



ASPE
ASSISTANT SECRETARY FOR
PLANNING AND EVALUATION

**OFFICE OF BEHAVIORAL HEALTH,
DISABILITY, AND AGING POLICY**

Certified Community Behavioral Health Clinics Demonstration Program: Report to Congress, 2021

Prepared for
the Office of the Assistant Secretary for Planning and Evaluation (ASPE)
at the U.S. Department of Health & Human Services

by
Mathematica

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Office of the Assistant Secretary for Planning and Evaluation

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CERTIFIED COMMUNITY BEHAVIORAL HEALTH CLINICS DEMONSTRATION PROGRAM: REPORT TO CONGRESS, 2021

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Office of Behavioral Health, Disability, and Aging Policy
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ACRONYMS

The following acronyms are mentioned in this report.

ADD-C	Follow-up Care for Children Prescribed Attention Deficit Hyperactivity Disorder Medication
ADHD	Attention Deficit Hyperactivity Disorder
AMM-A	Antidepressant Medication Management
AOD	Alcohol or Other Drug
ASC	Unhealthy Alcohol Use - Screening and Brief Counseling
BMI-SF	Adult Body Mass Index Screening and Follow-up Plan
CARES Act	Coronavirus Aid, Relief, and Economic Security Act
CBT	Cognitive Behavioral Therapy
CCBHC	Certified Community Behavioral Health Clinic
CCBHC-E	CCBHC Expansion grant
CDF-A	Screening for Clinical Depression and Follow-Up Plan
CHIP	Children's Health Insurance Program
CMHC	Community Mental Health Center
CMS	HHS Centers for Medicare & Medicaid Services
DBT	Dialectical Behavior Therapy
DCO	Designated Collaborating Organization
DEP-REM-12	Depression Remission at 12 Months
DY	Demonstration Year
EBP	Evidence-Based Practice
ED	Emergency Department
EHR	Electronic Health Record
FFS	Fee-For-Service
FFY	Federal Fiscal Year
FMAP	Federal Medical Assistance Percentage
FQHC	Federally Qualified Health Center
FUA	Follow-up After Emergency Department Visit for Alcohol or Other Dependence
FUH-BH-A	Follow-Up After Hospitalization for Mental Illness, ages 21+ (adult)
FUH-BH-C	Follow-Up After Hospitalization for Mental Illness, ages 6-21 (child/adolescent)
FUM	Follow-up After Emergency Department Visit for Mental Illness
HHS	U.S. Department of Health and Human Services
HIT	Health Information Technology
I-EVAL	Time to Initial Evaluation, adult
IET-BH	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
LGBTQ	Lesbian, Gay, Bisexual, Transgender, and Queer (or Questioning)
MAT	Medication-Assisted Treatment
N-MHSS	National Mental Health Services Survey
NASMHPD	National Association of State Mental Health Program Directors
NQF	National Quality Forum

P.L.	Public Law
PAMA	Protecting Access to Medicare Act
PBPM	Per Beneficiary Per Month
PCP	Primary Care Physician
PCR-AD	Plan all-Cause Readmission rate
PCR-BH	Plan All-Cause Readmission, adults
PEC	Patient Experience of Care Survey, adult
PPS	Prospective Payment System
QBP	Quality Bonus Payment
SAA-BH	Adherence to Antipsychotic Medications for Individuals with Schizophrenia
SAMHSA	HHS Substance Abuse and Mental Health Services Administration
SMI	Serious Mental Illness
SRA-BH-A	Adult Major Depressive Disorder: Suicide Risk Assessment
SRA-BH-C	Child and Adolescent Major Depressive Disorder: Suicide Risk Assessment
SSD	Diabetes Screening for People with Schizophrenia or Bipolar Disorder who are Using Antipsychotic Medications
SUD	Substance Use Disorder
TCM	Targeted Case Management
TSC	Tobacco Use - Screening and Cessation Intervention
VHA	Veterans Health Administration
WCC-BH	Weight Assessment for Nutrition and Physical Activity for Children/Adolescents
Y/FEC	Youth/Family Experience of Care Survey

INTRODUCTION

Section 223 of the Protecting Access to Medicare Act (PAMA), enacted April 1, 2014 (P. L. 113-93), authorized a demonstration program to allow states to test new strategies for improving community behavioral health services through certified community behavioral health clinics (CCBHCs). The CCBHC demonstration aims to improve the availability, quality, and outcomes of ambulatory behavioral health services by establishing a standard definition and criteria for CCBHCs and developing a new prospective payment system (PPS) that account for the expected cost of providing comprehensive services to all individuals who seek care. The demonstration also aims to provide coordinated care that addresses both behavioral and physical health conditions. CCBHCs and demonstration states must also report a common set of quality measures and report their costs as a condition of participating in the demonstration.

Section 223(d)(7)(A) requires annual reports to Congress,¹ which are to include the following topics:

(i) an assessment of access to community-based mental health services under the Medicaid program in the area or areas of a State targeted by a demonstration program compared to other areas of the State; (ii) an assessment of the quality and scope of services provided by certified community behavioral health clinics compared to community-based mental health services provided in States not participating in a demonstration program under this subsection and in areas of a demonstration State that are not participating in the demonstration program; and (iii) an assessment of the impact of the demonstration programs on the Federal and State costs of a full range of mental health services (including inpatient, emergency and ambulatory services).

This is the fifth annual report to Congress which synthesizes the findings from the four prior annual reports, provides a comparison of cost and quality in the first two demonstration years, and provides the results of impact analyses. The first two reports discussed the demonstration implementation process, the selection of states for planning grants and demonstration participation, state plans for the demonstration, and early implementation findings.² The third report assessed findings related to CCBHCs' ability to provide access to the required coordinated care and provision of a comprehensive range of services.³ The fourth report assessed findings on quality measures and costs in demonstration year 1 (DY1).⁴

In addition, this report in accordance with Section 223(d)(7)(B) of PAMA provides recommendations on whether the demonstration program should be continued, expanded, modified, or terminated.

¹ Section 223(d)(7)(A) specifies that no later than one year after the date on which the first state is selected for the demonstration, and annually thereafter, the Secretary shall submit a report to Congress. HHS selected the states for the demonstration on December 21, 2016. See also Table 1 of this report for demonstration start dates by state.

² The first (2017) report to Congress is available at https://www.samhsa.gov/sites/default/files/ccbhc_clinicdemonstrationprogram_071118.pdf. The second (2018) report to Congress is available at <https://aspe.hhs.gov/pdf-report/certified-community-behavioral-health-clinics-demonstration-program-report-congress-2018>.

³ The third (2019) report to Congress is available at <https://aspe.hhs.gov/basic-report/certified-community-behavioral-health-clinics-demonstration-program-report-congress-2019>.

⁴ The fourth (2020) report to Congress is available at <https://aspe.hhs.gov/reports/fourth-ccbhc-program-report-congress-2020>.

BACKGROUND

In the United States, only 45 percent of adults with any mental health condition and 10 percent of adults with any substance use disorder (SUD) received treatment in 2019 (SAMHSA 2020a). Opioids and other substances continue to devastate communities and recent data indicate an increase in drug overdose deaths (Centers for Disease Control and Prevention 2021). Individuals with behavioral health conditions also continue to experience premature mortality due to suicide and untreated comorbid physical health conditions including diabetes and cardiovascular diseases (Roberts et al. 2017).

Effective evidence-based treatments for mental health conditions and SUDs are unavailable or difficult to access in many communities (Blyler et al. 2021). Pervasive behavioral health workforce shortages create long wait times for appointments, and in some areas, emergency departments (EDs) and the criminal justice system are the only sources of care for people in crisis (Cama et al. 2017; Nordstrom et al. 2019; Bradley et al. 2020; SAMHSA 2021). Even when services are available, behavioral health providers often do not have the resources, staff, or data systems to monitor chronic conditions and coordinate care with external health and social service providers (Kilbourne et al. 2018; Pincus et al. 2016).

Community mental health centers (CMHCs) play an essential role in delivering ambulatory behavioral health care. Historically, the Federal Government has maintained a narrow definition of CMHCs (pertaining only to providers who participate in Medicare; CMS n.d.), but states and localities use the term more broadly to refer to ambulatory care facilities that specialize in the delivery of behavioral health care. Following the repeal of the Mental Health Systems Act and introduction of block grants in the 1980s, states were largely responsible for determining what services to provide through CMHCs and how to integrate them into systems of care (NASMHPD Research Institute 2007). Today, there are approximately 2,682 state-licensed or certified CMHCs across the nation and an additional 5,220 outpatient specialty mental health clinics (SAMHSA 2020b). CMHCs generally serve individuals with serious mental illness (SMI) and sometimes people with less severe or chronic disorders; not all serve children or adolescents or provide family-based services. Most CMHCs serve Medicaid beneficiaries or individuals enrolled in other public insurance and they often function as safety net providers for the uninsured. However, they tend to be under-resourced and vary in the services they offer. For example, depending on the state, between half to three-quarters of CMHCs provide SUD treatment (Wishon et al. 2021). Only 23 percent of CMHCs provide integrated primary care services but this ranges from no CMHCs in some states to over 50 percent of CMHCs in other states (Brown 2019).

Over the past several decades, Medicaid has become an increasingly important source of funding for CMHCs and behavioral health care more generally as funding has shifted toward community-based services and away from more restrictive institutional settings (Medicaid and CHIP Payment and Access Commission 2015). Federal block grants continue to provide states and CMHCs with funding for treatment, but this funding now accounts for a smaller proportion of care than in the past (Schiff et al. 2015). States and providers report that CMHCs encounter considerable financial hardship, which has constrained their ability to expand access to care and reach underserved populations. Economic pressures have forced many states to make significant reductions to their mental health care budgets and even eliminate services (Aron-Dine et al. 2020; Schiff et al. 2015). In states that did not expand Medicaid eligibility under the Patient Protection and Affordable Care Act (P.L. 111-148, as amended), many individuals with mental health and SUDs remain uninsured, and CMHCs struggle to cover the costs of uncompensated care (Dey et al. 2016). Even for clients with Medicaid or other types of insurance, reimbursement rates often do not fully cover comprehensive care and high-quality case management (Scharf et al. 2015). CMHCs turn to a patchwork of federal and state funds and philanthropy to supplement the cost of care for Medicaid beneficiaries and the uninsured. Finally, CMHCs face growing pressure to provide an increasingly broad array of mental health, substance use, and primary care services for individuals with comorbid conditions.

A. Goals of the Certified Community Behavioral Health Clinic Demonstration

Section 223 of PAMA authorized the CCBHC demonstration to allow states to test a new strategy for delivering and reimbursing services provided in CMHCs and other community behavioral health clinics. The demonstration, initially authorized for two years, aims to improve the availability, quality, and outcomes of ambulatory services provided in community behavioral health clinics by establishing a standard definition for CCBHCs and developing a new Medicaid PPS in each state that accounts for the total cost of providing comprehensive services to all individuals who seek care, regardless of their ability to pay, including but not limited to those with SMI, serious emotional disturbance, and SUDs. The demonstration also aims to provide coordinated care that addresses both behavioral and physical health conditions.

