Trends in Mental Health and Substance Abuse Services at the Nation's Community Health Centers: 1998–2003

Originally published as: Benjamin G. Druss, MD, MPH, Thomas Bornemann, EdD, Yvonne W. Fry-Johnson, MD, Harriet G. McCombs, PhD, Robert M. Politzer, ScD, and George Rust, MD, MPH. Trends in Mental Health and Substance Abuse Services at the Nation's Community Health Centers: 1998–2003. *Am J Public Health*. 2006;96:1779–1784. doi:10.2105/AJPH.2005.076943.

Objective. We examined trends in delivery of mental health and substance abuse services at the nation's community health centers.

Methods. Analyses used data from the Health Resources and Services Administration (HRSA), Bureau of Primary Care's (BPHC) 1998 and 2003 Uniform Data System, merged with county-level data.

Results. Between 1998 and 2003, the number of patients diagnosed with a mental health/substance abuse disorder in community health centers increased from 210 000 to 800 000. There was an increase in the number of patients per specialty mental health/substance abuse treatment provider and a decline in the mean number of patient visits, from 7.3 visits per patient to 3.5 by 2003. Although most community health centers had some on-site mental health/substance abuse services, centers without on-site services were more likely to be located in counties with fewer mental health/substance abuse clinicians, psychiatric emergency rooms, and inpatient hospitals.

Conclusions. Community health centers are playing an increasingly central role in providing mental health/substance abuse treatment services in the United States. It is critical both to ensure that these centers have adequate resources for providing mental health/substance abuse care and that they develop effective linkages with mental health/substance abuse clinicians in the communities they serve. (*Am J Public Health.* 2006;96:1779–1784. doi:10.2105/AJPH.2005.076943)

For 40 years, community health centers have provided primary care and preventive services to some of the nation's most vulnerable populations. As of 2003, community health centers provided health care to more than 12 million individuals, a majority of whom were persons of color, were poor, and either were uninsured or on Medicaid.[1–4] The 2002 Federal Health Center Growth Initiative, which has set a 60% expansion in the population served by community health centers by 2006 as its target, is likely to contribute to the role of community health centers in the nation's safety net.[5,6]

Recent reports from both primary care and mental health leaders have highlighted the potential importance of community health centers in caring for mental health and substance abuse disorders.[7,8] However, little information is available in the literature on mental health substance abuse services provided in these settings or how they may have evolved. A study of patients at 2 northeastern US community health centers found high rates of depressive, drug abuse, and alcohol disorders.[9] In a survey of directors of 20 community health centers, half reported that patients frequently required behavioral health services that are not provided on site, and cost was the major barrier to providing this needed care.[10] Finally, in a survey of medical directors of 89 community health centers in the southeastern United States, Rust et al. found that every respondent reported an inability to obtain at least 1 form of mental health/substance abuse service for their uninsured clients.[11] Taken together, these articles suggest both a great need for mental health/substance abuse care and a potential gap between that need and services available at community health centers.

We sought to use existing data sources to provide a broad overview of mental health and addiction service delivery in the nation's community health centers, both cross-sectionally and over time. We examined the rates of and trends for persons receiving mental health and addiction services at these centers, staffing and visit patterns, and the prevalence and correlates of on-site mental health and addiction services. We hope these results will shed light on this relatively hidden portion of the US behavioral health safety net.

METHODS

Data Sources

The primary source of data for the study was the Uniform Data System of the Health Resources and Services Administration (HRSA), Bureau of Primary Health Care (BPHC). The Uniform Data System is an annual report completed by community health center directors that reports center-level information on clients served, services used, and levels of staffing. Detailed reporting instructions help ensure uniformity and accuracy in reporting. Because this annual survey is a required part of the annual HRSA/BPHC grant process, there is a 100% response rate. Directors use internal billing and claims data to prepare the Uniform Data System data. In the current study, we used the Uniform Data System from the earliest and latest years for which complete data were available for the current study: 1998 and 2003.[12,13]

The second data source was the Area Resource File, which provides a range of county-level demographic, health, and workforce indicators.[14] We used the Area Resource File to provide data on the population characteristics and mental health/substance abuse facilities and workforce in the county for each community health center.

