

**2019 Massachusetts Access
Monitoring Review Plan (AMRP)**

Table of Contents

Section 1: Overview	4
Approach to Developing the AMRP.....	4
Member Population Overview	5
MassHealth Delivery System Reform.....	5
Member Population Data.....	6
Member Perceptions of Access to Care	10
Provider Access Resources for Members	13
The MassHealth Provider Directory	13
MassHealth Choices	14
Disability Search	14
MassHealth Review of the Public Comment Period	14
Section 2: Review Analysis of Primary Care Services	15
1. Availability of Primary Care Providers	15
2. Primary Care Physician Geographic Access for Members.....	19
3. Member/Primary Care Provider Ratios.....	20
4. Utilization of Primary Care Services.....	24
5. Healthcare Effectiveness Data and Information Set (HEDIS).....	26
6. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Primary Care Services.....	28
Section 3: Review Analysis of Physician Specialty Services	29
1. Availability of Physician Specialists.....	29
2. Member/Specialty Physician Provider Ratios.....	31
3. Utilization of Specialty Care Services.....	34
4. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Specialty Care Services.....	37
Section 4: Review Analysis of Behavioral Health Services	38
1. Availability of Behavioral Health Servicing Providers	38
2. Behavioral Health Servicing Member/Provider Ratios.....	42
3. Utilization of Behavioral Health Care Services	46
4. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Behavioral Health Services.....	47
Section 5: Review Analysis of Perinatal Services	48
1. Availability of Physicians with an Obstetrics Specialty and Nurse Midwives	48

2. Physicians with an Obstetrics Specialty and Nurse Midwife Member/ Provider Ratios.....	49
3. Utilization of Perinatal Services.....	50
4. HEDIS Prenatal and Postpartum Care Screening Scores.....	55
5. Postpartum Depression (PPD) Screening.....	56
6. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Perinatal Services.....	57
Section 6: Review Analysis of Home Health Services	59
1. CMS Moratorium	59
2. Availability of Home Health Service Providers	60
2. Member/ Home Health Agency Provider Ratios SFY16-SFY18.....	61
3. Utilization of Home Health Services	62
4. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Home Health Services	65
5. Monitoring Standards and Procedures for Home Health Services	66
Section 7: Conclusion	67

Section 1: Overview

The Massachusetts Executive Office of Health and Human Services (EOHHS) is the single state agency that administers MassHealth, the state's Medicaid and Children's Health Insurance (CHIP) programs. MassHealth provides coverage to approximately 1.8 million Medicaid and CHIP members, including eligible children, families, low-income adults and individuals with disabilities. In fact, MassHealth provides coverage to approximately one in four Massachusetts residents. In state fiscal year (SFY) 2018, MassHealth had approximately \$15.7 billion in gross expenditures.

Massachusetts measures and monitors indicators of healthcare access for MassHealth members to ensure that MassHealth provider payments are "consistent with efficiency, economy, and quality of care and...sufficient to enlist enough providers so that care and services are available under the plan at least to the extent that such care and services are available to the general population in the geographic area."¹

In accordance with 42 CFR 447.203, Massachusetts developed an initial Access Monitoring Review Plan (AMRP) in 2016. Following a public comment period, Massachusetts will issue its 2019 AMRP, consistent with the model plan provided by the Centers for Medicare and Medicaid Services (CMS) to demonstrate sufficient access for the following service categories provided under a fee-for-service (FFS) arrangement:

- Primary care services;
- Physician specialist services;
- Behavioral health services;
- Perinatal services, including labor and delivery; and
- Home health services.

Approach to Developing the AMRP

The data and analysis set forth in this report establish the levels of access to FFS providers for our members in the required service categories through analysis of trends from SFY 2016 through SFY 2018.

CMS guidance indicates an AMRP is only required for services covered and paid through the Medicaid state plan on a FFS basis, as access information for services covered and paid through capitation arrangements is collected through other avenues. Accordingly, the AMRP generally describes data that will be used to measure access to care for Medicaid members in FFS, enrolled in the Primary Care Clinician (PCC) Plan (the state's Primary Care Case Management or PCCM) and enrolled in the three Primary Care Accountable Care Organizations (ACOs) (the state's PCCM Entities). The AMRP excludes data for behavioral health services covered by the state's Prepaid Inpatient Health Plan (PIHP), Massachusetts Behavioral Health Partnership (MBHP), which provides managed behavioral health care for members enrolled in the PCC Plan or a Primary Care ACO. Non-behavioral health PCC Plan services are delivered

¹ 42 USC 1396a(a)(30)(A); <https://www.govinfo.gov/content/pkg/FR-2015-11-02/pdf/2015-27697.pdf>. Final Rule: Medicaid Program; Methods for Assuring Access to Covered Medicaid Services.

through and are generally paid under the FFS program. Therefore, the data presented in this AMRP for non-behavioral health services includes member numbers for Medicaid members in the PCC Plan, members in FFS and members in a Primary Care ACO with MassHealth as primary insurance and excludes members with state-funded coverage and CHIP, unless otherwise stated. The AMRP considers the availability of Medicaid enrolled providers, utilization of Medicaid services and the extent to which Medicaid beneficiaries' healthcare needs are met. The AMRP provides and reviews payment rates for the services listed above.

The AMRP also incorporates analysis of other additional available Managed Care Organization (MCO) and ACO member and provider information data (e.g. HEDIS data, postpartum depression screening rates, and primary care physician geo-mapping for members) when such data is the most recently-available or relevant to the CMS-required analysis.

Member Population Overview

MassHealth provides coverage to approximately 1.8 million enrolled Medicaid and CHIP members, including 1.15 million adults and just over 680,000 children under age 21. Thirty-nine percent (39%) of these members are enrolled with a managed care plan that is an MCO or an Accountable Care Partnership Plan (as defined below). Twenty-six percent (26%) are enrolled in the PCC Plan or a Primary Care ACO (also defined below). Just over thirty-five percent (35%) of the remaining members are enrolled in FFS or in programs designed to coordinate and integrate Medicare and Medicaid services (One Care, the Program of All-inclusive Care for the Elderly (PACE), and Senior Care Options (SCO)).

MassHealth Delivery System Reform

Leveraging the 2016 renewal of the Commonwealth's 1115 waiver, MassHealth has embarked on its most significant restructuring and delivery system reform since the 1990s by launching an ACO program. ACOs are provider-led organizations that are rewarded for better health outcomes, lower cost, and improved member experience. The ACO program focuses on reshaping and improving how health care is delivered for MassHealth members. ACOs focus on connection to primary care, team-based care coordination, and the integration of behavioral, long-term services and supports (LTSS), and physical health care. Under ACOs, MassHealth members have a specific primary care provider, as well as access to robust networks of specialty providers (e.g., hospitals, specialists, behavioral health providers) that participate in their plan. MassHealth offers three types of ACOs. Accountable Care Partnership Plans are groups of primary care providers (PCPs) who work with one MCO to create a full network that includes PCPs, specialists, behavioral health providers, and hospitals. In Primary Care ACOs, members may access the full MassHealth FFS network for providers and access behavioral health services from MBHP. MCO-Administered ACOs are networks of PCPs who may contract with one or multiple MCOs and use the MCO provider networks to provide integrated and coordinated care for members. Members

are attributed to MCO-Administered ACOs and enrolled in MCOs. ACOs are also financially accountable for specific quality measures. As of 2019, there are more than 850,000 MassHealth members enrolled with 17 ACOs contracted across the Commonwealth. Only members who are managed care eligible may participate in ACOs. The ACO program did not impact managed care or FFS eligibility.

Member Population Data

In the following Figures #1-3, the population displayed includes Medicaid members who have MassHealth as their primary coverage (CHIP and state-funded members have been excluded) in order to provide the most accurate demographics on the MassHealth AMRP population (FFS, Primary Care ACO and PCC population), as required by CMS.

Figure #1: Disabled and Non-Disabled Medicaid Members in SFY18

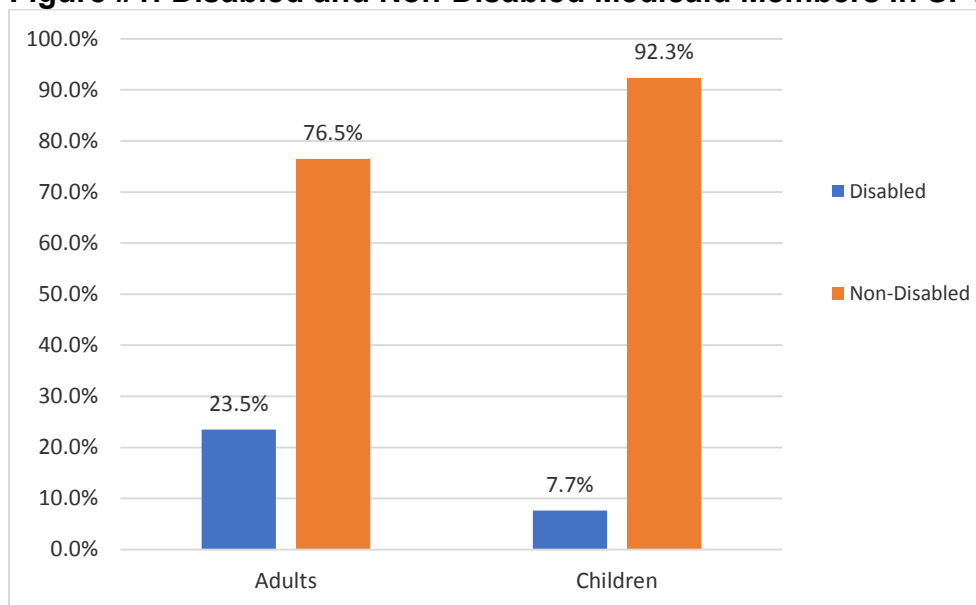
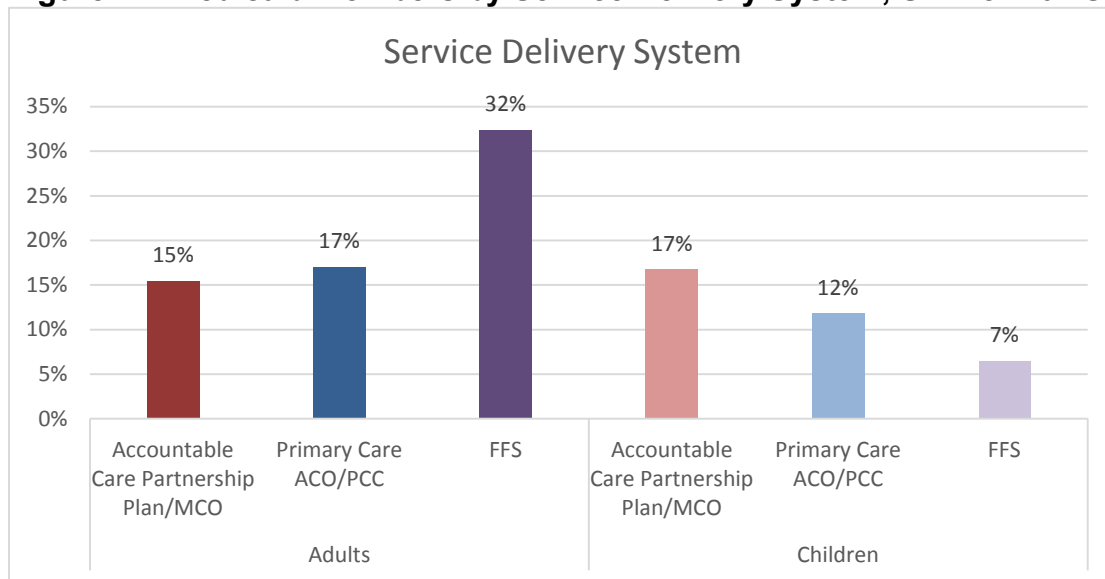


Figure #1 shows the population of MassHealth disabled and non-disabled Medicaid members in SFY18. Among adult members, 23.5% were disabled and 76.5% were non-disabled. Among child members, 7.7% were disabled and 92.3% were non-disabled.

Figure #2: Medicaid Members by Service Delivery System, SFY18: Bar Graph



*Members in MCO-Administered ACOs will appear under “MCO” in this diagram, as MCO-Administered ACO-attributed members are enrolled in and utilize the network of one of the MCOs.

Figure #2 shows the distribution of MassHealth Medicaid members by delivery system in SFY18. Fifteen percent (15%) were adults enrolled in an Accountable Care Partnership Plan ACO or MCO, seventeen percent (17%) were adults enrolled in a Primary Care ACO or the PCC plan, and thirty-two percent (32%) were adults enrolled in FFS coverage. Seventeen percent (17%) were children enrolled in an Accountable Care Partnership Care Plan or MCO, twelve% were children enrolled in a Primary Care ACO or the PCC plan, and seven% were children enrolled in FFS coverage.

Figure #3: Map of Massachusetts by County²

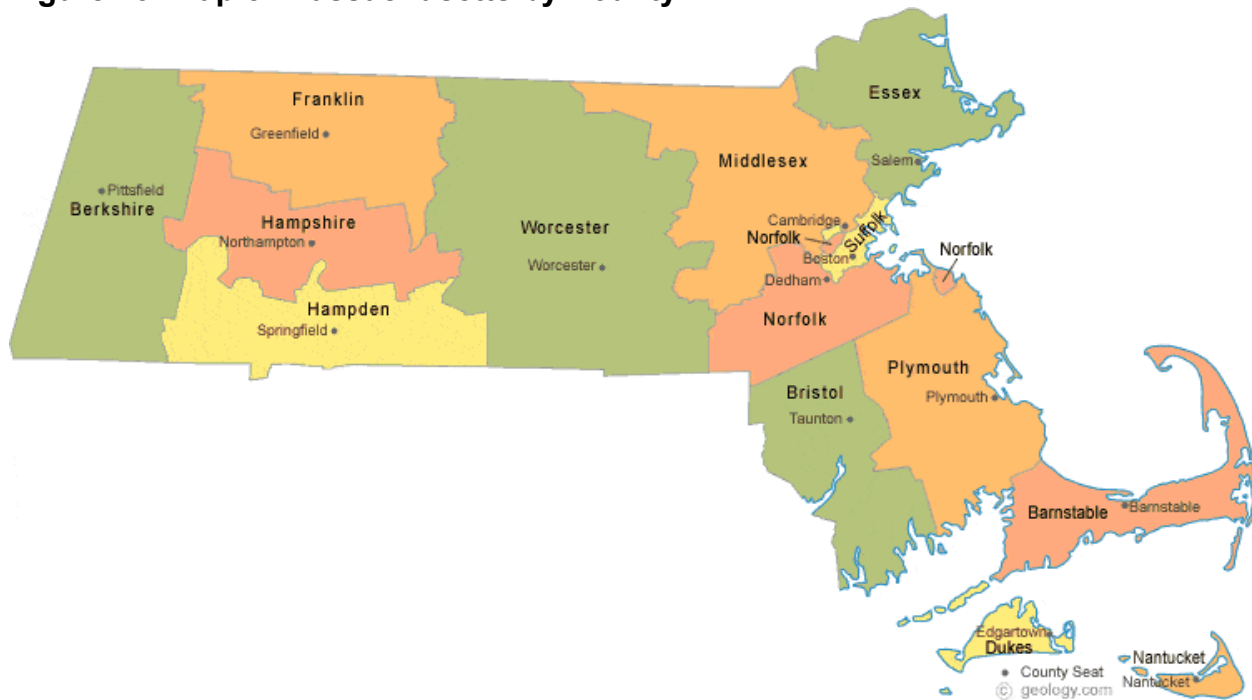


Figure #3 shows the distribution of the counties in the Commonwealth of Massachusetts for reference. Readers should note that because Massachusetts is a small state, patients often seek health care services (both Medicaid and commercial) several miles away in a county other than their county of residence.