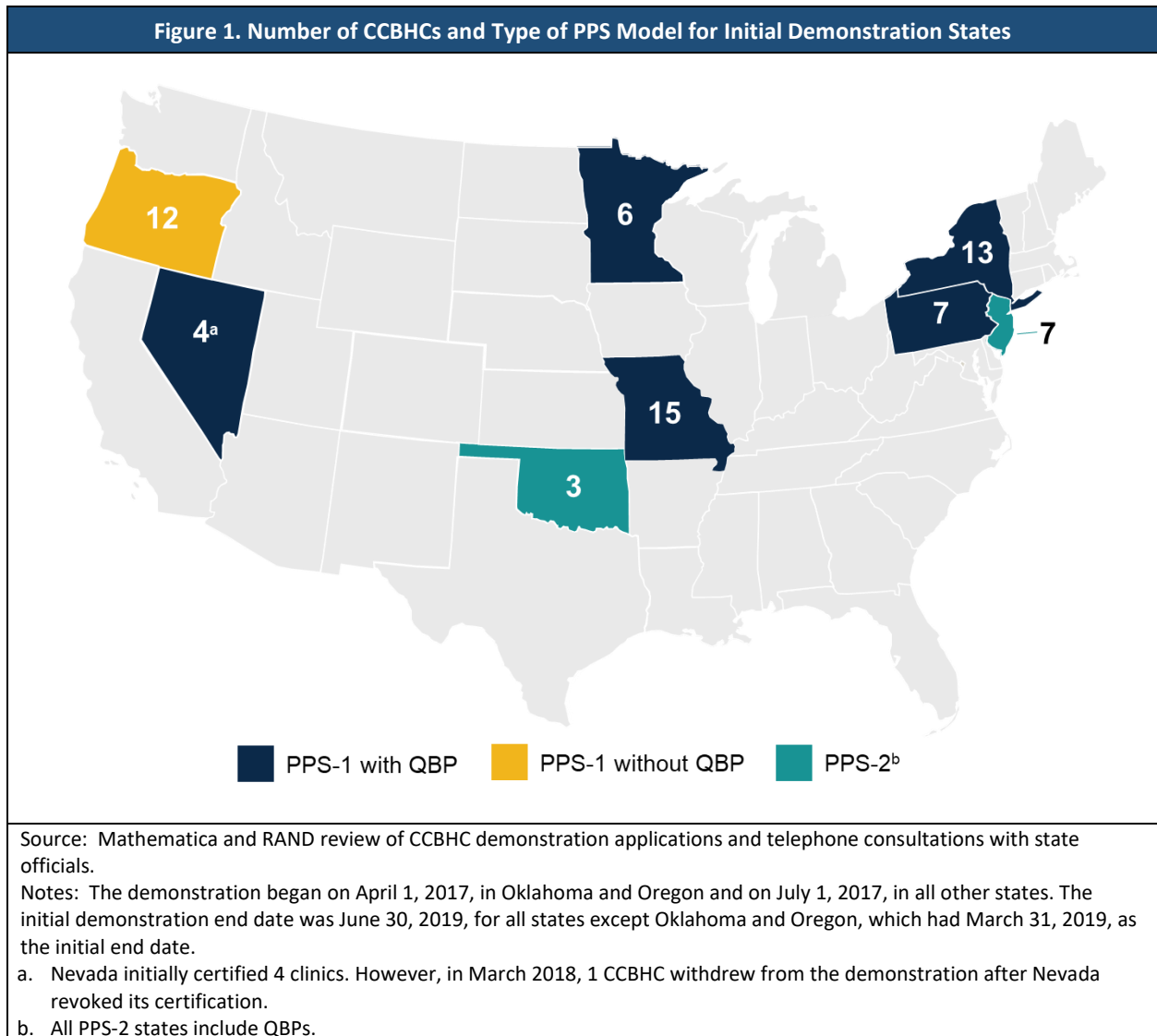
CCBHCs must offer nine types of services including: (1) crisis mental health services; (2) screening, assessment, and diagnosis; (3) person-centered treatment planning; (4) outpatient mental health and substance use services; (5) outpatient clinic primary care screening and monitoring; (6) targeted case management (TCM); (7) psychiatric rehabilitation services; (8) peer support, counselor services, and family supports; and (9) intensive, community-based mental health care for members of the armed forces and veterans (SAMHSA 2016a). However, states have some flexibility to tailor these services to align with their state Medicaid Plans and other state regulations, and to meet the needs of communities. Services must be person and family-centered, trauma-informed, and recovery-oriented. In addition, CCBHCs are required to expand service hours, provide timely access for routine needs, provide daily 24 hour access to crisis management services, provide services beyond the walls of the clinic (for example, in clients' homes and elsewhere in the community), and maintain partnerships with a range of health and social service providers to facilitate referrals and care coordination (SAMHSA 2016a). CCBHCs can partner with Designated Collaborating Organizations (DCOs) to provide some of the required services. DCOs are entities that are not directly supervised by a CCBHC but have a formal relationship with a CCBHC to provide specified services. CCBHCs that engage DCOs maintain clinical responsibility for services the DCO provides to CCBHC clients.

The PPS in each state is designed to provide CCBHCs with the financial support and stability necessary to deliver these required services. States participating in the demonstration select one of the following PPS methodologies to reimburse all CCBHCs in the state: a fixed daily payment (PPS-1) for each day a Medicaid beneficiary receives demonstration services or a fixed monthly payment (PPS-2) for each month in which a Medicaid beneficiary receives demonstration services. States set the payment rates, which can vary across CCBHCs within a state. PPS-1 states have the option to provide CCBHCs with quality bonus payments (QBPs) based on their performance on quality measures. PPS-2 states are required to provide QBPs based on quality measures. Participating states also receive an enhanced federal medical assistance percentage (FMAP) for covered services delivered to Medicaid beneficiaries by CCBHCs.

States and CCBHCs are required to report 21 quality measures following each demonstration year. These are calculated from Medicaid claims and managed care encounter data, electronic health records (EHRs), and surveys of CCBHC clients and their family members. These measures assess best practices in care delivery (for example, timely follow-up after discharge from a hospital), outcomes (for example, improvement in depression symptoms), and client and family member experiences with care. Quality measure reporting provides CCBHCs and state officials with standardized metrics to monitor the quality of care, inform quality improvement efforts, and award QBPs. CCBHCs also submit standardized cost reports to the state following each demonstration year. The cost reports include information on clinic operating costs and the number of daily (for PPS-1 states) or monthly (for PPS-2 states) visits to the clinic in each demonstration year.

B. Certified Community Behavioral Health Clinic Demonstration Roll Out

In October 2015, the U.S. Department of Health and Human Services (HHS) awarded planning grants to 24 states to begin certifying clinics to become CCBHCs, establish their PPS, and develop the infrastructure to support the demonstration. To support the first phase of the demonstration, HHS developed criteria (as required by PAMA) for certifying CCBHCs in six areas: (1) staffing; (2) availability and accessibility of services; (3) care coordination; (4) scope of services; (5) quality and reporting; and (6) organizational authority (SAMHSA 2016a). The criteria provide a framework for the certification of CCBHCs. However, states can exercise some discretion in applying the criteria to support implementation of the CCBHC model in different state and local contexts.



In December 2016, HHS selected eight of the 24 planning grant states to participate in the demonstration (Figure 1), based on the ability of their CCBHCs to: (1) provide the complete scope of services described in the certification criteria; and (2) improve the availability of, access to, and engagement of clients with a range of services. Six states selected the PPS-1 model and two selected the PPS-2 model. In August 2020, HHS announced that Kentucky and Michigan would begin participating in the demonstration as a result of expansion of the demonstration by the

Coronavirus Aid, Relief, and Economic Security Act (CARES Act) (P.L. 116-136). However, information about the expected number of clinics and implementation plans for the demonstrations in Kentucky and Michigan was not available for this report. The HHS Substance Abuse and Mental Health Services Administration (SAMHSA) also provides grant support to clinics to implement the CCBHC model through the CCBHC Expansion (CCBHC-E) grant program. CCBHC-E grantees must attest to meeting the same criteria as CCBHCs participating in the demonstration, but the grant does not require states to certify clinics or alter Medicaid reimbursement for the clinics.

Among the initial eight demonstration states, the number of CCBHCs participating in the demonstration and the characteristics of the counties served by those CCBHCs varies across states (Table 1). For example, Missouri is implementing the CCBHC demonstration in 15 clinics that serve 78 percent of the counties in the state. In contrast, Nevada is implementing the demonstration in three clinics that serve 18 percent of the counties in the state. Depending on the state, 8-27 percent of CCBHC clients were children or adolescents, 3-22 percent of clients were African American, and 5-41 percent were Hispanic during the first two years of the demonstration. CCBHC clients enrolled in Medicaid only (excluding clients dully enrolled in Medicaid and Medicare) accounted for between 41 percent of clients in Oklahoma to 66 percent of clients in Nevada. Clients who were dually enrolled in Medicaid and Medicare accounted for between 1 percent of CCBHC clients in Nevada to 12 percent of CCBHC clients in Pennsylvania. Those without any insurance accounted for between 3 percent of CCBHC clients in Pennsylvania to 36 percent of CCBHC clients in Oklahoma. The percentage of individuals served with “other” insurance types, including Medicare-only, Veterans Health Administration (VHA)/TRICARE and commercial insurance ranged from approximately 14 percent in Oklahoma to 37 percent in Minnesota.

State (number of CCBHCs)	Number of CCBHCs that serve Rural or Frontier Counties	Percent of all Counties in State served by CCBHCs	Percent of Clients Under Age 18	Percent African American Clients	Percent American Indian and Alaskan Native Clients	Percent Hispanic Clients	Percent Medicaid Only Clients	Percent Dually Enrolled in Medicaid and Medicare	Percent Uninsured Clients
MN (6)	3	21%	27%	12%	2%	5%	53%	5%	5%
MO (15)	11	78%	24%	10%	1%	5%	46%	10%	18%
NJ (7)	1	29%	19%	15%	<1%	17%	52%	7%	5%
NV (4)	2	18%	8%	21%	1%	32%	66%	1%	17%
NY (13)	7	65%	22%	21%	1%	17%	62%	7%	4%
OK (3)	2	22%	25%	13%	8%	41%	41%	9%	36%
OR (12)	8	33%	24%	3%	2%	8%	62%	4%	14%
PA (7)	3	10%	20%	22%	<1%	9%	61%	12%	3%

Source: DY1 CCBHC Quality Measure Reports for client demographic characteristics. SAMHSA 2017 Certified Community Behavioral Health Clinic Demonstration Program, Report to Congress 2017 for county information.

Notes: States did not report the demographic characteristics of clients served by CMHCs or other community behavioral health clinics to facilitate direct comparisons with CCBHC clients. The demographic characteristics of CCBHC clients were generally similar in the first and second demonstration years.

The sum of the last three columns does not equal 100% because the percent of individuals with “other” insurance types is not shown.

Across seven of the eight initial demonstration states, CCBHCs served 304,988 clients in the first demonstration year (DY1) and 332,135 clients in the second demonstration year (DY2), representing a 9 percent aggregate increase across CCBHCs (Table 2). Nevada did not report the number of CCBHC clients. Growth in the number of CCBHC clients over the first two years of the demonstration ranged from 1 percent in Oregon to 23 percent in Pennsylvania. Missouri had the most CCBHCs of any state and served the largest number of clients.

Table 2. Number of Clients Served by CCBHCs in Each Demonstration Year				
State (number of CCBHCs)	Total Clients in DY1	Total Clients in DY2	Increase in Clients from DY1 to DY2	Percent Increase in Clients from DY1 to DY2
Aggregate	304,998	332,135	27,140	9%
MN (6)	23,027	25,402	2,375	10%
MO (15)	121,787	132,562	10,778	9%
NJ (7)	17,851	19,127	1,276	7%
NY (13)	49,903	55,693	5,790	12%
OK (3)	20,610	22,741	2,131	10%
OR (12)	52,911	53,301	390	1%
PA (7)	18,909	23,309	4,400	23%

Source: DY1 and DY2 CCBHC Quality Measure Reports.
Note: Nevada did not submit the number of CCBHC clients.