Measures

We used 3 mental health/substance abuse indicators: presence of on-site services, number of mental health/substance abuse treatment providers, and number of patients/services use.

On-site services. The Uniform Data System indicates whether mental health treatment/

counseling, substance abuse treatment/counseling, and 24-hour crisis intervention services are provided on site (i.e., "provided by grantee") or via referral. Analyses examined (1) the proportion of each of these 3 types of services provided on site during each year and (2) an aggregate measure of any on-site mental health/substance abuse services encompassing any of these behavioral services.

Mental health and substance abuse treatment providers. The Uniform Data System reports level of staffing for mental health/substance abuse services, including the number of full-time equivalent psychiatrists and other certified and licensed mental health/substance abuse treatment specialists (psychologists, addiction treatment specialists, clinical social workers, psychiatric nurse specialists, professional counselors, and marriage and family counselors). Analyses compared (1) the total number of full-time specialty clinicians each year and (2) the ratio of mental health/substance abuse clinicians to primary care clinicians (physicians, nurse practitioners, and certified nurse midwives).

Patients and services use. We examined data on the number of visits to a community health center by individuals with a primary mental health/substance abuse diagnosis and the number of patients with 1 or more primary visits for a mental health/substance abuse diagnosis. Analyses examined (1) the number of persons diagnosed with a mental health/substance abuse disorder, (2) the proportion of persons diagnosed with a mental health/substance abuse disorder compared with all community health center patients, (3) the proportion of visits for mental health/substance abuse service compared with all community health center visits, (4) the proportion of community health center patients diagnosed with a mental health/substance abuse disorder per mental health/substance abuse treatment provider, and (5) the number of visits per person diagnosed with a mental health/substance abuse disorder (an indicator of service intensity).

Other Covariates

The Uniform Data System includes data on the number of clients, stratified by age group, gender, race/ethnicity, poverty status, rural/urban status, and insurance status. From the area resource file, we obtained the number of mental health/substance abuse clinicians per capita in each county, presence or absence of mental health/substance abuse emergency services and an inpatient psychiatry unit, and presence of 1 or more community mental health centers in the county.

Analytic Strategy

First, we calculated the mean values for all demographic variables for each community health center for 1998 and 2003, and we used bivariate analyses to examine differences between the 2 years for each of the variables. Next, we conducted multivariate analyses to compare values for on-site services, workforce, visits, and patients between 1998 and 2003 and adjusted for demographic characteristics (age, gender, race, poverty, urban/rural location, and geographic region). We used generalized linear models for analyses of continuous variables and logistic regression models for analyses of dichotomous variables. Finally, we used a set of logistic regression models, which adjusted for demographic variables, to examine correlates of any on-site mental health/substance abuse treatment services during 2003. For ease of interpretation, continuous dependent variables were dichotomized at the median. SAS version 9.1 (SAS Institute Inc, Cary, NC), was used for all analyses.

RESULTS

Demographic Characteristics of Community Health Centers in 1998 and 2003

Between 1998 and 2003, the total number of community health centers grew 22%, from 694 to 890. Of the 890 community health centers in 2003, 655 were also in the 1998 sample, with an additional 235 new community health centers incorporated between 1998 and 2003. There were a number of small but statistically significant changes in the patient population between the 2 years, including an increase in number of persons served by each community health center ($P=.02$), a population shift toward middle aged and older populations ($P<.001$), and an increase in the proportion of clients covered by Medicaid ($P<.001$) (Table 1).

On-Site Mental Health and Substance Abuse Services

Between 1998 and 2003, the proportion of community health centers providing any on-site mental health/substance abuse treatment rose from 60.4% to 73.5% ($P<.001$ in multivariate model). This change reflected a significant increase in on-site mental health treatment (52.7% to 70.0%, $P<.001$), 24-hour mental health crisis services (16.8% to 20.2%, $P=.005$), and a nonsignificant trend toward an increase in on-site substance abuse treatment (43.2% to 50.3%, $P=.07$) (Table 2). Among community health centers in 2003, there were no significant differences in provision of mental health, substance abuse, and crisis services between newly incorporated community health centers and those in existence in 1998 (all P values $>.2$; data not shown).

