U.S. Department of Health and Human Services
Office of the Assistant Secretary for Planning and Evaluation
Office of Behavioral Health, Disability, and Aging Policy

# CERTIFIED COMMUNITY BEHAVIORAL HEALTH CLINICS DEMONSTRATION PROGRAM:

## REPORT TO CONGRESS, 2020

December 2021

## Office of the Assistant Secretary for Planning and Evaluation

The Assistant Secretary for Planning and Evaluation (ASPE) advises the Secretary of the U.S. Department of Health and Human Services (HHS) on policy development in health, disability, human services, data, and science; and provides advice and analysis on economic policy. ASPE leads special initiatives; coordinates the Department's evaluation, research, and demonstration activities; and manages cross-Department planning activities such as strategic planning, legislative planning, and review of regulations. Integral to this role, ASPE conducts research and evaluation studies; develops policy analyses; and estimates the cost and benefits of policy alternatives under consideration by the Department or Congress.

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The Office of Behavioral Health, Disability, and Aging Policy (BHDAP) focuses on policies and programs that support the independence, productivity, health and well-being, and long-term care needs of people with disabilities, older adults, and people with mental and substance use disorders.

*NOTE: BHDAP was previously known as the Office of Disability, Aging, and Long-Term Care Policy (DALTCP). Only our office name has changed, not our mission, portfolio, or policy focus.*

This report was prepared using information from the evaluation funded under contract #HHSP233201600017 between HHS's ASPE/BHDAP and Mathematica Policy Research. For additional information about this subject, you can visit the BHDAP home page at https://aspe.hhs.gov/about/offices/bhdap or contact the ASPE Project Officers, at HHS/ASPE/BHDAP, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201; Judith.Dey@hhs.gov, Laura.Jacobus-Kantor@hhs.gov.

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## Acronyms

The following acronyms are mentioned in this report and/or appendices.

| | |
|---|---|
| ADD | Follow-up Care for Children Prescribed ADHS Medication |
| ADHD | Attention Deficit Hyperactivity Disorder |
| AMM | Antidepressant Medication Management |
| AOD | Alcohol or Other Drug |
| ASC | Unhealthy Alcohol Use--Screening and Brief Counseling |
| BMI | Body Mass Index |
| BMI-SF | BMI Screening and Follow-up Plan |
| CCBHC | Certified Community Behavioral Health Clinic |
| CDF | Screening for Clinical Depression and Follow-Up Plan |
| CHIP | Children's Health Insurance Program |
| CMS | HHS Centers for Medicare & Medicaid Services |
| DCO | Designated Collaborating Organization |
| DEP-REM | Depression Remission |
| DY | Demonstration Year |
| ED | Emergency Department |
| EHR | Electronic Health Record |
| FFY | Federal Fiscal Year |
| FUA | Follow-up after Emergency Department for Alcohol or Other Drug Dependence |
| FUH | Follow-up After Hospitalization |
| FUM | Follow-up after Emergency Department for Mental Health |
| HbA1c | Glycated Hemoglobin Test |
| HHS | U.S. Department of Health and Human Services |
| I-EVAL | Initial Evaluation for New Clients Child/Adolescent and Adults |
| IET | Initiation and Engagement of Alcohol and other Drug Dependence Treatment |
| IPSD | Index Prescription Start Date |
| MEI | Medicare Economic Index |
| MHSIP | Mental Health Statistics Improvement Program |
| MIPS | Merit-based Incentive Payment System |
| MNCM | Minnesota Community Measurement |
| NQF | National Quality Forum |
| OB/GYN | Obstetrics and Gynecology |

| | |
|---|---|
| PAMA | Protecting Access to Medicare Act |
| PCR | Plan All-Cause Readmission |
| PHQ | Patient Health Questionnaire |
| PPS | Prospective Payment Systems |
| QBP | Quality Bonus Payment |
| SAA | Adherence to Antipsychotic Medications for Individuals with Schizophrenia |
| SAMHSA | HHS Substance Abuse and Mental Health Services Administration |
| SED | Serious Emotional Disturbance |
| SMI | Serious Mental Illness |
| SRA | Suicide Risk Assessment |
| SSD | Diabetes Screening for Schizophrenia or Bipolar Patients Using Antipsychotic Medications |
| SUD | Substance Use Disorder |
| TSC | Tobacco Use--Screening and Cessation Intervention |
| URS | Uniform Reporting System |
| VHA | Veterans Health Administration |
| WCC | Weight Assessment for Nutrition and Physical Activity for Children/Adolescents |
| YSS-F | Youth/Family Services Survey for Families |

# Introduction

Section 223 of the Protecting Access to Medicare Act (PAMA), enacted April 1, 2014 (Public Law 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 new prospective payment systems (PPS) that account for the total 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) requires annual reports to Congress and a final recommendation report,[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 fourth annual report to Congress. 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] This report will assess findings on quality measures and costs in demonstration year 1 (DY1).

The content for each of the reports to Congress is dependent on data submissions. Complete data were not always available from states or CCBHCs at the time of issuance. For example, this report does not

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[1] Section 223(d)(7)(A) specifies the 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/ccbh_clinicdemonstrationprogram_071118.pdf. The second (2018) report to Congress is available at: https://aspe.hhs.gov/reports/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.

assess findings on quality measures for the second year of the demonstration, because the data were not available in time for this report. Similarly, claims and encounter data were not available for analysis for this report, but will be included in the next report. Section 223 also requires the Secretary, not later than December 31, 2021, to recommend whether the demonstration program should be continued, expanded, modified, or terminated. The final report will answer this question and detail the impacts of the demonstration on state and federal costs based on a claims and encounter data analysis. In addition, it will assess changes in quality from DY1 to demonstration year 2 (DY2).

## Demonstration States and PPS Model Selected

In December 2016, the U.S. Department of Health and Human Services (HHS) selected eight states to participate in the demonstration from among the 24 states that received planning grants. Consistent with PAMA requirements, HHS selected Minnesota, Missouri, Nevada, New Jersey, New York, Oklahoma, Oregon, and Pennsylvania based on the completeness of the scope of services that their CCBHCs will offer; the CCBHCs' ability to improve the availability of, access to, and engagement with a range of services (including assisted outpatient treatment); and their potential to expand mental health services without increasing federal spending. CCBHCs participating in the demonstration must provide coordinated care and make available a comprehensive range of nine types of services to all who seek help, including but not limited to those with serious mental illness (SMI), serious emotional disturbance (SED), and substance use disorder (SUD). To ensure the availability of the full scope of CCBHC services, service delivery could involve the participation of Designated Collaborating Organizations (DCO), which are entities not under the direct supervision of a CCBHC but that are engaged in a formal, contractual relationship with a CCBHC to provide selected services. CCBHCs that engage DCOs maintain clinical and financial responsibility for services provided by a DCO to CCBHC consumers, and DCOs provide services under the same requirements as CCBHCs and are reimbursed for these services directly by the CCBHC.

In addition to providing the required scope of services, CCBHCs and participating states must be able to collect, track, and report on a wide range of encounter, outcome, cost, and quality data. States were able to choose between two broad PPS models developed by the HHS Centers for Medicare & Medicaid Services (CMS). The first model (PPS-1) is similar to the PPS model used by Federally Qualified Health Centers--it is a cost-based reimbursement that pays a fixed daily rate for all CCBHC services rendered to a Medicaid beneficiary. If a state elected the PPS-1 model, participating CCBHCs are paid at a fixed daily rate when one or more CCBHC service is provided to a Medicaid beneficiary. The PPS-1 model also includes a state option to provide quality bonus payments (QBPs) to CCBHCs that meet defined quality metrics. The second model (PPS-2) is a cost-based reimbursement that pays a standard monthly rate per Medicaid beneficiary served, with separate monthly rates that vary with beneficiaries' clinical conditions. Under the PPS-2 model, states reimburse participating CCBHCs at a fixed monthly rate for all CCBHC services provided to a Medicaid beneficiary. The PPS-2 also includes outlier payments for costs above and beyond a specific threshold (that is, payment adjustments for extremely costly Medicaid beneficiaries). The PPS-2 model also requires bonus payments for clinics that meet defined quality metrics. Both PPS models aim to enhance Medicaid reimbursement to CCBHCs by ensuring that reimbursement rates more closely reflect the cost of providing an enhanced scope of services. As shown in TABLE 1, six of the eight demonstration states (representing a total of 56 CCBHCs) selected the PPS-1 model and two states (representing ten CCBHCs) selected the PPS-2 model.[4]

[4] Please see earlier reports to Congress for more information on the characteristics of the clinics participating in the demonstration: https://www.samhsa.gov/sites/default/files/ccbh_clinicdemonstrationprogram_071118.pdf; https://www.samhsa.gov/data/sites/default/files/reports/rpt29394/NSDUHDetailedTabs2019/NSDUHDetailedTabs2019.pdf.

The demonstration has been extended several times.[5] Most recently, the Consolidated Appropriations Act, 2021 (Public Law 116-260) extended the demonstration through September 30, 2023. One of the previous extensions, the Coronavirus Aid, Relief, and Economic Security Act of 2020, which extended the demonstration until November 30, 2020, also expanded the demonstration, directing HHS to select two additional demonstration states. Subsequently, HHS selected Kentucky and Michigan as the two additional states; however these two additional states are not included in this report, as additional data has not been submitted and their demonstrations have not yet launched.

**TABLE 1. Number of CCBHCs, Demonstration Start Date, and PPS**

| State | Number of CCBHCs | Demonstration start date | PPS |
|---|---|---|---|
| Minnesota | 6 | July 1, 2017 | PPS-1[b] |
| Missouri | 15 | July 1, 2017 | PPS-1[b] |
| Nevada | 3[a] | July 1, 2017 | PPS-1[b] |
| New Jersey | 7 | July 1, 2017 | PPS-2 |
| New York | 13 | July 1, 2017 | PPS-1[b] |
| Oklahoma | 3 | April 1, 2017 | PPS-2 |
| Oregon | 12 | April 1, 2017 | PPS-1 |
| Pennsylvania | 7[c] | July 1, 2017 | PPS-1[b] |

**Source**: Mathematica/RAND review of CCBHC demonstration applications and telephone consultations with state officials.

**Notes**:

a. Nevada initially certified 4 clinics. However, in June 2019, 1 CCBHC withdrew from the demonstration after Nevada revoked its certification. The total number of CCBHCs in the table reflects the number of participating CCBHCs in August 2020.

b. PPS-1 with QBP (all PPS-2 states include QBPs).

c. Pennsylvania officially withdrew from the demonstration effective June 30, 2019.

This fourth report describes: (1) changes in CCBHC rates and costs from DY1 to DY2; (2) performance on quality measures in DY1; and (3) the extent to which states provided QBPs to CCBHCs for DY1.

This report summarizes analyses comparing information from DY1 and DY2 cost reports, and reports costs overall and for the major cost components. The report also compares the costs the clinics reported with the rates the states set. The second year of cost data allowed us to examine whether the rates and costs became better aligned over time. This is expected to happen because states could use the DY1 cost data to assess the costs of care during the first year in order to set new rates for DY2 (a process called re-basing rates).

[5] In addition to several extensions in 2019, the demonstration was extended several more times in 2020. The Continuing Appropriations Act, 2021 and Other Extensions Act (Public Law 116-159) extended the demonstration to December 11, 2020. The Further Continuing Appropriations Act, 2021, and Other Extensions Act (Public Law 116-215) extended the demonstration to December 18, 2020. The Further Additional Continuing Appropriations Act, 2021 (Public Law 116-225) extended the demonstration to December 20, 2020. The Extension of Continuing Appropriations Act, 2021 (Public Law 116-226) extended the demonstration to December 21, 2020. The Further Extension of Continuing Appropriations Act, 2021 (Public Law 116-246) extended the demonstration to December 28, 2020. The Consolidated Appropriations Act, 2021 (Public Law 116-260) extended the demonstration through September 30, 2023.

The findings in this report draw on data collected from: (1) interviews with state officials; (2) state reports of CCBHC PPS rates; (3) CCBHC DY1 and DY2 Cost Reports; and (4) CCBHC DY1 Quality Measure Reports. Quality measure reports covering DY2 were not available at the time of writing this report because not all demonstration states had submitted them, many of them because of impacts related to COVID-19.

In addition to recommendations concerning whether the demonstration programs under Section 223(d) of the PAMA should be continued, expanded, modified, or terminated, in the recommendations required under Section 223(d)(7)(B) of the PAMA, HHS intends to present data on quality measure performance in DY2, examine changes over time in quality of care, and present findings on the impact of the demonstration on Medicaid service utilization and costs among beneficiaries who did and did not receive CCBHC services utilizing claims and encounter data from a selection of states.

# Findings on Costs

This report describes: (1) changes in CCBHC rates and costs from DY1 to DY2; (2) performance on quality measures in DY1; and (3) the extent to which states provided QBPs to CCBHCs for DY1.

## CCBHC Payment Rates and Costs of Care[6]

Community mental health services have not historically been reimbursed through daily or monthly prospective payment mechanisms. PPS-1, the daily rate, and PPS-2, the monthly rate, were designed for the CCBHC demonstration to improve the alignment of financial incentives with provision of high-quality, patient-centered care. These reimbursement mechanisms allow clinics to exercise considerable flexibility in tailoring services to the needs of individual clients.