C. Evaluation of the Community Behavioral Health Clinic Demonstration

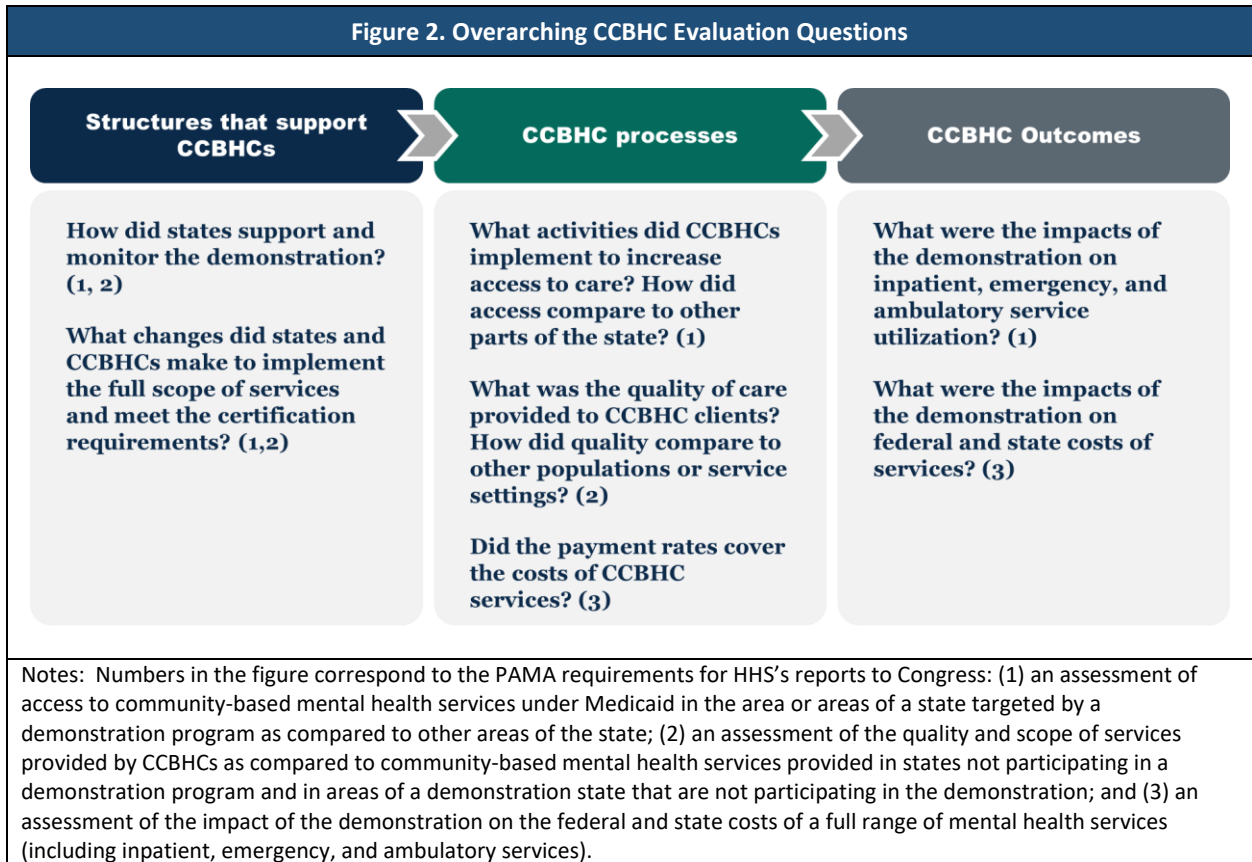
Section 223 of PAMA mandates that HHS submit reports to Congress that assess: (1) access to community-based mental health services under Medicaid in the area or areas of a state targeted by a demonstration program as compared to other areas of the state; (2) the quality and scope of services provided by CCBHCs as compared to community-based mental health services provided in states not participating in a demonstration program and in areas of a demonstration state that are not participating in the demonstration; and (3) the impact of the demonstration on the federal and state costs of a full range of mental health services (including inpatient, emergency, and ambulatory services).

In September 2016, the HHS Office of the Assistant Secretary for Planning and Evaluation (ASPE) contracted with Mathematica and its subcontractor, the RAND Corporation, to evaluate the implementation and impacts of the demonstration and provide information for HHS’s reports to Congress. The evaluation included the eight original demonstration states and covers the two-year period for which the demonstration was initially authorized.

The evaluation was designed to answer several overarching questions that align with the PAMA requirements for HHS’s reports to Congress (Figure 2). We grouped these evaluation questions to examine the structures and processes that states and CCBHCs put into place to implement the scope of services and improve access to care, the quality of care delivered to CCBHC clients, the costs of CCBHC services, and changes in Medicaid service use and costs that may have resulted from the demonstration. We developed more detailed evaluation questions linked to each of these overarching questions (see Chapter II).

The evaluation included interviews with state officials and consumer and family representatives at different stages of the demonstration to assess implementation over time; site visits to selected CCBHCs to interview clinic administrators and frontline clinical staff to understand their experiences implementing the model; analysis of progress reports that CCBHCs submitted in each demonstration year to report their staffing, training activities, accessibility of services, scope of services, EHR/health information technology (HIT) capabilities, care coordination activities, and relationships with other providers; and analysis of the cost reports and quality measures that states and CCBHCs submitted following each demonstration year.

Figure 2. Overarching CCBHC Evaluation Questions



The evaluation also assessed changes in Medicaid service use (including ambulatory visits, ED visits, and hospitalizations) and costs among beneficiaries who received care from CCBHCs relative to beneficiaries with similar demographic and diagnostic characteristics who received care from other (non-certified) community behavioral health clinics in the same state, representing care as usual. Although changes in service use do not necessarily reflect changes in access to care or the quality of care, the findings from these analyses are important to understand how the CCBHC model affects the broader health care system. Hospitalizations and ED visits are typically viewed as unfavorable outcomes from a health system perspective. CCBHCs’ efforts to increase access to care and deliver new services could potentially result in the identification of untreated conditions and increase the use of services. Conversely, providing more comprehensive ambulatory care to CCBHC clients could decrease ED visits and hospitalization rates.

We compared pre-post changes in service use and costs for the treatment group (beneficiaries who received services from clinics that became CCBHCs in the year prior to the demonstration) with pre-post changes in service use and costs for a comparison group (beneficiaries who received services from clinics that did not become CCBHCs in the year prior to the demonstration) within the same state. This study design (commonly referred to as a difference-in-differences design) allowed us to identify changes in service use and costs attributable to the demonstration, as opposed to general historical trends. This component of the evaluation included only beneficiaries enrolled in Medicaid in the year prior to the demonstration. Due to data or study design limitations in some states, this component of the evaluation was limited to Oklahoma, Pennsylvania, and Missouri. These states provided Medicaid claims and managed care encounter data for the evaluation. We consulted with officials and data experts in these states to define the comparison groups. Most Medicaid services in Pennsylvania and Missouri are delivered through managed care arrangements and the costs for these services were not captured in the

Medicaid data available for the evaluation. As a result, analyses of the impact of the demonstration on Medicaid costs were limited to Oklahoma, which provides nearly all Medicaid services on a fee-for-service (FFS) basis.

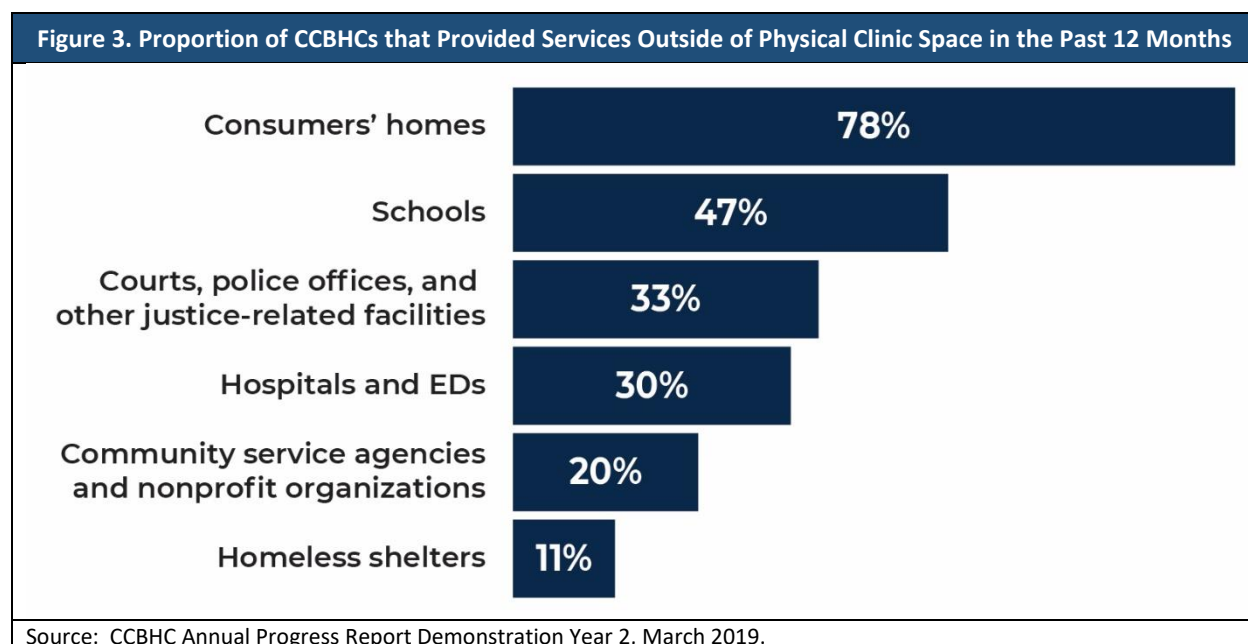
This fifth report summarizes key findings for each of the areas related to the PAMA requirements for HHS's reports to Congress and provides information on the implementation experiences of states and CCBHCs with the model. This report builds on interim evaluation reports, which provide detailed information on implementation progress (Wishon Siegwarth et al. 2019) and the costs and quality of care (Breslau et al. 2020a, 2020b).

EVALUATION FINDINGS

A. Access to Community Mental Health Services

The evaluation examined the changes that CCBHCs implemented to increase access to care, improvements in wait times for initial evaluations at CCBHCs (an indicator of timely access to care), changes in the number of clients served by CCBHCs over time (which may reflect efforts to increase access to care), and the extent to which consumer and family stakeholder representatives reported that access to care changed as a result of the demonstration. We also examined changes in Medicaid service use to understand how the introduction of the CCBHC model affected where and how frequently Medicaid beneficiaries received care.

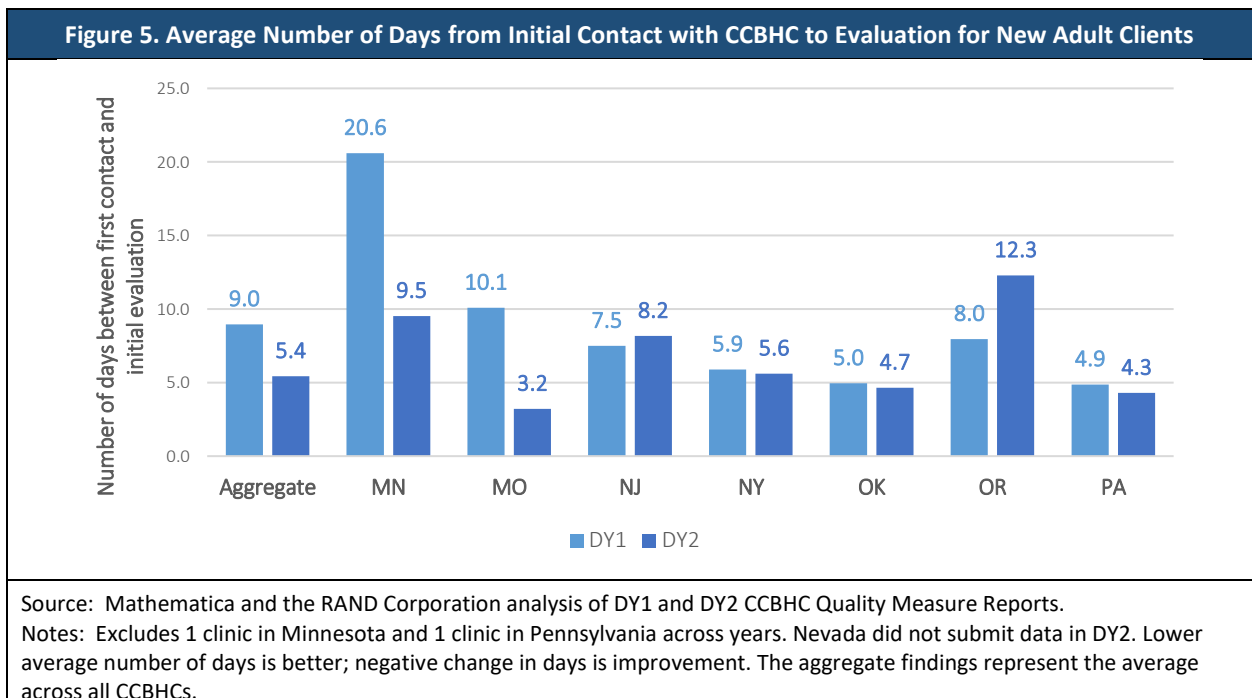
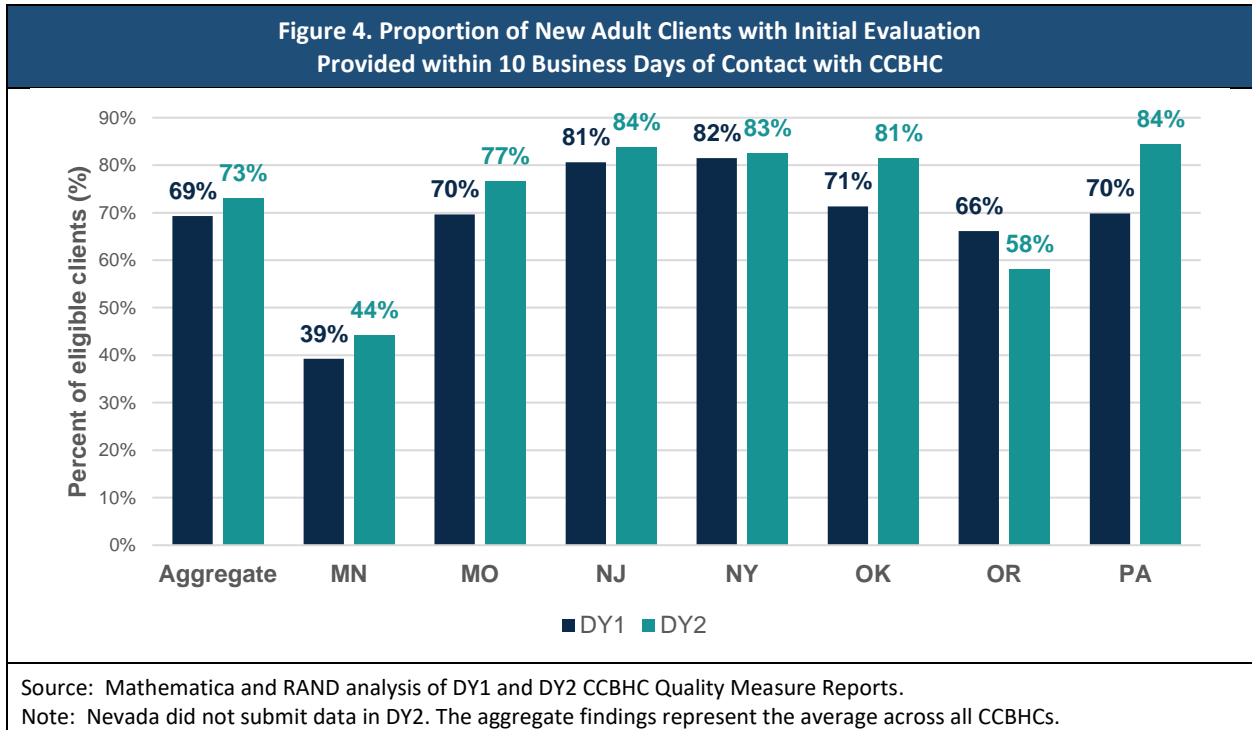
Activities to increase access to care. CCBHCs implemented a wide range of activities to increase access to care. These activities included, for example, expanding operating hours, accommodating same-day and walk-in appointments, outreach to underserved populations, and moving service delivery beyond the clinic walls to reach people in their homes and communities (Figure 3). CCBHCs also established and sustained partnerships with external providers to facilitate referrals and coordinate care. In the first demonstration year, all or nearly all CCBHCs had formal or informal relationships with inpatient psychiatric facilities, residential treatment facilities for SUD, schools, child welfare agencies, adult criminal justice agencies and courts, juvenile justice agencies, primary care providers, and Federally Qualified Health Centers (FQHCs). According to state officials, some of these efforts to expand access to care were unique to CCBHCs relative to other community behavioral health clinics in the state.