Specialty Mental Health/Substance Abuse Clinicians

The mean number of behavioral health full-time equivalent employees (1.7 vs 1.8, $P=.56$) per community health center remained unchanged. The ratio of mental health/substance abuse clinicians to primary care clinicians decreased (16.4% vs 11.5%, $P=.001$) because of a rising number of primary care clinicians per community health center (Table 2).

Service Use

There was an increase in the total number of mental health/substance abuse-related visits (2190 vs 3153, $P=.007$) and a nonsignificant trend toward an increase in those visits as a proportion of total community health center visits (4.5% to 5.3%, $P=.07$). The mean number of patients diagnosed with a primary mental health/substance abuse disorder per community health center nearly tripled during the study period, from 302 to 899 ($P<.001$). This number as a proportion of all community health center patients similarly increased, from 2.7% to 7.5% ($P<.001$) (Table 2). During the study period, mental health/substance abuse–related visits surpassed hypertension to become the most commonly reported reason for clinical encounters in community health centers.

There was an increase in the number of community health centers and in the mean

TABLE 1—Demographic Characteristics (Mean Percentages) of US Community Health Centers Overall: Uniform Data System, 1998 and 2003

			Bivariate Comparisons of 1998 vs 2003		
	1998 (n = 694)	2003 (n = 890)	*t* Test	*df*	*P*
No. persons served	12 477	13 938	−2.25	1578	.02
Age, y					
0–19	37.9	35.3	3.8	1560	<.001
20–64	54.6	57.4	−4.22	1540	<.001
≥65	6.8	7.6	−3.04	1570	<.001
Female	57.4	57.4	0.05	1579	.96
Race/ethnicity					
African American	26.0	23.9	1.46	1548	.14
Hispanic	24.5	25.7	−0.79	1558	.43
White	40.9	41.6	−0.44	1565	.66
Other	8.3	10.9	−2.98	1554	.003
Clients below poverty line	64.7	67.0	−1.87	1335	.06
Rural location	52.6	51.5	0.63	1582	.63
Insurance status					
Uninsured	43.4	41.1	2.1	1575	.03
Medicaid	28.5	32.0	−4.04	1579	<.001
Medicare	7.7	8.1	−1.45	1403	.15
Other public	3.6	2.2	3.73	1103	<.001
Private	16.0	17.2	−1.68	1551	.09
Region					
Northeast	29.5	28.1	0.63	1582	.53
South	21.2	19.0	1.42	1582	.16
Midwest	32.6	32.0	0.23	1486	.82
West	16.1	19.9	−1.94	1539	.06

number of persons treated for mental health/substance abuse disorders by each community health center during the study period. Because of this increase, there was a large increase in the total number of patients treated by these centers nationwide. Between 1998 and 2003, the number of persons diagnosed with a mental health/substance abuse disorder who were treated at community health centers more than tripled, from 210 000 to 800 000.

Staff-to-Patient Ratio and Service Intensity

The number of patients diagnosed with mental health/substance abuse disorders increased more rapidly than either the number of mental health/substance abuse clinicians or visits. Therefore, there was a sharp increase in the number of patients per clinician, from 178 clients per clinician in 1998 to nearly 499 clients per mental health/substance abuse clinician in 2003 (P=.01). There was also a decline in the intensity of treatment, from 7.3 visits per patient in 1998 to only 3.5 in 2003 (P=.009). The rate of decline in intensity was similar for substance abuse treatment, for which the visit rates declined from 13.3 to 7.2 per patient (P=.01), and mental health care, for which visit rates declined from 6.0 to 3.0 visits per patient (P=.006) (Table 2).

Correlates of Lack of On-Site Services in 2003

At the national level, 26.5% of health centers did not offer on-site mental health/substance abuse treatment services in 2003. Compared with community health centers with on-site mental health/substance abuse treatment services, centers without on-site services were likely to have smaller patient populations (P<.001), to have higher proportions of uninsured clients (P=.03), and to be in rural settings (P<.001).