Most of the clinics that became CCBHCs did not have experience in the type of cost-reporting required to establish the cost-based PPS rates. Similarly, the participating states did not have experience setting PPS rates for comprehensive community mental health services. Changes from DY1 to DY2 in the PPS rates and CCBHC costs are important to describe because they provide the first indications of how the payment mechanisms will function over the long run. During DY1, clinics developed new ways of organizing care that made use of the flexibility the new payment systems provided, and the states developed new systems for overseeing and administering the CCBHC model. During DY2, clinics and states were able to learn from their initial experiences and further adjust services and procedures to meet their goals. In this report we examine whether the gap between rates and costs--which we presented in the prior report--has decreased, particularly in the states that re-based their rates based on the DY1 cost reports.

**Changes in CCBHC costs from DY1 to DY2.** Overall, total costs, visit days/months, and per visit day/month costs increased from DY1 to DY2, but results varied considerably within and across states. It is important to interpret changes in these three values together, because changes in either the total number of visits or the per visit costs could impact total clinic costs.

- Total costs increased from DY1 to DY2 by an average of 13 percent across PPS-1 states (ranging from -0.7 percent to 24 percent). In Oklahoma (the only PPS-2 state for which DY2 cost reports were available), total costs increased by 38 percent from DY1 to DY2 and the per month costs increased 7.6 percent.
- Total visit days increased by an average of 8 percent across PPS-1 states (ranging from 0.5 percent to 11 percent). In Oklahoma, visit months increased by 32 percent (see **TABLE 2**).

[6] Only ten of the 13 New York clinics and none of the Nevada clinics submitted DY2 cost reports in time for this analysis. New Jersey submitted cost reports for DY2, but the reports did not reflect actual demonstration costs and were therefore excluded from our analysis because they are not comparable with those of other states.

| TABLE 2. Change in Total Clinic Visit Days from DY1 to DY2, PPS-1 States | | | | |
|---|---|---|---|---|
| State | Number of CCBHCs with >5% visit days increase | Number of CCBHCs with >5% visit days decrease | Average change across clinics[a] | Aggregate change across clinics[b] |
| Minnesota | 3 | 3 | 6.8% | 0.5% |
| Missouri | 12 | 3 | 9.6% | 8.8% |
| New York | 10 | 3 | 11.7% | 12.6% |
| Oregon | 9 | 3 | 14.4% | 6.6% |
| Pennsylvania | 5 | 2 | 3.2% | 5.3% |
| All PPS-1 clinics | 39 | 14 | 10.0% | 8.3% |

**Source**: Mathematica and the RAND Corporation analysis of DY1 and DY2 CCBHC cost reports.

**Notes**:

a. This is the average percentage change across all the clinics in the state; in this calculation, each CCBHC received equal weight regardless of its total costs or visit days.

b. Aggregate change was calculated by summing the costs and visit days across all clinics in the state in each demonstration year; in this calculation, CCBHCs with higher costs and larger numbers of clients contributed more to the total.

- Across all CCBHCs in PPS-1 states for which we have cost report data, the average increase in per visit day cost was less than 5 percent, but changes varied within and across states (see **TABLE 3**).
  - Per visit day costs increased more than 5 percent for almost half of the CCBHCs in PPS-1 states included in the analysis (N = 23 of 50), decreased more than 5 percent for about a quarter (N = 14), and remained relatively stable for the remainder (N = 6).
  - In three PPS-1 states, per visit day costs increased by more than 5 percent for most of the CCBHCs, resulting in an overall average increase in per visit day costs across the CCBHCs. In contrast, in two PPS-1 states, more of the CCBHCs had at least a 5 percent decrease in per visit day costs, resulting in a small average decrease in per visit day costs state-wide.

| TABLE 3. Change in Total Clinic per Visit Day Costs from DY1 to DY2, PPS-1 States | | | | |
|---|---|---|---|---|
| State | Number of CCBHCs with >5% per visit day cost increase | Number of CCBHCs with >5% per visit day cost decrease | Average change across all clinics[a] | Aggregate change across all clinics[b] |
| Minnesota | 2 | 4 | -1.9% | -1.2% |
| Missouri | 11 | 4 | 5.2% | 6.7% |
| New York | 10 | 3 | 15.4% | 11.7% |
| Oregon | 9 | 3 | -2.1% | -1.0% |
| Pennsylvania | 5 | 2 | 16.9% | 4.0% |
| All PPS-1 clinics | 33 | 20 | 6.8% | 4.9% |

**Source**: Mathematica and the RAND Corporation analysis of DY1 and DY2 CCBHC cost reports.

**Notes**:

a. This is the average percentage change across all the clinics in the state; in this calculation, each CCBHC received equal weight regardless of its total costs or visit days.

b. Aggregate change was calculated by summing the costs and visit days across all clinics in the state in each DY; in this calculation, CCBHCs with higher costs and larger numbers of clients contributed more to the total.

- DY2 cost report data is only available for one of the PPS-2 states, Oklahoma, in which there are only three CCBHCs. All three of the Oklahoma CCBCHs experienced an increase in total costs from DY1 to DY2 and total visit months (**TABLE 4**). There was a 7.6 percent average increase in per visit month costs and a 2.1 percent aggregate increase in per visit month costs. As with the PPS-1 states, the CCBHCs in Oklahoma had increases in costs, number of visit months, and per visit month costs from DY1 to DY2.

**TABLE 4. Change in Total Clinic Costs, Visit Months, and Cost per Visit Month from DY1 to DY2, Oklahoma**

| | Average change across all clinics[a] | Aggregate change across all clinics[b] |
|---|---|---|
| Change in total costs | 38.3% | 37.9% |
| Change in visit months | 32.5% | 35.1% |
| Change in per visit month costs | 7.6% | 2.1% |

**Source**: Mathematica and the RAND Corporation analysis of DY1 and DY2 CCBHC cost reports.

**Notes**:

a. This is the average percentage change across all the clinics in the state; in this calculation, each CCBHC received equal weight regardless of its total costs or visit days.

b. Aggregate change was calculated by summing the costs and visit days across all clinics in the state in each demonstration year; in this calculation, CCBHCs with higher costs and larger numbers of clients contributed more to the total.

**Changes to PPS rates in DY2.** Payment rates that CCBHCs received in DY1 were on average higher than the actual DY1 per visit day or month costs. State officials anticipated that rates would be higher than costs given some uncertainty about the volume of clients that CCBHCs would serve and the lack of historical data on the cost of some CCBHC services. States had the option to change their rates for DY2 through the process of re-basing (that is, re-calculating rates for DY2 based on the DY1 cost reports). Since the DY1 rates were based on estimated and actual costs prior to the demonstration, re-basing, which uses actual CCBHC costs from DY1, should bring DY2 rates and costs into better alignment (although there still might be some differences in rates and costs due to yearly fluctuations in costs or client volume).

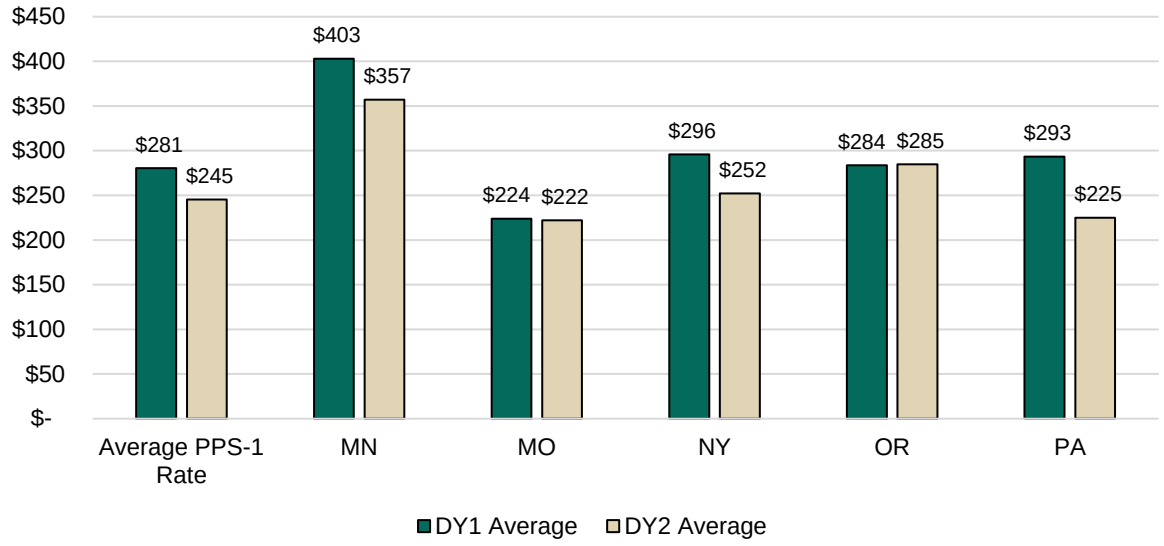
- Six states (Minnesota, Nevada, New Jersey, New York, Oklahoma, and Pennsylvania) used the DY1 cost reports to re-base their PPS rates for DY2.
- Two states (Missouri and Oregon) decided not to re-base their rates. State officials made this decision because they were concerned that the DY1 costs might not be representative of the long-term costs of operating CCBHCs. These states wanted to wait until at least two years of cost data were available before changing their rates; they reasoned that it may take more time to establish stable patterns of staffing and client care on which to base rates.
- All states used the Medicare Economic Index (MEI) to adjust DY2 rates for inflation.

Among the PPS-1 states, the average rate either decreased or stayed about the same from DY1 to DY2 (see ).

- In the three states that re-based their rates based on the DY1 cost reports (Minnesota, New York, and Pennsylvania), the rates decreased on average.

- In the two states that did not re-base their rates based on the DY1 cost reports (Missouri and Oregon), the DY1 and DY2 rates changed by only a few dollars.

**FIGURE 1. Changes in Average PPS-1 Rates from DY1 to DY2**

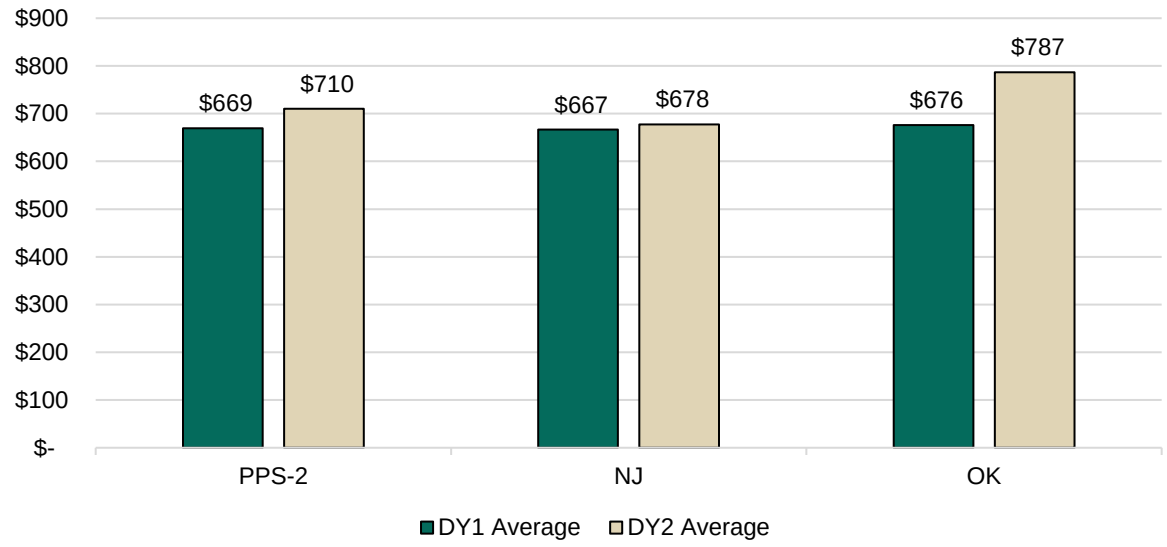



**Source**: Mathematica and the RAND Corporation analysis of DY1 and DY2 CCBHC rates reported by demonstration states.

**Notes**: All states except for Missouri and Oregon re-based their DY2 PPS rates based on the DY1 cost reports. All states also reported adjusting their DY2 PPS rates by inflation using the MEI. Missouri and Oregon inflated their DY1 rates by a set percentage across all clinics (1% and 1.4% of their DY1 rates, respectively). To facilitate comparisons of rates over time, we inflated the rates from each DY to 2020 dollars using the MEI. The differences between the percentages used by Missouri and Oregon to set their rates versus the percentage used in our calculation yielded small changes in the rates from DY1 to DY2. In Missouri, the 1% inflation rate used to set the DY2 rates was less than the 1.8% MEI increase during the same time period, resulting in a 0.8% real decrease in rates from DY1 to DY2.

The average rate increased for both PPS-2 states (see ).