Figure #4: Medicaid Members³ by County

County	SFY16 Members (Base Year)	SFY17 Members	SFY Member Percentage Change, Compared with SFY16	SFY 18 Members	SFY 18 Member Percentage Change, Compared with SFY16
Barnstable	24,206	23,626	-2.4%	36,403	50.4%
Berkshire	19,343	18,582	-3.9%	15,412	-20.3%
Bristol	83,075	81,462	-1.9%	94,765	14.1%
Dukes	2,251	2,887	28.3%	4,320	91.9%
Essex	112,975	112,290	-0.6%	126,731	12.2%
Franklin	10,782	10,408	-3.5%	15,133	40.4%
Hampden	80,290	77,864	-3.0%	69,793	-13.1%
Hampshire	14,256	13,959	-2.1%	17,844	25.2%

² Massachusetts County Map with County Seat Cities, <https://geology.com/county-map/massachusetts.shtml>

³ Includes FFS members, PCC Plan members and members enrolled in a Primary Care ACO.

County	SFY16 Members (Base Year)	SFY17 Members	SFY Member Percentage Change, Compared with SFY16	SFY 18 Members	SFY 18 Member Percentage Change, Compared with SFY16
Middlesex	154,462	155,172	0.5%	143,541	-7.1%
Nantucket	1,577	1,858	17.8%	2,494	58.1%
Norfolk	61,147	61,064	-0.1%	60,360	-1.3%
Plymouth	60,351	59,758	-1.0%	66,843	10.8%
Suffolk	149,401	147,077	-1.6%	151,607	1.5%
Worcester	106,459	107,223	0.7%	139,556	31.1%
Total	880,575	873,230	-0.8%	944,802	7.3%

Figure #4 shows the geographic distribution of where MassHealth Medicaid FFS members, PCC Plan members and members enrolled in a Primary Care ACO reside, distributed by county throughout SFY16 – SFY18. The table demonstrates a significant total increase in enrollment in these delivery systems from SFY16 to SFY18 (7.3%), and notably high growth in Dukes (91.9%), Nantucket (58.1%), Barnstable (50.4%), Franklin (40.4%), and Worcester counties (31.1%). Note that both Dukes and Nantucket are island communities, with a small total population, hence throughout the report, a small change in members or providers may result in a large change in the ratios or percentages for those communities.

Shifts in enrollment trends seen throughout the data presented in the 2019 AMRP—including enrollment increases in Dukes, Nantucket, Franklin and Worcester counties—are consistent with the launch of the ACO program and its impact on member and provider regional changes. As noted earlier, some members may see providers in neighboring counties. As such, members may not live and seek care consistently in one county throughout the course of a given year. Furthermore, with the exception of the Home Health Services section, the episode of care data in the utilization sections was calculated based on the location of the provider. Figure #4 above includes members in FFS with MassHealth primary coverage and also members with MassHealth as secondary coverage with other primary insurance known as Third Party Liability (TPL). However, the member counts used to calculate access ratios in this AMRP (excluding home health) include a subset of these members and do not include FFS members with MassHealth as secondary coverage with TPL.

The methodology used throughout the AMRP may appear to result in access undercounts for data tables in certain counties for several reasons. Many members access care from hospitals or community health centers (CHCs), whose individual clinicians may not be individually enrolled in the Medicaid Management Information System (MMIS) and provide services under a facility billing structure. In addition, providers may provide care at numerous site locations, but the data used for the AMRP accounts for a single site location per provider to ensure unduplicated provider counts.

As a result, certain providers may not be individually captured in the data presented in the 2019 AMRP.

Member Perceptions of Access to Care

Data on members' reported concerns related to accessing care is collected and tracked by our customer service center (CSC).

MassHealth's customer service vendor operates a central call and support center for MassHealth providers, provider applicants, members, member applicants, and others interested in accessing information relevant to MassHealth. The CSC provides callers with general information as well as specific assistance with eligibility, health plan enrollment/applications, health plan management, MassHealth benefits and services, transportation authorization, billing issues, complaints, appeals, referrals, and many other issues. The hours of operation for the CSC are Monday through Friday from 8:00 AM to 5:00 PM.

Figure #5 is an all-inclusive grid of the provider-access related calls received per quarter from April 2016- March 2019, as well as their dispositions.

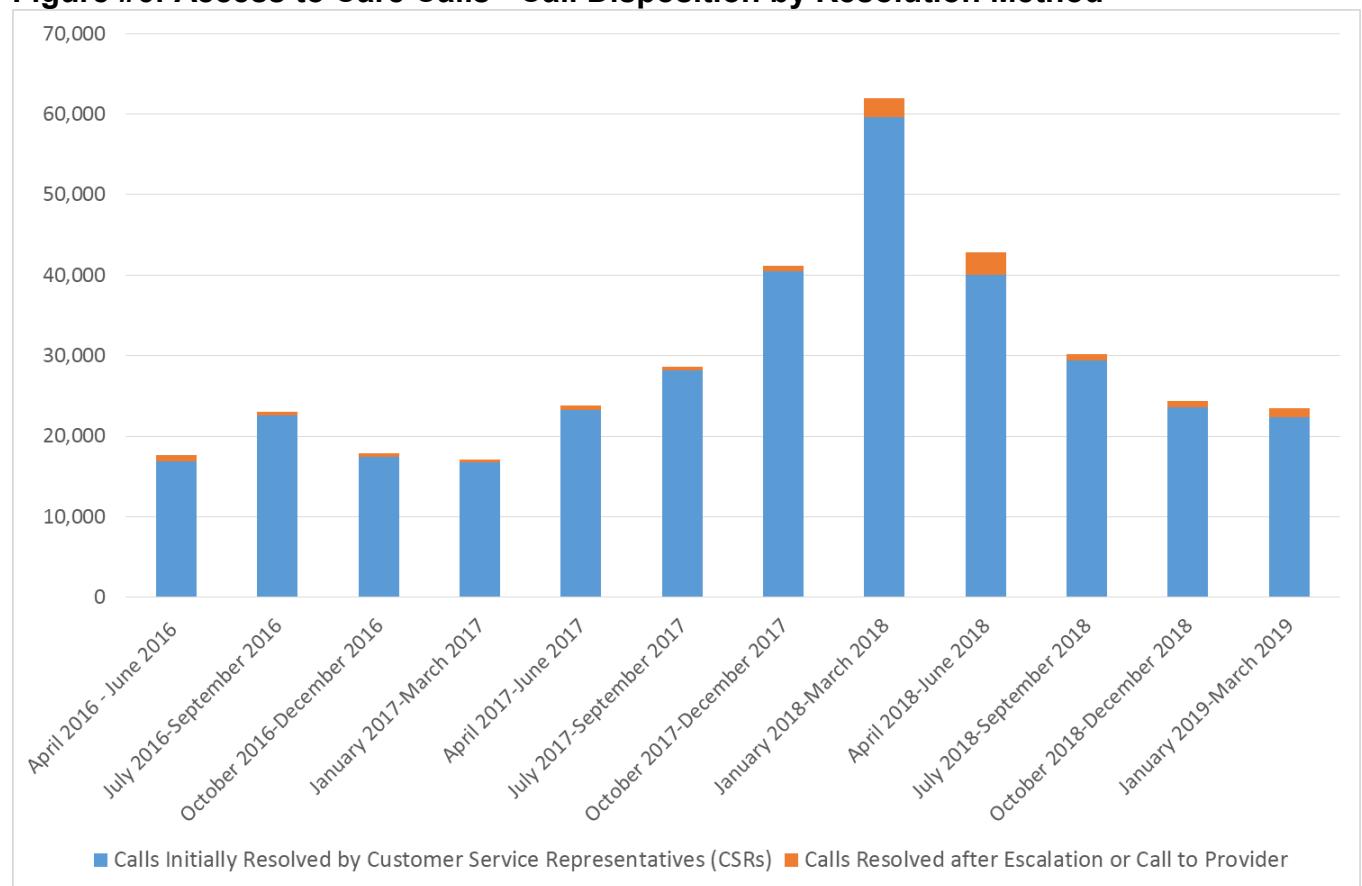
Figure #5: Total Calls Related to Provider Access and Their Disposition

Quarter	Calls Related to Provider Access	Calls Initially Resolved by Customer Service Representatives (CSRs)	Percent of Calls Resolved on one Phone Call (One Call Resolution)	Calls Resolved by CSRs after a Call to Provider	Calls Resolved by Escalation to CSC Research Team
April 2016-June 2016	17,607	16,830	95.6%	255	522
July 2016-September 2016	23,078	22,538	97.7%	155	385
October 2016-December 2016	17,835	17,403	97.6%	80	352
January 2017-March 2017	17,132	16,750	97.8%	124	258
April 2017-June 2017	23,767	23,286	98.0%	155	326
July 2017-September 2017	28,609	28,181	98.5%	117	311
October 2017-December 2017	41,187	40,514	98.4%	95	578
January 2018-March 2018	61,993	59,652	96.2%	128	2213
April 2018-June 2018	42,771	40,048	93.6%	166	2557

Quarter	Calls Related to Provider Access	Calls Initially Resolved by Customer Service Representatives (CSRs)	Percent of Calls Resolved on one Phone Call (One Call Resolution)	Calls Resolved by CSRs after a Call to Provider	Calls Resolved by Escalation to CSC Research Team
July 2018-September 2018	30,156	29,356	97.3%	97	703
October 2018-December 2018	24,378	23,632	96.9%	183	563
January 2019-March 2019	23,437	22,320	95.2%	145	972

The following figure (Figure 6) includes the number of calls (out of the total calls in Figure 5) that were resolved by the CSR on the first call, as well as calls that were resolved after an escalation to the CSC Research team or a phone call to a provider.

Figure #6: Access to Care Calls - Call Disposition by Resolution Method



The data in both Figures 5 and 6 above is comprised of:

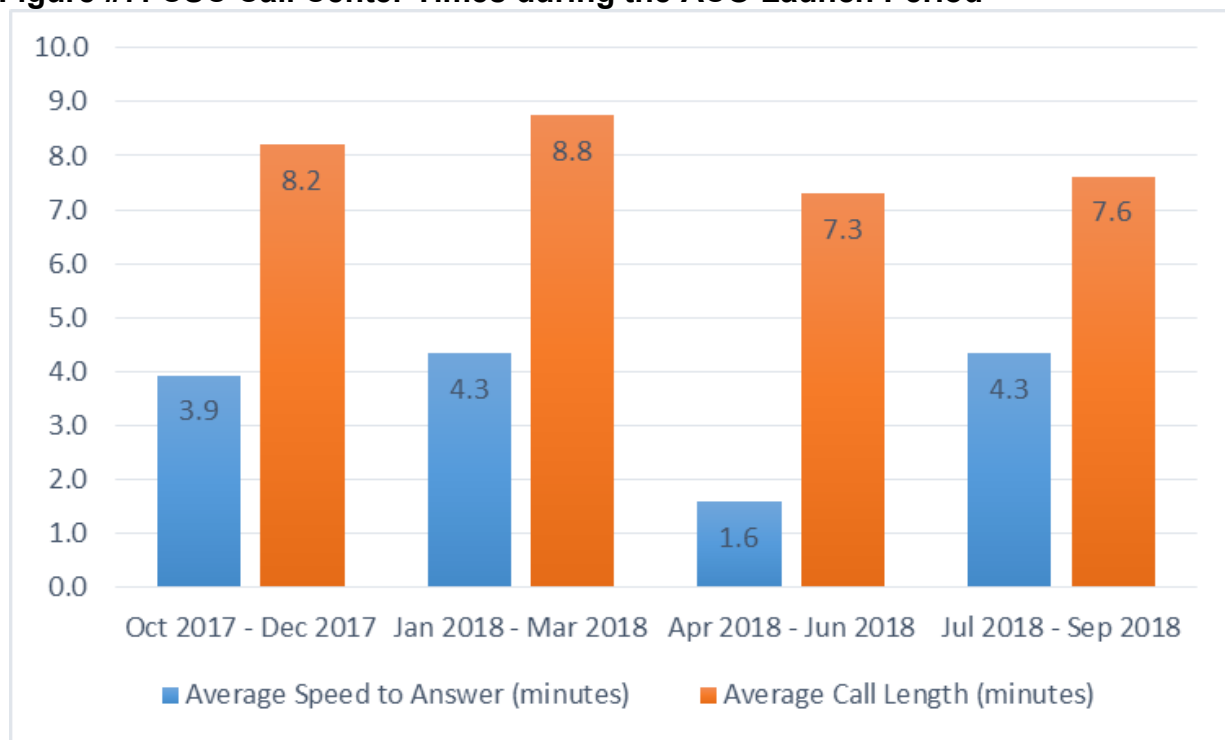
- Aggregate number of calls regarding access issues as noted by the CSRs
- Calls that the CSRs were able to fully resolve on the first call with the member
- Calls resolved by the CSRs after a call to the provider or by escalating to the CSC's Research Team. The Research Team contacts both the member and provider, if necessary, and also performs functions in the MMIS system not available to CSRs, such as the various exception processes in place (i.e. service area).

For purposes of Figures 5 and 6 above, provider access refers to member inquiries related to:

- Provider billing,
- Participating providers,
- Continuity of care issues (assistance for members transitioning to or from an MCO, ACO or the PCC Plan),
- Member enrollment and provider access issues. Examples include:
 - Questions about getting an appointment with a provider,
 - Locating a provider and provider calls related to member questions about member coverage,
 - Assisting members with requests to enroll into out-of-area health plans, which saw significant interest due to the ACO launch and its establishment of defined service areas that differed vastly from the previous MCO arrangements.
- Questions and issues directly resulting from the ACO launch in March of 2018. This was the largest contributor to the marked increase in calls and inquiries during the October 2017-June 2018 period.

During the launch of the ACO program in March 2018 the CSC expanded capacity to answer and resolve calls and established a dedicated team of resources to handle all health plan-related questions. The call center performance for health plan-related calls during this timeframe is shown in Figure 7 below.

Figure #7: CSC Call Center Times during the ACO Launch Period



The ACO rollout saw a significant increase in calls related to provider access. As the data shows above, call wait time (average speed to answer) remained low although call volume had significantly increased. Average call length varied throughout the ACO launch period, as expected, due to the increased complexity of calls around the ACO launch.