At the county level, community health centers with on-site behavioral services were more likely than those without on-site services to be located in counties with higher numbers of mental health/substance abuse clinicians per capita (P=.02). Similarly, community health centers with on-site behavioral services were more likely than those without such services to be situated in counties with psychiatric emergency rooms (P=.03) or an inpatient psychiatric facility (P=.02). A total of 39% of community health centers were located in a county that also had a community mental health center. Those with on-site services were no more or less likely to have community mental health centers in the county (P=.53) (Table 3).

DISCUSSION

The results of our study suggest that community health centers are playing a rapidly increasing role as providers of mental health/substance abuse treatment services in the United States; the number of persons receiving those services more than tripled between 1998 and 2003. This growth was accompanied by an increase in the number of patients and a decrease in the number of patient visits per mental health/substance abuse clinician. Although most community health centers had on-site behavioral services, sites without on-site care were often in the most vulnerable communities; had higher rates of uninsured clients; and had fewer mental health/substance abuse clinicians, emergency, and inpatient services in the counties.

Number of Persons Treated for Mental Health and Addictive Disorders

The sharp increase in mental health/substance abuse treatment in community health centers parallels a rise in rates of these treatments, particularly in primary care, over the past 15 years. Between 1990–2003, the proportion of the population receiving mental health services rose by nearly two thirds, from 12.2% to 20.1%.[15] These national trends are likely to reflect the development of psychotropic medications such as selective serotonin reuptake inhibitors, most of which are prescribed by primary care physicians,[16]

TABLE 2—Mental Health and Substance Abuse Services at Community Health Centers: Uniform Data System, 1998 and 2003

	1998 (n = 694)	2003 (n = 890)	Comparisons of 1998 vs 2003		
			Statistical test	*df*	*P*
On-site mental health/substance abuse services					
On-site mental health treatment, %	52.7	70.0	$\chi^2 = 16.5$	1	<.001
On-site 24-hour mental health crisis services, %	16.8	20.2	$\chi^2 = 8.0$	1	.005
On-site substance abuse treatment, %	43.2	50.3	$\chi^2 = 3.2$	1	.07
Any on-site mental health or substance abuse treatment, %	60.4	73.5	$\chi^2 = 6.6$	1	.01
On-site mental health/substance abuse clinicians					
Mean no. mental health/substance abuse clinicians per community health center	1.7	1.8	F = 0.3	1, 1524	.56
Proportion of mental health/substance abuse clinicians to primary care clinicians, %	16.4	11.5	F = 10.8	1	.001
Mental health/substance abuse visits					
Mean no. mental health/substance abuse visits per community health center	2190	3153	F = 7.4	1, 1524	.007
Mental health/substance abuse visits as a proportion of all community health center visits	4.5	5.3	F = 3.3	1, 1524	.07
Mental health/substance abuse patients					
Mean no. mental health/substance abuse patients treated per community health center	302	899	F = 40.6	1, 1524	<.001
Mental health/substance abuse patients as a proportion of all community health center patients	2.7	7.5	F = 34.0	1, 1524	<.001
No. patients per mental health/substance abuse clinician	178	499	F = 6.43	1, 1087	.01
No. visits per mental health/substance abuse patient	7.2	3.5	F = 6.77	1, 1087	.009
Mental health	6.0	3.0	F = 7.74	1, 1135	.006
Substance abuse (alcohol and illegal drugs)	13.3	7.2	F = 6.26	1, 1047	.01

Note. Data are mean values per community health center for each year. Chi-square tests for dichotomous variables are from logistic regression models adjusted for demographic variables from Table 1 (age, gender, race, poverty status, urban/rural character, and geographic region). F tests for continuous variables are from generalized linear models adjusted for the same demographic variables.