**FIGURE 2. Changes in Standard PPS-2 Rates from DY1 to DY2**

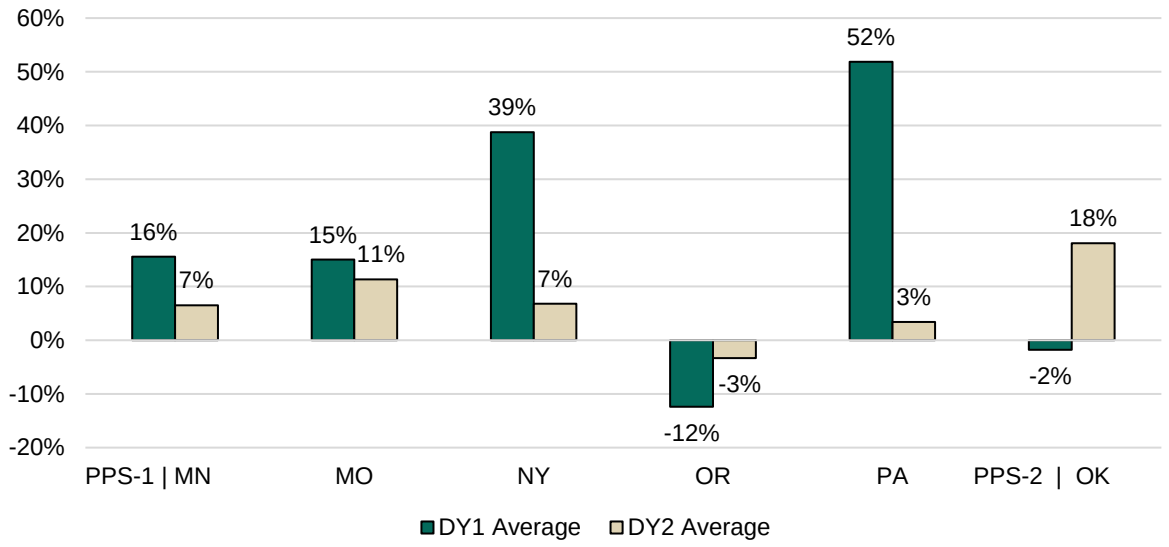



**Source**: Mathematica and the RAND Corporation analysis of DY1 and DY2 CCBHC rates reported by demonstration states.
**Note**: All figures are inflation-adjusted to 2020 dollars.

**Convergence of costs and rates in DY1 and DY2.** Among the PPS-1 states, the percentage differences between the rates and costs were less in DY2 than in DY1, indicating a move toward convergence of rates and costs over time.

Analysis of the cost reports from the second year of the demonstration indicate that, on average, the total number of visit days and months and the total costs of clinic operation increased from DY1. Cost per visit day and month also increased, but the increase in visit day and month costs were less than 5 percent of the DY1 costs, adjusting for inflation. These changes were distributed evenly across the major cost components, with no single component showing substantial increases or decreases over time. In the PPS-1 states, costs aligned more closely with rates in DY2 than they did in DY1. In the one PPS-2 state for which we received DY2 cost reports, the costs did not align more closely with the rates in DY2 than they did in DY1, as the DY2 rates increased to a greater extent than the DY2 costs (see ).

**Figure 3. State Average DY1 and DY2 Payment Rates as Percentage Above or Below Average Actual Costs per Visit Day or Month**




**Source**: Mathematica and the RAND Corporation analysis of DY1 and DY2 CCBHC cost reports and state-reported PPS rates.
**Notes**: Oklahoma is the only PPS-2 states included in Figure 3.

# Findings on Quality

## Quality Measurement Data Reported by CCBHCs and States

The third report to Congress described operational issues related to calculating and reporting the required quality measures, such as the challenges that clinics encountered when collecting the clinical data used to calculate the quality measures. During the planning grant period and DY1, states and clinics undertook various efforts, including training staff and upgrading electronic health record (EHR) systems, to support reporting the quality measures. This report builds on those previous findings to describe performance on the measures in DY1. Measure performance from DY2 was not available in time for the submission of this report but will be included in fifth report to Congress. Previous reports to Congress also provide important information related to the implementation of the CCBHC demonstration overall, and within-states. These implementation findings, including descriptions of evidence-based practices and quality improvement activities, may provide important context for understanding these quality measurement results.

The quality measures reported by states and clinics can be used to monitor quality of care and inform quality improvement efforts.[7] Quality measure reporting also has an important role in the context of the PPS. CCBHC payments were not linked to the provision of individual services. Rather, CCBHCs were paid the same amount regardless of the specific services they provided during the visit day or month. In this context, quality measurement provides a mechanism to ensure that quality of care does not suffer. Some states also used the quality measures to award QBPs to CCBHCs that met or exceeded state-specified performance thresholds.

**Required quality measures.** The CCBHC criteria specify 22 quality measures that clinics and states were required to report for the demonstration. These measures assess performance across nine domains (**TABLE 5**). These measures were developed or adapted specifically for the demonstration and were primarily adapted from National Quality Forum (NQF) endorsed measures.[8] Clinic-reported quality measures are primarily process measures that focus on how clinics are achieving service-provision targets (for example, time to initial evaluation, whether screening and services were provided) and are based on clinical data typically derived from EHRs or other electronic administrative sources. State-reported measures focus on CCBHC consumer characteristics (for example, housing status), screening and treatment of specific conditions, follow-up and readmission, and consumer and family experiences of care. A summary of quality measures reported by states and clinics is presented in **TABLE 5** and a detailed description of measure specifications can be found in Appendix A.

[7] More information on how states and CCBHCs are using the required quality measures to inform continuous quality improvement efforts can be found in the third report to Congress.

[8] Technical specifications are available at https://www.samhsa.gov/section-223/quality-measures.

| TABLE 5. Required CCBHC and State-Reported Quality Measures | | | |
|---|---|---|---|
| **Quality Measure Domains** | **Reported Measures** | **Clinic or State-reported Measures** | **Potential Data Source(s)** |
| Access to care/ timeliness of initial evaluation | Number/percent of new clients with initial evaluation provided within 10 business days, and mean number of days until initial evaluation for new clients | Clinic | EHR, Electronic scheduler |
| Depression screening and treatment | Child and adolescent major depressive disorder: SRA | Clinic | EHR, Client records |
| | Adult major depressive disorder: SRA | Clinic | EHR, Client records |
| | Screening for Clinical Depression and Follow-Up Plan | Clinic | EHR, Client records |
| | Depression Remission at 12 months | Clinic | EHR, Client records, |
| Psychiatric medication management and adherence | Adherence to Antipsychotic Medications for Individuals with Schizophrenia | State | Claims data/encounter data |
| | Antidepressant Medication Management | State | Claims data/encounter data |
| Follow-up and medication management for children with ADHD | Follow-up Care for Children Prescribed ADHD Medication | State | Claims data/encounter data |
| Physical health care--weight and metabolic health screening | Adult BMI Screening and Follow-up | Clinic | EHR, Client records |
| | Weight Assessment for Nutrition and Physical Activity for Children/Adolescents | Clinic | EHR, Encounter data |
| | Diabetes screening for people with schizophrenia or bipolar disorder who are using antipsychotic medications | State | Claims data/encounter data |
| Substance use screening and treatment | Tobacco Use--Screening and Cessation Intervention | Clinic | EHR, Encounter data |
| | Unhealthy Alcohol Use--Screening and Brief Counseling | Clinic | EHR, Client records |
| | Initiation and Engagement of AOD Dependence Treatment | State | EHR, Client records |
| ED and hospital transitions | Follow-up after ED for Mental Health | State | Claims data/encounter data |
| | Follow-up after ED for AOD Dependence | State | Claims data/encounter data |
| | Follow-up after Hospitalization for mental illness, ages 21+ | State | Claims data/encounter data |
| | Follow-up after Hospitalization for mental illness, ages 6-21 | State | EHR, Client records. |
| | Plan All-Cause Readmission Rate | State | Claims data/encounter data |
| Client and family experience of care | Patient (adult) experience of care survey | State | MHSIP Survey |
| | Family experience of care survey | State | MHSIP Survey |
| Housing | Housing status (residential status during the reporting period) | State | URS |
| **Source**: Substance Abuse and Mental Health Services Administration. "Criteria for the Demonstration Program to Improve Community Mental Health Centers and to Establish Certified Community Behavioral Health Clinics." Rockville, MD: SAMHSA, 2016. Available at https://www.samhsa.gov/sites/default/files/programs_campaigns/ccbhc-criteria.pdf. Accessed July 26, 2019. | | | |

**Characteristics of CCBHC caseloads.** CCBHC quality measure performance in DY1 was based on data from 309,322 clients across all demonstration states and ranged from 4,324 clients in Nevada to 121,787 clients in Missouri. It is important to note when interpreting the CCBHC-wide measure performance that Missouri accounted for over a third of all CCBHC clients represented in the measures. More information

on the populations served by the CCBHCs, and efforts to tailor outreach to specific populations can be found in the second report to Congress. See Appendix B for detailed tables describing aggregate and state-level caseload characteristics.

- Across states, 23 percent of CCBHC clients were children or adolescents. However, this ranged from 8 percent of the total DY1 caseload in Nevada to 27 percent of the state caseload in Minnesota.
- Across states, 52 percent of CCBHC clients were female; this ranged from 42 percent in Nevada to 56 percent in New Jersey.
- Across states, 54 percent of CCBHC clients were Medicaid beneficiaries, 8 percent were enrolled in both Medicaid and Medicare ("dually eligible" beneficiaries), 16 percent were commercially insured, and 15 percent were uninsured. However, there was considerable variation in insurance status across states. For example, Pennsylvania and New York had lower rates of uninsured clients (3 percent and 4 percent, respectively), whereas Oklahoma had a considerably higher rate of uninsured clients (36 percent).

**Performance on quality measures during DY1.** CCBHC performance across eight measurement domains is presented below. Quality measurement data from the ninth domain, housing, is not presented due to problems associated with data reporting.[9] Measure performance is reported at the state level and is aggregated across all clinics within each state. When possible, CCBHC results are compared to those reported for similar populations, settings and national averages.[10] Of note, performance on the measures among CCBHC populations was compared with performance on the same or similar measures from the following sources: (1) state-level Medicaid Core Set measures; (2) Medicare Merit-based Incentive Payment System measures (MIPS); and (3) Minnesota Community Measurement (MNCM). While these sources may provide some context for interpreting performance on the measures among CCBHC populations, there are several limitations to these comparisons and readers should not necessarily interpret differences in CCBHC performance relative to these sources as evidence of CCBHC success or failure.

**Access to care/timeliness of initial evaluation**. Long wait-times for initial psychiatric evaluations are associated with lower retention and lower client-reported satisfaction with care, which can lead to

[9] An error in the quality measure reporting template prevented states from reporting this data as intended.

[10] Centers for Medicare & Medicaid Services. "2019 Annual Reporting on the Quality of Care for Adults in Medicaid (FFY 2018)." Baltimore, MD: CMS. Available: https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/adult-core-set/index.html; and the "2019 Annual Reporting on the Quality of Care for Children in Medicaid (FFY 2018)." Available at: https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/childrens-health-care-quality-measures/index.html. CCBHC performance is benchmarked to FFY 2018 Medicaid Core Set measures because FFY 2018 most closely aligned with the DY1 time period of spring 2017 to spring 2018.

poorer client engagement and client outcomes.[11,12,13] This CCBHC-reported measure includes two components: (1) the percentage of new consumers provided an initial evaluation within ten business days of first contact with the clinic; and (2) the mean number of days until that initial evaluation for new consumers. As outlined in the CCBHC Certification Criteria, CCBHCs are expected to provide a preliminary screening at the time of first contact to assess each client's level of need. CCBHCs are required to complete an initial evaluation within ten business days, and a comprehensive person-centered and family-centered treatment planning evaluation within 60 days of initial contact. Minimum requirements for the initial evaluation are outlined in the CCBHC Certification Criteria and include an assessment of preliminary diagnoses, identification of the client's immediate clinical care needs, a list of current prescriptions and over-the-counter medications, and an assessment of whether the consumer is a risk to self or to others, including suicide risk factors. As part of the certification process, states developed minimum requirements for the comprehensive assessment, but were encouraged to consider elements such as the completion of a full psychosocial evaluation, a detailed behavioral health history, and a diagnostic assessment, including current mental status, mental health and SUDs.[14]

TABLE 6 presents aggregate and state-level performance on these clinic-reported measures. While no nationally representative benchmark data exists for these measures, one study conducted in Ohio in which researchers--posing as parents--called randomly selected psychiatric offices to schedule appointments for a hypothetical adolescent client reported a median wait-time for an initial appointment was 50 days, with a range of 22-75 days.[15] While psychiatrists are only one type of provider that can deliver the types of services offered by CCBHCs, this study provides some context for understanding the timeliness of care provided to CCBHC clients.

- Across states, about 70 percent of new CCBHC clients received an initial evaluation within ten days of first contact (child/adolescent clients: 69 percent; adult clients: 71 percent), ranging from 61 percent in Minnesota to 78 percent in Nevada.
- Time to initial evaluation averaged about nine days for children/adolescents and 8.2 days for adults, with greater heterogeneity among adult clients (range: 4.3-20.3 days across states) versus children/adolescents (range: 6.8-11.0 days across states). Compared to other states, Nevada reported slightly shorter average wait-times for both child/adolescent (6.7 days) and adult clients (4.3 days). In contrast, Minnesota had slightly longer average wait-times for both client groups (child/adolescent: 10.0 days; adult: 20.3 days).

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[11] Redko, C., Rapp, R.C., & Carlson, R.G. (2006). Waiting time as a barrier to treatment entry: Perceptions of substance users. *Journal of Drug Issues*, 36(4), 831-852. doi.org/10.1177/002204260603600404.

[12] Ho, C.P., Zinski, A., Fogger, S.A., Peters, J.D., Westfall, A.O., Mugavero, M.J., Lawrence, S.T., et al. (2015). Factors associated with missed psychiatry visits in an urban HIV clinic. *AIDS and Behavior,* 19(8), 1423-1429.

[13] Beetham, T., Saloner, B., Wakeman, S.E., Gaye, M., & Barnett, M.L. (2019). Access to office-based buprenorphine treatment in areas with high rates of opioid-related mortality: An audit study. *Annals of Internal Medicine,* 171(1), 1-9.

[14] Detailed requirements for the initial evaluation and comprehensive evaluation can be found in the CCBHC Certification Criteria: https://www.samhsa.gov/sites/default/files/programs_campaigns/ccbhc-criteria.pdf.