All CCBHCs provided services to individuals regardless of their ability to pay. For comparison, 78 percent of non-CCBHC state licensed or certified CMHCs in the eight original demonstration states offered treatment at no charge or for minimal payment in 2020 based on an analysis of National Mental Health Services Survey (N-MHSS) data (Wishon et al. 2021).

As noted above (see Table 1), the number of clients served by CCBHCs increased by 9 percent from the first to the second demonstration year (this ranged from 1 percent to 23 percent, depending on the state), suggesting that efforts to increase access to care may have been successful at attracting new clients.

Wait times for initial evaluation. In all but one state, the proportion of new adult clients who received an evaluation within ten business days of their first contact with the CCBHC improved from the first to the second demonstration year (Figure 4). On average, adults received an initial evaluation within nine days of contact with the CCBHC in the first demonstration year, which decreased to 5.4 days in the second demonstration year (Figure 5). All states except New Jersey and Oregon demonstrated this pattern of improvement.



Consumer and family stakeholder perceptions of access to care. Consumer and family representatives interviewed in several states credited the demonstration with increasing access to care. These stakeholders praised efforts to accommodate same-day appointments and expand service hours and noted that consumers experienced much shorter wait times for appointments. These stakeholders also perceived that providing mental health and SUD services for both adults and children at the same location facilitated greater access to comprehensive services for whole families, noting that CCBHCs became more family-oriented environments that offer care to children and their parents. These stakeholders also reported that the inclusion of peer support staff in the CCBHC model was critical to engaging clients and families in treatment. Across states, over 80 percent of adult clients had positive perceptions of access to care in both demonstration years, as reported in the quality measures.

Impact of CCBHCs on service use. Among the three states included in the difference-in-differences analyses, the introduction of the CCBHC model impacted the use of Medicaid services differently in each state (Table 3):

- In Missouri, the number of behavioral health-related ambulatory visits increased 5.7 percent among CCBHC clients relative to the comparison group. The demonstration did not impact hospitalization rates or ED visits.
- In Pennsylvania, there was a 7.4 percent reduction in the average number of physical health-related ambulatory visits and a 9.9 percent reduction in the average number of behavioral health-related ambulatory visits among CCBHC clients relative to the comparison group. CCBHC clients did not differ from the comparison group in their probability of having any ED visit during the demonstration, but there was a 13 percent reduction in the average number of behavioral health-related ED visits among CCBHC clients relative to the comparison group (in other words, the likelihood of any ED visit was not different between the two groups but CCBHC clients had fewer behavioral health-related ED visits over time relative to the comparison group). The demonstration did not impact hospitalization rates.
- In Oklahoma, there was a 3 percent reduction in the number of physical health-related ambulatory visits among CCBHC clients relative to the comparison group, but there was no impact on ambulatory behavioral health-related visits. CCBHC clients had a higher probability of any ED visit during the demonstration relative to the comparison group. However, there was an 11 percent reduction in the average number of behavioral health-related ED visits among CCBHC clients relative to the comparison (in other words, although the likelihood of any ED visit was higher among CCBHC clients they had fewer behavioral health-related ED visits over time relative to the comparison group). Finally, CCBHC clients had a lower probability of hospitalization relative to the comparison group during the demonstration, but the demonstration did not impact the average number of hospitalizations. This could, reflect, in part, relatively low hospitalization rates in this state, which could make it difficult to detect changes in averages.

In sum, there was not a consistent pattern across states in how the introduction of the CCBHC model impacted hospitalization rates, ED visits, or ambulatory service use. Changes in ambulatory service use do not necessarily indicate better or worse access to care. In the context of this demonstration, in which CCBHCs are paid either a daily or monthly rate to provide comprehensive services, an increase in daily or monthly ambulatory visits among CCBHC clients could indicate that CCBHCs are providing needed services. A decrease in daily or monthly ambulatory visits among CCBHC clients could indicate that CCBHCs are able to provide the necessary services in fewer visits. Theoretically, the delivery of more comprehensive services (regardless of the number of visits) might correspond with a decrease in ED visits or hospitalization rates. However, across these states, there was no consistent pattern in the relationship between changes in ambulatory visits and ED visits. The demonstration also did not impact hospitalization rates in any state.

Table 3. Summary of Impacts on Service Use Over the First Two Demonstration Years			
	Missouri	Oklahoma	Pennsylvania
Measures			
Number of inpatient hospitalizations per 1,000 beneficiary years, by type:			
All-cause	No impact	No impact	No impact
Behavioral health-related	No impact	No impact	No impact
Physical health-related	No impact	No impact	No impact
Probability of inpatient stay	No impact	Decreased***	No impact
Number of ED visits per 1,000 beneficiary years, by type:			
All-cause	No impact	No impact	No impact
Behavioral health-related	No impact	Decreased*	Decreased*
Physical health-related	No impact	No impact	No impact
Probability of ED visit	No impact	Increased***	No impact
Number of ambulatory visits per 1,000 beneficiary years, by type:			
All-cause	No impact	No impact	Decreased***
Behavioral health-related	Increased***	No impact	Decreased***
Physical health-related	No impact	Decreased*	Decreased***
Source: Mathematica analyses of Medicaid enrollment and claims data provided by the states of Missouri, Oklahoma, and Pennsylvania.			
Notes:			
* Significantly different from zero at the 0.10 level, two-tailed test.			
** Significantly different from zero at the 0.05 level, two-tailed test.			
*** Significantly different from zero at the 0.01 level, two-tailed test.			

The variation in findings across states could reflect differences in how the model was implemented across states as well as other state contextual factors that are not directly measurable using Medicaid data. As noted above, Missouri implemented the CCBHC model in a larger number of clinics that served the majority of counties whereas Pennsylvania and Oklahoma implemented the model within certain regions. There were also differences across states in some of the demographic and diagnostic characteristics of Medicaid beneficiaries included in the final analytic samples. For example, 56 percent of the study population in Missouri qualified for Medicaid on the basis of disability compared to only one-quarter of the population in Oklahoma and Pennsylvania. The population in Missouri was also, on average, older (mean age = 31 years) than the populations in Oklahoma (mean age = 24 years) and Pennsylvania (mean age = 25 years). The racial composition of the populations (as recorded in Medicaid eligibility data) also varied by state; 79 percent of beneficiaries in Missouri were White compared to 62 percent in Oklahoma and Pennsylvania. Oklahoma had a much higher proportion of beneficiaries in the “other” race category (25 percent) relative to other states (15 percent in Pennsylvania and 4 percent in Missouri). Beneficiaries included in the analytic sample for each state primarily had diagnoses of anxiety disorders, bipolar disorders, depressive disorders, or schizophrenia and other psychotic disorders in the year prior to the demonstration but this varied somewhat across state (66 percent in Pennsylvania, 75 percent in Oklahoma, and 83 percent in Missouri). Across states, approximately one-quarter of beneficiaries in the final analytic sample had an SUD diagnosis in the year prior to the demonstration (22 percent in Missouri, 23 percent in Oklahoma, and 25 percent in Pennsylvania), but the proportion of beneficiaries with an opioid use disorder in Pennsylvania (12 percent) was more than twice the proportion in the other two states (5 percent in both states).

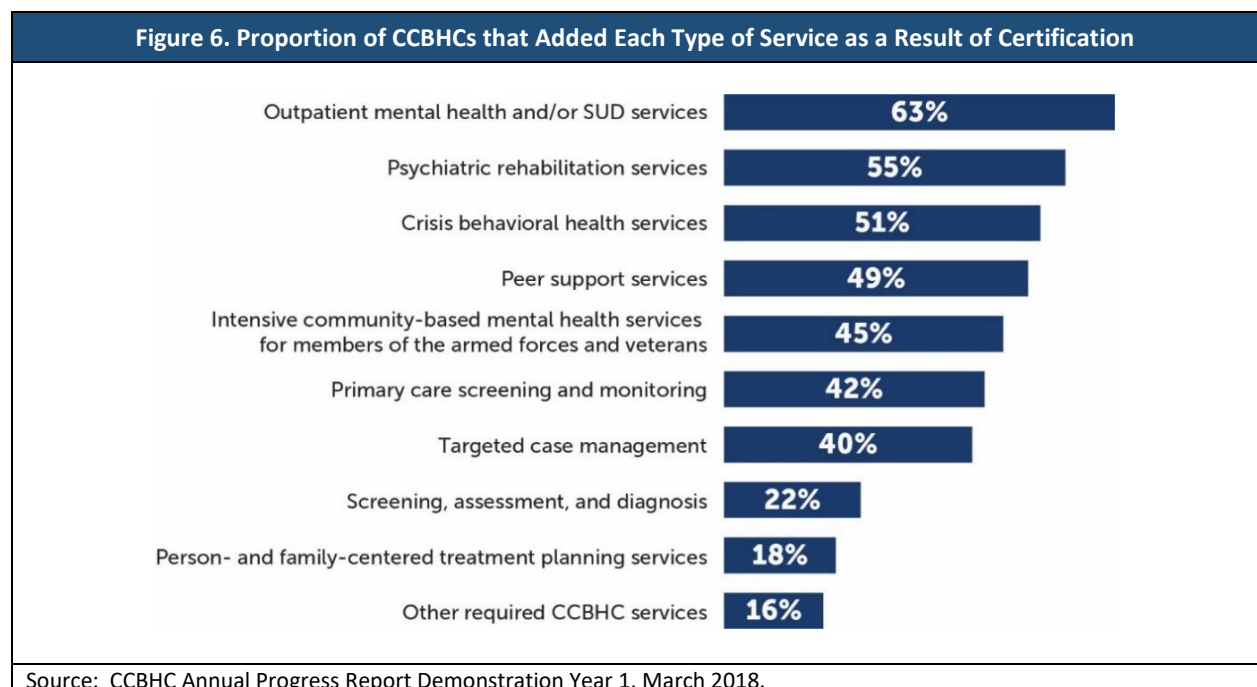
These impact findings are limited to the first two years of the demonstration. There are also several limitations to the analysis. Although the evaluation used the strongest design to avoid potentially misattributing impacts of the demonstration to changes over time in the case-mix of CCBHCs, it required limiting the analytic population to beneficiaries enrolled in Medicaid and receiving care from these clinics prior to the demonstration. This does not compromise the validity of the findings, but the results are best interpreted as the impacts among beneficiaries who were already engaged in care as opposed to those who newly entered services after the demonstration

began. The introduction of the CCBHC model could impact clients who are not already engaged in care differently from those who have an existing relationship with a community behavioral health clinic. As the demonstration continues and expands to other states, there may be opportunities to implement alternative evaluation designs to capture impacts on clients newly seeking services at CCBHCs. Finally, although the treatment and comparison groups within each state were comparable on key characteristics, and there was adequate sample size to detect impacts, it is possible that the final population included in the comparison group differed from clients in the CCBHC group on characteristics that are not measurable using Medicaid data. This may have been particularly relevant to Missouri, where the remaining areas of the state not affected by the demonstration were more limited than the other states.