Due to the high level of planning and collaboration between CSC and EOHHS, the call center was well prepared to handle the increase in calls experienced during ACO launch. The rate of such continued resolution of calls demonstrates EOHHS' commitment to member access.

Provider Access Resources for Members

The MassHealth Provider Directory

The MassHealth online provider directory, located at: <https://masshealth.ehs.state.ma.us/providerdirectory/>, allows members enrolled in the PCC Plan, a Primary Care ACO or FFS to easily connect with providers, hospitals, and health centers. Users can search the large database of MassHealth-participating providers and health care facilities and narrow their search by specific provider type, such as cardiologist or obstetrician, location, or a provider's name.

MassHealth Choices

The MassHealth Choices feature of the MassHealth website, located at <https://www.masshealthchoices.com/home>, launched in November 2017, offers health plan comparison and primary care provider search tools that allow MassHealth managed care eligible members, including members enrolled in Accountable Care Partnership Plans and Primary Care ACOs, to compare health plan options available in their service area and find primary care providers that participate in the available options. MassHealth managed care eligible members can also learn about other important information, view or download helpful materials such as the MassHealth Enrollment Guide, and enroll in the plan of their choice that best meets their needs. This page may also be used by PCC Plan members to locate a PCC.

Disability Search

The MassHealth online provider directory includes a link to redirect members to DisabilityInfo.org, which is a separate web directory that allows members to search by accessibility preference (such as provider sites with wheelchair ramps, dental chairs that allow wheelchair access, or special signage for the blind) when seeking a provider. The DisabilityInfo.org web directory is sponsored by numerous state agencies (including MassHealth) and features a variety of statewide providers (medical and dental), programs, services, and consultants, including MassHealth providers to the extent providers have reported their MassHealth participation in survey responses. Going forward, all MassHealth providers will be encouraged to participate in accessibility directory and data collection activities.

MassHealth PCC Plan and Primary Care ACO members have MBHP as their health plan for behavioral health benefits. In MBHP's [behavioral health provider directory](#), searches can be filtered for the type of behavioral health training and special interests of providers, as well as provider gender and language capabilities, which may be critical for therapeutic connections where cultural and linguistic competency and trauma may play a large role. Depending on their eligibility, MassHealth FFS members have either MBHP or the MassHealth FFS behavioral health network; the latter network is available at <https://masshealth.ehs.state.ma.us/providerdirectory/> and is organized by provider type.

MassHealth Review of the Public Comment Period

The Medical Care Advisory Committee (MCAC) is a federally-mandated advisory board comprised of key stakeholders in the Medicaid program. In Massachusetts the MCAC convenes with the Payment Policy Advisory Board to advise the Executive Office about health care services and reimbursement models.

One comment from the MCAC suggested that MassHealth further stratify data by characteristics such as race, ethnicity, language, age, geography and disability status; and employ metrics in addition to those required by CMS. In the 2019 AMRP,

MassHealth added an analysis of members by age and by disability status in the primary care and behavioral health care sections of the AMRP respectively. We also appreciate the MCAC comments regarding data analysis and metrics and the request for MassHealth to incorporate member time and distance data in the AMRP. In the 2019 AMRP, MassHealth used newly acquired software to perform a geo-mapping analysis of members' access to primary care physicians, allowing additional data characteristics to be applied in the analysis such as time and distance.

MCAC also suggested that MassHealth's AMRP should measure access to mental health and substance abuse disorder (SUD) providers and services separately. The 2019 AMRP measures access to several mental health providers and services including psychologists, psychiatrists, Inpatient and Outpatient Psychiatric Hospitals, Mental Health Centers, as well as SUD providers such as SUD Inpatient and Outpatient Hospitals.

In response to MCAC's suggestions, MassHealth notes that CMS identified specific services for inclusion in states' AMRPs and provided broad parameters and flexibility with regard to data to be used in developing AMRPs, specifically noting that the focus of the AMRP is FFS. MassHealth's AMRP follows the framework provided in CMS's model AMRP, builds on MassHealth's initial 2016 AMRP submission, provides detailed analysis of the most up-to-date data available and assesses member access to each of the specifically identified services. The agency appreciates that CMS has afforded states flexibility to develop AMRPs using available data resources; recognized the variability in frameworks employed by states in administering Medicaid programs; acknowledged that, currently, there is not a nationally accepted approach to data and data analysis for FFS programs; and allowed states to leverage existing CMS-required publicly-available routine data submissions for FFS.

Section 2: Review Analysis of Primary Care Services

1. Availability of Primary Care Providers

In this section of the AMRP, MassHealth presents the required data on the number of enrolled primary care providers.

Data source: MMIS provider enrollment data

Methodology: In order to determine the number of providers trended over time, MassHealth ran the number of providers set to an active pay status⁴ in MMIS for each section of the AMRP (by each provider type) listed below by county – unduplicated over each full fiscal year for SFY16, SFY17 and SFY18.

Out-of-state provider information is included for individual physicians, nurse practitioners and dentists because those providers are eligible to enroll with MassHealth. Although providers may enroll from any state, out-of-state provider

⁴ For a provider to be considered actively billing, the provider is in an active pay status with MassHealth and actively billing within the time period of the analysis

enrollment particularly allows members who live near the state border to access additional primary care providers.

Note that many primary care providers may be facility-based providers who do not practice independently and may only be affiliated with a hospital or CHC. Therefore, because they are not all individually enrolled as billing providers with MassHealth, they are not reflected in the data below and, as a result, the provider counts may underestimate the number of actual clinicians providing services. This is especially true in counties where hospital-based outpatient departments or physician practices employ or contract with large numbers of individual providers.

Please note that total provider counts for Hospital Outpatient Departments (HODs) and Hospital Licensed Health Centers (HLHCs) are combined as they are both hospital satellite locations providing outpatient primary care services.

Note that dentists are included in the primary care services section as they are considered to be primary care providers for purposes of the AMRP. As with other providers, the data counts below for dentists and dental services may underestimate the number of clinicians providing services. Dentists, like physicians and nurse practitioners, may or may not practice independently and may therefore not be individually enrolled as billing providers. For example, they may provide services within a CHC or dental clinic affiliated with a dental school. Additionally, for purposes of the AMRP, MassHealth has not counted non-dentist providers of dental services (such as hygienists, clinics or dental schools).

Number of Primary Care Physicians (Physicians with a Specialty of Internal Medicine, General Medicine or Pediatrics) by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	238	239	250
Berkshire	158	157	149
Bristol	611	608	608
Dukes	13	7	6
Essex	877	858	830
Franklin	66	69	70
Hampden	768	743	747
Hampshire	176	169	164
Middlesex	1,861	1,852	1,830
Nantucket	4	9	9
Norfolk	768	793	813
Out-of-state	329	344	447
Plymouth	455	436	421
Suffolk	4,006	4,045	3,934
Worcester	1,266	1,259	1,236

County	SFY16	SFY17	SFY18
Total	11,596	11,588	11,514

Number of Nurse Practitioners by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	28	53	116
Berkshire	36	46	51
Bristol	284	320	376
Dukes	2	1	0
Essex	261	287	368
Franklin	16	20	18
Hampden	209	220	250
Hampshire	67	72	73
Middlesex	415	502	579
Nantucket	2	2	2
Norfolk	236	265	289
Out-of-state	54	70	78
Plymouth	175	214	223
Suffolk	771	860	1,003
Worcester	413	467	526
Total	2,969	3,399	3,952

Number of CHCs by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	10	9	9
Berkshire	6	7	6
Bristol	5	5	5
Dukes	1	1	1
Essex	15	15	17
Franklin	2	3	3
Hampden	11	10	11
Hampshire	2	2	2
Middlesex	4	5	7
Nantucket	0	0	0
Norfolk	7	7	7
Plymouth	3	3	4
Suffolk	30	29	28
Worcester	11	14	12
Total	108	111	113

Number of Hospital Outpatient Departments, including HLHCs, by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	2	2	2
Berkshire	5	5	6
Bristol	3	3	3
Dukes	1	1	1
Essex	5	5	5
Franklin	1	1	1
Hampden	13	13	12
Hampshire	2	2	1
Middlesex	19	17	17
Nantucket	2	2	2
Norfolk	4	4	4
Plymouth	7	6	6
Suffolk	32	31	33
Worcester	11	11	11
Total	128	343	446

Number of Dentists by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	48	46	41
Berkshire	38	36	33
Bristol	138	141	143
Dukes	1	1	1
Essex	232	235	244
Franklin	20	19	18
Hampden	125	137	156
Hampshire	32	31	31
Middlesex	438	455	456
Nantucket	2	3	3
Norfolk	229	234	242
Out-of-state	28	27	33
Plymouth	144	152	151
Suffolk	253	254	257
Worcester	309	325	295
Total	2,037	2,096	2,104

2. Primary Care Physician Geographic Access for Members

Data source: MMIS member and provider enrollment data

Methodology: MassHealth used Quest Analytics Suite 2019 software to perform a geographic access analysis using members' full residential addresses and providers' business addresses. For purposes of the geographic access analysis, members are defined as PCC Plan, Primary Care ACO and FFS members with MassHealth as primary coverage (CHIP and state-funded members have been excluded). Primary care physicians are defined as physicians with a specialty of Internal Medicine, General Medicine or Pediatrics, enrolled with MassHealth, and in an active pay status. For purposes of the geo-mapping, the access standard is defined as two primary care physicians within 15 miles (by distance) or 30 minutes (by time). Estimated driving distance is used to calculate distance, and estimated drive time is determined by an estimate based on average speed and distance. MassHealth used the Quest Analytics default driving speed settings for urban, suburban, and rural areas, which are 30, 45, and 55 miles per hour, respectively.

Geographic Access⁵ to Primary Care Physicians for Members for SFY 2018 by County

County	Total Members	Total Providers	Access Standard Met (% of members)
Barnstable	21,824	250	100
Berkshire	4,260	149	100
Bristol	46,973	608	100
Dukes	2,362	6	100
Essex	64,291	829	100
Franklin	9,398	70	100
Hampden	32,210	747	100
Hampshire	9,257	164	100
Middlesex	44,493	1,847	100
Nantucket	1,348	9	100
Norfolk	23,490	840	100
Plymouth	32,986	421	100
Suffolk	68,155	3,889	100
Worcester	82,761	1,236	100

Results: The geo-mapping of primary care physicians indicates that in all of the 14 counties, 100% of members have two primary care physicians within 15 miles or 30-minutes' drive.

⁵ For purposes of the AMRP geographic access analysis, access is calculated for primary care physicians only.

3. Member/Primary Care Provider Ratios

The member/provider ratios trended for stability over time in the following section offer context to the provider data tables above.

Data source: MMIS member and provider enrollment data

Methodology: Divided the number of enrolled Medicaid members in each county by the number of active, enrolled primary care providers in that county. Members are defined as PCC plan members, members enrolled in a Primary Care ACO and FFS members with MassHealth as primary coverage.

Key for acronyms used for primary care provider types listed below:

PCP –Primary Care Physicians (Physicians with a specialty of Internal Medicine, General Medicine or Pediatrics)

NP – Nurse Practitioner

CHC – Community Health Center

HOD – Hospital Outpatient Department

HLHC – Hospital Licensed Health Center

N/A indicates a ratio could not be computed because there are no such providers of that provider type in that county.

Note that the ratios below are based on the residence of the members and the provider counts for members' counties of residence. Therefore, out-of-state providers are not included in determining the member per primary care provider ratios.

Note also that many primary care providers may be facility-based providers who do not practice independently and may only be affiliated with a hospital or CHC. Therefore, because they are not all individually enrolled as billing providers with MassHealth, they are not reflected in the data below and, as a result, the provider counts may underestimate the number of actual clinicians providing services. This is especially true for HODs and HLHCs, where the number of physicians or other primary care clinicians varies substantially from one HOD or HLHC to another, making comparisons of ratios across counties, for example, challenging.

Please note that total provider counts for HODs and HLHCs are combined as they are both types of hospital satellite locations providing outpatient primary care services.

Number of Members per PCP (Physician with a Specialty of Internal Medicine, General Medicine or Pediatrics) by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	44	42	88
Berkshire	53	48	29

County	SFY16	SFY17	SFY18
Bristol	60	58	77
Dukes	62	156	395
Essex	59	60	77
Franklin	79	73	134
Hampden	55	56	43
Hampshire	34	36	57
Middlesex	31	31	24
Nantucket	113	71	150
Norfolk	33	32	29
Plymouth	61	63	77
Suffolk	17	16	17
Worcester	41	43	67

Number of Members per PCP by Age Group by County SFY16-SFY18

Population Group	SFY16	SFY17	SFY18	Average
All Members	53	56	90	66
Children Members	25	26	34	28
Adult Members	28	30	56	38

Overall, the average number of members per primary care physician is 66 over the three years. For children and adult members, the average ratios of members to primary care physicians are 28 and 38, respectively over the three years.

Number of Members per NP by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	372	187	189
Berkshire	235	165	84
Bristol	130	111	125
Dukes	403	1,092	N/A
Essex	199	180	175
Franklin	326	251	519
Hampden	201	189	129
Hampshire	90	85	129
Middlesex	140	115	77
Nantucket	226	318	674
Norfolk	108	97	82
Plymouth	159	127	146
Suffolk	86	75	68

County	SFY16	SFY17	SFY18
Worcester	127	115	157

Number of Members per CHC by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	1,042	1,103	2,436
Berkshire	1,408	1,081	716
Bristol	7,365	7,102	9,393
Dukes	805	1,092	2,367
Essex	3,457	3,450	3,781
Franklin	2,610	1,672	3,115
Hampden	3,810	4,156	2,926
Hampshire	3,012	3,047	4,695
Middlesex	14,523	11,566	6,347
Nantucket	N/A	N/A	N/A
Norfolk	3,638	3,661	3,381
Plymouth	9,303	9,084	8,133
Suffolk	2,218	2,234	2,445
Worcester	4,774	3,847	6,884

Number of Members per HOD/HLHC by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	5,211	4,965	10,963
Berkshire	1,690	1,514	716
Bristol	12,275	11,836	15,655
Dukes	805	1,092	2,367
Essex	10,372	10,351	12,856
Franklin	5,219	5,017	9,345
Hampden	3,224	3,197	2,682
Hampshire	3,012	3,047	9,389
Middlesex	3,057	3,402	2,613
Nantucket	226	318	674
Norfolk	6,366	6,407	5,917
Plymouth	3,987	4,542	5,422
Suffolk	2,079	2,090	2,074
Worcester	4,774	4,896	7,510

Number of Members per all Non-Dental Primary Care Providers (Physicians with a Specialty of Internal Medicine, Pediatrics), Nurse Practitioners, CHCs, HODs/HLHCs) by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	37	33	58

County	SFY6	SFY17	SFY18
Berkshire	41	35	20
Bristol	41	38	47
Dukes	47	109	296
Essex	45	44	53
Franklin	61	54	102
Hampden	42	42	32
Hampshire	24	25	39
Middlesex	25	24	18
Nantucket	57	49	104
Norfolk	25	24	21
Plymouth	44	41	50
Suffolk	14	13	14
Worcester	31	31	46

The growth trend in the number of members per primary care provider type varies by provider type and, within each primary care provider type, by county. Many combinations of primary care provider types and counties indicate stable ratios. In some cases (e.g., Worcester) there is an increase in the ratio, and it is the result of large increases in enrollment. In other cases (e.g., Barnstable), there is an increase for overall primary care provider types but a decrease in NP, suggesting a change in the overall mix of primary care provider types that may reflect industry trends in the area. A different trend is evidenced by CHCs in Berkshire County, where a decrease in the ratio is due in part to the decrease in enrollment.