[15] Steinman, K.J., Shoben, A.B., Dembe, A.E. et al. (2015). How long do adolescents wait for psychiatry appointments? *Community Mental Health Journal,* 51, 782-789. doi.org/10.1007/s10597-015-9897-x.

Interviewees in five states reported that most or all CCBHCs had moved to Open-Access scheduling, which enables all clients to receive an appointment on the day they make the request. State officials from Minnesota noted that CCBHCs originally intended to provide clients with an initial assessment within ten days and then conduct a more comprehensive assessment within 60 days. Minnesota state officials expected CCBHC clients to favor this approach, as it would allow time for providers and clients to build rapport before completing a full assessment that involved discussing sensitive topics. However, they discovered that clients strongly preferred to complete all the assessments at once, during an initial appointment. As one official stated, "trying to convince clients to come into the clinic for evaluation twice or more was a hard sell, particularly for clinics in remote areas where clients live far from their clinic. The clients wanted to come in for 2-3 hours and get it all done at once. This was a surprise." Such client preferences for more comprehensive initial appointments contributed to scheduling challenges, which affected CCBHCs' capacity to provide initial evaluations within the ten-day target window. In response to these findings, the state has since created a workgroup to explore ways to improve the assessment process to better meet clients' preferences and needs while minimizing time to initial evaluation.

**TABLE 6. Access to Care/Timeliness of Initial Evaluation: DY1**

| | Initial Evaluation for New Clients Child/Adolescent (age 12-17) | | | Initial Evaluation for New Clients Adult ( age 18+) | | |
|---|---|---|---|---|---|---|
| | Denominator | % within 10 days | Average # days | Denominator | % within 10 days | Average # days |
| MN | 1,536 | 61% | 10.0 | 10,923 | 40% | 20.3 |
| MO | 6,830 | 69% | 11.0 | 31,177 | 70% | 10.1 |
| NJ | 1,702 | 68% | 11.0 | 10,715 | 81% | 7.5 |
| NV | 182 | 78% | 6.8 | 1,596 | 89% | 4.3 |
| NY | 3,236 | 71% | 9.2 | 16,922 | 82% | 5.9 |
| OK | 1,787 | 65% | 7.9 | 10,684 | 71% | 4.9 |
| OR | 2,660 | 67% | 7.8 | 11,793 | 66% | 8.0 |
| PA | 729 | 69% | 7.5 | 5,242 | 72% | 4.9 |

**Source**: DY1 CCBHC Quality Measure Reports.
**Note**: Lower average number of days is better.

**Depression and suicidality screening and follow-up.** Depression is among the most prevalent mental health conditions in the United States and is associated with a host of negative outcomes, including increased risk of suicide thoughts/ideation, suicide attempts, and death by suicide.[16] Numerous interventions have been shown to successfully treat depression, and screening for depression symptoms is critical for identifying individuals who may benefit from depression treatment, ensuring that individuals receive timely and appropriate care, and monitoring treatment response.[17] Similarly, assessment of suicide risk--particularly among high-risk groups, such as clients with major depressive

[16] National Institute of Mental Health. "Suicide prevention." Bethesda, MD: NIMH. https://www.nimh.nih.gov/health/topics/suicide-prevention/index.shtml. Accessed October 15, 2020.

[17] American Psychiatric Association. Practice guideline for the treatment of patients with major depressive disorder. 3rd ed. Arlington, VA: American Psychiatric Association; 2010.

disorder--is important for care planning and implementing targeted prevention strategies to reduce suicide. and 8 present aggregate and state-level performance on these CCBHC-reported measures.

- Across states, CCBHCs reported they screened 51 percent of clients (adults and children/adolescents) for depression and, if the screening was positive, documented a follow-up plan on the date of the positive screen.[18] This is notably higher than the MIPS 2018 Benchmark Rate for this measure (28 percent),[19] although direct comparisons should be made with caution due to differences in client populations. Performance on this measure varied considerably across states, ranging from 24 percent in Minnesota to 79 percent in Oklahoma.

**TABLE 7. Depression Screening, Follow-up, and Remission: DY1**

| | Depression Screening and Follow-up Plan | | Depression Remission | |
|---|---|---|---|---|
| | Denominator | % | Denominator | % |
| **Aggregate** | **107,780** | **51%** | **15,983** | **7%** |
| MN | 12,602 | 24% | 1,103 | 14% |
| MO | 21,349 | 49% | 3,841 | 7% |
| NJ | 5,625 | 47% | --- | --- |
| NY | 25,826 | 58% | 3,579 | 10% |
| OK | 11,295 | 79% | 1,330 | 2% |
| OR | 22,617 | 51% | 5,360 | 8% |
| PA | 8,466 | 35% | 761 | 6% |

**Source**: DY1 CCBHC Quality Measure Reports.

**Notes**: CDF-BH measures depression screening and follow-up among adults and children/adolescents. The measure does not capture different rates for adults versus children/adolescents. CDF-BH excludes 1 Oregon clinic. DEP-REM-12 excludes 7 New Jersey clinics. Nevada did not submit the CDF-BH and DEP-REM-12 measures in DY1.

- Across states, 7 percent of adults with depression had evidence of depression remission (Patient Health Questionnaire [PHQ-9] score of less than 5) within 12 months after their index visit (the visit on which depression was first documented), ranging from 2 percent to 14 percent across states. This average performance rate across states is the same as state-level data collected in Minnesota by MNCM (7 percent)[20] and similar to findings from populations enrolled in

[18] The follow-up plan must include at least one of the following elements: additional evaluation; suicide risk assessment (SRA); referral to a qualified practitioner; pharmacological interventions, or other interventions or follow-up for the diagnosis and treatment of depression.

[19] Centers for Medicare & Medicaid Services. "Merit-based Incentive Payment System (MIPS) 2018 Quality Benchmarks within the CMS Quality Payment Program." Available: https://qpp-cm-prod-content.s3.amazonaws.com/uploads/162/2018%20Quality%20Benchmarks.zip. Accessed October 15, 2020.

[20] Minnesota Community Measurement 2018 Minnesota Health Care Quality Report. Retrieved from https://mncm.org/wp-content/uploads/2020/01/2018-Health-Care-Quality-Report-Final.pdf.

Accountable Care Organizations participating in the Medicare Share Savings Program (8.3 percent).[21]

- Across states, CCBHCs documented that they had conducted a SRA in 51 percent of visits with a child or adolescent with major depressive disorder and for 60 percent of adults with major depressive disorder during the visit in which they identified a new depressive episode. Performance on these quality measures is higher than that observed in MIPS data for child/adolescent clients (MIPS 2019 Benchmark Rate is 23 percent)[22] and slightly lower than rates for adult clients (MIPS 2018 Benchmark Rate is 66 percent).

| TABLE 8. Assessment of Suicide Risk among Clients with Major Depressive Disorder: DY1 | | | | |
|---|---|---|---|---|
| | Suicide Risk Assessment Child/Adolescent | | Suicide Risk Assessment Adult | |
| | Denominator | % | Denominator | % |
| **Aggregate** | **56,864** | **51%** | **141,890** | **60%** |
| MN | 8,537 | 18% | 22,529 | 48% |
| MO | 14,495 | 75% | 42,864 | 78% |
| NJ | 4,394 | 82% | 19,419 | 35% |
| NY | 14,463 | 61% | 7,271 | 86% |
| OK | 911 | 50% | 5,534 | 64% |
| OR | 7,975 | 33% | 26,009 | 45% |
| PA | 6,089 | 36% | 18,264 | 66% |
| **Source**: DY1 CCBHC Quality Measure Reports.<br>**Notes**: Nevada did not submit these measures in DY1. | | | | |

**Psychiatric medication management and adherence**. Adherence to an appropriately managed psychiatric medication regimen is associated with improved client outcomes. For many people, medication non-adherence is a major issue, and it increases the risk for relapse and hospitalization.[23]

| TABLE 9. Psychiatric Medication and Adherence: DY1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Adherence to Antipsychotic Medications for Clients with Schizophrenia Adult | | | Antidepressant Medication Management: Acute Phase Adult | | | Antidepressant Medication Management: Continuation Phase Adult | | |
| | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark |
| **Aggregate** | **10,973** | **53%** | **59%** | **17,053** | **54%** | **50%** | **17,053** | **40%** | **34%** |
| MN | 735 | 60% | -- | 1,095 | 47% | 53% | 1,095 | 28% | 39% |

[21] Counts, N.Z., Wrenn, G., & Muhlestein, D. (2019). Accountable care organizations' performance in depression: Lessons for value-based payment and behavioral health. *Journal of General Internal Medicine*, 34(12), 2898-2900. doi:10.1007/s11606-019-05047-x.

[22] Centers for Medicare & Medicaid Services. "Merit-based Incentive Payment System (MIPS) 2019 Quality Benchmarks within the CMS Quality Payment Program." Available: https://qpp-cm-prod-content.s3.amazonaws.com/uploads/342/2019%20MIPS%20Quality%20Benchmarks.zip. Accessed October 15, 2020. We used 2019 data because SRA-BH-C performance was not available for 2018.

[23] Hassan, M., & Lage, M.J. (2009). Risk of rehospitalization among bipolar disorder patients who are nonadherent to antipsychotic therapy after hospital discharge. *American Journal of Health-System Pharmacy*, 66(4), 358-365.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MO | 4,477 | 67% | 65% | 9,533 | 67% | 44% | 9,533 | 60% | 27% |
| NJ | 123 | 49% | -- | 1,430 | 69% | -- | 1,430 | 50% | -- |
| NY | 1,930 | 52% | 63% | 2,643 | 55% | 52% | 2,643 | 41% | 38% |
| OK | 538 | 33% | -- | 446 | 44% | -- | 446 | 41% | -- |
| OR | 1,570 | 61% | -- | 942 | 49% | -- | 942 | 30% | -- |
| PA | 1,600 | 46% | 69% | 964 | 47% | 51% | 964 | 27% | 37% |

**Source**: DY1 CCBHC Quality Measure Reports.

**Note**: Nevada did not submit these measures in DY1.

Benchmarks reported are from the 2019 Annual Reporting on the Quality of Care for Adults in Medicaid (FFY 2018), available at https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/adult-core-set/index.html. Benchmarks from this source are not available for all states, as reflected by blank cells in the table.

presents aggregate and state-level performance on these state-reported measures, as well as comparisons to relevant benchmark data.

- Across states, 54 percent of adult CCBHC clients with major depression who received antidepressants continued their antidepressants for at least 12 weeks, and 40 percent continued for at least six months. These rates were slightly higher than Medicaid Core Set measures in states where comparisons were available.
- Across states, 53 percent of adult CCBHC clients with schizophrenia who received antipsychotic medications continued these medications for at least 80 percent of the days they were enrolled in Medicaid during the measurement year, which was below the Medicaid benchmark in all states where comparisons were available.

**TABLE 9. Psychiatric Medication and Adherence: DY1**

| | Adherence to Antipsychotic Medications for Clients with Schizophrenia Adult | | | Antidepressant Medication Management: Acute Phase Adult | | | Antidepressant Medication Management: Continuation Phase Adult | | |
|---|---|---|---|---|---|---|---|---|---|
| | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark |
| **Aggregate** | **10,973** | **53%** | **59%** | **17,053** | **54%** | **50%** | **17,053** | **40%** | **34%** |
| MN | 735 | 60% | -- | 1,095 | 47% | 53% | 1,095 | 28% | 39% |
| MO | 4,477 | 67% | 65% | 9,533 | 67% | 44% | 9,533 | 60% | 27% |
| NJ | 123 | 49% | -- | 1,430 | 69% | -- | 1,430 | 50% | -- |
| NY | 1,930 | 52% | 63% | 2,643 | 55% | 52% | 2,643 | 41% | 38% |
| OK | 538 | 33% | -- | 446 | 44% | -- | 446 | 41% | -- |
| OR | 1,570 | 61% | -- | 942 | 49% | -- | 942 | 30% | -- |
| PA | 1,600 | 46% | 69% | 964 | 47% | 51% | 964 | 27% | 37% |

**Source**: DY1 CCBHC Quality Measure Reports.

**Note**: Nevada did not submit these measures in DY1.

Benchmarks reported are from the 2019 Annual Reporting on the Quality of Care for Adults in Medicaid (FFY 2018), available at https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/adult-core-set/index.html. Benchmarks from this source are not available for all states, as reflected by blank cells in the table.

***Follow-up and medication management for children with ADHD.*** *Attention deficit hyperactivity disorder (ADHD), characterized by hyperactivity, impulsiveness, and an inability to sustain attention or concentration, is one of the most common mental health conditions among children and adolescents, affecting approximately 11 percent of United States children. Medication is an important and commonly implemented component of ADHD treatment, and follow-up care for children who are prescribed medication for ADHD is important for ensuring care is optimal. The long-standing and well-documented national shortage of*

*child psychiatrists frequently results in children who receive ADHD medications being managed by pediatricians, not behavioral health specialists.*

**TABLE 10. Follow-up Care for Children Prescribed ADHD Medication: DY1**

| | Follow-up Care for Children Prescribed ADHD Medication: Initiation | | | Follow-up Care for Children Prescribed ADHD Medication: Continuation | | |
|---|---|---|---|---|---|---|
| | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark |
| **Aggregate** | **3,023** | **67%** | **49%** | **1,109** | **85%** | **59%** |
| MN | 190 | 77% | --- | 93 | 83% | --- |
| MO | 1,605 | 62% | --- | 638 | 83% | --- |
| NJ | 359 | 15% | 33% | 35 | 97% | 36% |
| NY | 349 | 75% | 58% | 128 | 77% | 66% |
| OK | 80 | 80% | 65% | 40 | 78% | 64% |
| OR | 244 | 83% | 64% | 104 | 90% | 75% |
| PA | 196 | 79% | 42% | 71 | 89% | 49% |

**Source**: DY1 Quality Measure Reports.

**Note**: Nevada did not submit these measures in DY1.

Denominators for the continuation measure reflect the subset of individuals who initiated treatment at the CCBHC; this subset is therefore systematically smaller than initiation denominators. Benchmarks reported are from the 2019 Annual Reporting on the Quality of Care for Children in Medicaid (FFY 2018), available at https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/childrens-health-care-quality-measures/index.html.

presents aggregate and state-level performance on these state-reported measures, as well as comparisons to relevant benchmark data.