B. Scope of Services

The demonstration establishes a minimum scope of services for CCBHCs and requires states and CCBHCs to adopt evidence-based practices (EBPs). However, the demonstration allows states to select EBPs that address the needs of communities and align with Medicaid State Plans and other state regulations. The evaluation examined the types of staff and services that CCBHCs added to meet the certification requirements and the partnerships that CCBHCs developed to deliver the required services and coordinate care. CCBHCs varied widely in the types of services they provided and populations they served prior to the demonstration, and consequently required different changes to meet certification requirements. However, officials reported that, as a result of the certification process, CCBHCs provided a more comprehensive and broader range of services than other community behavioral health clinics in the state. CCBHCs were generally able to sustain the delivery of the required services throughout the demonstration.

Expansion of services to meet CCBHC criteria. Nearly all clinics expanded or added services to meet CCBHC certification requirements (Figure 6). CCBHCs most often added services within the categories of outpatient mental health and/or SUD services, psychiatric rehabilitation services, crisis services, and peer support.



CCBHCs offered a wide range of EBPs and rehabilitative services consistent with the certification criteria (Table 4). All or nearly all CCBHCs provided motivational interviewing, individual and group cognitive behavioral therapy (CBT), peer support for clients, emergency crisis intervention, 24-hour mobile crisis teams, crisis stabilization, primary care screening and monitoring, TCM, evidence-based medication evaluation and management, and medication-assisted treatment (MAT) for alcohol and opioid use. Most CCBHCs provided community wraparound services for youth/children, dialectical behavioral therapy (DBT), peer support for families, supported employment, supported housing, and supported education. The evaluation did not obtain data from all CMHCs or community behavioral health clinics across states to facilitate direct comparisons with CCBHCs, but 2020 N-MHSS data suggest that several of these services were less frequently available from other CMHCs in the demonstration states (Wishon et al. 2021); in 2020, only 49 percent of state licensed or certified CMHCs (that were not CCBHCs) in demonstration states provided any type of SUD treatment, 59 percent had a crisis intervention team, 43 percent provided peer support, 40 percent offered on-site services for psychiatric emergencies, and 27 percent provided supported housing.

Many of these services were added as a result of the CCBHC certification process (Table 4). For example, 46 percent of CCBHCs added 24-hour mobile crisis teams, 46 percent added MAT, 43 percent added peer support for clients, 42 percent added primary care screening and monitoring, 40 percent added TCM, 34 percent added peer support for families, and 31 percent added emergency crisis intervention and crisis stabilization.

EBP or Service	Offered in DY1	Offered in DY2	Added to Meet CCBHC Certification Requirements
Motivational interviewing*	100%	100%	9%
Individual CBT*	100%	100%	4%
Peer support for clients	100%	100%	43%
Emergency crisis intervention	100%	100%	31%
24-hour mobile crisis teams	97%	98%	46%
Crisis stabilization	99%	97%	31%
Primary care screening and monitoring	97%	91%	42%
TCM	94%	100%	40%
Evidence-based medication evaluation and management*	87%	94%	7%
Group CBT*	84%	88%	6%
MAT for alcohol or opioid use*	84%	92%	46%
Community wraparound services for children and youth*	76%	77%	15%
DBT*	73%	76%	7%
Peer support for families	73%	83%	34%
Supported employment	75%	82%	27%
Supported housing	70%	79%	12%
Intensive community-based services for members of the armed forces and veterans	72%	67%	45%
Supported education	54%	68%	16%
Multisystemic therapy*	40%	56%	7%

Source: CCBHC Annual Progress Report Demonstration Year 1 and Year 2, March 2018 and March 2019.
 * EBP included in the CCBHC certification criteria.

CCBHCs delivered most of the required services directly rather than engaging external providers in DCO relationships. This was true for many of the new services that CCBHCs added to meet the certification requirements. For example, only one of the 61 CCBHCs that provided MAT in the second demonstration year engaged a DCO to provide these services. CCBHCs cited concerns about their ability to maintain clinical

responsibility for services provided through DCOs and uncertainty about how the PPS would work under DCO arrangements as reasons for preferring to provide services directly. Some CCBHCs also preferred to build their own internal service capacity through the demonstration. The exception was suicide/crisis hotlines or warmlines; 30 percent of CCBHCs developed DCO relationships with these types of providers, most often formalizing their existing relationships with these providers.

Staff hiring and training. States and CCBHCs reported that the PPS model allowed clinics flexibility to hire different types of staff and form treatment teams that were tailored to the needs of their clients. CCBHCs employed a wide range of staff before the demonstration. CCBHCs most often hired case managers, peer specialists/recovery coaches, psychiatrists, and family support workers during the CCBHC certification process, and most CCBHCs were able to retain these staff over the first two years of the demonstration (Table 5).

In the first demonstration year, 93 percent of CCBHCs provided training in risk assessment, suicide prevention, and suicide response; 91 percent provided training in evidence-based and trauma-informed care; 88 percent provided training in cultural competency; and 76 percent provided training in family-centered care, recovery-oriented care, and primary and behavioral health care integration. A similar proportion of CCBHCs provided these trainings in the second demonstration year. Additional, non-required training topics provided by CCBHCs during the first demonstration year included serving veterans and “military culture” (22 percent), CBT (9 percent) and serving LGBTQ individuals (2 percent).

Table 5. Proportion of CCBHCs that Employed Select Types of Staff			
Staff	Employed Before Demonstration	Employed During First Demonstration Year	Employed During Second Demonstration Year
Psychiatrists for adults	70%	91%	82%
Child/adolescent psychiatrist	58%	76%	64%
Case management staff	72%	97%	97%
Peer specialist/recovery coaches	69%	99%	100%
Family support staff	37%	67%	68%

Source: CCBHC Annual Progress Report Demonstration Year 1 and Year 2, March 2018 and March 2019.
 Note: Figure III.3 in Chapter III provides a more comprehensive list of staff that CCBHCs employed before and during the demonstration.

Composition of treatment teams. In the first demonstration year, 76 percent of CCBHCs reported a change in the membership of their treatment teams as a result of the certification process and 58 percent of CCBHCs continued to make some changes to their treatment teams in the second demonstration year. In both years, nearly all CCBHCs reported including case managers and consumers/clients on treatment teams in addition to mental health providers, SUD providers, and psychiatrists; 78 percent of CCBHCs included clients’ family members on treatment teams. Only 48 percent of CCBHCs included primary care physicians (PCPs) on treatment teams in the second demonstration year.

Primary care services. Ninety-one percent of CCBHCs reported offering primary care screening and monitoring in the second demonstration year and 99 percent reported some type of partnership with a primary care provider. Although not required in the certification criteria, 55 percent of all CCBHCs provided on-site primary care. However, most of the clinics providing primary care services (84 percent) were already providing on-site primary care before the demonstration (only six CCBHCs added on-site primary care during or after the CCBHC certification process). Some states established primary care requirements for CCBHCs that went beyond the certification requirements. For example, Oregon required its CCBHCs to provide 20 hours of on-site primary care services per week beginning in the second demonstration year.

CCBHCs varied, however, in their ability to capture physical health information and coordinate physical health care with other providers. Only 56 percent of CCBHCs had EHRs that included primary care records and only 45 percent reported that their EHRs allowed electronic exchange of clinical information with any external provider.

Fifty-eight percent of CCBHCs reported receiving any type of notification (electronic or otherwise) when a hospital treated a CCBHC client for a physical health condition and 53 percent reported receiving any type of notification when an ED treated a CCBHC client for a physical health condition.

In sum, CCBHCs expanded their scope of services, which included the adoption of various EBPs, rehabilitative services, and primary care screening and monitoring. They also hired and trained staff to support the delivery of these services. Data were not available to facilitate a direct comparison between all the services provided by CCBHCs with other clinics in the state or with clinics in other states. However, state officials reported that CCBHCs provided a more comprehensive and broader range of services relative to other community behavioral health clinics in the state, and the findings from N-MHSS described above support their observations.

C. Quality of Care

The delivery of comprehensive services and care coordination, the addition of staff, and provision of additional training could lead to improvements in the quality of care. Conversely, quality of care could suffer if the PPS incentivizes CCBHCs to deliver fewer services while still collecting the daily or monthly payment. The evaluation examined performance on the 21 quality measures (representing eight domains of quality) that states and CCBHCs reported. The analysis assessed how the quality of care delivered to CCBHC clients compared to state Medicaid benchmarks and assessed changes in the quality of care over time. Since these measures were not reported by similar clinics in regions of the state that did not participate in the demonstration, direct comparisons between CCBHCs and comparable non-CCBHC behavioral health clinics were not possible. However, comparing the quality of care provided to CCBHC clients with state Medicaid benchmarks for the same measures provides context for understanding whether CCBHC clients received higher-quality care than the broader group of Medicaid beneficiaries in the state. Interpretation of CCBHC performance relative to these benchmarks should consider that the populations treated in CCBHCs are likely to be more severely ill and disadvantaged than the broader Medicaid population with these conditions.

According to state officials, most CCBHCs did not have previous experience reporting the quality measures required for the demonstration and CCBHCs' data systems did not always facilitate reporting the measures before the demonstration. As a result, 97 percent of CCBHCs enhanced their EHRs and/or other HIT to capture the information they were required to report; 33 percent of CCBHCs adopted a new EHR or HIT system (most often in addition to making changes to their existing systems). Modifying data systems required considerable resources and staff time. State agencies played a critical role in providing technical assistance to help CCBHCs make these changes and, in some states, helped clinics link to external data systems. In contrast, calculating the state-reported measures generally did not require major changes to state data systems.

Quality measure performance among CCBHC clients relative to Medicaid benchmarks. Several of the quality measures used in the demonstration align with measures that state Medicaid programs voluntarily report to the HHS Centers for Medicare & Medicaid Services (CMS) for the Medicaid and CHIP Child and Adult Core Sets of Quality Measures (Table 6). This facilitated comparisons between the quality of care provided to CCBHC clients with a state benchmark for the same measure. However, not all state Medicaid programs submitted performance on every measure to the Medicaid and CHIP Adult and Child Core Sets in each year. As a result, this comparison was only feasible for a subset of states, depending on the measure.

For several measures, the quality of care provided to CCBHC clients most often met or exceeded the quality of care provided to the broader Medicaid population in states where data were available to make these comparisons (Table 6):

- The proportion of adult CCBHC clients with major depression who received antidepressants and continued those antidepressants for at least six months was similar or better than the state Medicaid average in four of the five states where comparisons were possible.
- The proportion of adult CCBHC clients who initiated treatment for alcohol or other drug (AOD) use within 14 days of their initial AOD diagnosis and the proportion who remained engaged in care (defined as having at least two other AOD visits within 30 days of the initial AOD visit) was similar or better than the state Medicaid average in four of the five states where comparisons were possible.
- The proportion of all CCBHC clients who received follow-up care within 30 days after an ED visit for a mental health condition or AOD use was similar or better than the state Medicaid average in five of the six states where comparisons were possible.
- The proportion of adult and child/adolescent CCBHC clients who received follow-up care within 30 days of discharge from a hospital for a mental health condition was also similar or better than the state Medicaid average in five of the six states where comparisons were possible.
- The proportion of adult CCBHC clients who were readmitted to a hospital within 30 days of discharge was lower than the state Medicaid average in four of the six states where comparisons were possible.
- The proportion of children/adolescents receiving care from CCBHCs prescribed medication for attention deficit hyperactively disorder (ADHD) who had a visit with a provider with prescribing authority within 30 days after starting the ADHD medication was better than the state Medicaid average in all three states where comparisons were possible.

