.gov/mepsweb/data_files/publications/st319/stat319.pdf
- Byck, G. (2000). A comparison of the socioeconomic and health status characteristics of uninsured, State Children's Health Insurance Program-eligible children in the United States with those of other groups of insured children: Implications for policy. *Pediatrics, 106*(1 Pt 1), 14-21.
- Cheung, A. Z.-P. (2007). Guidelines for Adolescent Depression in Primary Care (GLAD-PC). I. Identification, assessment, and initial management. II. Treatment and ongoing management. *Pediatrics, 120*, 1299-1326.
- Child and Adolescent Health Measurement Initiative. (2012). *The National Survey of Children's Health.* Retrieved from <http://www.childhealthdata.org/learn/NSCH>
- Conner, K. O., Copeland, C. V., Grote, N. K., Koeske, G., Rosen, D., Reynolds, C. F., & Brown, C. (2010). Mental health treatment seeking among older adults with depression: The impact of stigma and race. *American Journal of Geriatric Psychiatry, 18*, 531-543. doi:10.1097/JGP.0b013e3181cc0366
- Cummings, J. R., Lucas, S. M., & Druss, B. G. (2013). Addressing public stigma and disparities among persons with mental illness: The role of federal policy. *American Journal of Public Health, 103*, 781-785.
- Decker, S., Kostova, D., Kenney, G., & Long, S. (2013). Health status, risk factors, and medical conditions among persons enrolled in Medicaid vs uninsured low-income adults potentially eligible for Medicaid under the Affordable Care Act. *Journal of the American Medical Association, 309*, 2579-2586.
- Department of Health and Human Services. (2011, December 16). *Essential health benefits: Individual market coverage.* Retrieved from <http://aspe.hhs.gov/health/reports/2011/individualmarket/ib.shtml>
- Department of Health and Human Services. (2013). *Budget for fiscal year 2014.* Retrieved from <http://www.hhs.gov/budget/fy2014/secretary-congressional-justification.pdf>
- Duckworth, K. (2013). *Mental health professionals: Who they are and how to find one.* Retrieved from http://www.nami.org/Content/ContentGroups/HelpLine1/Mental_Health_Professionals_Who_They_Are_and_How_to_Find_One.htm
- Ghandour, R., Kogan, M., Blumberg, S., Jones, J., & Perrin, J. (2012). Mental health conditions among school-aged children: Geographic and sociodemographic patterns in prevalence and treatment. *Journal of Developmental & Behavioral Pediatrics, 33*, 42-54.
- Gilbody, S., Bower, P., Fletcher, J., Richards, D., & Sutton, A. (2006). Collaborative care for depression: A cumulative meta-analysis and review of longer-term outcomes. *Archives of Internal Medicine, 166*, 2314-2321.
- Goolsby, M. J. (2004). 2004 AANP National Nurse Practitioner Sample Survey, Part II: nurse practitioner prescribing. *Journal of the American Academy of Nurse Practitioners, 17*, 506-511.
- Hanrahan, N. D. (2010). Health care reform and the federal transformation initiatives: Capitalizing on the potential of advanced practice psychiatric nurses. *Policy, Politics, & Nursing Practice, 11*, 235-244.
- Health Resources and Services Administration, Bureau of Health Professions. (2008). *The physician workforce: Projections and research into current issues affecting supply and demand.* Retrieved from <http://bhpr.hrsa.gov/healthworkforce/reports/physwffissues.pdf>

- Health Resources and Services Administration. (2010). *The registered nurse population: Findings from the 2008 National Sample Survey of Registered Nurses*. Retrieved from <http://bhpr.hrsa.gov/healthworkforce/rnsurveys/rnsurveyfinal.pdf>
- Health Resources and Services Administration. (n.d.). Shortage designation: Health professional shortage areas & medically underserved areas/populations. Retrieved from <http://bhpr.hrsa.gov/shortage/>
- Heisler, E. (2013). *Physician supply and the Affordable Care Act*. Retrieved from <https://openncrs.com/document/R42029/>
- Kelleher, K., & Bridge, J. (2012). National surveys of child mental health: A measure of children's services or service vagaries? *Journal of Developmental and Behavioral Pediatrics, 33*, 75. doi:10.1097/DBP.0b013e3182404b5a
- Kessler, R. C., Tat Chui, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry, 62*, 617-627. doi:10.1001/archpsyc.62.6.61
- Leslie, L. W. (2013). Implementing the American Academy of Pediatrics attention deficit-hyperactivity disorder diagnostic guidelines in primary care settings. *Pediatrics, 114*, 129-140.