TABLE 3—Correlates of On-site Mental Health and Substance Abuse Services: Uniform Data System and Area Resource File, 2003 (n = 890)

Community Health Center or County-Level Factor	On-Site Mental Health/ Substance Abuse Services (n = 654), %	No On-Site Mental Health/ Substance Abuse Services (n = 236), %	Adjusted χ^2	Adjusted *df*	Adjusted *P*
Community health center–level factors					
Incorporated after 1998	25.9	26.8	20.12	1	.72
< 9 700 patients	47.4	57.2	14.0	1	<.001
≥ 40% uninsured patients	42.3	50.4	4.43	1	.03
Rural population	47.7	50.1	8.1	1	<.001
County-level factors					
> 200 mental health/substance abuse treatment providers	52.9	42.8	5.1	1	.02
Psychiatric emergency services	53.1	46.0	4.5	1	.03
Psychiatric inpatient hospital	28.9	21.2	5.2	1	.02
Community mental health center	38.3	40.6	0.39	1	.53

Note. Adjusted χ^2, *df*, and *P* values are from a logistic regression model adjusted for demographic variables (age, gender, race, poverty status, urban/rural character, and geographic region). Continuous variables were dichotomized around the median for ease of interpretation. Cells are percentages for each variable among those community health centers with or without on-site mental health services.

as well as a reduction in stigma among patients and providers.[17]

However, the rate of speed and magnitude of the increase in patients receiving behavioral treatment in community health centers—300% in only 5 years—is substantially greater than those seen in general primary care settings. This increase may partly represent a shift in the characteristics of clients served by the community health centers. Anecdotal reports have suggested a rise in the number of newly uninsured patients with serious mental and general medical conditions who seek treatment at community health centers.[18] Alternatively, this increase may represent an increase in awareness, diagnosis, and treatment of these conditions by community health center clinicians.

Changing Patterns of Service Delivery

Proportionally, the increasing number of patients was not accompanied by a commensurate rise in the number of mental health/substance abuse clinicians. This finding may indicate that primary care providers are providing most of the new mental health/substance abuse treatment services in community health centers. Because primary care physicians generally provide fewer visits per episode than do mental health/substance

abuse clinicians,[19] this shift may partly explain the reduction in intensity of services during the study period. Alternatively, these patterns may be a sign that demand for mental health/substance abuse care is beginning to outstrip community health center capacity.

These trends highlight the need to closely monitor mental health/substance abuse care in community health centers to ensure that the rapid increase of clients treated does not come at the expense of quality. They also emphasize the importance of efforts to enhance the skills of community health center primary care providers in managing common mental and addictive disorders and ensure that they have appropriate specialty support in addressing more complex cases.

Two recent initiatives—HRSA/BPHC Mental Health and Substance Abuse Service Expansion Grants and the Depression Health Disparities Collaborative—seek to expand the capacity of community health centers to provide high-quality mental health/substance abuse care. Expansion grants fund the establishment of new or the expansion of existing mental health/substance abuse treatment services in community health centers.[20] The Depression Collaborative enhances the skills of primary care clinicians in recognizing and managing depression.[21]

Expansion grants may help provide sites with adequate staffing to treat the rising numbers of persons with mental health/substance abuse disorders, and the depression collaboratives have shown success in improving quality of depression care.[22,23] However, both of these programs are relatively new and to date have been implemented in only a relatively small number of community health centers. By 2003, 5% of centers had participated in the depression collaborative, and 26% of community health centers had received a mental health/substance abuse service expansion grant. It will be important to continue to monitor the implementation of these initiatives and their impact on the quality of behavioral care delivered in community health centers.

On-Site Care and Community Resources

By 2003, more than two-thirds of community health centers offered on-site mental health services, and more than half provided substance abuse treatment. On-site availability of behavioral services can provide a number of benefits, including improved coordination and communication between behavioral and medical providers and reduced stigma for patients receiving treatment. However, even sites that provide on-site care will typically require referrals for specialized services, inpatient treatment, or emergency care. Sites without on-site services will be particularly dependent on community mental health providers.

It is notable that the same factors associated with lack of on-site mental health/substance abuse services—rural location, small size, and high rates of uninsurance—are also likely to be associated with difficulties in obtaining referrals to local behavioral health providers. The fact that community health centers without mental health/substance abuse services are commonly located in counties with relatively low concentrations of specialty mental health/substance abuse clinicians, inpatient psychiatric hospital beds, and psychiatric emergency rooms suggests that they may be doubly challenged in obtaining behavioral services for their clients. These sites will likely require particular attention in national efforts to improve the quality of behavioral health services for persons served by community health centers.