There was one measure for which the quality of care provided to CCBHC clients never exceeded the state Medicaid average: Adherence to antipsychotic medications (defined as receiving antipsychotic medications for at least 80 percent of the days enrolled in Medicaid during the year) among adults with schizophrenia who received care from CCBHCs was similar to the Medicaid state average in one state but worse in two states. However, this comparison was only possible in three states. As shown in Table 6, performance on some measures was worse among CCBHC clients relative to the state Medicaid average, indicating room for improvement. In addition, some states without benchmarks for a particular measure demonstrated high performance. For example, 93 percent of adults discharged from a hospital for a mental health condition in Oregon received follow-up care within 30 days of discharge in the second demonstration year, relative to an average performance rate of 63 percent across all demonstration states.

Change in quality of care during the demonstration. Performance on several of the measures that assessed process of care within CCBHCs (such as those focused on timely access to care and screening and assessment for specific conditions) improved from the first to the second demonstration year (Table 7). For example, the proportion of adult CCBHC clients with a new episode of depression who received a suicide risk assessment increased in all but one state; however, there was room for improvement in some states. Likewise, rates of screening and follow-up care for tobacco use, unhealthy alcohol use, and body mass index also generally improved from the first to the second demonstration year. These improvements may reflect changes that CCBHCs made in response to first year performance on the measures, such as implementing new screening processes. Some CCBHCs also made changes to how the data for the quality measures were collected in the second demonstration year, including continuing enhancements to EHRs and other data systems, which could have influenced changes in performance rates.

Table 6. Quality of Care Provided to CCBHC Clients Compared to Medicaid Benchmarks in DY1 and DY2							
Quality Measure	MN	MO	NJ	NY	OK	OR	PA
Antidepressant Medication Management, continuation phase, adults	Below	Exceeded	NA	Met	Exceeded ^a	NA	Met ^b
Initiation of Alcohol and Other Drug Dependence Treatment, adults	Met ^a	Met	NA	Exceeded	NR	Exceeded	Below
Engagement of Alcohol and Other Drug Dependence Treatment, adults	Met ^a	Exceeded	NA	Exceeded	NR	Met	Below
Follow-up After ED Visit for Mental Illness, all ages	Exceeded	Exceeded	Below	Exceeded	Exceeded	Exceeded	NR
Follow-up After ED Visit for AOD Dependence, all ages	Exceeded	Met	NA	Exceeded	Exceeded ^b	NA	Exceeded
Follow-up After Hospitalization for Mental Illness, adults	Exceeded	Exceeded	Met ^b	Exceeded ^c	Exceeded	NA	Below
Follow-up After Hospitalization for Mental Illness, child/adolescent	Exceeded ^d	Exceeded	Met ^b	Met ^c	Exceeded	NA	Below
Follow-Up Care for Children Prescribed ADHD Medication	NA	NA	NR	Exceeded	Exceeded	NR	Exceeded
Plan All-Cause Readmission (PCR-BH), adults	Below	Below ^c	Exceeded ^b	Exceeded ^a	Exceeded	NA	Exceeded ^b
Adherence to Antipsychotic Medications for Individuals with Schizophrenia, adults	NA	Met	NA	Below	NA	NA	Below

Source: Mathematica and the RAND Corporation analysis of DY1 and DY2 CCBHC Quality Measure Reports.
Notes: Nevada did not submit data in DY2. Benchmarks from the Annual Reporting on the Quality of Care for Adults in Medicaid (FFY 2018 for DY1 and FFY 2019 for DY2), available at <https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/adult-core-set/index.html>. For most states and measures, the findings were the same in both demonstration years unless otherwise noted.

a. No benchmark available in DY1. Classification based on DY2 performance.
b. Performance below benchmark in DY1. Classification based on DY2 performance.
c. No DY2 benchmark. Classification based on DY1 performance.
d. Met performance in DY1.

Exceeded = performance for CCBHC clients at least 5% better than state Medicaid benchmark.
Met = performance for CCBHC clients within 5% of state Medicaid benchmark.
Below = performance for CCBHC clients at least 5% worse than state Medicaid benchmark.
NA = Medicaid benchmark not available in either demonstration year.
NR = Measure performance for CCBHC clients not reported due to small sample size or deviation in measure reporting that compromised comparison with Medicaid benchmark.

There was less improvement on measures that assessed transitions between settings of care (for example, follow-up after discharge from a hospital) and medication management and adherence, which were reported using Medicaid claims data. This could reflect that changing performance on some of these measures requires CCBHCs to have partnerships with hospitals or other entities, which may require more time to put into place. There were some indications from the progress reports that the strength of such partnerships varied across CCBHCs. For example, in the second demonstration year, about one-quarter of CCBHCs reported that they did not receive notifications from ED or hospitals when a client in their care was treated for behavioral health conditions in those settings. Improving performance on measures of antidepressant medication management or adherence to antipsychotics might also require more time to put into place processes for monitoring and following-up with clients.

Table 7. Change in Quality of Care for CCBHC Clients During Demonstration

Measure Domain	Measure Description	Measure Name	MN	MO	NJ	NY	OK	OR	PA
Domain 1: Access to care and timeliness of initial evaluation	Time to Initial Evaluation, adult	I-EVAL ^c							
Domain 2: Depression and suicidality screening and follow-up	Child and Adolescent Major Depressive Disorder: Suicide Risk Assessment	SRA-BH-C ^c							
	Adult Major Depressive Disorder: Suicide Risk Assessment	SRA-A ^c							
	Screening for Clinical Depression and Follow-up Plan	CDF-BH ^c							
	Depression Remission at 12 Months	DEP-REM-12 ^c			n/a				
Domain 3: Psychiatric medication management and adherence	Adherence to Antipsychotic Medications for Individuals with Schizophrenia	SAA-BH ^s							
	Antidepressant Medication Management	AMM-BH-cont.							
Domain 4: Follow-up and medication management for children/adolescents with ADHD	Follow-up Care for Children Prescribed ADHD Medication	ADD-BH-cont.			n/a			n/a	
Domain 5: Physical health care	Adult Body Mass Index Screening and Follow-up Plan	BMI-SF ^c							
	Weight Assessment for Nutrition and Physical Activity for Children/Adolescents	WCC-BH ^c							
	Diabetes Screening for People with Schizophrenia or Bipolar Disorder who are Using Antipsychotic Medications	SSD ^s							
Domain 6: Substance use screening and treatment	Tobacco Use - Screening and Cessation Intervention	TSC ^c							
	Unhealthy Alcohol Use - Screening and Brief Counseling	ASC ^c							
	Initiation and Engagement of AOD Dependence Treatment	IET-BH ^s					n/a		
Domain 7: ED and hospital transitions	Follow-up After ED Visit for Mental Illness	FUM ^s							n/a
	Follow-up After ED Visit for Alcohol or Other Dependence	FUA ^s							
	Follow-up After Hospitalization for Mental Illness, adult	FUH-BH-A ^s							
	Follow-up After Hospitalization for Mental Illness, child/adolescent	FUH-BH-C ^s							
	Plan All-Cause Readmission Rate, adult	PCR-BH ^s							
Domain 8: Consumer and family experiences with CCBHCs	Patient Experience of Care Survey, adult	PEC ^s							
	Youth/Family Experience of Care Survey	Y/FEC ^s							

Source: Mathematica and RAND analysis of DY1 and DY2 CCBHC Quality Measure Reports.

Notes: Nevada did not submit data in DY2. Change definitions are as follows:

Improved = 5% or more improvement in aggregate performance across CCBHCs in state from DY1 to DY2.

Declined = 5% or more decline in in aggregate performance across CCBHCs in state from DY1 to DY2.

Stable.

^c = Clinic-reported measure.

^s = State-reported measure.

Awarding of quality bonus payments. CCBHCs in states with QBPs were required to achieve state-defined performance thresholds on six measures (Table 8). States could also require CCBHCs to meet performance thresholds on additional measures included in the PPS guidance or other measures with approval from CMS. States set the amount of the QBPs and had the option to modify the parameters of the QBPs from the first to the second demonstration year.

States varied in the performance thresholds used to award QBPs. For example, some states awarded QBPs if performance on the measures met or exceeded state or national averages. Other states specified targets for particular measures (for example, at least a 10 percent improvement toward a specified goal) or required CCBHCs to improve from year to year without a specified target. Some states used data from the first six months or year of the demonstration to establish performance thresholds.

States also varied in how they tied measure performance to the amount of the QBPs. For example, some states created a sliding scale in which the lowest-scoring CCBHC received no payment and the highest-scoring CCBHC received the maximum payment for a particular measure. Some states also tied the amount of QBPs to the magnitude of improvement on a measure. For example, 1 percent improvement above a specified performance threshold received 10 percent of the QBP, whereas 10 percent improvement above the threshold would earn 100 percent of the QBP. In sum, no two states had an identical QBP structure even though they used the same required measures.

Table 8. Quality Measures Used in QBP Systems							
Measure	MN	MO	NJ	NV	NY	OK	PA
Required measures for QBPs							
Follow-Up After Hospitalization for Mental Illness, ages 21+ (adult) (FUH-BH-A)*	✓	✓	✓	✓	✓	✓	✓
Follow-Up After Hospitalization for Mental Illness, ages 6-21 (child/adolescent) (FUH-BH-C)*	✓	✓	✓	✓	✓	✓	✓
Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA-BH)	✓	✓	✓	✓	✓	✓	✓
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET-BH)*	✓	✓	✓	✓	✓	✓	✓
Adult major depressive disorder: Suicide Risk Assessment (SRA-BH-A; NQF-0104)*	✓	✓	✓	✓	✓	✓	✓
Child and adolescent major depressive disorder: Suicide Risk Assessment (SRA-BH-C)*	✓	✓	✓	✓	✓	✓	✓
Optional measures included in PPS guidance to states							
Plan All-Cause Readmission Rate (PCR-AD)	✓			✓	✓		
Screening for Clinical Depression and Follow-Up Plan (CDF-A)	✓						
Follow-up Care for Children Prescribed ADHD Medication (ADD-C)							
Antidepressant Medication Management (AMM-A)							
Depression Remission at 12 Months (NQF-0710)							
Source: "Appendix III - Section 223 Demonstration Programs to Improve Community Mental Health Services Prospective Payment System (PPS) Guidance." Available at https://www.samhsa.gov/sites/default/files/grants/pdf/sm-16-001.pdf#page=94 . Accessed July 26, 2019. Data from interviews with state Medicaid and behavioral health agency officials conducted by Mathematica and the RAND Corporation, February 2019.							

Across states, 54 of the 67 participating CCBHCs were eligible for QBPs during the first and second demonstration years: 33 received QBPs in the first demonstration year and 27 received QBPs in the second demonstration year.

Missouri, New Jersey, and Pennsylvania awarded bonus payments to all or nearly all CCBHCs in each year. Minnesota awarded QBPs to some CCBHCs in each year. New York and Oklahoma did not award any QBPs in either year because CCBHCs either did not meet the performance thresholds or funding was not available at the time of this report. Given the modest number of CCBHCs and demonstration states, we were not able to draw conclusions about the extent to which the QBPs incentivized higher-quality care. However, performance improved or was stable on at least four of the six measures that states were required to use to award QBPs. This could suggest that the QBPs incentivized continued or improving quality of care in the areas assessed by the required measures, but it is also possible that performance on these measures would have changed in the same way over the same period of time without the QBPs.

There were also some indications that the functioning of the QBP systems varied from states' expectations. Some states substantially overestimated or underestimated the anticipated amount of the QBPs at the beginning of the demonstration relative to the amount awarded. For example, Missouri officials anticipated awarding approximately \$4 million in QBPs in each demonstration year but awarded over \$17 million in the first year and \$19 million in the second year. In contrast, New Jersey anticipated awarding about \$350,000 in QBPs in each demonstration year but only awarded about \$27,000 in each year. This divergence from expectations could reflect the challenges of predicting performance on the measures in the absence of good historical data or could indicate an opportunity to refine the parameters of the QBP systems. These experiences from the first two years of the demonstration could inform other states' expectations and the design of QBP systems in the future.