- National Conference of State Legislature. (2012). *State laws mandating or regulating mental health benefits*. Retrieved from <http://www.ncsl.org/issues-research/health/mental-health-benefits-state-mandates.aspx>
- Oleck, L., Retano, A., Tebaldi, C., McGuinness, T., Weiss, S., Carbray, J., . . . McCoy, P. (2011). Advanced practice psychiatric nurses legislative update: State of the states, 2010. *Journal of the American Psychiatric Nurses Association, 17*, 171-188.
- Park, M., Cherry, D., & Decker, S. (2011). *Nurse practitioners, certified nurse midwives, and physician assistants in physician offices*. Retrieved from <http://www.cdc.gov/nchs/data/databriefs/db69.htm>
- Parrish, E., & Peden, A. (2009). Clinical outcomes of depressed clients: A review of current literature. *Issues in Mental Health Nursing, 30*, 51-60.
- Reeves, W., Strine, T., Pratt, L. A., Thompson, W., Ahluwalia, I., Dhingra, S., . . . Safran, M. A. (2011). *Mental illness surveillance among adults in the United States*. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/su6003a1.htm>
- Schöttle, D., Karow, A., Schimmelmann, B., & Lambert, M. (2013). Integrated care in patients with schizophrenia: Results of trials published between 2011 and 2013 focusing on effectiveness and efficiency. *Current Opinion in Psychiatry, 26*, 384-408.
- Seltzer, T. (2007). *The uninsured: The impact of covering mental illness and addictions disorders*. Retrieved from <http://www.thenationalcouncil.org/wp-content/uploads/2012/12/CoveringTheUninsured.pdf>
- Smith, D. M., Damschroder, L. J., Scott, Y. H., & Ubel, P. A. (2012). What's it worth? Public willingness to pay to avoid mental illness compared with general medical illnesses. *Psychiatric Services, 63*, 319-324.
- Substance Abuse and Mental Health Services Administration. (2008, May 16). *The NSDUH report. National Survey on Drug Use and Mental Health*. Retrieved from <http://www.samhsa.gov/data/2k5/youthDepression>
- Substance Abuse and Mental Health Services Administration. (2012a). *Results from the 2011 National Survey on Drug Use and Health: Mental health findings* (NSDUH Series H-45, HHS Publication No. (SMA) 12-4725). Retrieved from www.samhsa.gov/data/NSDUH/2k11MH_FindingsandDetTables/2K11MHFR/NSDUHmhfr2011.htm#Fig2-12
- Substance Abuse and Mental Health Services Administration. (2012b). *Data, outcomes, and quality. National Survey on Drug Use and Health model-based estimates*. Retrieved from <http://www.samhsa.gov/data>
- Thomas, K. C., Ellis, A. R., Thomas, R. K., Holzer, C. E., & Morrissey, J. P. (2009). County-level estimates of mental health professional shortage in the United States. *Psychiatric Services, 60*, 1323-1328. doi:10.1176/appi.ps.60.10.1323
- Todd, S. R., & Sommers, B. D. (2012, September 12). *Overview of the uninsured in the United States: A summary of the 2012 Current Population Survey report*. Retrieved from <http://aspe.hhs.gov/health/reports/2012/uninsuredintheus/ib.shtml>
- U.S. Census Bureau. (2012a). *Physicians by sex and specialty: 1980 to 2009*. Retrieved from <http://www.census.gov/compendia/statab/2012/tables/12s0164.pdf>
- U.S. Census Bureau. (2012b). *2012 National Population Projections: Summary tables*. Retrieved from <http://www.census.gov/population/projections/data/national/2012/summarytables.html>
- U.S. Census Bureau. (2012c). *Health insurance data*. Retrieved from <http://www.census.gov/hhes/www/hlthins/data/index.html>
- Ziller, E. C., Anderson, N. J., & Coburn, A. F. (2010). Access to rural mental health services: Service use and out-of-pocket costs. *Journal of Rural Health, 26*, 214-224.
- Zuvekas, S. H., & Selden, T. M. (2010). Mental health and family out-of-pocket expenditure burdens. *Medical Care Research and Review, 67*, 194-212.