Number of Members per Dentist by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	217	216	535
Berkshire	222	210	130
Bristol	267	252	328
Dukes	805	1,092	2,367
Essex	224	220	263
Franklin	261	264	519
Hampden	335	303	206
Hampshire	188	197	303
Middlesex	133	127	97
Nantucket	226	212	449
Norfolk	111	110	98
Plymouth	194	179	215
Suffolk	263	255	266
Worcester	170	166	280

For purposes of the AMRP, MassHealth analyzed the number of members per dentist by county. The American Dental Association (ADA) does not have an access standard, stating in their Health Policy FAQ, “It is the ADA’s view that a simple dentist-to-patient ratio cannot take into account the differing economic environments from region to region, state to state, or urban to rural.”⁶

4. Utilization of Primary Care Services

Data source: MMIS member enrollment data and MMIS claims data

Methodology: Number of members residing in a county divided by episodes of care provided by providers in that county, multiplied by 1,000. MMIS data was used to determine the number of episodes of care, defined as the number of times that the same member, under any circumstance, visits the same provider in the same year. We converted the measure to be per 1,000 (multiplied by 1,000) so all data can be presented on the same scale and therefore be comparable. Members are defined as PCC Plan members, FFS members with MassHealth as primary coverage and members enrolled in a Primary Care ACO. Additional considerations:

- The episode of care data in this section on utilization was calculated based on the location of the provider. As noted earlier, members can seek care in counties outside their county of residence.
- Out-of-state utilization data is excluded because there is not a consistent or statistically appropriate way to calculate a ratio of MassHealth members to out-of-state providers.
- Note that, for providers in this section, we attributed all billing done by a particular primary care provider type to the category of care of the billing provider.
- While primary care is delivered at HLHCs and HODs, we do not include them in the utilization report as we are unable to split out the primary care vs. non-primary care claims for these providers.

Non-dental primary care providers (PCP, NP and CHC) provided, on average, 3,747 episodes of care per 1,000 members in SFY 16. The number of episodes of care per 1,000 members increased slightly to an average of 3,900 per 1,000 members in SFY17 and SFY18. The numbers show that across Massachusetts, those receiving MassHealth services were seen by primary care providers an average of 3.8 times in the three fiscal years represented, supporting MassHealth’s commitment to access and continuity of care for its members.

⁶ American Dental Association Health Policy Institute FAQ found at <https://www.ada.org/en/science-research/health-policy-institute/dental-statistics/patients>. Accessed on June 4, 2019.

Episodes of Care for Non-Dental Primary Care Providers (PCP, NP and CHC) per 1,000 Members by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	5,602	5,687	3,540
Berkshire	3,711	4,282	7,045
Bristol	4,516	4,296	3,372
Dukes	565	519	482
Essex	4,853	4,913	4,598
Franklin	3,418	4,021	2,946
Hampden	5,545	6,045	8,152
Hampshire	3,098	3,688	2,531
Middlesex	2,921	3,022	3,712
Nantucket	467	281	720
Norfolk	3,509	3,585	3,715
Plymouth	5,020	5,210	4,771
Suffolk	6,751	7,241	7,453
Worcester	5,093	4,932	3,635

With regard to dental services, the American Dental Association (ADA) indicates that it is important to analyze dental data not only for network adequacy, but also for episodes of care. The ADA currently recommends two preventive dental visits a year⁷.

MassHealth data demonstrates that the state's Medicaid population is seen an average of twice a year by dental providers, meeting the current recommendations of one or more visits per year based on risk as established by the ADA in 2013⁸.

Episodes of Care for Dentists per 1,000 Members by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	2,216	2,209	872
Berkshire	2,944	3,283	5,517
Bristol	2,930	2,978	2,205
Dukes	602	377	158
Essex	3,257	3,333	2,611
Franklin	1,460	1,496	762
Hampden	3,217	3,383	4,229
Hampshire	1,661	1,802	1,020
Middlesex	3,217	3,198	4,113

⁷ Key Differences in Dental Care Seeking Behavior between Medicaid and Non-Medicaid Adults and Children," ADA Health Policy Institute, September 2014 at 1, footnote 6, *citing* "Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance/Counseling, and Oral Treatment for Infants, Children, and Adolescents," https://www.aapd.org/globalassets/media/policies_guidelines/bp_periodicity.pdf (latest revision 2018).

⁸ "American Dental Association Statement on Regular Dental Visits," June 10, 2013

County	SFY16	SFY17	SFY18
Nantucket	1,482	1,381	483
Norfolk	2,983	2,891	3,043
Plymouth	3,254	3,285	2,582
Suffolk	2,165	2,179	1,973
Worcester	2,759	2,730	1,746

5. Healthcare Effectiveness Data and Information Set (HEDIS)

MassHealth conducts annual assessments of our MCOs and the quality data presented in the annual assessment reports are a subset of the Healthcare Effectiveness Data and Information Set (HEDIS) measures. The data presented in the MassHealth Managed Care HEDIS Reports (HEDIS cycles 2010-2017) includes information on the quality of care provided by the six MCOs serving MassHealth Medicaid and CHIP members during the reporting period, as well as the PCC Plan. HEDIS was developed by the National Committee for Quality Assurance (NCQA) and is the most widely used set of standardized performance measures to evaluate and report on the quality of care delivered by managed care health care organizations. Many states require managed care plans to report measures according to HEDIS specifications. States can adapt the HEDIS specifications to create custom measures. HEDIS standards allow for comparisons across various types of plans. MassHealth collects HEDIS measures from annual assessments of all MCOs serving Medicaid and CHIP members. The MassHealth HEDIS Reports can be accessed at:

<http://www.mass.gov/eohhs/researcher/insurance/masshealth-reports/masshealth-managed-care-mco-reports.html>.

The data immediately below in Figure #8 were custom run for the FFS members for whom MassHealth is the primary payer (excluding CHIP and state-funded) using HEDIS specifications for a comparison to HEDIS data. The data in Figure #8 excludes members enrolled during the reporting period in one of the six MassHealth MCOs. Note that members must meet continuous enrollment criteria for enrollment for at least one year in order to be counted in the data. FFS data are presented for three Calendar Years (CYs), January 1st through December 31st, 2015, 2016, and 2017. In addition, Figure #8 also includes the MassHealth Weighted Mean (MHWM) for CY17 which indicates the overall combined performance of the PCC Plan and the six MassHealth MCOs as well as a comparison of the FFS CY17 rate to the HEDIS 2018 national Medicaid 75th and 90th percentiles.

Figure #8: Score on Selected HEDIS Measures for FFS Population

Measure	CY15 FFS Rate	CY16 FFS Rate	CY17 FFS Rate	CY 17 MHWM	CY17 FFS Rate Comparison to NCQA National Medicaid 75th Percentile (CY 17) Benchmark	CY17 FFS Rate Comparison to NCQA National Medicaid 90th Percentile (CY 17) Benchmark
Annual Dental Visit	63.67%	64.95%	69.61%	N/A**	↑	↑
Adults' Access to Preventive/Ambulatory Health Services	83.45%	81.94%	82.37%	83.25%	↓	↓
CAP Ages 12-24 Months	94.66%	92.02%	91.38%	95.64%	↓	↓
CAP Ages 2 - 6 years	90.90%	90.95%	91.16%	92.31%	↓	↓
CAP Ages 7 - 11 years	95.55%	95.13%	94.38%	96.47%	↑	↑
CAP Ages 12 - 19 years	94.45%	94.18%	93.26%	95.12%	↑	↓

*(CAP) Children and Adolescents' Access to PCP

**All MassHealth members receive dental benefits through FFS (carved out of managed care), so MCOs do not have data to report.

Overall, MassHealth performs well on the access quality measures presented in Figure #8. However, MassHealth has adopted stretch goals for the HEDIS quality program, with the goal of performance above the national Medicaid 75th percentile, which was achieved in half of the measures presented.

- Annual Dental Visit rates for the FFS population increased each year from CY 15 through CY 17, and the CY 17 rate was above the Medicaid 90th percentile benchmark.
- Adults' Access to Preventative/ Ambulatory Health Services CY 17 rate fell below the 75th Medicaid percentile.
- CAP CY17 measure rates for the FFS population were below the Medicaid 75th percentile for two cohorts (12-24 months as 25 months-6 years), but above that benchmark for the other two. In addition, the FFS rate for the 7-11-year cohort was above the Medicaid 90th percentile."

Three-year trends in performance showed stability across all measures, with three of the measures performing above the 75th Medicaid Percentile and two of those performing above the Medicaid 90th. Additionally, the Annual Dental Visit measure showed rate increases each year between CY15 and CY17. Although three CY17 measure rates (Adults' Access to Preventive/Ambulatory Health Services and two cohorts for the Children's and Adolescents' Access to PCP) are below the 75th Medicaid Percentile, these rates remained stable year over year. The MassHealth Quality Committee will review the data and determine any actions that should be taken.

6. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Primary Care Services

MassHealth's payment rate analysis includes a comparison of Medicaid and Medicare 2018 rates for primary care services. The analysis found that Massachusetts Medicaid FFS primary care rates were an average of 69.4% of Medicare in 2018.

HCPSC (Healthcare Common Procedure Coding System)	Primary Care Code Description	2018 Mass. Medicare Non-Facility Rate- Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
99201	Office/outpatient visit new	\$50.74	\$34.51	68.0%
99202	Office/outpatient visit new	\$84.75	\$58.71	69.3%
99203	Office/outpatient visit new	\$121.35	\$84.35	69.5%
99204	Office/outpatient visit new	\$183.66	\$128.18	69.8%
99205	office/outpatient visit new	\$230.40	\$160.27	69.6%
99211	Office/outpatient visit	\$24.90	\$15.98	64.2%
99212	Office/outpatient visit	\$49.94	\$34.35	68.8%
99213	Office/outpatient visit	\$82.04	\$57.26	69.8%
99214	Office/outpatient visit	\$120.72	\$84.21	69.8%
99215	Office/outpatient visit	\$162.29	\$113.05	69.7%
All Codes	Total Primary Care Average	\$111.08	\$77.09	69.4%

Section 3: Review Analysis of Physician Specialty Services

1. Availability of Physician Specialists

In this section of the AMRP MassHealth presents the required data on the number of enrolled self-identified specialty providers.

Data source: MMIS provider enrollment data

Methodology: In order to determine the number of self-identified specialty providers trended over time, we ran the number of active billing providers in MMIS for each specialty included in the AMRP by county. Providers were unduplicated over each full fiscal year for SFY16, SFY17 and SFY18. Specialties listed are those non-primary care providers with the greatest number of enrolled providers in MMIS.

Out-of-state provider information is included for individual physician specialists because those specialty providers are eligible to enroll with MassHealth. Although providers may enroll from any state, out-of-state provider enrollment particularly allows members who live near the state border to access a greater range of specialty providers.

Note that many physician specialists may be facility-based providers who do not practice independently and may only be affiliated with a hospital or CHC. Therefore, because they are not all individually enrolled as billing providers with MassHealth, they are not reflected in the data below and, as a result, the provider counts may underestimate the number of actual clinicians providing services.

In addition, a provider's identification with a specialty is self-reported data in MassHealth's MMIS and therefore may not represent a complete accounting of the types of specialty providers listed below.

Shifts in enrollment trends seen throughout the data presented in the 2019 AMRP are consistent with the launch of the ACO program and its impact on member and provider regional changes. The member enrollment increases in Dukes, Nantucket, Franklin and Worcester counties can be attributed to the movement of members tied to the launch of the ACO program and member enrollment in a Primary Care ACO. Furthermore, as noted earlier, some members may see providers in neighboring counties. As such, members may not live and seek care consistently in one county throughout the course of a given year. Furthermore, with the exception of the Home Health Services section, the episode of care data in the utilization sections of this AMRP was calculated based on the location of the provider due to the fact that members can seek care in counties other than where they live.

Number of Physicians with a Surgery Specialty by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	33	33	48
Berkshire	31	29	30

County	SFY16	SFY17	SFY18
Bristol	98	101	99
Dukes	3	1	0
Essex	115	111	107
Franklin	8	8	7
Hampden	129	131	119
Hampshire	17	15	14
Middlesex	249	247	250
Nantucket	2	2	2
Norfolk	87	85	80
Out-of-state	99	100	124
Plymouth	81	84	81
Suffolk	734	721	734
Worcester	183	186	178
Total	1,869	1,854	1,873

Number of Physicians with a Cardiology Specialty by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	26	27	32
Berkshire	17	19	18
Bristol	54	55	52
Dukes	0	0	0
Essex	50	48	46
Franklin	4	6	7
Hampden	53	54	51
Hampshire	14	12	10
Middlesex	133	123	124
Nantucket	0	0	0
Norfolk	65	65	58
Out-of-state	55	64	79
Plymouth	36	33	33
Suffolk	425	433	443
Worcester	82	86	85
Total	1,014	1,025	1,038

Number of Physicians with a Hematology/Oncology Specialty by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	12	12	12
Berkshire	5	5	4

County	SFY16	SFY17	SFY18
Bristol	33	28	29
Dukes	0	0	0
Essex	11	12	9
Franklin	0	0	0
Hampden	33	33	32
Hampshire	6	7	7
Middlesex	68	58	55
Nantucket	0	0	0
Norfolk	26	21	21
Out-of-state	6	6	11
Plymouth	18	19	19
Suffolk	520	534	481
Worcester	57	55	54
Total	795	790	734

Number of Physicians with an Emergency Medicine Specialty by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	59	62	58
Berkshire	21	22	24
Bristol	62	64	63
Dukes	9	5	3
Essex	131	127	118
Franklin	7	7	7
Hampden	108	117	126
Hampshire	24	22	23
Middlesex	237	246	235
Nantucket	0	0	0
Norfolk	50	58	61
Out-of-state	251	252	269
Plymouth	64	67	64
Suffolk	321	336	349
Worcester	189	195	188
Total	1,533	1,580	1,588

2. Member/Specialty Physician Provider Ratios

The member/provider ratios trended for stability over time in the following section offer context to the provider data tables above.

Data source: MMIS member and provider enrollment data

Methodology: Divided the number of enrolled Medicaid members in each county by the number of active, enrolled providers with selected self-identified specialties in that county. Members are defined as PCC plan members and FFS members with MassHealth as primary coverage and members enrolled in a Primary Care ACO.

N/A indicates a ratio could not be computed because there are no such self-identified specialty physician providers in that county.