In sum, for most measures, the quality of care provided to CCBHC clients was comparable or better than the quality of care provided to state Medicaid benchmarks where comparisons were possible. Performance on several quality measures improved from the first to second demonstration year, depending on the state. Quality of care worsened for few measures during the demonstration but there was room for improvement in some states depending on the measure. More evidence is needed to compare the quality of care provided to CCBHC clients relative to beneficiaries served by other community behavioral health clinics and to understand whether the QBPs incentivized better care.

D. Payment Rates and Costs

Historically, Medicaid has reimbursed community behavioral health clinics through FFS or managed care rates, and some evidence suggests that these rates did not cover the full cost of clinic services (Scharf et al. 2015). The demonstration addresses this problem by allowing states to develop a PPS that reimburses CCBHCs based on the expected cost of providing comprehensive services to all individuals who seek care, based on projected costs. PAMA does not require that the demonstration achieve cost neutrality. Rather, the demonstration was designed to provide CCBHCs with more financial resources. As described above, states chose between PPS models developed by CMS (although states were allowed some flexibility in operationalizing the models):

- PPS-1 provides CCBHCs with a fixed payment for each day that a Medicaid beneficiary receives demonstration services from the clinic (known as a visit-day). This payment model resembles how FQHCs are paid. As described above, the PPS-1 model includes a state option to provide QBPs to CCBHCs that first meet performance thresholds on the six measures required by CMS and any additional state-specified performance requirements on quality measures.
- PPS-2 provides CCBHCs with a fixed payment for each month in which a Medicaid beneficiary receives demonstration services from the clinic (known as a visit-month). PPS-2 rates have multiple categories--a standard rate and separate rates for special populations that the state defines. As described above, the PPS-2 model requires states to award QBPs based on meeting performance thresholds on the six measures required by CMS, and outlier payments for costs above a specific threshold.

These payment models enable CCBHCs to exercise considerable flexibility in tailoring services to the needs of their clients without being concerned about the financial impact of each service decision or procedure. Ideally, in contrast with FFS systems, where each additional service brings an additional payment, the PPS should not incentivize providing high volumes of care. Rather, the amount that clinics are paid is determined by the average cost of care, regardless of the quantity of services provided on a given day or month. While there is an incentive for clinics to have more frequent visits with clients, particularly under PPS-1, this incentive only operates over the short term because states have the option to adjust the payment rates based on the cost data from the previous year (a process known as re-basing). If a clinic has many visit-days or visit-months in a year, it will collect more reimbursement during that year, but the state can adjust the rates for the next year to bring them in alignment with actual costs. In this context, cost-reporting provided critical information for states to set and adjust payment rates over time. New York was the only demonstration state in which the clinics that became CCBHCs had experience completing and submitting cost reports prior to the demonstration. All states provided CCBHCs with technical assistance to complete the cost reports.

The evaluation used all available cost data from the demonstration to assess the extent to which payment rates covered the costs of CCBHC services in each demonstration year and describe variation in the average costs of CCBHC services per client and per visit-day (for PPS-1 states) or visit-month (for PPS-2 states). The evaluation also examined how the introduction of the CCBHC model in Oklahoma impacted Medicaid costs. Together, these findings can inform future rate setting and cost estimates for the demonstration.

Payment rates. States initially struggled to set rates that reflected CCBHC costs, in part, because they did not always have good data to inform cost projections. The rate-setting process required accurate data for calculating the allowable costs and number of visit-days or visit-months. It also required clinics to forecast anticipated changes in costs as a result of implementing the CCBHC certification criteria. Since the clinics would be broadening their scope of services to meet the criteria, they would generally be increasing their total operating costs. However, because there was a lack of historical data on the actual costs of providing the enhanced scope of services, clinics had to estimate these future costs, which included staffing, spending on training or infrastructure, and other anticipated costs approved by the state.⁵

CCBHC payment rates varied within and across states. The average daily rate across the 56 CCBHCs in PPS-1 states was \$281 in DY1 and \$245 in DY2. The average standard monthly rate across the ten CCBHCs in PPS-2 states was \$669 in DY1 and \$710 in DY2. For some states, such as Minnesota and Pennsylvania, rates varied widely across CCBHCs, whereas in other states, such as Missouri and Nevada, the rates varied less across CCBHCs. This within-state variation was driven, in part, by clinic location and differences in staffing and staff salaries.

Minnesota, New Jersey, New York, Nevada, Oklahoma, and Pennsylvania re-based DY2 rates based on DY1 costs. All of these states decreased the average rate from DY1 to DY2 with the exception of New Jersey and Oklahoma which raised rates for DY2. Oregon and Missouri did not re-base DY2 rates because they wanted to allow more time for data to accumulate to inform their decisions. All states (even those that re-based) adjusted DY2 rates for inflation using the Medicare Economic Index, a measure of inflation in the health care sector, as required by the demonstration.

Average costs for CCBHC services. States also varied in the average daily or monthly costs of CCBHC services and in the average cost per client over the full demonstration year.

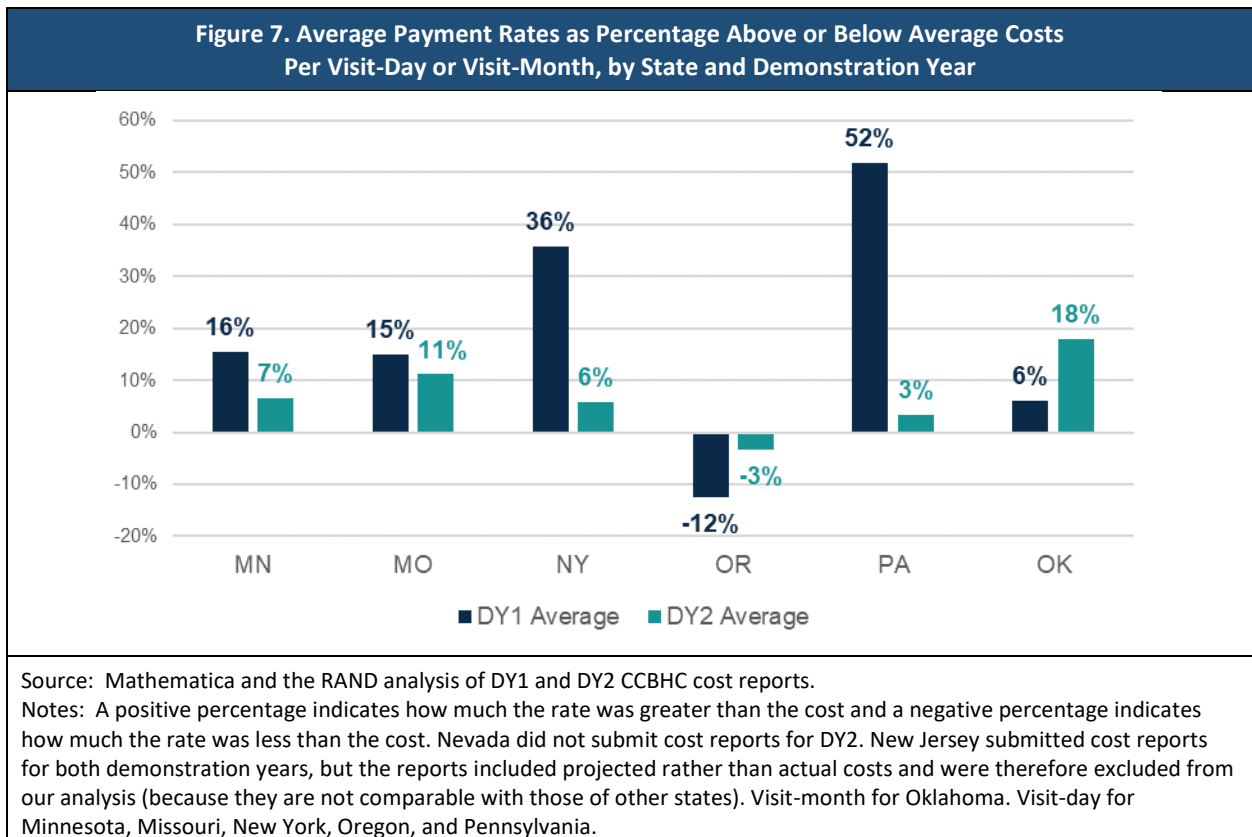
- Among PPS-1 states, the average cost per visit-day in DY1 ranged from \$188 in Pennsylvania to \$289 in Oregon. In some states, the average cost per visit-day remained relatively stable over the two years of the demonstration, whereas in other states, it increased over time. Average CCBHC cost per client (as opposed to

⁵ The CMS's Office of Management and Budget approved cost report included cells for clinics to provide estimated costs of newly provided services.

per day) in PPS-1 states ranged from \$2,523 in New York to \$3,316 in Missouri in the first year; this average decreased from the first to the second year in two states and increased in all other PPS-1 states.

- In Oklahoma (the only PPS-2 state for which we could analyze the cost reports), the average monthly cost was \$739 in DY1 and \$754 in DY2, and average cost per client was \$4,261 in DY1 and \$5,327 in DY2.

Sufficiency of rates to cover CCBHC costs. During the first demonstration year, average CCBHC payment rates were higher than CCBHC costs in five states and lower than costs in Oregon (Figure 7). This meant that the amount the CCBHCs were paid exceeded the costs of the services they provided in all but one state (Oregon). However, in all states except Oklahoma, the average payment rate more closely aligned with costs in the second demonstration year. In both demonstration years, the extent to which the payment rates covered costs for an individual CCBHC varied within state; the payment rate did not cover the costs for all CCBHCs.



Impacts on Medicaid costs. As described above, the Medicaid data available for the evaluation did not include the costs of services delivered through managed care arrangements in Missouri and Pennsylvania. As a result, we were only able to conduct a representative analysis of the impact of the demonstration on Medicaid costs in Oklahoma. In this state, we found that total Medicaid costs increased significantly more for CCBHC clients than the comparison group. Over the full two-year demonstration period, the average total cost to Medicaid was \$3,229 per beneficiary per month (PBPM) for CCBHC clients compared to \$2,619 PBPM for the comparison group--a 30 percent difference. This reflected an increase from the baseline period of \$548 PBPM for CCBHC clients and a decrease of \$228 PBPM for the comparison group. The increased cost for CCBHC clients was driven by increased costs for ambulatory services, particularly CCBHC visits. Over the two years, Medicaid costs for CCBHCs increased by an average of \$784 PBPM relative to the baseline period, whereas average costs for services delivered by comparison clinics did not change from baseline through the demonstration.

The limitations of the Medicaid claims analysis described above also apply to the cost impact analyses for Oklahoma. In addition, the findings from Oklahoma are not generalizable to other states for several reasons. Oklahoma reimburses almost all Medicaid services on an FFS basis whereas in other demonstrate states the majority of Medicaid services are delivered through managed care arrangements. Oklahoma also reimbursed CCBHCs using the monthly PPS-2 model, which is more complicated than the PPS-1 model used in most other states because it includes rates for special populations and outlier payments. Oklahoma was also the only state in which adjustments to the second year payment rates resulted in CCBHCs being paid more, on average, than their costs in the second year relative to the first year. Finally, there were only three CCBHCs in Oklahoma, which served a demographically different population than other states. These characteristics of the state do not compromise the validity of the cost impact findings, but they should not be applied to other states. Complete cost data for services delivered through managed care arrangements would facilitate cost impact estimates in other states.

In sum, on average, payment rates covered the costs of CCBHC services in all but one state (Oregon). The average rates came into greater alignment with the average costs in the second year of the demonstration for all but one state (Oklahoma). The average total costs of CCBHC services per client varied widely by state. This variation is likely driven by local costs (such as salary differences) and differences across states in the use of CCBHC services. These findings can inform future cost projections for the demonstration or similar prospective payment models for community behavioral health providers. In Oklahoma, the demonstration resulted in a significant increase in total Medicaid costs for CCBHC clients relative to the comparison group, which was driven by an increase in ambulatory spending rather than hospitalizations or ED costs. However, the findings from Oklahoma are not generalizable to other states.