- Across states, 67 percent of children/adolescents with ADHD who received care from CCBHCs had a follow-up visit with a provider with prescribing authority after the initiation of an ADHD medication (initiation phase), and 85 percent met the initiation phase requirement and had at least two follow-up visits with any provider in the first nine months after initiating a new ADHD medication (continuation phase). These rates generally exceeded Medicaid Core Set benchmarks in states where comparisons were available.

| TABLE 10. Follow-up Care for Children Prescribed ADHD Medication: DY1 | | | | | | |
|---|---|---|---|---|---|---|
| | Follow-up Care for Children Prescribed ADHD Medication: Initiation | | | Follow-up Care for Children Prescribed ADHD Medication: Continuation | | |
| | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark |
| **Aggregate** | **3,023** | **67%** | **49%** | **1,109** | **85%** | **59%** |
| MN | 190 | 77% | --- | 93 | 83% | --- |
| MO | 1,605 | 62% | --- | 638 | 83% | --- |
| NJ | 359 | 15% | 33% | 35 | 97% | 36% |
| NY | 349 | 75% | 58% | 128 | 77% | 66% |
| OK | 80 | 80% | 65% | 40 | 78% | 64% |
| OR | 244 | 83% | 64% | 104 | 90% | 75% |
| PA | 196 | 79% | 42% | 71 | 89% | 49% |

**Source**: DY1 Quality Measure Reports.

**Note**: Nevada did not submit these measures in DY1.

Denominators for the continuation measure reflect the subset of individuals who initiated treatment at the CCBHC; this subset is therefore systematically smaller than initiation denominators. Benchmarks reported are from the 2019 Annual Reporting on the Quality of Care for Children in Medicaid (FFY 2018), available at https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/childrens-health-care-quality-measures/index.html.

**Physical health care--weight and metabolic health screening**. Obesity and metabolic conditions such as diabetes are important risk factors for morbidity and mortality, and are common side effects of psychiatric medications. Screening all individuals who are at higher risk for diabetes is important, but individuals diagnosed with schizophrenia or bipolar disorder are at especially high-risk, and have a 50 percent higher risk of death than those without SMI.[24] Body mass index (BMI) is the measure most commonly used to identify the proportion of a population that is overweight and obese. Careful monitoring of BMI can help health care providers identify adults who are at risk, provide focused advice and services to help them reach and maintain a healthier weight, and adjust psychiatric medications that might be contributing to the problem. presents aggregate and state-level performance on these measures, as well as comparisons to relevant benchmark data.

- Across states, CCBHCs documented BMI screening and follow-up (if BMI was outside of normal parameters) for 50 percent of adult clients**,** which was slightly higher compared to the MIPS 2018 benchmark rate of 45 percent.[25] State-level performance ranged from 34 percent to 65 percent across states.
- Across states, CCBHCs documented BMI percentile for 53 percent of child/adolescent clients. State-level performance ranged from 30 percent to 85 percent across states. State-level

[24] Vinogradova, Y., Coupland, C., Hippisley-Cox, J., Whyte, S., & Penny, C. (2010). Effects of severe mental illness on survival of people with diabetes. *British Journal of Psychiatry,* 197(4), 272-277. doi:10.1192/bjp.bp.109.074674.

[25] Centers for Medicare & Medicaid Services. "Merit-based Incentive Payment System (MIPS) 2018 Quality Benchmarks within the CMS Quality Payment Program." Available: https://qpp-cm-prod-content.s3.amazonaws.com/uploads/162/2018%20Quality%20Benchmarks.zip. Accessed October 15, 2020.

performance was lower than the Medicaid Core Set measure performance for most states where comparisons were available.

- Across states, 67 percent of CCBHC clients with schizophrenia or bipolar disorder who received antipsychotic medications had a claim or encounter that indicated the receipt of diabetes screening during the year. State-level performance ranged from 68 percent to 82 percent across states. State-level performance was lower than the Medicaid Core Set measure performance for all states where comparisons were available, except for New York, which was within one percentage point of the Medicare Core Set measure.

**TABLE 11. Weight and Metabolic Health Screening: DY1**

| | BMI Screening and Follow-up Plan Adult | | Weight Assessment and Counseling Child/Adolescent | | | Diabetes Screening for Clients with Schizophrenia or Bipolar Taking Antipsychotic Medications | | |
|---|---|---|---|---|---|---|---|---|
| | Denominator | % | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark |
| **Aggregate** | **144,951** | **50%** | **44,567** | **53%** | **57%** | **18,851** | **67%** | **80%** |
| MN | 11,559 | 34% | 5,769 | 30% | --- | 1,223 | 77% | --- |
| MO | 31,404 | 49% | 8,869 | 85% | --- | 8,434 | 74% | 84% |
| NJ | 9,795 | 48% | 3,093 | 49% | 78% | 977 | 68% | --- |
| NV | 410 | 51% | 44 | 32% | 40% | --- | --- | 79% |
| NY | 38,232 | 57% | 8,704 | 61% | 84% | 3,635 | 79% | 80% |
| OK | 15,237 | 65% | 5,014 | 54% | 5% | 647 | 72% | --- |
| OR | 27,226 | 42% | 10,123 | 54% | --- | 2,220 | 80% | --- |
| PA | 11,088 | 52% | 2,951 | 59% | 78% | 1,715 | 82% | 88% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Nevada did not submit the diabetes screening measure in DY1.

Benchmarks reported are from the 2019 Annual Reporting on the Quality of Care for Adults in Medicaid (FFY 2018), available at https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/adult-core-set/index.html, and the 2019 Annual Reporting on the Quality of Care for Children in Medicaid (FFY 2018) https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/childrens-health-care-quality-measures/index.html.

**Substance use screening and follow-up.** Substance use exacts an immense human and economic toll and disproportionately affects individuals with mental health conditions. Less than 20 percent of individuals with SUD report receiving some form of treatment in the past year according to analysis of National Survey on Drug Use and Health data.[26] In addition, tobacco use is disproportionately high among individuals with SMI, which may contribute to tobacco-related physical health disparities for these individuals relative to the general population. Tables 12 and 13 present aggregate and state-level performance on these measures, as well as comparisons to relevant benchmark data.

- Across states, 62 percent of adult CCBHC clients received tobacco use screening and cessation intervention (when tobacco use was present) during the previous 24 months. Results ranged from 51 percent to 70 percent across states. CCBHC performance on this measure was lower when compared with MIPS data (89 percent for tobacco use screening and cessation intervention). (See .)

[26] Ali, M.M., Teich, J.L., & Mutter, R. (2015). The role of perceived need and health insurance in substance use treatment: Implications for the Affordable Care Act. *Journal of Substance Abuse Treatment,* 54:14-20.

- Across states, 62 percent of adult CCBHC clients received screening for unhealthy alcohol use screening and brief counseling (when screen was positive) in the previous 24 months. Performance ranged from 42 percent to 84 percent across states. Some states performed better than the MIPS average of 64 percent on this measure, whereas other states fell below that average. (See .)

| TABLE 12. Substance Use Screening: DY1 | | | | |
|---|---|---|---|---|
| | Tobacco Use Screening and Cessation Intervention | | Unhealthy Alcohol Use Screening and Brief Counseling | |
| | Denominator | % | Denominator | % |
| **Aggregate** | **162,647** | **62%** | **144,360** | **62%** |
| MN | 11,015 | 55% | 9,605 | 51% |
| MO | 46,383 | 51% | 37,596 | 54% |
| NJ | 9,744 | 70% | 10,080 | 76% |
| NV | 409 | 63% | 353 | 84% |
| NY | 38,752 | 69% | 29,671 | 69% |
| OK | 15,333 | 70% | 15,333 | 65% |
| OR | 30,476 | 69% | 28,100 | 58% |
| PA | 10,535 | 54% | 13,622 | 42% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Nevada clinics reported low denominators on these measures, less than 10% of the clients across the Nevada CCBHCs. However, no deviation from measure specification or explanation for low denominators was provided in the reporting form on these measures.

- Across states, 40 percent of adult CCBHC clients received treatment for an alcohol or other drug (AOD) use disorder within 14 days of the initial diagnosis (initiation), which ranged from 16 percent to 54 percent across states; 12 percent met criteria for initiation and also received at least two other AOD services within 30 days of the initiation visit (engagement), which ranged from 4 percent to 39 percent across states. (See .)
- Performance on the initiation and engagement components of this measure generally met or exceeded Medicaid Core Set measure performance in states where comparison data were available. (See .)

| TABLE 13. Initiation and Engagement for AOD Use: DY1 | | | | | | |
|---|---|---|---|---|---|---|
| | Initiation of Alcohol and Other Drug Dependence Treatment | | | Engagement of Alcohol and Other Drug Dependence Treatment | | |
| | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark |
| **Aggregate** | **15,483** | **40%** | **39%** | **15,483** | **24%** | **12%** |
| MN | 2,412 | 39% | --- | 2,412 | 14% | --- |
| MO | 2,276 | 51% | 40% | 2,276 | 39% | 11% |
| NJ | 2,615 | 36% | --- | 2,615 | 31% | --- |
| NY | 6,081 | 54% | 42% | 6,081 | 33% | 16% |
| OK[a] | 41 | 39% | 36% | 41 | 34% | 5% |
| OR | 988 | 46% | 39% | 988 | 15% | 15% |
| PA | 1,070 | 16% | 31% | 1,070 | 4% | 22% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Nevada did not submit this data in DY1. Benchmarks reported are from the 2019 Annual Reporting on the Quality of Care for Adults in Medicaid (FFY 2018), available at https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/adult-core-set/index.html.

a. Oklahoma included a note in the reporting form regarding the low denominators on this measure and stated, "The requirement that the client have a 60-day enrollment period with the CCBHC before the AOD diagnosis excludes many clients who are being diagnosed early in their treatment at the CCBHC."

**Emergency department and hospital transitions.** Providing follow-up care for people with mental health conditions following presentation to an emergency department is linked to fewer repeat emergency department visits, improved treatment outcomes and psychosocial functioning, and increased compliance with follow-up instructions.[27] Timely follow-up care for individuals with AOD dependence who were seen in the emergency department is associated with reductions in substance use, future emergency department use, hospital admissions, and bed days.[28] In addition, individuals hospitalized for mental health issues are vulnerable after discharge, and follow-up care by trained mental health clinicians is critical for their health and well-being. Moreover, follow-up care after hospitalization can reduce the likelihood of subsequent readmission.[29] and 15 present aggregate and state-level performance on these state-reported measures, as well as comparisons to relevant benchmark data.

- Across states, 71 percent of CCBHC clients received follow-up care within 30 days after an emergency department visit for a mental health condition and 32 percent received follow-up

[27] National Committee for Quality Assurance. "Follow-up after emergency department visit for mental illness." Available: https://www.ncqa.org/hedis/measures/follow-up-after-emergency-department-visit-for-mental-illness/. Accessed October 15, 2020.

[28] National Committee for Quality Assurance. "Follow-up after emergency department visit for alcohol or drug use." Available: https://www.ncqa.org/hedis/measures/follow-up-after-emergency-department-visit-for-alcohol-and-other-drug-abuse-or-dependence/. Accessed October 15, 2020.

[29] Morris, D.W., Ghose, S., Williams, E., Brown, K., & Khan, F. (2018). Evaluating psychiatric readmissions in the emergency department of a large public hospital. *Neuropsychiatric Disease and Treatment*, 14, 671-679. doi.org/10.2147/NDT.S143004.

care within seven days of emergency department visits for AOD dependence, exceeding available benchmarks for these quality measures. However, DY1 performance rates on these measures indicate room for improvement, particularly with respect to follow-up rates for AOD dependence. Performance across states varied considerably; however, among states for which state-specific benchmarks were available, performance typically exceeded benchmarks. (See .)

- Across states, rates of follow-up after hospitalization for mental health treatment were 67 percent for adults and 68 percent for child/adolescent clients and exceeded benchmarks for these quality measures. The overall rate of all-cause readmission (i.e., proportion of individuals hospitalized who had a subsequent readmission to hospital within 30 days) was 18 percent, similar to the benchmark for this quality measure (17 percent).[30] (See .)
- Performance across states on these quality measures varied widely, particularly for follow-up after hospitalization for mental health for adults (which ranged from 23 percent to 94 percent). (See .)