Note that the ratios below are based on the residence of the members and the provider counts for members' counties of residence. Therefore, out-of-state providers are not included in determining the member per provider ratios.

Note that many physician specialists may be facility-based providers who do not practice independently and may only be affiliated with a hospital or CHC. Therefore, because they are not all individually enrolled as billing providers with MassHealth, they are not reflected in the data below and, as a result, the provider counts may underestimate the number of clinicians providing services. In addition, a provider's identification with a specialty is self-reported data in MassHealth's MMIS and therefore may not represent a complete accounting of the types of specialty providers listed below.

Overall review of the ratios indicates that there are sufficient numbers of specialists in most counties with some counties indicating higher than average ratios for certain specialties. This may be due to the undercounting of the self-reported specialty information. Also, Dukes, Nantucket, Barnstable, Franklin, and Worcester counties demonstrate high enrollment growth from SFY16 to SFY18. Both Dukes and Nantucket are island communities, with a small total population; hence a small change in members or providers may result in a large change in the ratios or percentages for those communities. Please note that members needing particular services may be seen in another county.

Number of Members per Physician with a Surgery Specialty by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	316	301	457
Berkshire	273	261	143
Bristol	376	352	474
Dukes	268	1,092	N/A
Essex	451	466	601
Franklin	652	627	1,335
Hampden	325	317	270
Hampshire	354	406	671

County	SFY16	SFY17	SFY18
Middlesex	233	234	178
Nantucket	226	318	674
Norfolk	293	301	296
Plymouth	345	324	402
Suffolk	91	90	93
Worcester	287	290	464

Number of Members per Physician with a Cardiology Specialty by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	401	368	685
Berkshire	497	398	239
Bristol	682	646	903
Dukes	N/A	N/A	N/A
Essex	1,037	1,078	1,397
Franklin	1,305	836	1,335
Hampden	791	770	631
Hampshire	430	508	939
Middlesex	437	470	358
Nantucket	N/A	N/A	N/A
Norfolk	392	394	408
Plymouth	775	826	986
Suffolk	157	150	155
Worcester	640	626	972

Number of Members per Physician with a Hematology/Oncology Specialty by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	869	827	1,827
Berkshire	1,690	1,514	1,074
Bristol	1,116	1,268	1,619
Dukes	N/A	N/A	N/A
Essex	4,715	4,313	7,142
Franklin	N/A	N/A	N/A
Hampden	1,270	1,260	1,006
Hampshire	1,004	870	1,341
Middlesex	854	997	808
Nantucket	N/A	N/A	N/A
Norfolk	979	1,220	1,127
Plymouth	1,550	1,434	1,712
Suffolk	128	121	142

County	SFY16	SFY17	SFY18
Worcester	921	979	1,530

Number of Members per Physician with an Emergency Medicine Specialty by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	177	160	378
Berkshire	402	344	179
Bristol	594	555	745
Dukes	89	218	789
Essex	396	408	545
Franklin	746	717	1,335
Hampden	388	355	255
Hampshire	251	277	408
Middlesex	245	235	189
Nantucket	N/A	N/A	N/A
Norfolk	509	442	388
Plymouth	436	407	508
Suffolk	207	193	196
Worcester	278	276	439

3. Utilization of Specialty Care Services

Data source: MMIS member enrollment data and MMIS claims data

Methodology: Number of members residing in a county divided by episodes of care provided by self-identified specialty physician providers located in that county, multiplied by 1,000. Utilization was determined by using MMIS data to determine the number of episodes of care, defined as the number of times that the same member, under any circumstance, visits the same provider in the same year. We converted the measure to be per 1,000 (multiplied by 1,000) so all data is on the same scale and therefore comparable. Members are defined as PCC Plan members, FFS members with MassHealth as primary coverage and members enrolled in a Primary Care ACO. Additional considerations:

- The episode of care data in the utilization section was calculated based on the location of the provider. Note that members can seek care in counties other than their county of residence.
- N/A indicates utilization could not be computed because there were no services utilized for such service in that county.

- Out-of-state utilization data is excluded because there is not a consistent or statistically appropriate way to calculate a ratio of MassHealth members to out-of-state specialty providers.
- Note that, for specialty providers in this section, we attributed all billing done by a particular specialty provider type to the category of care of the billing provider.
- Note that the data below includes claims submitted from independently enrolled MassHealth providers. MassHealth does not separately enroll salaried hospital-based providers as billing providers. Since such providers are not enrolled (or enrolled as nonbilling providers) it is not possible to quantify when a specialty provider has rendered service when claimed by a hospital. As a result, these claims could not be captured for the analysis of specialty services.
- Overall review of the episodes of care by specialty providers indicates consistency in the numbers of episodes of care across most counties. Please note that members needing particular services may be seen in another county.

Episodes of Care for Physicians with a Surgery Specialty Designation per 1,000 Members

County	SFY16	SFY17	SFY18
Barnstable	246	243	183
Berkshire	414	457	791
Bristol	296	326	287
Dukes	N/A	N/A	N/A
Essex	219	196	172
Franklin	81	128	60
Hampden	313	357	348
Hampshire	97	103	77
Middlesex	215	214	262
Nantucket	591	368	388
Norfolk	188	252	286
Plymouth	248	229	214
Suffolk	561	611	648
Worcester	308	290	214

Episodes of Care for Physicians with a Cardiology Specialty Designation per 1,000 Members

County	SFY16	SFY17	SFY18
Barnstable	248	295	217
Berkshire	272	343	502
Bristol	172	174	146
Dukes	N/A	N/A	N/A
Essex	139	128	125

County	SFY16	SFY17	SFY18
Franklin	70	104	N/A
Hampden	290	353	456
Hampshire	81	77	64
Middlesex	207	216	296
Nantucket	N/A	N/A	N/A
Norfolk	112	118	132
Plymouth	200	202	197
Suffolk	626	721	783
Worcester	263	261	222

Episodes of Care for Physicians with a Hematology/Oncology Specialty Designation per 1,000 Members

County	SFY16	SFY17	SFY18
Barnstable	29	24	23
Berkshire	54	74	83
Bristol	97	93	90
Dukes	N/A	N/A	N/A
Essex	9*	8*	5*
Franklin	N/A	N/A	N/A
Hampden	64	90	110
Hampshire	158	145	78
Middlesex	43	44	50
Nantucket	N/A	N/A	N/A
Norfolk	4*	4*	10*
Plymouth	82	62	38
Suffolk	245	269	248
Worcester	94	85	66

Episodes of Care for Physicians with an Emergency Medicine Specialty Designation per 1,000 Members

County	SFY16	SFY17	SFY18
Barnstable	906	1,072	622
Berkshire	62	111	162
Bristol	330	435	362
Dukes	267	188	131
Essex	509	552	357
Franklin	56	79	55
Hampden	839	889	1,078
Hampshire	533	687	485
Middlesex	824	858	1,107
Nantucket	N/A	N/A	N/A

County	SFY16	SFY17	SFY18
Norfolk	169	154	288
Plymouth	300	422	321
Suffolk	878	919	927
Worcester	655	674	455

*Non-zero numeric references less than 11 and related complementary data fields have been masked, withheld, or aggregated to protect member confidentiality

4. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Specialty Care Services

MassHealth's payment rate analysis includes a comparison of Medicaid and Medicare 2018 rates for specialty care services. The analysis found that Massachusetts Medicaid FFS specialty care rates were an average of 70.7% of Medicare in 2018.

HCPCS	Specialty Care Code Description	2018 Mass. Medicare Non-Facility Rate-Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
93455	Catheter placement in coronary artery(s) for coronary angiography of bypass grafts	\$1,153.48	\$846.10	73.4%
93456	Catheter placement in coronary artery(s) for coronary angiography, right heart catheterization	\$1,246.58	\$909.85	73.0%
93457	Catheter placement in coronary artery(s) for coronary angiography, for bypass graft and right heart catheterization	\$1,411.74	\$1,028.69	72.9%
93567	Injection procedure during cardiac catheterization including imaging supervision	\$159.07	\$113.30	71.2%
38220	Angiography	\$198.35	\$133.91	67.5%
38221	Bone marrow biopsy	\$177.94	\$136.19	76.5%
25670	Open treatment of radiocarpal or intercarpal dislocation, 1 or more bones	\$687.63	\$473.10	68.8%

HCPCS	Specialty Care Code Description	2018 Mass. Medicare Non-Facility Rate- Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
25675	Closed treatment of distal radioulnar dislocation with manipulation	\$497.79	\$342.38	68.8%
25825	Arthrodesis, wrist; with autograft includes obtaining graft	\$867.50	\$593.49	68.4%
26010	Drainage of finger abscess	\$312.39	\$214.30	68.6%
26035	Decompression fingers and/or hand injection injury (e.g. Grease gun)	\$978.74	\$669.53	68.4%
26160	Excision of lesion of tendon sheath or joint capsule (e.g., cyst, mucous joint capsule (e.g. cyst ganglion), hand or finger	\$676.20	\$464.20	68.6%
26450	Tenotomy, flexor, palm, open, each tendon	\$467.03	\$321.12	68.8%
99281	Emergency medicine	\$22.93	\$16.07	70.1%
99282	Emergency medicine	\$44.69	\$31.30	70.0%
All Codes	Total Specialty Care Average	\$593.47	\$419.57	70.7%

Section 4: Review Analysis of Behavioral Health Services

1. Availability of Behavioral Health Servicing Providers

In this section of the AMRP MassHealth presents the required data on the number of enrolled behavioral health providers.

Data source: MMIS provider enrollment data

Methodology: In order to determine the number of providers trended over time, we ran the number of active billing providers in MMIS for each section of the AMRP (by each provider type) listed below by county – unduplicated over each full fiscal year for SFY16, SFY17 and SFY18.

Out-of-state provider information is included for individual behavioral health providers because those providers are eligible to enroll with MassHealth. Although providers may enroll from any state, out-of-state provider enrollment particularly allows members who live near the state border to access a greater range of behavioral health providers.

Note that many psychologists and psychiatrists may be facility-based providers who do not practice independently and may only be affiliated with a hospital or mental health center. Therefore, because they are not all individually enrolled as billing providers with MassHealth, they are not reflected in the data below and, as a result, the provider counts may underestimate the number of clinicians providing services.

Members enrolled in the PCC Plan and a Primary Care ACO access behavioral health services through MBHP. Because the plan is capitated, MBHP providers and services are not included in this AMRP. The provider counts below are only FFS enrolled providers and only FFS members receive behavioral health services from these providers on a FFS basis.

Furthermore, it is worth noting that some FFS members may see providers in neighboring counties. As such, members may not live and seek care consistently in one county throughout the course of a given year. Furthermore, with the exception of the Home Health Services section, the episode of care data in the utilization sections was calculated based on the location of the provider as members can seek care in counties other than where they live.

Number of Psychologists by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	8	7	4
Berkshire	7	6	7
Bristol	21	25	23
Dukes	0	0	0
Essex	32	34	35
Franklin	2	0	0
Hampden	7	6	7
Hampshire	17	21	20
Middlesex	73	65	68
Nantucket	0	0	0
Norfolk	59	50	47
Out-of-state	0	0	0
Plymouth	20	19	19
Suffolk	136	155	159
Worcester	42	42	46
Total	424	430	435

Number of Psychiatrists (including Psychiatric Clinical Nurse Specialists) by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	8	9	8
Berkshire	10	8	8
Bristol	27	24	22
Dukes	2	1	1
Essex	69	71	73
Franklin	10	9	7
Hampden	51	48	44
Hampshire	14	12	11
Middlesex	188	196	190
Nantucket	0	0	0
Norfolk	59	52	57
Out-of-state	11	11	12
Plymouth	34	30	28
Suffolk	378	396	392
Worcester	100	93	91
Total	961	960	944

Number of Inpatient Psychiatric Hospitals by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	0	0	0
Berkshire	0	0	0
Bristol	2	3	3
Dukes	0	0	0
Essex	2	2	1
Franklin	0	0	0
Hampden	0	0	0
Hampshire	0	0	0
Middlesex	1	1	2
Nantucket	0	0	0
Norfolk	2	2	2
Plymouth	0	0	1
Suffolk	4	4	4
Worcester	2	2	2
Total	13	14	15

The data counts above for Inpatient Psychiatric Hospitals do not account for the inpatient psychiatric units that are in general acute care hospitals throughout the

Commonwealth and that MassHealth FFS members can access. Of the state's 61 acute hospitals, almost half have acute psychiatric units.

Number of Outpatient Psychiatric Hospitals by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	1	1	1
Berkshire	0	0	0
Bristol	2	2	2
Dukes	0	0	0
Essex	1	1	1
Franklin	0	0	0
Hampden	0	0	0
Hampshire	0	0	0
Middlesex	1	1	2
Nantucket	0	0	0
Norfolk	2	2	2
Plymouth	0	0	1
Suffolk	2	2	2
Worcester	0	0	0
Total	9	9	11

The data above for the Outpatient Psychiatric Hospitals do not reflect the availability of outpatient behavioral health services that exist in other parts of the behavioral health delivery system including Mental Health Centers, CHCs and general Acute Inpatient Hospitals that are licensed to provide behavioral health services. MassHealth FFS members also have access to care at these sites.

Number of Mental Health Centers by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	9	11	12
Berkshire	2	3	4
Bristol	15	15	14
Dukes	1	1	1
Essex	23	23	20
Franklin	4	4	4
Hampden	28	29	29
Hampshire	5	5	5
Middlesex	31	29	27
Nantucket	0	0	0
Norfolk	13	13	13
Plymouth	17	19	18
Suffolk	16	16	14
Worcester	18	17	21

County	SFY16	SFY17	SFY18
Total	182	185	182

Number of SUD Treatment Centers (including SUD Inpatient and Outpatient Hospitals) by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	5	5	5
Berkshire	3	4	4
Bristol	16	16	15
Dukes	1	1	1
Essex	12	13	13
Franklin	1	3	3
Hampden	13	10	11
Hampshire	2	2	2
Middlesex	8	7	9
Nantucket	0	0	0
Norfolk	5	5	7
Plymouth	8	8	8
Suffolk	14	13	12
Worcester	10	11	11
Total	99	98	104

The data above for SUD Treatment Centers includes the following SUD treatment settings: Opioid Treatment Service Centers, Outpatient Substance Use Disorder Treatment Services, Level 3.5 – Clinically Managed High-Intensity Residential Services, Level 3.7 – Medically Monitored Intensive Inpatient Treatment, and Level 4 – Medically Managed Intensive Inpatient Treatment.

2. Behavioral Health Servicing Member/Provider Ratios

The member/provider ratios trended for stability over time in the following section offer context to the provider data tables above.

Data source: MMIS member and provider enrollment data

Methodology: Divided the number of enrolled FFS Medicaid members in each county by the number of active, enrolled behavioral health providers in that county.

N/A indicates a ratio could not be computed because there are no such providers in that county.

Note that the ratios below are based on the residence of the members and the provider counts for members' counties of residence. Therefore, out-of-state providers are not included in determining the member per provider ratios.