Clinics may have difficulties finding community practitioners who are able or willing to provide mental health/substance abuse care to persons who are uninsured.[11,24] Like community health centers, community mental health centers are required to treat all persons in a particular geographic region, regardless of insurance status or ability to pay. However, there have historically been poor linkages between these 2 types of safety net providers. A 2000 Institute of Medicine report concluded that "the single greatest flaw of the mental health safety net is its nearly total disconnection from the core [general medical] safety net."[25 (p189)]

The current study found that a substantial portion of community health centers also have community mental health centers in the same county, which suggests that improving these linkages could provide an important source for referrals and specialty expertise. These linkages also may be important in efforts to improve primary medical care for persons treated in community mental health centers.[26]

Limitations

Our study's results should be interpreted in light of several limitations. First, the Uniform Data System reports only community health center–level rather than patient-level information and includes few data relating to quality and outcomes of behavioral health care. Thus, the analyses are primarily useful in providing an overview of services provided and populations treated rather than assessing the content or appropriateness of mental health or substance abuse care. Second, the data are aggregated from individual community health centers and are thus potentially subject to reporting error by those centers. Finally, because only primary diagnoses are reported for any given encounter, comorbid behavioral conditions treated in the context of other medical problems will not be captured in the database. This method of reporting, coupled with the common underdiagnosis of behavioral disorders in primary care, makes it likely that these data underestimate the number of patients affected by and seen for these conditions.

Implications

These limitations notwithstanding, our study's findings have 2 major implications for community health centers and the communities they serve. First, community health centers are delivering a large and growing number of mental health and addiction treatment services in the United States. It is essential to continue to enhance the diagnostic and treatment skills of community health center primary care clinicians, as well as clinicians' ability to effectively use on-site specialty mental health/substance abuse services. Second, it is important for community health centers to develop and strengthen partnerships with community mental health and substance abuse treatment providers. Together, these efforts can help ensure access to high quality behavioral care in the nation's public safety net. ■

About the Authors

Benjamin Druss is with the Rollins School of Public Health, Emory University, Atlanta, Ga. Thomas Bornemann is with the Carter Center Mental Health Program, Atlanta. Yvonne Fry-Johnson and George Rust are with the National Center for Primary Care, Morehouse School of

Medicine, Atlanta. Harriet McCombs is with the Health Resources and Services Administration, Bethesda, Md, as was Robert Politzer at the time the article was written.

Requests for reprints should be sent to Benjamin G. Druss, 1518 Clifton Rd, Atlanta, GA 30322 (e-mail: bdruss@emory.edu).

This article was accepted November 29, 2005.

Contributors

B. Druss wrote the article and oversaw the data analysis. R. Politzer provided the data, guidance on the analyses, and editorial input. T. Bornemann, Y. Fry-Johnson, H. McCombs, and G. Rust each provided valuable editorial comments and revisions.

Human Participant Protection

The study did not involve any individual-level data and was exempted from formal institutional review board approval.

References

1. Forrest CB, Whelan EM. Primary care safety-net delivery sites in the United States: a comparison of community health centers, hospital outpatient departments, and physicians' offices. *JAMA.* 2000;284:2077–2083.

2. Regan J, Schempf AH, Yoon J, Politzer RM. The role of federally funded health centers in serving the rural population. *J Rural Health.* 2003;19(2):117–124; discussion. 115–6.

3. Shi L, Stevens GD, Wulu JT, Jr, Politzer RM, Xu J. America's health centers: reducing racial and ethnic disparities in perinatal care and birth outcomes. *Health Serv Res.* 2004;39(6 Pt. 1):1881–1901.

4. Politzer RM, Yoon J, Shi L, Hughes RG, Regan J, Gaston MH. Inequality in America: the contribution of health centers in reducing and eliminating disparities in access to care. *Med Care Res Rev.* 2001;58:234–248.