RECOMMENDATIONS

Section 223 of PAMA requires HHS to submit to Congress “recommendations concerning whether the demonstration programs under this section should be continued, expanded, modified, or terminated.” Since the time of this requirement, Congress has extended the demonstration numerous times, and additionally, has increased the funding appropriated to SAMHSA’s CCBHC-E program from \$150 million in FY 2019 to \$250 million in FY 2021. Additionally, Congress appropriated over \$1 billion in supplemental funding to the CCBHC-E program in FY 2021. States have also advanced efforts to sustain CCBHC services beyond the demonstration by incorporating the CCBHC model into their Medicaid state plans, which will allow for the sustainability of CCBHC services in the absence of an enhanced FMAP. Specifically, four states (Minnesota, Missouri, Nevada, and Oklahoma) have chosen to expand their CCBHCs under Medicaid state plan authority and get the regular match rate while also still participating in the PAMA demonstration which reimburses states at the enhanced FMAP rate for services.

However, given the large investments in infrastructure and technical assistance necessary to help states launch the demonstration, provide enhanced services, and support cost-reporting and quality measurement activities, we recommend that Congress continue to support the establishment of CCBHC clinics through this demonstration program. After establishment, Congress may consider whether the Medicaid program, in the absence of the demonstration, can continue to support the CCBHC model.

The following additional recommendations may help guide future implementation and monitoring of the demonstration and inform the development of similar efforts that seek to expand the delivery of care in community behavioral health clinics.

Continue federal and state agency oversight and provide technical assistance to support implementation. State agencies played a critical role in helping clinics meet the certification requirements and overcome implementation challenges. In addition to certifying clinics and setting payment rates, state agencies provided technical assistance to help CCBHCs complete cost reports, enhance data systems, and navigate new billing processes. Some states also facilitated learning collaboratives to share best practices and provided CCBHCs with regular reports on their quality measure performance. Federal agencies also supported states and CCBHCs by providing guidance on the PPS models, clarifying questions about the CCBHC criteria, and monitoring the costs of services and quality of care. CCBHCs valued the support from their state and federal partners and benefited from the time to work through implementation details before moving to the PPS or launching new services. Future CCBHCs will require adequate time to hire and train staff, develop external partnerships, and enhance their data systems in order to provide the full scope of services under the PPS. CCBHCs would also benefit from technical assistance to share data with external providers, report and use quality measures for quality improvement, complete cost reports, and develop strategies to overcome staffing challenges.

Encourage states to use and expand on the mechanisms available to align CCBHC payment rates with costs and incentivize high-quality care. Over the short term, the CCBHC demonstration could increase overall Medicaid costs as clinics expand services. The demonstration was designed to provide additional resources to these clinics to meet the certification requirements and cover the costs of services. The payment mechanisms, particularly the daily PPS-1 model, could provide an incentive for clinics to maximize revenue by having more frequent visits with clients. However, the demonstration allows states to use the cost reports submitted by CCBHCs each year to adjust payment rates for the following year. If a clinic has a high number of daily visits with clients in one year, their rate for the following year could be lower than the previous year because the re-basing process would divide the total costs for the previous year by a larger number of visits. Over time, this re-basing process should align payment rates with costs and ensure that CCBHCs have predictable funding. States are not required, however, to re-base payment rates each year using this process. HHS could encourage states to use the cost reports for re-basing and continue to monitor the extent to which payment rates align with costs over time to assess if other mechanisms are necessary to control costs.

Quality measure reporting also has an important role in the context of the PPS. CCBHC payments are not linked to the provision of individual procedures and the demonstration does not require that CCBHCs track the delivery of specific services. Rather, CCBHCs are paid the same amount regardless of the specific services they provide to a client during the day (or month for PPS-2 states) in which that client receives care. Thus, there could be an incentive for CCBHCs to provide minimal services while still collecting the full daily or monthly payment. However, the quality measures help to guard against this incentive by providing information that states can use to assess whether the quality of care suffers over time. States can also use the quality measures to incentivize the delivery of better care. The demonstration required PPS-2 states to award QBPs based on quality measures whereas this was optional for PPS-1 states. All but one state implemented QBPs but it is unclear whether the measures used in those systems and the amount of QBPs incentivized better care. The QBP systems could be strengthened and refined in at least two ways:

1. **Encourage states to expand the measures used to award QBPs.** States were required to use a common set of measures to award QBPs and could require CCBHCs to achieve performance goals on additional measures, but few states elected to require many additional measures. In the future, states could consider using a broader set of measures to award QBPs. The measures could reflect various domains of care, including measures of care coordination and physical health care (no state included measures of physical health care in their QBP systems). Some of the measures for which CCBHCs showed the most consistent improvement (such as measures of screening and follow-up for tobacco and unhealthy alcohol use) were not among the measures that states used to award QBPs. Flexibility in the selection of measures might enable CCBHCs and states to focus on domains of quality that align with local or state quality improvement goal. States may also want to prioritize measures for the first year that have good historical data to inform performance targets and phase in other measures over time.
2. **Use QBP systems to further incentivize care coordination and data sharing.** Several of the measures that states used to award QBPs assess domains of care for which performance could be influenced by the strength of relationships and data sharing agreements between CCBHCs and other providers. For example, high performance on measures of follow-up care after hospitalization could be influenced by whether the CCBHC has protocols and data sharing agreements in place with hospitals to receive notification when a client in their care is discharged. However, hospitals and other providers do not share in the QBPs or otherwise receive funding as part of the demonstration (unless they are functioning as a DCO providing CCBHC services, which was rare), and therefore they do not have a direct financial incentive or additional resources to invest in partnerships with CCBHCs. In the future, states could design QBP systems that would allow other entities to share in the QBPs, but this would require federal legislative action because it is not currently permitted under the demonstration.

Maintain flexibility in the certification criteria while ensuring that CCBHCs provide a common standard of care.

Although the CCBHC certification criteria provide the general framework for services and staffing and other capabilities of the clinic, states have some flexibility to align the criteria with their existing service delivery systems and the populations served by CCBHCs. This type of flexibility enabled states to tailor the CCBHC model to their local context and to make changes over time as they learned from the demonstration. As states and clinics gain more experience with the CCBHC model, there may be opportunities to refine and clarify expectations for certain CCBHC requirements to ensure that CCBHCs maintain a similar capacity to coordinate care and provide a core set of services. For example, CCBHCs had considerable flexibility to define the primary care screening and monitoring requirements, and they varied in the extent to which treatment teams included PCPs, in their information exchange with external providers, and in their performance on quality measures related to physical health care. The CCBHC criteria also requires training in primary and behavioral health care integration but does not recommend any specific training or models for integration.

Provide guidance on strategies for serving members of the armed forces and veterans. Some CCBHCs struggled to provide intensive community-based mental health services for members of the armed forces and veterans. Some state officials reported that CCBHCs were not located in communities in which many members of the armed forces or veterans sought services from community behavioral health centers, but they also reported that some CCBHCs found it challenging to engage these populations and to develop referral relationships with agencies that specialize in serving them. It was not always clear how CCBHCs and states ensured that members of the armed forces and veterans received services consistent with the mental health guidelines promulgated by VHA, as required in the CCBHC criteria. States and CCBHCs may benefit from further guidance on strategies for serving members of the armed forces and veterans in communities where these populations are less prevalent and on how to develop relationships with other facilities and providers that specialize in serving these populations.

Provide resources and technical assistance to develop data systems that facilitate population health management and care coordination. Enhancing EHRs and other data systems to report quality measures and capture information to coordinate care was a considerable achievement for CCBHCs that was facilitated by the demonstration funding and technical assistance from state agencies. Officials in several states cited EHRs as central facilitators of care coordination, noting, for example, that the integration of treatment plans and physical and behavioral health care records improved communication between providers. Some states and CCBHCs also added population health management functions into their EHRs to identify clients who required more intensive follow-up and care coordination (for example, developing data-driven algorithms based on client risk factors). The sophistication of these data systems, however, still varied somewhat across CCBHCs. For example, some CCBHCs had systems that captured information about physical health conditions and exchanged information with other providers, whereas others did not. This variation could affect the ability of CCBHCs to monitor health status and coordinate care. Building on their progress, CCBHCs may benefit from additional resources and technical assistance to further develop data systems that support the screening, care coordination, and population health management functions of the CCBHC model. CCBHCs and states may also benefit from technical assistance to develop specific strategies for using data to inform quality improvement activities. Several of the strategies developed by CCBHCs and states could be replicated. For example, some states provided CCBHCs with data on their performance on quality measures relative to other CCBHCs in the state. CCBHCs in some states also used their data systems to provide their staff with aggregate and client-level information on clients' health status, medication adherence, and service use.

Strengthen data to facilitate future monitoring and evaluation. As the CCBHC model matures and expands, future research should build on this evaluation to gain a deeper understanding of the factors that contribute to successful implementation and to outcomes. Some areas for future inquiry include the strength of CCBHCs' collaborations with external providers, the mechanisms CCBHCs use to share information with external providers, how CCBHCs support the new 988 suicide and crisis hotline, the extent to which CCBHCs address and impact physical health conditions, and if there are any critical gaps in the required CCBHC services. There would also be value in further assessing the impact of the model on the behavioral health care workforce and behavioral health treatment capacity of communities.

Several enhancements to data could support future monitoring and evaluation. Standardized cost reports and quality measures were critical for evaluating the demonstration. However, as noted in this report, some of the quality measure data included anomalies (for example, abnormally low denominators), and not all states submitted performance data for all measures. Periodic auditing of quality measure data could increase its value for assessing changes in the quality of care and making state-to-state comparisons. Many of the measures used in the demonstration are also used in other state and national reporting programs, which release periodic updates to the measure specifications. It will therefore be important to ensure that the specifications for the demonstration measures continue to align with measures reported in other programs to facilitate comparisons and decrease reporting burden for CCBHCs and states. In addition, most of the quality measures assessed processes of care (such as screening and follow up after discharge from a hospital) and experiences with care; only one assessed

improvement in outcomes (depression remission). Measures that assess changes in mental health symptoms, substance use, functioning, or physical health status would be valuable to assess the impacts of the CCBHC model and identify areas of quality improvement. These outcomes would likely be captured through structured fields in EHRs and/or surveys of clients--both of which would require an investment of resources to collect high-quality data--and completely standardizing data collection across clinics might not be possible.

More complete Medicaid data would also facilitate future monitoring and evaluation of the demonstration. Complete cost information for services provided through managed care arrangements would allow for an assessment of the impact of the demonstration on costs beyond Oklahoma. CCBHC claims also did not consistently provide information on the procedures or services provided during a visit (or month for PPS-2 states) because not every state required CCBHCs to provide this information with the claim to get paid. Moreover, in the PPS-2 states, CCBHCs were only required to submit one claim per month for a beneficiary seen in that month, and there was no requirement to submit additional data on the number of visits during the month. There also was no way to identify DCO services provided under the CCBHC payment using claims data. These issues limit the ability to use claims data for more detailed analyses focused on the delivery of specific services, including EBPs. However, requiring such detail on claims would eliminate the simplicity of submitting a daily or monthly claim--an appealing feature of the payment model that clinics and states reported allowed CCBHCs more flexibility to provide services without concern for specific procedure codes. States could offer some type of incentive for CCBHCs to submit claims with more details on procedures, but such an incentive would need to, at a minimum, offset the time required for more detailed coding and tracking of specific services. Other data sources, such as the quality measures or surveys described above, could provide information about the delivery of specific EBPs.

CONCLUSIONS

The CCBHC demonstration provides states with an opportunity to test a new strategy for delivering a common set of comprehensive services in community behavioral health clinics funded through a PPS that includes quality measure reporting. During the first two years of the demonstration, CCBHCs implemented a range of activities to improve access to care; increased the number of clients they served; expanded services to include various EBP, crisis services, and rehabilitative services; hired and trained staff; developed partnerships with external providers; enhanced their data systems; and changed many of their care processes. Overall, the quality of care provided to CCBHC clients was comparable to available benchmarks, and performance on some measures improved over time. However, there was some room for improvement on several measures. State agencies played a critical role in supporting the demonstration. States experienced some initial challenges setting the PPS rates, but over time these rates came into greater alignment with CCBHC costs in all but one state. The introduction of the CCBHC model impacted service use differently across states, which likely reflects differences in implementation strategies and populations. More time might be needed for the demonstration to impact service use and costs. As the CCBHC model matures and expands, continued monitoring and evaluation can inform how to refine and improve the delivery of services. CCBHCs would benefit from technical assistance to help them adhere to certification requirements and overcome implementation challenges. New areas of evaluation--such as effects of the model on workforce shortages, job satisfaction and retention, and the financial health of community-based behavioral health organizations--may reveal important additional benefits of the model.

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