Note that members in the PCC Plan and those enrolled in a Primary Care ACO access behavioral health services through MBHP. Because the plan is capitated, MBHP providers and services are not included in this AMRP. Therefore, the member counts used to create the ratios below only reflect members who receive FFS coverage and have MassHealth as their primary insurance.

Number of Members per Psychologist by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	132	150	205
Berkshire	99	112	50
Bristol	162	132	104
Dukes	N/A	N/A	N/A
Essex	188	174	131
Franklin	186	N/A	N/A
Hampden	582	645	320
Hampshire	37	29	17
Middlesex	134	147	109
Nantucket	N/A	N/A	N/A
Norfolk	68	79	63
Plymouth	146	153	113
Suffolk	59	51	37
Worcester	133	128	87

Psychologists credentialed with MassHealth and enrolled as individual providers may only bill for psychological testing for FFS members. Psychologists may also see FFS members when they access traditional outpatient services through other provider types such as psychiatric outpatient hospitals, acute outpatient hospitals, mental health centers, and CHCs.

Overall, the average number of members per psychologist for SFY16, SFY17, and SFY18 is 146. For disabled members and non-disabled members, the average ratio of members to psychologists is 15 and 131, respectively.

Number of Members per Psychiatrist (including Psychiatric Clinical Nurse Specialists) by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	132	117	103
Berkshire	70	84	44
Bristol	126	137	108
Dukes	39	91	63
Essex	87	83	63
Franklin	37	36	28
Hampden	80	81	51

County	SFY16	SFY17	SFY18
Hampshire	45	50	31
Middlesex	52	49	39
Nantucket	N/A	N/A	N/A
Norfolk	68	76	52
Plymouth	86	97	76
Suffolk	21	20	15
Worcester	56	58	44

Number of Members per Inpatient Psychiatric Hospital by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	N/A	N/A	N/A
Berkshire	N/A	N/A	N/A
Bristol	1,704	1,099	794
Dukes	N/A	N/A	N/A
Essex	3,008	2,952	4,596
Franklin	N/A	N/A	N/A
Hampden	N/A	N/A	N/A
Hampshire	N/A	N/A	N/A
Middlesex	9,772	9,548	3,708
Nantucket	N/A	N/A	N/A
Norfolk	1,996	1,972	1,489
Plymouth	N/A	N/A	2,141
Suffolk	2,004	1,985	1,471
Worcester	2,797	2,692	2,004

Number of Members per Outpatient Psychiatric Hospital by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	1,054	1,052	820
Berkshire	N/A	N/A	N/A
Bristol	1,704	1,648	1,192
Dukes	N/A	N/A	N/A
Essex	6,015	5,904	4,596
Franklin	N/A	N/A	N/A
Hampden	N/A	N/A	N/A
Hampshire	N/A	N/A	N/A
Middlesex	9,772	9,548	3,708
Nantucket	N/A	N/A	N/A
Norfolk	1,996	1,972	1,489
Plymouth	N/A	N/A	2,141
Suffolk	4,008	3,970	2,941
Worcester	N/A	N/A	N/A

Number of Members per Mental Health Center by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	117	96	68
Berkshire	348	225	88
Bristol	227	220	170
Dukes	78	91	63
Essex	262	257	230
Franklin	93	80	49
Hampden	146	133	77
Hampshire	125	120	67
Middlesex	315	329	275
Nantucket	N/A	N/A	N/A
Norfolk	307	303	229
Plymouth	172	153	119
Suffolk	501	496	420
Worcester	311	317	191

Number of Members per SUD Treatment Centers (including SUD Inpatient/ Outpatient Hospitals) by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	211	210	164
Berkshire	232	169	88
Bristol	213	206	159
Dukes	78	91	63
Essex	501	454	354
Franklin	372	107	65
Hampden	314	387	204
Hampshire	313	300	168
Middlesex	1,222	1,364	824
Nantucket	N/A	N/A	N/A
Norfolk	798	789	425
Plymouth	366	364	268
Suffolk	573	611	490
Worcester	559	489	364

Overall review of the ratios indicates that there are sufficient numbers of behavioral health providers in most counties with some counties indicating higher than average ratios for certain provider types, and other counties such, as Dukes, Nantucket and some counties in Western Massachusetts, demonstrating lower ratios for certain provider types. Note that members needing particular services may be seen in another county. In addition, the agency is not aware of significant access to care issues based on member feedback received at our CSC.

3. Utilization of Behavioral Health Care Services

Data source: MMIS member enrollment data and MMIS claims data

Methodology: Number of members residing in a county divided by episodes of care provided by providers in that county, multiplied by 1,000. The methodology for determining utilization was using MMIS data to determine the number of episodes of care, defined as the number of times that the same member, under any circumstance, visits the same provider in the same year. We converted the measure to be per 1,000 (multiplied by 1,000) so all data was on the same scale and therefore comparable.

Members are defined as FFS members with MassHealth as primary coverage.

Additional considerations:

- N/A indicates utilization could not be computed because there were no services utilized for such service in that county.
- The episode of care data in the utilization section was calculated based on the location of the provider; note that members can seek care in other counties.
- Out-of-state utilization data is excluded because there is not a consistent or statistically appropriate way to calculate a ratio of MassHealth members to out-of-state providers.
- Psychologists and psychiatrists may be facility-based clinicians who do not practice independently and may only be affiliated with a hospital or mental health center. Therefore, because they are not all individually enrolled as billing providers with MassHealth, they are not reflected in the data below and, as a result, the provider counts may underestimate the number of clinicians providing services.
- Note that, for providers in this section, we attributed all billing done by a particular provider type to the category of care of the billing provider.

Behavioral Health Episodes of Care per 1,000 Members between SFY16- SFY18

County	SFY16	SFY17	SFY18
Barnstable	1,398	1,734	5,866
Berkshire	5,746	7,834	23,136
Bristol	3,609	3,855	11,486
Dukes	1,538	1,934	2,540
Essex	1,315	2,243	5,901
Franklin	2,683	3,888	13,701
Hampden	2,454	4,469	13,059
Hampshire	706	1,224	5,452
Middlesex	658	806	1,921

County	SFY16	SFY17	SFY18
Nantucket	N/A	N/A	N/A
Norfolk	566	635	1,089
Plymouth	2,107	2,879	7,542
Suffolk	717	1,153	3,728
Worcester	2,669	4,005	8,971

*Non-zero numeric references less than 11 and related complementary data fields have been masked, withheld, or aggregated to protect member confidentiality.

Compared with SFY16, SFY17 and SFY18 demonstrated an increase in the number of episodes of care by 39% and 165%, respectively. A higher percentage of members were eligible for MBHP enrollment during SFY18, resulting in a decrease in FFS members from SFY16. Increased utilization may be attributed to expanded behavioral health services. These two factors account for the demonstrated increase in member utilization as defined above. Residents of Nantucket County, while not able to access services provided by individually-enrolled providers in Nantucket County, are able to access those services from facility-based providers located at hospitals and CHCs, as well as from providers located in other counties in Massachusetts. As previously stated, this pattern can be seen for other MassHealth members seen across the Commonwealth in certain instances.

Overall, behavioral health providers provided on average 4,288 episodes of care per 1,000 members in SFY16, SFY17, and SFY18. For disabled members and non-disabled members, behavioral health providers provided on average 7,028 episodes of care per 1,000 members and 4,066 episodes of care per 1,000 members, respectively.

4. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Behavioral Health Services

MassHealth's payment rate analysis includes a comparison of Medicaid and Medicare 2018 rates for behavioral health services. The analysis found that Massachusetts Medicaid FFS behavioral health rates were an average of 68.6% of Medicare in 2018.

HCPDS	Behavioral Health Code Description	2018 Mass. Medicare Non-Facility Rate- Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
90791	Psychiatric diagnostic evaluation	\$144.63	\$94.18	65.1%
90832	Psychotherapy, 30 minutes with patient	\$70.00	\$36.37	52.0%
90833	Psychotherapy 30 minutes with patient when performed with an	\$73.31	\$36.37	49.6%

HCPCS	Behavioral Health Code Description	2018 Mass. Medicare Non-Facility Rate-Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
	evaluation management service			
90834	Psychotherapy, 45 minutes	\$93.60	\$72.73	77.7%
90836	Psychotherapy, 45 minutes with patient when performed with an evaluation and management service	\$92.39	\$72.73	78.7%
90847	Family psychotherapy	\$117.63	\$77.28	65.7%
96101	Psychological testing	\$88.82	\$74.94	84.4%
96118	Neurological testing	\$106.22	\$74.94	70.6%
All Codes	Total Behavioral Health Average	\$98.32	\$67.44	68.6%

Section 5: Review Analysis of Perinatal Services⁹

1. Availability of Physicians with an Obstetrics Specialty and Nurse Midwives

In this section of the AMRP MassHealth presents the required data on the number of enrolled providers, including self-identified physicians with an obstetrics specialty and certified nurse midwives, excluding physicians who deliver gynecology-only services.

Data source: MMIS provider enrollment data

Providers are defined as physicians with a self-identified obstetrics specialty and certified nurse midwives, excluding physicians who deliver gynecology-only services. A provider's identification with a specialty is self-reported data in MassHealth's MMIS and therefore may not represent a complete accounting of physicians that provide obstetric services.

Methodology: In order to determine the number of such providers trended over time, we ran the number of active billing providers in MMIS for each specialty included in the AMRP by county. Providers were unduplicated over each full fiscal year for SFY16, SFY17 and SFY18.

Out-of-state provider information is included for individual physicians with an obstetrics specialty and certified nurse midwives because those providers are eligible to enroll with MassHealth and to deliver pre- and post-natal care, including labor and delivery. Although providers may enroll from any state, out-of-state provider enrollment particularly allows members who live near the state border to access a greater range of providers for care.

⁹ Perinatal includes pre- and post-natal obstetric services, including labor and delivery.

Number of Physicians with an Obstetrics Specialty and Nurse Midwives by County SFY16-SFY18

County	SFY16	SFY17	SFY18
Barnstable	26	22	25
Berkshire	12	13	12
Bristol	56	57	56
Dukes	1	1	0
Essex	76	68	65
Franklin	5	4	4
Hampden	62	60	62
Hampshire	13	15	13
Middlesex	170	176	168
Nantucket	1	2	4
Norfolk	103	103	101
Out-of-state	5	6	22
Plymouth	47	36	36
Suffolk	311	320	315
Worcester	134	140	143
Total	1,022	1,023	1,026

2. Physicians with an Obstetrics Specialty and Nurse Midwife Member/ Provider Ratios

The member/provider ratios trended for stability over time in the following section offer context to the provider data tables above.

Data source: MMIS member and provider enrollment data

Methodology: The number of enrolled eligible Medicaid members in each county, divided by the number of active, enrolled providers in that county.

Eligible members are defined as PCC plan members, members enrolled with a Primary Care ACO and FFS members with MassHealth as primary coverage who are female and age 15-44. This corresponds to the CDC and Massachusetts Department of Public Health definitions of women of reproductive age. While these members are considered to be of reproductive age with the potential for pregnancy, not all are pregnant.

N/A indicates a ratio could not be computed because there are no such providers in that county.

The ratios below are based on the residence of the members and the provider counts for members' counties of residence. Therefore, out-of-state providers are not included in determining the member per provider ratios.

In addition, many physicians with an obstetrics specialty and nurse midwives may be facility-based clinicians who do not practice independently and may only be affiliated with a hospital or CHCs. Therefore, because they are not all individually enrolled as billing providers with MassHealth, they are not reflected in the data below and, as a result, the provider counts may underestimate the number of actual clinicians providing services.

Number of Members per Providers (Physicians with an Obstetrics Specialty and Nurse Midwives)

County	SFY16	SFY17	SFY18
			192
Barnstable	94	100	
Berkshire	159	130	56
Bristol	157	148	193
Dukes	184	243	N/A
Essex	161	176	234
Franklin	254	300	598
Hampden	154	156	114
Hampshire	110	96	200
Middlesex	74	70	57
Nantucket	98	62	68
Norfolk	52	52	48
Plymouth	137	170	196
Suffolk	49	46	51
Worcester	97	92	140

The table above demonstrates the ratio of members to providers delivering perinatal care, as required by CMS. Although there is not an established access standard for pre- and post-natal providers referenced above, the ratios listed above indicate sufficient access to such providers.

3. Utilization of Perinatal Services

Data source: MMIS member enrollment data and MMIS claims data

Methodology: Number of members residing in a county divided by number of claims for perinatal services, which includes pre-natal care, labor and delivery, as well as post-partum services furnished by providers in that county. Note that in this section, we did not use the same episodes of care per 1,000 members methodology utilized in other sections because, to be valid, MassHealth would need to know the number of pregnant

women to accurately convey the denominator. Also, because the care of pregnant members is often billed through a global service code at the time of delivery, the specific dates of service for care throughout their pregnancy and postpartum care are unavailable through claims data. Additional considerations:

- The utilization data was calculated based on the location of the provider; members can seek care in counties other than their county of residence.
- Out-of-state utilization data is excluded because there is not a consistent or statistically appropriate way to calculate a ratio of MassHealth members to out-of-state providers.
- As above, members are defined as PCC Plan members, members enrolled in a Primary Care ACO and FFS members with MassHealth as primary coverage who are female and age 15-44. Note these members are not necessarily all pregnant.

Number of Members Utilizing Perinatal Services between SFY16- SFY18

Region	Service	SFY16 (# of Members)	SFY17 (# of Members)	SFY18 (# of Members)
Cape and Islands	Delivery and Postpartum	31	17	39
	Delivery only	13	16	22
	Other	*	27	39
	Postpartum only	17	*	11
	Prenatal and Delivery	27	18	31
	Prenatal only	11	*	10
	Prenatal, Delivery, and Postpartum	59	66	98
Central	Delivery and Postpartum	109	74	78
	Delivery only	52	41	80
	Other	303	300	447
	Postpartum only	16	20	13
	Prenatal and	*	*	15

Region	Service	SFY16 (# of Members)	SFY17 (# of Members)	SFY18 (# of Members)
	Delivery			
	Prenatal only	28	28	50
	Prenatal, Delivery, and Postpartum	587	608	729
Greater/Metro Boston	Delivery and Postpartum	307	321	454
	Delivery only	327	385	497
	Other	877	1,030	1,271
	Postpartum only	34	24	35
	Prenatal and Delivery	67	67	78
	Prenatal only	168	162	191
	Prenatal, Delivery, and Postpartum	1,631	1,862	2,100
Southeastern	Delivery and Postpartum	150	155	156
	Delivery only	17	19	39
	Other	165	154	247
	Postpartum only	*	*	*
	Prenatal and Delivery	12	*	*
	Prenatal only	44	37	97
	Prenatal, Delivery, and Postpartum	648	576	652
Western	Delivery and Postpartum	66	68	103

Region	Service	SFY16 (# of Members)	SFY17 (# of Members)	SFY18 (# of Members)
	Delivery only	25	13	13
	Other	295	294	323
	Postpartum only	*	*	*
	Prenatal and Delivery	*	*	*
	Prenatal only	67	60	145
	Prenatal, Delivery, and Postpartum	482	499	513

*Non-zero numeric references less than 11 and related complementary data fields have been masked, withheld, or aggregated to protect member confidentiality.