**TABLE 14. Follow-up after ED visits: DY1**

| | Follow-up after ED for Mental Health: 30-day | | | Follow-up after ED for AOD Dependence: 30-day | | |
|---|---|---|---|---|---|---|
| | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark |
| **Aggregate** | **16,488** | **71%** | **54%** | **6,287** | **32%** | **20%** |
| MN | 2,441 | 79% | 65% | 1,037 | 43% | 28% |
| MO | 5,066 | 69% | 57% | 1,562 | 33% | 5% |
| NJ | 1,816 | 23% | --- | 562 | 6% | --- |
| NY | 2,496 | 89% | 71% | 1,719 | 56% | 27% |
| OK | 348 | 82% | 50% | 42 | 12% | 44% |
| OR | 1,781 | 84% | 59% | 823 | 33% | --- |
| PA | 44 | 68% | 50% | 542 | 38% | 23% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Nevada did not submit these measures in DY1.

Benchmarks reported are from the 2019 Annual Reporting on the Quality of Care for Adults in Medicaid (FFY 2018), available at https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/adult-core-set/index.html.

[30] CCBHC measure specifications did not require risk adjustment of the All-Cause Readmission measure. The Medicaid Core Set benchmarks for this measure were also not risk adjusted in FFY 2018.

| TABLE 15. Follow-up after Hospitalization and Readmission: DY1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Follow-up after Hospitalization for Mental Health Adult | | | Follow-up after Hospitalization for Mental Health Child/Adolescent | | | Plan All-Cause Readmission | | |
| | Denom-inator | % | Core Set benchmark | Denom-inator | % | Core Set benchmark | Denom-inator | % | Core Set benchmark |
| **Aggregate** | **12,333** | **67%** | **58%** | **5,632** | **68%** | **65%** | **31,339** | **18%** | **17%** |
| MN | 1,271 | 73% | 63% | 668 | 74% | 70% | 3,048 | 22% | 17% |
| MO | 3,565 | 74% | 38% | 3,146 | 76% | 56% | 13,144 | 26% | 22% |
| NJ | 323 | 23% | --- | 77 | 21% | 32% | 1,397 | 20% | 15% |
| NY | 1,437 | 82% | 61% | 372 | 87% | 85% | 7,043 | 24% | --- |
| OK | 190 | 94% | 39% | 288 | 91% | 51% | 417 | 10% | 29% |
| OR | 670 | 87%[a] | 85%[a] | 148 | 82%[a] | 81%[a] | 2,843 | 15% | --- |
| PA | 4,877 | 27% | 56% | 933 | 37% | 74% | 3,447 | 8% | 13% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Lower Rate of Readmission is better for the Plan All-Cause Readmission measure. Nevada did not submit these measures in DY1.

a. Oregon benchmark data are only available for 7-day readmission, thus the Oregon measure presented in this table is for 7-day instead of 30-day readmission. Benchmarks reported are from the 2019 Annual Reporting on the Quality of Care for Adults in Medicaid (FFY 2018), available at https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/adult-core-set/index.html, and the 2019 Annual Reporting on the Quality of Care for Children in Medicaid (FFY 2018) https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/childrens-health-care-quality-measures/index.html.

**Client/family experiences of care.** Client-reported and family-reported experiences with care are key indicators of quality of care and important factors in ensuring client-centered care.[31] CCBHCs reported on a range of client experience measures, including access, quality and appropriateness of care, perceived outcomes of care, participation in treatment planning, and overall satisfaction using the Mental Health Statistics Improvement Program (MHSIP) Adult Consumer Experience of Care Survey and the Youth/Family Services Survey for Families (YSS-F) Experience of Care Survey.[32]

CCBHCs used various approaches to collect client experience information from their clients. For example, some CCBHCs obtained client-reported experience data from all or nearly all of their clients while other CCBHCs obtained client experience data by surveying a random sample of their clients. The latter approach contributed to low denominators, or sample sizes, for these CCBHCs. Aggregate and state-level performance on these state-reported measures, as well as comparisons to relevant benchmark data, are presented in Appendix C.

- Across states, performance on these quality measures was relatively high, ranging from 69 percent to 93 percent for aggregate performance. Although aggregate/national benchmarks are not available, state performance approached or exceeded available state-level benchmarks for many quality measures. However, performance on some measures showed room for

[31] Centers for Medicare & Medicaid Services. "Hospital Compare: What is the patient experience of care survey?" Baltimore, MD: CMS. Available: https://www.medicare.gov/HomeHealthCompare/Data/HHCAHPS-Overview.html. Accessed October 15, 2020.

[32] The official versions of the MHSIP and YSS-F used by CCBHCS can be found on the NRI website, along with additional information on the psychometric properties of both surveys: http://www.nri-inc.org.

improvement (e.g., for adults reporting positively on outcomes, approximately 30 percent of respondents indicated non-positive perceptions of care).

- Performance across states on these measures varied. For example, for adults reporting positively on outcomes, state-level rates ranged from 37 percent in Oregon to 90 percent in Pennsylvania. Some of this variability may be due to differences in the methods used to obtain client feedback.

**Summary of quality measure performance.** Performance on the quality measures varied considerably across CCBHCs and across states, with few discernable patterns of consistently higher or lower performance. Overall, the CCBHC quality measurement data was comparable to benchmarks when available. In some domains, CCBHC clients received higher quality of care, on average, relative to benchmarks (e.g., follow-up care within 30 days after an emergency department visit for AOD dependence and follow-up after discharge from a hospitalization for mental illness among adults). There was, however, room for improvement across many of the measures.

While these benchmark data presented in this report provides some context for interpreting performance on the measures among CCBHC populations, there are several limitations to these comparisons and differences in CCBHC performance relative to these sources should not be interpreted as evidence of CCBHC success or failure. The populations reflected by the CCBHC measures often differ from the populations reflected in the comparison source. For example, our comparison for the depression remission measure includes a state-wide population of individuals who receive treatment in a wide range of specialty and primary care settings. The state-wide population may be more heterogenous than the CCBHC population in initial depression severity and other characteristics that account for differences in measure performance. We do not have individual-level data to compare across client populations or to statistically adjust for differences in client populations. Likewise, MIPS measures are reported using clinician-reported data from providers who exceed certain criteria ("low-volume threshold") with respect to Medicare-covered services that they provide and the number of Medicare patients that they serve.[33] However, Medicare beneficiaries (people age 65 or older; people under age 65 with certain disabilities; people with end-stage renal disease) may differ in key ways from CCBHC client populations. Such differences in the underlying populations represented by the measures may account for some differences in measure performance. It is also important to note that the CCBHC quality measures reported by states were calculated using technical specifications that were adapted specifically for this project and are not identical to those represented in the benchmark populations. Further, the technical specifications adapted for this project were based on FFY 2016 specifications, which may not directly align with updates made to specifications used in the FFY 2018 benchmark datasets. It is also important to note that the quality measures selected for use in this demonstration project were selected by HHS in 2015. Since that time, a number of new behavioral health measures have been developed and endorsed by NQF to address important quality domains, such as continuity of pharmacotherapy for opioid use disorder. The measures reported by states, and included in this report, do not provide all of the information needed to understand the quality of care provided by the CCBHCs. HHS is currently in the process of reevaluating the quality measures for continued use in the demonstration.

[33] Available: https://qpp.cms.gov/mips/overview.

The quality measures reported during DY1 provide a baseline for understanding quality of care provided to CCBHC clients but should not be interpreted as the effect of the demonstration on quality of care. In addition, due to limited availability of appropriate national and/or state-level benchmarks, direct comparisons to existing data to assess CCBHC performance should be made with caution. Variation in quality measure performance might indicate a potential for improvement by clinics with low performance during DY1. The fifth report to Congress will use the DY2 quality measure data to assess changes over time within and across CCBHCs.

**TABLE 16. Quality Measures Used to Determine QBPs in DY1**

| CCBHC-reported measures | Required or optional for determining QBPs[a] | States with QBPs that used the measure to determine QBPs[b] |
|---|---|---|
| Child and adolescent major depressive disorder: SRA (SRA-BH-C) | Required | All |
| Adult major depressive disorder: SRA (SRA-BH-A; NQF-0104) | Required | All |
| Screening for Clinical Depression and Follow-Up Plan (CDF-A) | Optional | MN |
| Depression Remission at 12 months (NQF-0710) | Optional | None |
| **State-reported measures** | | |
| Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA-BH) | Required | All |
| Follow-Up After Hospitalization for Mental Illness, ages 21+ (adult) (FUH-BH-A) | Required | All |
| Follow-Up After Hospitalization for Mental Illness, ages 6-21 (child/adolescent) (FUH-BH-C) | Required | All |
| Initiation and Engagement of AOD Dependence Treatment (IET-BH) | Required | All |
| Plan All-Cause Readmission Rate (PCR-AD) | Optional | MN, NV, NY |
| Follow-up Care for Children Prescribed ADHD Medication (ADD-C) | Optional | None |
| Antidepressant Medication Management (AMM-A) | Optional | None |

**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.

**Notes**:

a. As required in the CCBHC certification criteria.

b. All demonstration states except Oregon offered QBPs to CCBHCs.

## Quality Bonus Payments

**Measures and thresholds used by states to award QBPs in DY1.** CMS required the use of six specific quality measures to award bonus payments to CCBHCs (two of the CCBHC-reported measures and four of the state-reported measures; **Error! Reference source not found.**). In addition to these six measures, CMS allowed states to use up to five additional measures to award bonus payments. For all measures,

CMS allowed states to define the performance threshold used to determine whether a CCBHC would receive the bonus payment.

In DY1, all demonstration states except Oregon offered QBPs.

**QBP programs in DY1**. All seven states that offered bonus payments planned to cover the state share of the costs using state general revenue funds. Across states, the amount of funding allocated for bonus payments and the amount distributed in DY1 varied (

**).** Four states (Minnesota, Missouri, Nevada, and Pennsylvania) distributed bonus payments to 26 CCBHCs in DY1 (a total of 54 CCBHCs were eligible for QBPs across seven states). At the time of this report, states had not made determinations for DY2 bonus payments.

**TABLE 17. QBPs Amounts Planned and Distributed**

| State (Number of Clinics) | Amount state initially estimated for QBPs per DY | DY1 QBPs distributed |
|---|---|---|
| Minnesota (6) | 5% of total payments, or approximately $2.5 million | 2 of 6 CCBHCs received QBP. Total bonus payments: $740,049. |
| Missouri (15) | 1% of total payments, or approximately $4.2 million | 15 of 15 CCBHCs received QBP. Total bonus payments: $17,210,855 (5% of Medicaid claims). |
| Nevada (3) | 10% of DY1 payments and 15% of DY2 payments, or approximately $1.5 million | 3 of 3 CCBHCs received QBP. Total bonus payments: 10% of DY1 payments (assumed).[a] |
| New Jersey (7) | Approximately $350,000 | State had not yet made final decisions about awarding of QBPs at time of report. |
| New York (13) | Approximately $2 million | No payments distributed; thresholds not met. |
| Oklahoma (3) | 1% of total payments, or approximately $1 million | No payments distributed; thresholds not met. |
| Pennsylvania (7) | 3% of total payments, or approximately $2.1 million | 6 of 7 CCBHCs received QBP. Total bonus payments: $568,000. |

**Source**: State CCBHC Demonstration Applications, Part 3, and Mathematica and RAND interviews with state Medicaid and behavioral health officials.

**Notes**: Missouri did not report why the bonus payment amount increased from 1% to 5% of total payments but did confirm the amount distributed in DY1.

a. Nevada reported that bonus payments were distributed in DY1, but did not confirm the exact, final bonus payment amount.

## Conclusions

The findings in this report provide insights into the implementation of CCBHCs in the demonstration states. The PPS and quality reporting components of the demonstration enable states and clinics to implement more flexible and sophisticated strategies to incentivize the delivery of high-quality care in community behavioral health clinics. Payment rates that allow for coverage of high-quality services is a basic step in ensuring delivery of evidence-based practices. The implementation of a routine quality measurement system can allow clinics ongoing feedback on what is working, whether changes in policy are resulting in changes to the delivery of care, and whether these changes are impacting client outcomes. State officials can also learn which measures are meaningful and actionable. The cost reports provide a more accurate accounting of the costs of providing comprehensive ambulatory behavioral health services than had been available in most states before the demonstration. The CCBHC PPS rate-setting process and cost data could help to inform how other states or managed care plans approach setting provider payment rates and monitoring costs for similar initiatives. Most states and clinics did not have a cost-reporting system in place prior to the demonstration, and therefore could not set rates that covered costs. In addition, clinics' and states' experiences with and performance on the quality measures may be informative to select quality measures and set performance targets for future initiatives.

**Collection of cost data.** For all but one state, CCBHCs were successful in reporting on their costs during both demonstration years. To accomplish the reporting, states and clinics made significant investments in technical assistance and changes to administrative policies and procedures.

**CCBHC costs and rate-setting.** There was wide variation within and across states in CCBHC rates and in the extent to which rates covered costs for individual clinics. States anticipated that the rate-setting process would be challenging due to the lack of historical data on the costs of some required CCBHC services. The DY1 rates were, on average, higher than the DY1 costs in five of the six states for which cost data were available. However, the rate-setting process was designed to be self-correcting.

**Quality measure reporting and performance.** CCBHCs and states largely reported overcoming early challenges and successfully submitted reports on the quality measures for DY1. By the end of DY2, officials in all states reported that the majority of issues surrounding CCBHC-reported quality measures had been resolved, but some clinics reported making minor modifications to the measure specifications.

Performance on the quality measures varied considerably across CCBHCs and across states, with no discernable patterns of consistently higher or lower performance in certain states. Denominators also varied widely across states for some quality measures, and in some cases were lower than might be anticipated for this consumer population. This may have been partly a function of the denominator inclusion and exclusion criteria or could serve as a signal that some consumers were erroneously omitted from the measure.