5. Politzer RM, Schempf AH, Starfield B, Shi L. The future role of health centers in improving national health. *J Public Health Policy.* 2003;24(3–4):296–306.

6. O'Malley AS, Forrest CB, Politzer RM, Wulu JT, Shi L. Health center trends, 1994–2001: what do they portend for the federal growth initiative? *Health Aff (Millwood).* 2005;24:465–472.

7. Proser M, Cox L. Health Centers' Role in Addressing the Behavioral Health Needs of the Medically Underserved. Washington, DC: National Association of Community Health Centers. September 2004.

8. National Association of State Mental Health Program Directors. *Integrating Behavioral Health and Primary Care Services: Opportunities and Challenges for State Mental Health Authorities.* Available at: http://www.nasmhpd.org. Accessed January 2005.

9. Olfson M, Tobin JN, Cassells A, Weissman M. Improving the detection of drug abuse, alcohol abuse, and depression in community health centers. *J Health Care Poor Underserved.* 2003;14:386–402.

10. Gusmano MK, Fairbrother G, Park H. Exploring the limits of the safety net: community health centers and care for the uninsured. *Health Aff (Millwood).* 2002;21:188–194.

11. Rust G, Daniels E, Satcher D, Bacon J, Strothers H, Bornemann T. Ability of community health centers to obtain mental health services for uninsured patients. *JAMA.* 2005;293:554–556.

12. *User Manual: Uniform Data System.* Bethesda, Md: Bureau of Primary Health Care; 1998.

13. *User Manual: Uniform Data System.* Bethesda, Md: Bureau of Primary Health Care; 2003.

14. 2004 area resource file. Quality Resource Systems. Inc. Fairfax, Va; 2005.

15. Kessler RC, Demler O, Frank RG, et al. Prevalence and treatment of mental disorders, 1990 to 2003. *N England J Med.* 2005;352:2515–2523.

16. Pirraglia PA, Stafford RS, Singer DE. Trends in prescribing of selective serotonin reuptake inhibitors and other newer antidepressant agents in adult primary care. *Prim Care Companion J Clin Psychiatry.* 2003;5:153–157.

17. Harris International. Therapy in America, 2004. New York: *Psychology Today.* Available at: http://www.psychologytoday.com/pto/press_release_050404.html. Accessed April 2004.

18. Rosenbaum S, Shin P, Darnell J. Economic stress and the safety net: a health center update. The Kaiser Commission on Medicaid and the Uninsured. Washington, DC; 2004. Available at: http://www.kff.org/uninsured/7122.cfm. Accessed July 3, 2006.

19. Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, Kessler RC. Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. *Arch Gen Psychiatry.* 2005;62:629–640.

20. Health Resources and Services Administration's Bureau of Primary Health Care. Service Expansion for Mental Health and Substance Abuse, and Oral Health in Programs Funded Under the Health Centers Consolidation Act of 1996 (SEXP). Available at: http://bphc.hrsa.gov/pinspals/pins.htm. Accessed July 3, 2006.

21. Health Resources and Services Administration's Bureau of Primary Health Care (HRSA/BPHC). Health Disparities Collaboratives. Available at: http://bphc.hrsa.gov/pinspals/pins.htm. Accessed July 3, 2006.

22. Katzelnick DJ, Von Korff M, Chung H, Provost LP, Wagner EH. Applying depression-specific change concepts in a collaborative breakthrough series. *Jt Comm J Qual Patient Saf.* 2005;31:386–397.

23. Meredith L, Mendel P, Pearson M, et al. Success of implementation and maintenence of quality improvement for depression. *Psychiatr Serv.* 2006 57(1): 48–55.

24. Frank RG, Goldman HH, Hogan M. Medicaid and mental health: be careful what you ask for. *Health Aff (Millwood).* 2003;22:101–113.

25. Institute of Medicine. *America's Health Care Safety Net.* Washington DC: Institute of Medicine; 2000. p. 189.

26. Koyanagi C. *Get It Together: How to Integrate Physical and Mental Health Care for People with Serious Mental Illness.* Bazelon Center for Mental Health Law: Washington, DC. 2004.