The member utilization table shows that, based on billed claims for the three state fiscal years above, between 48%-52% of eligible members as defined above received delivery, pre-natal, and postpartum care. It appears that about 5% of the members received a pre-natal only service. However, the billing for these singular service codes may be related to clinical issues (such as miscarriage, or changing to a higher risk clinician) or administrative issues (such as the timing of the member's enrollment with or disenrollment from the PCC Plan, a Primary Care ACO, or FFS, and entry into other organizations for managed care).

Perinatal care can be billed via a bundle, and that is the manner in which the vast majority of providers bill the service. Thus, two proxy measures of continuity of care - complete bundle billing (prenatal, delivery and postpartum) and delivery-only billing - were taken from the MassHealth FFS delivery data to see whether there might be regional variation in care. In the table above, the regions of care were analyzed for sites which billed for (a) the complete bundle of services (prenatal, delivery, and postpartum care) from the same site; and (b) delivery-only claims.

The two measures taken together were evaluated as a proxy for the continuity of care in a single care system. It is understandable that clinical circumstances may call for a disruption in continuity (e.g. precipitous birth outside of usual site of care, or a complication that required transfer to a hospital with specific expertise). For SFY16-SFY18, all the rates of complete bundled care in four of the five regions was high (over 60%) and consistent between regions. The single outlier was Cape Cod and the Islands which had the smallest percentage of births in the bundle (46.4%), and a correspondingly higher number of delivery-only claims (10.4%) which may be expected due to its relative geographic isolation. Urban centers with hospital expertise for higher

levels of peripartum acuity in Boston and Worcester (Central Mass) likely account for the higher delivery-only rates in those regions.

Regional Variation in Perinatal Bundled Care Claims

The table below provides the name of the counties associated with each geographic description.

Geographic Description	Associated Counties
Western Mass	Berkshire, Franklin, Hampshire, Hampden
Central Mass	Worcester
Cape and Islands	Barnstable, Dukes, Nantucket
Greater Metro Boston	Essex, Middlesex, Norfolk, Suffolk
Southeastern Mass	Bristol, Plymouth

Descriptions of Pre-and Post-Natal Utilization Codes

The key below describes the procedures associated with each category of service:

Service Category	Description
Prenatal Only	59425: Antepartum care only; four to six visits and 59426: Antepartum care only; seven or more visits
Prenatal, Delivery, Postpartum	59400: Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care
	59610: Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care, after previous cesarean delivery
	59618: Routine obstetric care including antepartum care, cesarean delivery, and postpartum care, following attempted vaginal delivery after previous cesarean delivery
Delivery Only	59409: Vaginal delivery only (with or without episiotomy and/or forceps);
	59514: Cesarean delivery only
	59612: Vaginal delivery only, after previous cesarean delivery (with or without episiotomy and/or forceps)
	59620: Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery
Delivery and	59410: Vaginal delivery only (with or without episiotomy and/or forceps); including postpartum care

Service Category	Description
Postpartum	59510: Routine obstetric care including antepartum cesarean delivery, and postpartum care
	59515: Cesarean delivery only; including postpartum care
	59614: Vaginal delivery only, after previous cesarean delivery (with or without episiotomy and/or forceps); including postpartum care
	59622: Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery; including postpartum care
Postpartum Only	59430: Postpartum care only (separate procedure)
Other	59525: Subtotal or Total Hysterectomy after cesarean delivery
	59414: Delivery of Placenta (separate procedure)

4. HEDIS Prenatal and Postpartum Care Screening Scores

The HEDIS Prenatal and Postpartum Care measure includes two sub-measures, Timeliness of Prenatal Care and Postpartum Care. Results for both of these sub-measures are presented in the tables below. The MassHealth Weighted Mean (MHWM) demonstrates the combined performance of the PCC plan and the five MCOs who provided maternity care in CY17.

Figure #9: Timeliness of Prenatal Care (HEDIS 2017-2018 Rates)

Timeliness of Prenatal Care Measure	CY 2016 Year	CY 2017 Year	CY17 Rate Comparison to NCQA National Medicaid 75th Percentile	CY17 Rate Comparison to NCQA National Medicaid 90th Percentile
PCC Plan Rate	89.05%	86.33%	↓	↓
MHWM	88.3%	86.5%	↓	↓

The Timeliness of Prenatal Care Measure sub-measure captures the percentage of deliveries where the expectant mother received a prenatal care visit during the first trimester. As shown in Figure #9, both the MassHealth PCC Plan rate and MHWM, as defined above, are slightly below the 75th percentile. Overall MassHealth scores decreased from CY2016 to CY2017; however, this decline was also observed in the NCQA National Medicaid benchmark rates.

Figure #10: Prenatal and Postpartum Care (HEDIS 2017-2018 Rates)

Postpartum Care Measure	CY 2016 Year	CY 2017 Year	CY17 Rate Comparison to NCQA National Medicaid 75th Percentile	CY17 Rate Comparison to NCQA National Medicaid 90th Percentile
PCC Plan Rate	60.58%	62.53%	↓	↓
MHWM	65.9%	67.7%	↓	↓

The Postpartum Care sub measure reports the percentage of live deliveries that were followed by a postpartum visit. Figure #10 shows that the MHWM and PCC Plan CY 2017 rates are below the NCQA 75th percentile Medicaid benchmarks. However, PCC Plan rates did increase from CY2016 to CY2017.

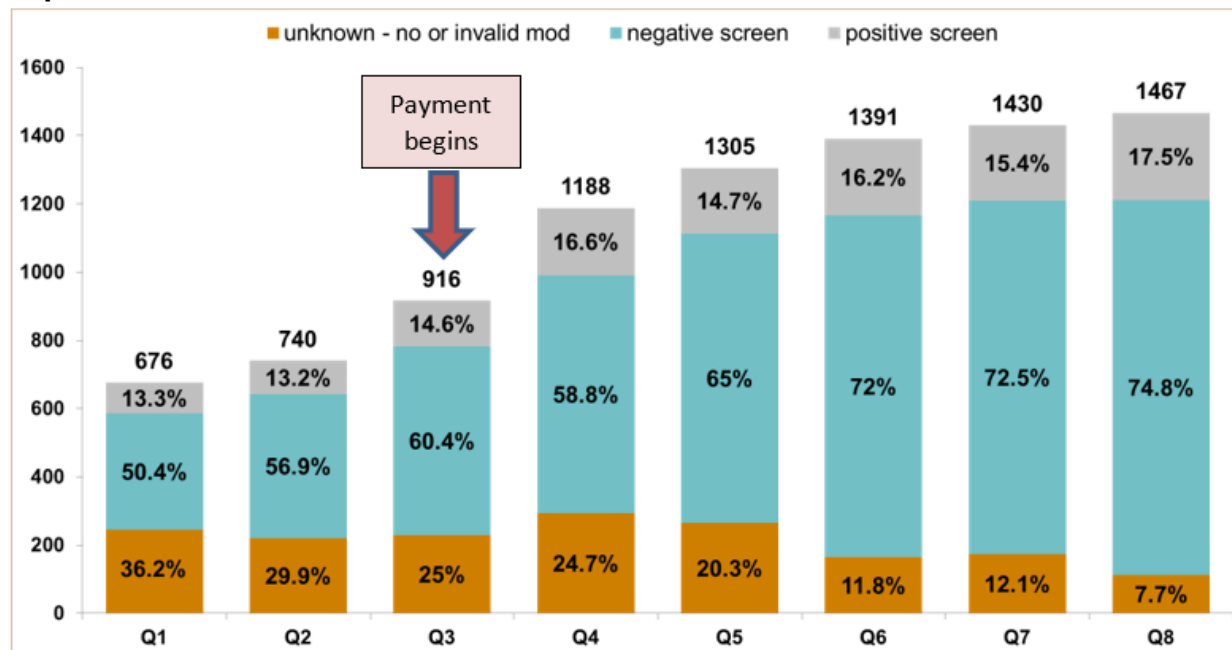
5. Postpartum Depression (PPD) Screening

An estimated one in seven women experiences a major or minor depressive episode during pregnancy and in the first year after delivery. Despite this prevalence, nearly 60% of people with symptoms are not diagnosed, and half of those with a diagnosis are not treated. Risk factors associated with perinatal depression include history of depression and social determinants of health including low income, stressful life events, low social supports, and fewer years of education, all of which are disproportionately higher in Medicaid populations. Screening with validated tools can improve detection and allow for early treatment, but surveys of providers and health care systems in Massachusetts indicated universal screening was not a routine part of care.

Peripartum depression is treatable, with interventions from behavioral changes (sleep, hygiene, engagement of social supports) to pharmacologic. Importantly, two-thirds of cases can be detected in the prenatal period, so peripartum and not just PPD screening is essential and if treated early could minimize the longer-term impact. Left untreated, PPD can negatively impact the health of caregivers and infants and involve cognitive delay and behavioral issues.

MassHealth implemented payment for a universal screening for PPD beginning in May 2016 (Q3 in graph below).

Figure #11: Maternal Peripartum Depression Screening Before and After Payment Implementation



Results: Payment for both maternal perinatal depression screening and caregiver screening in the pediatric setting led to increased screening rates and identification.

Two years of data (October 2015 – September 2017) demonstrate:

- 9,962 women in maternal care were screened, with 8,978 screened postpartum; the number of screens nearly doubled after payment began.
- 2,024 infant caregivers were screened in the pediatric setting, a nearly six-fold increase in screening after payment began.
- The accuracy of reporting improved over time, with fewer providers reporting incorrect modifiers, or no modifiers at all.
- Positive screen reporting grew less variable over time and was consistent with prevalence of positive screens documented in the literature.

6. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Perinatal Services

MassHealth's payment rate analysis includes a comparison of Medicaid and Medicare 2018 rates for obstetrics services. The analysis found that Massachusetts Medicaid FFS obstetrics rates were an average of 92.7% of Medicare in 2018.

HCPCS	Obstetrics Code Description	2018 Mass. Medicare Non- Facility Rate- Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
59400	Routine obstetric care including	\$2,341.82	\$2,173.45	92.8%

HCPCS	Obstetrics Code Description	2018 Mass. Medicare Non- Facility Rate- Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
	antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care			
59409	Vaginal delivery only (with or without episiotomy and/or forceps)	\$904.99	\$839.04	92.7%
59410	Vaginal delivery only (with or without episiotomy and/or forceps); including postpartum care	\$1,157.83	\$1,072.08	92.6%
59414	Delivery of placenta (separate procedure)	\$102.27	\$94.25	92.2%
59425	Antepartum care only; 4-6 visits	\$513.16	\$478.48	93.2%
59426	Antepartum care only; 7 or more visits	\$918.47	\$857.55	93.4%
59510	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care	\$2,595.29	\$2,403.88	92.6%
59514	Cesarean delivery only	\$1,018.57	\$943.39	92.6%
59515	Cesarean delivery only; including postpartum care	\$1,407.76	\$1,301.12	92.4%
59610	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care, after previous cesarean delivery	\$2,462.74	\$2,276.96	92.5%
59618	Routine obstetric care including antepartum care, cesarean delivery,	\$2,628.20	\$2,434.61	92.6%

HCPCS	Obstetrics Code Description	2018 Mass. Medicare Non- Facility Rate- Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
	and postpartum care, following attempted vaginal delivery after previous cesarean delivery			
All Codes	Total Obstetrics Average	\$1,459.19	\$1,352.26	92.7%

Section 6: Review Analysis of Home Health Services

1. CMS Moratorium

On February 11, 2016, MassHealth received CMS approval to impose a temporary moratorium on enrollment of new home health agency providers for an initial period of six months. This was based on analysis that revealed that MassHealth spending on home health agency services had grown 41% from state fiscal year 2014 to 2015 and that 85% of that growth was driven by providers who had enrolled in the MassHealth program since 2013; and that there were significant risks to program integrity, evidenced by the fact that MassHealth made more referrals of home health agencies to the Attorney General's Medicaid Fraud Division over this time period than any other provider type. MassHealth subsequently requested and received approval from CMS to extend the moratorium while it developed and implemented various measures to ensure program integrity in the home health program.

Since the provider enrollment moratorium was implemented, MassHealth has continued to monitor access to home health agency services to ensure the moratorium did not adversely impact access to Home Health services. Data collected since the initial AMRP was completed indicate that the moratorium on enrollment of new home health agency providers has not adversely affected access to care for our members.

There are currently 200 enrolled home health agency locations providing MassHealth covered home health services across the entire state. Excluding Nantucket and Dukes County where MassHealth enrollment is low, the number of home health agencies serving each county in SFY18 ranged from fifteen in Berkshire County to a high of 143 in Middlesex County. The average number of counties within which a home health agency provides services is 4.76, which indicates that MassHealth enrolled home health agencies cover a comparatively large geographical area of the state. The significant number of existing home health agencies in each county illustrates that members have provider choice, and that provider choice has not been adversely affected by the current moratorium.

2. Availability of Home Health Service Providers

As noted above, CMS granted MassHealth a temporary moratorium on enrollment of new home health agency providers. MassHealth data indicates that the temporary moratorium has not adversely impacted member access to home health services.

In this section of the AMRP MassHealth presents the required data on the number of enrolled home health service providers,

Methodology: In order to determine the number of providers trended over time, MassHealth analyzed the number of active billing providers for each section of the AMRP (by provider ID and service location) and organized them below by the number of providers in each county -unduplicated over each full fiscal year for SFY16, SFY17 and SFY18.

Home health agencies employ several types of practitioners, including registered nurses (RN), licensed practical nurses (LPN), home health aides, and physical, occupational, and speech/language therapists. Note that in Massachusetts home health agencies serve members in more than one county.

Number of Home Health Agencies Serving MassHealth Members, per Member Residing in Each County SFY16 - SFY18

County	SFY 2016	SFY 2017	SFY 2018
Barnstable	36	32	36
Berkshire	26	25	15
Bristol	95	103	93
Dukes	4	3	4
Essex	113	111	104
Franklin	36	34	23
Hampden	75	72	64
Hampshire	44	44	35
Middlesex	148	140	143
Nantucket	2	3	3
Norfolk	123	125	111
Plymouth	89	88	92
Suffolk	133	126	127
Worcester	117	111	111

As noted above, home health agencies provide services in more than one county. Therefore, the table does not show the number of home health agencies located in each county but instead shows the number of home health agencies serving counties across SFY16 - SFY18 based on member claims data and member's county of residence. This number and overall trajectory varies by county. MassHealth finds that the year over year fluctuations have not negatively impacted member access to home health services. For instance, Nantucket and Dukes counties continue to have a small number of home

health agencies providing services; however, there are only a small number of MassHealth members residing in these counties; whereas in Essex, Suffolk, and Worcester counties there are significantly more home health agencies operating and correspondingly a larger number of MassHealth members residing in these counties.

While a number of counties experienced a slight decrease in the number of home health agencies serving members in each county, the total number of home health agencies operating in each county across the Commonwealth still remains higher than reported figures from SFY15 and earlier.