Overall, the quality of care provided to CCBHC clients was comparable to benchmarks when available. In some domains, CCBHC clients received higher quality of care, on average, relative to benchmarks (e.g., follow-up care within 30 days after an emergency department visit for AOD dependence and follow-up

after discharge from a hospitalization for mental illness among adults). There was, however, room for improvement across many of the measures.

Variation in quality measure performance might indicate a potential for improvement by clinics with low performance during DY1. The DY2 quality measure data will be used to assess changes over time within and across CCBHCs.

**QBPs**. All demonstration states, except one, implemented QBP systems. The fact that states implemented these systems indicates that states are interested in using financial incentives to promote quality of behavioral health care. Four states distributed bonus payments to 26 of 31 eligible CCBHCs for meeting the quality measure performance thresholds in those states. In two states, none of the 16 eligible CCBHCs met the performance thresholds; and in one state, award determinations were not complete as of the time of this report. CCBHCs' inexperience with the measures used to determine QBPs and the lack of historical data on which to base performance expectations may have contributed to some CCBHCs not receiving QBPs. As CCBHCs gain experience with these measures, states may have better information to establish QBP performance thresholds or restructure their QBP systems. Future initiatives might also consider incorporating alternative measures into QBP systems.

**Future evaluation activities.** A final report will summarize the major implementation, costs, and quality of care findings, including changes in quality measure performance across the two demonstration years. The report will also summarize findings on the impact of the demonstration on service utilization and costs using Medicaid claims and encounter data from selected states. The analysis identifying service utilization and cost impacts will examine service utilization trends among Medicaid beneficiaries who received CCBHC services relative to within-state comparison groups.

# APPENDIX A: Quality Measure Numerator and Denominator Definitions

| APPENDIX TABLE A.1. Quality Measure Numerator and Denominator Definitions | | | |
|---|---|---|---|
| **Measure** | **Clinic-reported or state-reported measures** | **Numerator specification** | **Denominator specification** |
| Initial Evaluation for New Clients Child/ Adolescent and Adults (I-EVAL) | Clinic-reported | Metric 1. The number of consumers in the eligible population who received an initial evaluation within 10 business days of the first contact with the provider entity during the measurement year.<br>Metric 2. The total number of days between first contact and initial evaluation for all members of the eligible population seen at the provider entity during the measurement year. | Metric 1. The number of new consumers who contacted the provider entity seeking services during the measurement year.<br>Metric 2. The number of new consumers who contacted the provider entity seeking services during the measurement year. |
| Screening for Clinical Depression and Follow-up Plan Child/Adolescent and Adults (CDF-BH) | Clinic-reported | The number of consumers who were screened for clinical depression using a standardized tool AND, if positive, a follow-up plan is documented on the date of the positive screen using 1 of the codes in source measure. | The number of consumers with an outpatient visit during the measurement year with an eligible encounter code. |
| Depression Remission (DEP-REM-12) | Clinic-reported | The number of consumers in the eligible population who achieved remission with a PHQ-9 result less than 5, 12 months (±30 days) after an index visit. | The number of consumers seen at the provider entity at least once during the measurement year who have a diagnosis of Major Depression or Dysthymia during an outpatient encounter during the measurement year, AND who have an index date PHQ-9 score greater than 9 documented during the 12-month identification period. |
| Suicide Risk Assessment Child/Adolescent (SRA-BH-C) | Clinic-reported | The number of consumer visits with an assessment for suicide risk. | All consumer visits for those consumers 6-17 years of age with a diagnosis of Major Depressive Disorder. |
| Suicide Risk Assessment Adult (SRA-A) | Clinic-reported | The number of consumer visits with a SRA completed during the visit in which a new diagnosis or recurrent episode was identified. | All consumer visits for those consumers aged 18 years and older with a diagnosis of Major Depressive Disorder. |
| Follow-up Care for Children Prescribed ADHD Medication (ADD-BH) | State-reported | Initiation Phase: An outpatient, intensive outpatient, or partial hospitalization follow-up visit with a practitioner with prescribing authority, within 30 days after the Index Prescription Start Date (IPSD).<br>Continuation Phase: Numerator compliant for Rate 1 Initiation Phase, and at least 2 follow-up visits with any practitioner, from 31-300 days (9 months) after the IPSD. | The number of consumers age 6-12 newly prescribed ADHD medication during the 12-month Intake Period. Children must be continuously enrolled for 120 days (4 months) prior to the IPSD through 30 days (1 month) after the IPSD. |
| Adherence to Antipsychotic Medications for Individuals with Schizophrenia Adult (SAA-BH) | State-reported | The number of consumers who achieved a proportion of days covered of at least 80% for their antipsychotic medications during the measurement year. | The number of consumers age 19-64 seen at the provider entity at least once during the measurement year with schizophrenia, excluding those diagnosed with dementia or do not have antipsychotic medications. |

| APPENDIX TABLE A.1. (*continued*) | | | |
|---|---|---|---|
| **Measure** | **Clinic-reported or state-reported measures** | **Numerator specification** | **Denominator specification** |
| Antidepressant Medication Management: Adult (AMM-BH) | State-reported | Acute Phase: The number of clients with at least 84 days (12 weeks) of continuous treatment with antidepressant medication.<br>Continuation Phase: The number of consumers with at least 180 days (6 months) of continuous treatment with antidepressant medication. | The number of consumers age 18+ seen at the provider entity at least once during the measurement year who were treated with antidepressant medication and had a diagnosis of Major Depression. Identify those that are continuously enrolled for 105 days prior to the IPSD to 231 days after the IPSD. |
| BMI Screening and Follow-up Plan Adult (BMI-SF) | Clinic-reported | The number of consumers in the eligible population with a documented BMI during the encounter or during the previous 6 months AND, when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous 6 months of the current encounter. | The number of consumers age 18+ seen at the provider entity at least once during the measurement year with an eligible encounter code, excluding consumers who receive palliative care, pregnant, refuse measurement, urgent medical situation, or other reason documented that measurement is inappropriate. |
| Weight Assessment for Nutrition and Physical Activity for Children/Adolescents (WCC) | Clinic-reported | The number of consumers age 3-17 with a BMI percentile documented during the measurement year. | The number of consumers age 3-17 seen at the provider entity at least once during the measurement year who had an outpatient visit with a primary care physician or OB/GYN practitioner during the measurement year, excluding consumers who are pregnant. |
| Diabetes Screening for Schizophrenia or Bipolar Patients Using Antipsychotic Medications (SSD) | State-reported | The number of consumers who had one or more diabetes screenings (a glucose test or an HbA1c) performed during the measurement year, as identified by claim/encounter or automated laboratory data. | The number of consumers age 18-64 with schizophrenia or bipolar disorder, who were dispensed an antipsychotic medication and had a diabetes screening test during the measurement year, excluding consumers with diabetes already identified. |
| Tobacco Use--Screening and Cessation Intervention (TSC) | Clinic-reported | The number of clients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user. | The number of clients age 18+ seen at the provider entity at least once during the measurement year with an eligible encounter code. |
| Unhealthy Alcohol Use--Screening and Brief Counseling (ASC) | Clinic-reported | The number of clients who were screened at least once within the last 24 months for unhealthy alcohol use using a systematic screening method AND who received brief counseling if identified as an unhealthy alcohol user. | The number of clients age 18+ seen at the provider entity at least once during the measurement year with an eligible encounter code or had 1 preventive care visit. |

| APPENDIX TABLE A.1. (*continued*) | | | |
|---|---|---|---|
| **Measure** | **Clinic-reported or state-reported measures** | **Numerator specification** | **Denominator specification** |
| Initiation and Engagement of AOD Dependence Treatment (IET-BH) | State-reported | Initiation Phase.: The number of consumers received treatment initiation through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization within 14 days of the diagnosis.<br>Engagement Phase: The number of consumers received treatment initiation through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization within 14 days of the diagnosis, AND had 2 or more additional services with a diagnosis of AOD within 30 days of the initiation visit. | The number of consumers with a new episode of AOD during the Intake period. States report separate rates for 3 age groups: 13-17, 18-64, and 65 and older. |
| Follow-up after ED for Mental Health: 30-day (FUM 30-day) | State-reported | 30-day: An outpatient visit, intensive outpatient encounter or partial hospitalization, with any practitioner, with a primary diagnosis of a mental health disorder within 30 days after the ED visit. | The number of ED visits by consumers seen at the provider entity during the measurement year who had an ED visit with a primary diagnosis of mental illness on or between the first day of the measurement year and the last day of the measurement year (less 30 days). |
| Follow-up after ED for AOD Dependence: 30-day (FUA 30-day) | State-reported | 30-day: An outpatient visit, intensive outpatient encounter or partial hospitalization, with any practitioner, with a primary diagnosis of AOD within 30 days after the ED visit. | The number of ED visits by consumers seen at the provider entity during the measurement year who had an ED visit with a primary diagnosis of AOD on or between the first day of the measurement year and the last day of the measurement year (less 30 days). |
| Follow-up after Hospitalization for Mental Health Adult (FUH-BH-A 30-day) | State-reported | 30-day: An outpatient visit, intensive outpatient visit, or partial hospitalization with a mental health practitioner within 30 days after discharge. | The number of eligible discharges for consumers age 21+ who were hospitalized for treatment of selected mental illness diagnoses and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner. |
| Follow-up after Hospitalization for Mental Health Child/Adolescent (FUH-BH-C 30-day) | State-reported | 30-day: An outpatient visit, intensive outpatient visit, or partial hospitalization with a mental health practitioner within 30 days after discharge. | The number of eligible discharges for consumers age 6-21 who were hospitalized for treatment of selected mental illness diagnoses and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner. |
| Plan All-Cause Readmission (PCR-BH) | State-reported | At least 1 acute readmission for any diagnosis within 30 days of the Index Discharge Date. | The number of eligible discharges. |
| Patient experience of care survey | State-reported | The number of consumers who selected positive answer options on the survey. | The number of consumers who responded to the survey. |

| APPENDIX TABLE A.1. (*continued*) | | | |
|---|---|---|---|
| **Measure** | **Clinic-reported or state-reported measures** | **Numerator specification** | **Denominator specification** |
| Family experience of care survey | State-reported | The number of family members who selected positive answer options on the survey. | The number of family members who responded to the survey. |
| Housing Status | State-reported | The number of consumers in each living situation based on their most recent assessment or on the most recent available information on record during the measurement period. | The number of consumers seen in the measurement year. |
| **Source**: The Metrics and Quality Measures for Behavioral Health Clinics Technical Specifications and Resource Manuals available at https://www.samhsa.gov/section-223/quality-measures. | | | |

# APPENDIX B: Quality Measure Report Caseload Characteristics of CCBHC Populations in DY1

| APPENDIX TABLE B.1. Age and Gender of Clients receiving Services from CCBHC, DY1 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Child/Adolescent (ages 0-17) | | | Adult (ages 18 +) | | | Female | | | Male | | |
| | Denominator | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. |
| **Total** | **309,322** | **23%** | **0%** | **58%** | **77%** | **42%** | **100%** | **52%** | **35%** | **61%** | **48%** | **39%** | **65%** |
| MN | 23,027 | 27% | 2% | 58% | 73% | 42% | 98% | 51% | 47% | 54% | 49% | 46% | 53% |
| MO | 121,787 | 24% | 10% | 28% | 76% | 72% | 90% | 53% | 44% | 59% | 47% | 41% | 56% |
| NJ | 17,851 | 19% | <1% | 38% | 81% | 62% | 99% | 56% | 53% | 61% | 44% | 39% | 47% |
| NV | 4,324 | 8% | 7% | 8% | 92% | 92% | 93% | 42% | 42% | 50% | 57% | 50% | 58% |
| NY | 49,903 | 22% | 0% | 47% | 78% | 53% | 100% | 48% | 37% | 55% | 52% | 45% | 63% |
| OK | 20,610 | 25% | 12% | 31% | 75% | 69% | 88% | 52% | 50% | 54% | 48% | 46% | 50% |
| OR | 52,911 | 24% | 5% | 40% | 76% | 60% | 95% | 52% | 47% | 55% | 48% | 44% | 52% |
| PA | 18,909 | 20% | 9% | 36% | 80% | 64% | 91% | 50% | 35% | 58% | 50% | 42% | 65% |

**Source**: DY1 Quality Measure Reports.

Avg. = average percentage across CCBHCs; Min. = lowest percentage for a CCBHC; Max. = highest percentage for a CCBHC.

| APPENDIX TABLE B.2. Ethnicity of Clients receiving Services from CCBHC, DY1 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Hispanic or Latino | | | Not Hispanic or Latino | | | Unknown | | |
| | Denominator | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. |
| **Total** | **309,322** | **11%** | **1%** | **92%** | **74%** | **1%** | **99%** | **15%** | **0%** | **84%** |
| MN | 23,027 | 5% | 1% | 11% | 64% | 15% | 92% | 30% | 1% | 84% |
| MO | 121,787 | 5% | 1% | 75% | 75% | 1% | 99% | 19% | 0% | 47% |
| NJ | 17,851 | 17% | 6% | 35% | 67% | 36% | 88% | 16% | 0% | 46% |
| NV | 4,324 | 32% | 5% | 33% | 60% | 58% | 87% | 8% | 8% | 9% |
| NY | 49,903 | 17% | 2% | 69% | 78% | 25% | 95% | 4% | 0% | 9% |
| OK | 20,610 | 41% | 7% | 92% | 57% | 3% | 93% | 2% | 0% | 5% |
| OR | 52,911 | 8% | 2% | 21% | 76% | 43% | 96% | 16% | 0% | 48% |
| PA | 18,909 | 9% | 1% | 39% | 84% | 34% | 99% | 6% | 0% | 64% |