Note that out-of-state provider information is included in the home health agency provider counts because those providers are eligible to deliver home health to MassHealth members. Out-of-state data is not reported in a separate line, however, because the table is based on the county of the member, rather than of the provider.

2. Member/ Home Health Agency Provider Ratios SFY16-SFY18

The member/provider ratios, trended for stability over time, in the following section offer context to the provider data tables above.

Data Source: MMIS member and provider enrollment data

Methodology: Divided the number of enrolled MassHealth members in each county by the number of active, enrolled home health agencies serving that county.

Members are defined as PCC Plan members, members enrolled in a Primary Care ACO and FFS members with MassHealth primary coverage, and FFS members with MassHealth secondary coverage with TPL, who are receiving home health services that could include one or more of the following services: skilled nursing, medication administration visits (performed by a RN or LPN), home health aide services, physical therapy, occupational therapy, or speech/language therapy.

Note that the ratios below are based on the residence of the members. Out-of-state provider data is included in determining the member per provider ratios. Out-of-state data is not reported in a separate line, however, because the data is based on the county of the member and not of the provider.

Number of Members per Home Health Agency SFY16 – SFY18

County	SFY 2016	SFY 2017	SFY 2018
Barnstable	18	20	25
Berkshire	13	12	20
Bristol	30	27	30
Dukes and Nantucket	*	*	*
Essex	68	66	65

County	SFY 2016	SFY 2017	SFY 2018
Franklin and Hampshire	16	16	20
Hampden	51	51	48
Middlesex	43	45	41
Norfolk	14	14	15
Plymouth	20	19	18
Suffolk	37	40	39
Worcester	39	41	39
Average	34	34	34
Median	20	20	25

*Non-zero numeric references less than 11 and related complementary data fields have been masked, withheld, or aggregated to protect member confidentiality

The above table shows the trend across SFY16 - SFY18 for number of resident members per home health agency. Note that home health agencies can provide services in more than one county. Data in Dukes and Nantucket and Franklin and Hampshire counties, as shown above, has been combined because MassHealth membership is very low in those counties. The member-provider ratio varies across this time period; in some counties this ratio increased and in others the ratio decreased. Notably, the overall average of members per home health agency by county remained stable, while the median increased slightly. Since home health agencies have the capacity to expand, increasing staff if necessary, and serve more members by county depending on member needs, any increase in members represented above does not indicate an access issue, and overall the data shows access to home health services has been and continues to be robust.

3. Utilization of Home Health Services

Data source: MMIS member enrollment data and MMIS claims data

Methodology: Number of unduplicated members for each type of home health service in SFY16 – SFY18 is shown below. All providers captured in this section are providers who actively billed for Home Health Services during the dates of service in review.

Data is not provided on a county level because home health agencies travel to the member's home, and so services could be, and often are, provided by home health agencies located in a county other than where the member resides. The methodology for this section differs from the rest of the home health analysis in this section 6 in that it is not based on episodes of care. It is also possible for more than one agency to be providing services to members who receive Continuous Skilled Nursing Services. Furthermore, members may receive more than one home health service per day and therefore multiple claims per day could be attributable to just one member. Additional considerations:

- Out-of-state utilization data is included because their services are provided to MassHealth members by out-of-state agencies.
- N/A indicates utilization could not be computed because there were no services utilized for such service in that county.
- Members are defined as PCC plan members, members enrolled in a Primary Care ACO, and FFS members with MassHealth primary coverage, and FFS members with MassHealth secondary coverage with TPL who are receiving home health services that could include one or more of the following services: skilled nursing, medication administration (provided by a RN or LPN), home health aide services, physical therapy, occupational therapy, or speech/language therapy.

Utilization of Skilled Nursing and Home Health Aide Services by Service Code SFY16 –SFY18

Number of members using the following services: 1) Skilled Nursing (intermittent) 1- 60 days of service and 1-30 days of service¹⁰, 2) Skilled Nursing (intermittent) 60+ and 30+ days of service¹¹ 3) Home Health Aide, and 4) Medication Administration Visits (performed by a RN or LPN)

Skilled Nursing, Medication Administration, and Home Health Aide Unduplicated Member Counts

Procedure Code and Modifier(s)	SFY 2016	SFY 2017	SFY 2018
G0154 ¹² Skilled Nursing services in a Home Health Setting (1-60 days)	17,476	N/A	N/A
G0154 (UD, U1, U2)- Skilled Nursing services in a Home Health Setting (60+ days)	17,616	N/A	N/A
G0154 (TT)- Skilled Nursing services in a Home Health Setting (multiple member care)	1,015	N/A	N/A
G0156 – Home Health Aide Services in a Home Health Setting	12,337	11,641	9,300
G0299 - Skilled Nursing (RN) services in a Home	19,443	23,872	18,570

¹⁰ MassHealth changed the skilled nursing services pricing methodology in July 2017. Prior to July 2017, skilled nursing services provided within 1-60 days of a member's home health start of care was reimbursed by procedure codes G0299 (RN) or G0300 (LPN), with a reduced rate reimbursed on days 61+ with the modifier UD. As of July 2017, skilled nursing services were reimbursed with procedure codes G0299 and G0300 for services provided within 1-30 days of a member's home health start of care, with a reduced rate reimbursed on days 31+ with the modifier UD+.

¹¹ See footnote 5.

¹² Procedure Code G0154: Services for Skilled Nursing in a home health setting was retired by CMS December 31, 2016. For Skilled nursing utilization after this date, please refer to procedure codes G0299 and G0300.

Procedure Code and Modifier(s)	SFY 2016	SFY 2017	SFY 2018
Health Setting (1-60 days; 1-30 days)			
G0299 (UD, U1, U2)- Skilled Nursing (RN) services in a Home Health Setting (61+ days; 31+days)	18,961	22,494	21,633
G0299 (TT)- Skilled Nursing (RN) services in a Home Health Setting (multiple member care)	1,014	770	600
G0300 - Skilled Nursing (LPN) services in a Home Health Setting (1-60 days; 1-30 days)	9,482	9,123	6,824
G0300 (UD, U1, U2)- Skilled Nursing (LPN) services in a Home Health Setting (61+ days; 31+days)	9,280	12,140	11,386
G0300 (TT)- Skilled Nursing (LPN) services in a Home Health Setting (multiple member care)	344	216	126
T1502 – Administration of oral, intramuscular, and/or subcutaneous medication (RN or LPN). (Medication Administration visit) ¹³ .	N/A	N/A	10,441
T1503 - Administration of medication other than oral, intramuscular, and/or subcutaneous medication (RN or LPN) (Medication Administration visit.)	N/A	N/A	382

Utilization of Therapy Services SFY16 – SFY18

Number of members using the following services: 1) Physical Therapy, 2) Occupational Therapy and 3) Speech-Language Therapy

Therapies- Unduplicated Member Counts

Procedure Codes	SFY16	SFY17	SFY18
G0151 – Physical Therapy Services in a Home Health setting	6,067	5,884	5,873
G0152 - Occupational Therapy Services in a Home Health setting	2,601	2,674	2,760
G0153 – Speech/Language Therapy Services in a Home Health setting	410	357	360

Note that while the above data indicates that total home health utilization decreased over SFY16– SFY18, MassHealth did not receive member complaints regarding access to these services during this period, showing that the enrolled home health agencies were able to accommodate the demand for the above services. The utilization decreases represented above were in large part a result of MassHealth’s extensive program integrity efforts.

¹³ Procedure codes T1502 and T1503 were implemented by MassHealth in July 2017, hence the absence of utilization in SFY16 and SFY17.

Utilization of Continuous Skilled Nursing Services SFY16 – SFY18

Number of members using Continuous Skilled Nursing (Private Duty Nursing) services

Continuous Skilled Nursing—Unduplicated Member Counts

Procedure Codes and Modifiers	SFY16	SFY17	SFY18
T1002 – Continuous Skilled Nursing provided by a RN (single-patient)	795	786	758
T1002 (TT, U1, U2) – Continuous Skilled Nursing provided by a RN (multiple-patients)	42	34	35
T1003 - Continuous Skilled Nursing provided by an LPN (single-patient)	719	712	662
T1003 (TT, U1, U2) Continuous Skilled Nursing provided by an LPN (multiple-patients)	29	22	20

Note that while the data above indicates that the total number of unique members utilizing Continuous Skilled Nursing services has decreased slightly over SFY16-SFY18, MassHealth does not attribute this decrease to either access issues or MassHealth's program integrity efforts, but rather to a reduction in the total number of members requiring Continuous Skilled Nursing Services. MassHealth provides all members who require Continuous Skilled Nursing services (referred to as "Complex Care Members") with care coordination and works closely with such members on the authorization and scheduling of their Continuous Skilled Nursing services.

4. Comparison Analysis of Medicaid Payment Rates to Medicare Payment Rates for Home Health Services

MassHealth's payment rate analysis includes a comparison of rates for codes and services for 2018 for MassHealth and Medicare. Note that we were unable to obtain commercial plan rates for comparison. Overall, MassHealth's FFS home health rates were 51.2% of Medicare FFS home health rates in 2018. It is also important to note, that MassHealth does not limit MassHealth coverage of home health services to only homebound members and that it also provides coverage of home health services for individuals with chronic care needs, while Medicare does not provide coverage to such individuals. Despite the differential between MassHealth and Medicare FFS home health rates, MassHealth has not heard concerns regarding access to home health agency services.

HCPCS	Home Health Description	2018 Mass. Medicare Non-Facility Rate Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
G0151	Services of physical therapist in the home health setting	\$156.76	\$68.30	43.6%
G0152	Services of speech	\$157.83	\$71.20	45.1%

HCPCS	Home Health Description	2018 Mass. Medicare Non-Facility Rate Statewide Average	2018 Mass. Medicaid Rate	Mass. Medicaid Payment as % of Medicare
	therapist in the home health setting			
G0153	Services of occupational therapist in the home health setting	\$170.68	\$72.88	42.7%
G0299	Services of skilled nurse in home health setting (RN)	\$143.40	\$89.21	62.2%
G0300	Services of skilled nurse in home health setting (LPN)	143.40	\$89.21	62.2%
G0156*	Services of home health aide	\$64.94	\$6.10*	N/A**
All Codes	Total Home Health Average	\$154.41	\$78.16	51.2%

*For home health aide services, Medicare pays by visit and MassHealth pays by 15-minute units. Therefore, home health aide service rates are not included in the total average comparison of differences between rates

** N/A is indicated because the rates are reimbursed differently and cannot be compared to each other.

5. Monitoring Standards and Procedures for Home Health Services

Pursuant to section 447.203(a)(b)(6)(ii), MassHealth has added monitoring standards for home health intermittent skilled services to comply with the requirement to provide such monitoring when submitting a State Plan Amendment (SPA) that reflects a rate restructure or reduction. In April 2018, the AMRP was updated to include the monitoring standards and analysis described below.

In SPA MA-TN-017-005, MassHealth implemented a rate restructure for intermittent skilled nursing services. As part of SPA MA-TN-017-005 (Home Health), MassHealth agreed to monitor the ratio of actively billing home health agencies to members receiving home health services bi-annually to determine whether the rate restructure affected access to home health services. MassHealth further agreed to conduct additional monitoring if it identified that the ratio of members to actively billing home health agencies increased by 30% or more from the ratio of 126:1 identified during the time period of January-April 2017 (i.e. there was an increase in ratio that results in a ratio equal to or greater than 163.8:1). MassHealth has been monitoring this ratio bi-annually and has identified that no significant change in this ratio has occurred.

Data source: MMIS provider enrollment data and MMIS claims data

Methodology: Number of unduplicated members divided by the number of actively billing home health agencies

Members are defined as PCC Plan members, members enrolled in a Primary Care ACO, and FFS members with MassHealth primary coverage, and FFS members with MassHealth as secondary coverage with TPL who are receiving home health services.

Utilization and Provider Enrollment Review to Determine Access Adequacy to Home Health Services

Time Period	Ratio of Members per Actively Billing Home Health Agency
July-December 2017	131
January-June 2018	135
July-December 2018	117

The above data indicates that there has not been a 30% increase in the ratio of members to billing home health agencies over the January-April 2017 ratio of 126:1. While the ratio did increase slightly during the time periods of July-December 2017 and January-June 2018, the ratio decreased during the time period of July-December 2018 below the initial benchmark ratio of 126:1. Given this data, MassHealth has determined that the rate restructure for intermittent skilled nursing services implemented through SPA MA-TN-017-005 has not adversely impacted member access to home health services.

Section 7: Conclusion

Based on the data and information available to MassHealth for its 2019 AMRP analysis, MassHealth concludes that access to Medicaid covered health care services and providers in Massachusetts is currently sufficient and consistent with section 1902(a)(30)(A) of the Social Security Act. We appreciate CMS's recognition that, to meet the established timetable, states would base their AMRPs on the most recent available data and that such data may vary from program to program within a state, or from state to state. As such, MassHealth acknowledges that there may be limitations to interpretation of the available data and benchmarks, or proxy benchmarks employed.

Nonetheless, MassHealth views the data used to develop the AMRP as demonstrating overall sufficient member access to care in the areas CMS identified for assessment in states' 2019 Access Review Monitoring Plans (the extent to which beneficiary needs are met; the availability of care and providers; changes in beneficiary service utilization; and comparisons between Medicaid rates and rates paid by other payers). Massachusetts bases this conclusion on its review of a core set of five services: primary care, physician specialty care, behavioral health care, pre- perinatal services (including labor and delivery), and home health services. As MassHealth completed the AMRP and reviewed the utilization of services, we found that our members were utilizing MassHealth services also available to members of other health plans. Furthermore, analysis of the data and information contained in this AMRP in comparison to recent data available in

*MassHealth: The Basics Facts and Trends prepared by the Center for Health Law and Economics*¹⁴ indicates that MassHealth members have access to similar services as those who have commercial health plans (i.e., hospital services, physician services, well child visits and prescription drugs) plus additional services such as long-term services and supports, diversionary behavioral health services, and transportation services).

Within the AMRP, MassHealth evaluated access based on MMIS data sources, CSC call center data, geo-mapping software, HEDIS measures, and took into account Massachusetts' specific delivery systems, beneficiary characteristics and geography. Furthermore, MassHealth's monitoring of provider participation and members' calls to MassHealth customer service for provider access issues indicate continued satisfactory access to services.

Through MassHealth's most recent Section 1115 Demonstration Waiver renewal, the agency has implemented innovative service delivery systems that improve care, increase efficiency, and reduce costs. Goals of the reform include advancing alternative payment methodologies; strengthening the relationships between members and their primary care providers; increasing linkages and integration with behavioral health care and long-term services and supports; and materially improving the member experience. While not the focus of the AMRP, MassHealth believes that these efforts will continue to improve timely and appropriate access to care for our members enrolled in managed care entities.

¹⁴ MassHealth: The Basics Facts and Trends prepared by the Center for Health Law and Economics, https://bluecrossmafoundation.org/sites/default/files/download/publication/MassHealthBasics_Chartpack_v11_10-22-18update_Final%202017.pdf