**Source**: DY1 Quality Measure Reports.

Avg. = average percentage across CCBHCs; Min. = lowest percentage for a CCBHC; Max. = highest percentage for a CCBHC.

| APPENDIX TABLE B.3. Race of Clients receiving Services from CCBHC, DY1 | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | White | | | Black or African American | | | American Indian/ Alaskan Native | | | Asian | | | Native Hawaiian/ Pacific Islander | | | More than One Race | | | Unknown | | |
| | Denom-inator | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. |
| **Total** | **309,322** | **71%** | **4%** | **99%** | **12%** | **<1%** | **69%** | **2%** | **0%** | **<1%** | **1%** | **0%** | **41%** | **<1%** | **0%** | **1%** | **5%** | **0%** | **59%** | **9%** | **0%** | **59%** |
| MN | 23,027 | 69% | 26% | 89% | 12% | 1% | 30% | 2% | <1% | 6% | 4% | <1% | 41% | <1% | 0% | <1% | 5% | 4% | 7% | 8% | 2% | 13% |
| MO | 121,787 | 80% | 20% | 94% | 10% | 1% | 69% | 1% | <1% | 1% | <1% | 0% | 1% | <1% | 0% | 1% | 2% | <1% | 38% | 6% | 0% | 28% |
| NJ | 17,851 | 55% | 20% | 83% | 15% | 5% | 37% | <1% | 0% | <1% | 3% | <1% | 7% | <1% | 0% | 1% | 6% | 6% | 39% | 19% | 6% | 39% |
| NV | 4,324 | 45% | 44% | 64% | 21% | 1% | 22% | 1% | 0% | 4% | 2% | 0% | 2% | 1% | 0% | 1% | 25% | 6% | 26% | 5% | 5% | 5% |
| NY | 49,903 | 62% | 4% | 94% | 21% | 2% | 66% | 1% | 0% | 2% | 1% | 0% | 5% | <1% | 0% | 1% | 9% | 0% | 37% | 6% | 0% | 37% |
| OK | 20,610 | 72% | 69% | 74% | 13% | 2% | 23% | 8% | 7% | 10% | 1% | <1% | 1% | <1% | 0% | 0% | 5% | 0% | 2% | 1% | 0% | 2% |
| OR | 52,911 | 71% | 39% | 90% | 3% | 1% | 11% | 2% | <1% | 7% | 1% | 0% | 2% | <1% | 0% | 1% | 6% | 2% | 53% | 16% | 2% | 53% |
| PA | 18,909 | 66% | 16% | 99% | 22% | <1% | 64% | <1% | 0% | <1% | <1% | <1% | 1% | <1% | 0% | 0% | 2% | 0% | 59% | 9% | 0% | 59% |

**Source**: DY1 Quality Measure Reports.

Avg. = average percentage across CCBHCs; Min. = lowest percentage for a CCBHC; Max. = highest percentage for a CCBHC.

| APPENDIX TABLE B.4. Insurance Status of Clients receiving Services from CCBHC, DY1 | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Medicaid | | | CHIP | | | Medicare | | | Dually Eligible | | | VHA/TRICARE | | | Commercially Insured | | | Uninsured | | | Other | | |
| | Denom-inator | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. |
| **Total** | **309,322** | **53%** | **23%** | **99%** | **2%** | **0%** | **24%** | **4%** | **0%** | **16%** | **8%** | **0%** | **23%** | **1%** | **0%** | **2%** | **16%** | **0%** | **38%** | **14%** | **0%** | **49%** | **2%** | **0%** | **43%** |
| MN | 23,027 | 53% | 28% | 74% | 0% | 0% | 0% | 6% | 1% | 10% | 5% | 0% | 19% | <1% | 0% | 1% | 20% | 9% | 26% | 5% | 0% | 18% | 11% | 0% | 43% |
| MO | 121,787 | 46% | 23% | 94% | 1% | 0% | 24% | 4% | 0% | 16% | 10% | 2% | 23% | 1% | 0% | 2% | 17% | 0% | 36% | 18% | 1% | 49% | 2% | 0% | 28% |
| NJ | 17,851 | 52% | 39% | 79% | 1% | 0% | 4% | 9% | 0% | 13% | 7% | 0% | 17% | <1% | 0% | 1% | 23% | 1% | 37% | 5% | 0% | 8% | 2% | 0% | 12% |
| NV | 4,324 | 66% | 64% | 99% | 0% | 0% | 0% | <1% | 0% | 0% | 1% | 0% | 1% | <1% | 0% | 0% | 6% | 6% | 9% | 17% | 0% | 18% | 9% | 0% | 10% |
| NY | 49,903 | 62% | 40% | 92% | 1% | 0% | 13% | 4% | 0% | 12% | 7% | 3% | 16% | <1% | 0% | 1% | 19% | 1% | 31% | 4% | 0% | 12% | 2% | 0% | 5% |
| OK | 20,610 | 41% | 36% | 44% | 0% | 0% | 0% | 4% | 3% | 5% | 9% | 9% | 9% | <1% | 0% | 1% | 9% | 6% | 13% | 36% | 32% | 47% | 1% | 0% | 2% |
| OR | 52,911 | 62% | 28% | 84% | 4% | 0% | 9% | 3% | 0% | 9% | 4% | 1% | 15% | 1% | 0% | 1% | 9% | 2% | 26% | 14% | 0% | 27% | 3% | 0% | 17% |
| PA | 18,909 | 61% | 43% | 83% | <1% | 0% | 0% | 5% | 0% | 7% | 12% | 0% | 21% | <1% | 0% | 1% | 15% | 2% | 38% | 3% | 0% | 6% | 5% | 0% | 23% |

**Source**: DY1 Quality Measure Reports.

Avg. = average percentage across CCBHCs; Min. = lowest percentage for a CCBHC; Max. = highest percentage for a CCBHC.

| APPENDIX TABLE B.5. Housing Status of Clients receiving Services from CCBHC, DY1 | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Private Residence | | | Foster Home | | | Residential or Institutional Treatment | | | Jail (Correctional facility) | | | Homeless | | | Other | | | Not Available | | |
| | Denom-inator | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. | Avg. | Min. | Max. |
| Total | 231,862 | 67% | 29% | 97% | 1% | 0% | 5% | 3% | 0% | 34% | 1% | 0% | 7% | 3% | 0% | 13% | 4% | 0% | 16% | 21% | 0% | 69% |
| MN | 35,803 | 48% | 29% | 72% | 1% | 1% | 3% | 1% | 0% | 4% | >1% | 0% | 1% | 3% | 0% | 10% | 3% | 0% | 4% | 44% | 19% | 69% |
| MO | 53,119 | 64% | 39% | 82% | 1% | 0% | 3% | 3% | 1% | 7% | >1% | 0% | 2% | 3% | 0% | 10% | 7% | 1% | 11% | 21% | 2% | 46% |
| NJ | 13,868 | 93% | 81% | 97% | 0% | 0% | 0% | 2% | 0% | 6% | 0% | 0% | 0% | 2% | 0% | 9% | 1% | 0% | 4% | 2% | 0% | 16% |
| NV | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NY | 49,903 | 81% | 56% | 94% | >1% | 0% | 2% | 4% | 0% | 34% | >1% | 0% | 3% | 3% | 0% | 12% | 3% | 0% | 7% | 7% | 0% | 20% |
| OK | 16,085 | 79% | 61% | 87% | 2% | 1% | 3% | 2% | 0% | 4% | 1% | 0% | 1% | 5% | 2% | 13% | 8% | 3% | 16% | 4% | 1% | 9% |
| OR | 43,284 | 55% | 30% | 75% | 3% | 1% | 5% | 5% | 1% | 7% | 1% | 0% | 1% | 5% | 2% | 10% | 3% | 1% | 10% | 28% | 7% | 63% |
| PA | 19,800 | 67% | 41% | 95% | >1% | 0% | 1% | 5% | 1% | 9% | 1% | 0% | 7% | 1% | 0% | 4% | 1% | 0% | 3% | 24% | 0% | 53% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Housing status among clients was collected during DY1; the earliest measurement period date was January 1, 2017, and the latest measurement period date was June 30, 2018. Data in the reporting form do not specify exactly when collection occurred.

Avg. = average percentage across CCBHCs; Min. = lowest percentage for a CCBHC; Max. = highest percentage for a CCBHC.

# APPENDIX C: Quality Measure Report of Client and Family Experience of Care in DY1

| APPENDIX TABLE C.1. Client Experience of Care Measures: DY1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Adults Reporting Positively on Access | | | Adults Reporting Positively on Quality and Appropriateness | | | Adults Reporting Positively on Outcomes | | |
| | Denominator | % | Core Set benchmark | Denom-inator | % | Core Set benchmark | Denom-inator | % | Core Set benchmark |
| **Aggregate** | **13,313** | **84%** | | **13,569** | **88%** | | **12,976** | **70%** | |
| MN | 1,602 | 81% | 81% | 1,620 | 84% | 84% | 1,610 | 76% | 76% |
| MO | 4,918 | 87% | 88% | 4,869 | 91% | 90% | 4,744 | 69% | 67% |
| NJ | 2,225 | 83% | 97% | 2,580 | 85% | 98% | 2,249 | 69% | 93% |
| NY | 2,942 | 84% | --- | 2,908 | 91% | --- | 2,794 | 72% | --- |
| OK | 265 | 86% | 86% | 262 | 88% | 87% | 258 | 64% | 63% |
| OR | 779 | 67% | 73% | 748 | 68% | 78% | 745 | 37% | 50% |
| PA | 582 | 91% | 95% | 582 | 90% | 96% | 576 | 90% | 83% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Nevada did not submit these measures in DY1. Benchmarks reported are from the Annual Report URS Tables, available at https://www.samhsa.gov/data/data-we-collect/urs-uniform-reporting-system.

| APPENDIX TABLE C.2. Additional Client Experience of Care Measures: DY1 | | | | | | |
|---|---|---|---|---|---|---|
| | Adults Reporting Positively on Participation in Treatment Planning | | | Adults Reporting Positively on General Satisfaction with Services | | |
| | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark |
| **Aggregate** | **12,158** | **82%** | | **12,735** | **89%** | |
| MN | 1,619 | 87% | 81% | 1,622 | 91% | 91% |
| MO | 4,703 | 85% | 83% | 4,922 | 92% | 92% |
| NJ | 1,446 | 81% | 91% | 1,617 | 87% | 97% |
| NY | 2,822 | 80% | --- | 2,964 | 90% | --- |
| OK | 262 | 90% | 89% | 267 | 92% | 90% |
| OR | 726 | 65% | 66% | 771 | 69% | 80% |
| PA | 580 | 86% | 88% | 572 | 87% | 88% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Nevada did not submit these measures in DY1. Benchmarks reported are from the Annual Report URS Tables, available at https://www.samhsa.gov/data/data-we-collect/urs-uniform-reporting-system.

| APPENDIX TABLE C.3. Family Experience of Care Measures DY1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Family Members Reporting Positively on Access | | | Family Members Reporting High Cultural Sensitivity of Staff | | | Family Members Reporting Positively on Outcomes | | |
| | Denom-inator | % | Core Set benchmark | Denom-inator | % | Core Set benchmark | Denom-inator | % | Core Set benchmark |
| **Aggregate** | **7,097** | **83%** | | **7,174** | **93%** | | **7,150** | **69%** | |
| MN | 862 | 79% | 82% | 865 | 90% | 92% | 851 | 80% | 66% |
| MO | 3,950 | 83% | 87% | 3,995 | 94% | 95% | 3,991 | 66% | 65% |
| NJ | 339 | 69% | 81% | 361 | 79% | 85% | 386 | 65% | 58% |
| NY | 781 | 97% | -- | 785 | 100% | -- | 753 | 86% | -- |
| OK | 202 | 94% | 94% | 201 | 97% | 95% | 200 | 60% | 91% |
| OR | 724 | 75% | 75% | 725 | 88% | 92% | 729 | 59% | 65% |
| PA | 239 | 87% | 90% | 242 | 95% | 95% | 240 | 84% | 81% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Nevada did not submit these measures in DY1. Benchmarks reported are from the Annual Report URS Tables, available at https://www.samhsa.gov/data/data-we-collect/urs-uniform-reporting-system.

| APPENDIX TABLE C.4. Additional Family Experience of Care Measures: DY1 | | | | | | |
|---|---|---|---|---|---|---|
| | Family Members Reporting Positively on Participation in Treatment Planning | | | Family Members Reporting Positively on General Satisfaction for Children | | |
| | Denominator | % | Core Set benchmark | Denominator | % | Core Set benchmark |
| **Aggregate** | **7142** | **90%** | | **7168** | **86%** | |
| MN | 857 | 90% | 87% | 866 | 91% | 82% |
| MO | 3,984 | 91% | 93% | 3,995 | 87% | 88% |
| NJ | 355 | 76% | 84% | 386 | 76% | 74% |
| NY | 774 | 99% | -- | 753 | 97% | -- |
| OK | 202 | 94% | 95% | 201 | 93% | 65% |
| OR | 729 | 79% | 83% | 726 | 66% | 75% |
| PA | 241 | 87% | 94% | 241 | 85% | 90% |

**Source**: DY1 Quality Measure Reports.

**Notes**: Nevada did not submit these measures in DY1. Benchmarks reported are from the Annual Report URS Tables, available at https://www.samhsa.gov/data/data-we-collect/urs-uniform-reporting-system.