



DRAFT

Access Monitoring Review Plan

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medicaid.ohio.gov

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SECTION I: EXECUTIVE SUMMARY

The Ohio Medicaid program provides access to healthcare coverage for low-income adults, children, pregnant women, seniors, individuals with disabilities, parents and other adults. The Ohio Department of Medicaid (ODM) is the single state agency that administers the Medicaid program within the state. In state fiscal year (SFY) 2018, the ODM provided coverage to approximately 3 million enrolled beneficiaries¹ with total expenditures of approximately \$26.3 billion² and were served by a network of over 135,000 providers³. In CY 2018, approximately 90% of these beneficiaries were enrolled in managed care. This is a ten-percentage point increase from what was reported in the 2016 AMRP where the managed care penetration rate was reported at 80% of total Medicaid enrollment in CY 2015.⁴

As of December 2018, Ohio's FFS delivery system provides access to healthcare to, on average, 282,661 full benefit⁵ beneficiaries, which has declined over the study period from 422,006⁶ in December 2016. The study population includes beneficiaries who are not dually eligible for Medicare and Medicaid and are under age 65. Within this group, the distribution of member months follows a similar pattern as the number of enrollees, where the percentage of all fee for service (FFS) enrollees is declining over the study period from 14.1% in CY 2016 to 8.3% in CY 2018. This is largely the result of additional populations moving to managed care and the Managed Care Day One policy change.

Ohio measures and monitors indicators of healthcare access to ensure that its Medicaid beneficiaries have access to care that is comparable to the general population. In accordance with 42 CFR 447.203, Ohio has developed an updated access monitoring review plan (AMRP), for the following service categories provided under a FFS arrangement:

- Primary Care Services, including Federally Qualified Health Centers and Rural Health Clinics
- Dental Care Services
- Prenatal and Postpartum obstetric services, including labor and delivery
- Home Health Services
- Behavioral Health Services. This service category is subcategorized by diagnosis code and age cohorts. For presentation purposes, the findings and assessment of access combines Serious Emotional Disturbance and Serious Mental Illness as they share a common set of diagnosis codes.
 - Substance use disorder (BH SUD)
 - Serious Emotional Disturbance (BH SED)
 - Serious Mental Illness (BH SMI)
- Physician Specialist Services. The service categories were selected based upon evaluating utilization in total and for adult and pediatric population cohorts.

¹ <https://medicaid.ohio.gov/Portals/0/Resources/Reports/Caseload/2018/06-Caseload.pdf>

² <https://www.medicaid.ohio.gov/Portals/0/Resources/Reports/BudgetVariance/2018/BV-6.pdf>

³ <https://www.medicaid.ohio.gov/Portals/0/Resources/Budget/ODM-FINAL-Testimony-for-Ohio-Senate-Finance-Subcommittee-on-Health-and-Medicaid.pdf>

⁴ <https://www.medicaid.ohio.gov/RESOURCES/Reports-and-Research/Caseload-Reports>

⁵ <https://medicaid.ohio.gov/Portals/0/Resources/Reports/Caseload/2018/12-Caseload.pdf>

⁶ <https://www.medicaid.ohio.gov/Portals/0/Resources/Reports/Caseload/2016/12-Caseload.pdf>

- Radiology. This service category focuses on access to radiology services for adult and pediatric cohorts.
- Surgery. This service category focuses on access to surgical services for only the Adult cohort.
- Ear, Nose and Throat. This service category focuses on access to ear, nose and throat services for only the Pediatric cohort.
- Durable Medical Equipment (DME)

Summary of analytic process used, services and populations reviewed

Medicaid FFS beneficiaries who are not dually eligible for Medicare and under age 65 who were enrolled during CY 2016, 2017 and 2018 serve as the basis for the 2019 AMRP study population. Population cohorts of pediatric⁷/adult, male/female, and disabled⁸/non-disabled are used for utilization comparative purposes.

Data sources common to all services reviewed

Claims and encounters with dates of service in CY 2016, 2017 and 2018 were included in the study. Institutional, professional and dental claim types were used to create the initial subset of claims for each service category included in the AMRP. Key variables were used to filter claims to identify the appropriate claim type, provider type, provider specialty and place of service for inclusion in the service specific dataset. A validation process was conducted to ensure both the completeness of the data and removal of any duplicates from utilization trending.

Beneficiary enrollment data from the same three-year time period was used to identify aid categories (i.e., duals) and age groups (i.e., 65 and older for all services except home health) that should be excluded. In addition, the enrollment data is used to create flags for beneficiaries based on demographic attributes (e.g., male/female, pediatric/adult, disabled/non-disabled). Flags were also created to identify whether the beneficiary was enrolled in FFS or managed care. Member months for each beneficiary were accumulated for each demographic cohort in the study. The study was limited to individuals enrolled in the FFS program for at least nine months in each study year.

The State's provider enrollment file was used to assist with capturing the number of providers for each specific service category studied. The latitude and longitude coordinates of rendering providers that were identified in the utilization analysis were used to capture location of the provider to join with member home latitude and longitude coordinates for driving distance calculations.

All claims, beneficiary and provider enrollment data originated from the Ohio Department of Medicaid Information Technology System (MITS) BIAR Data Warehouse as of March 2019.

What was analyzed for each service reviewed

For each service category included in the study, a uniform set of metrics were calculated to evaluate access. The metrics are combined into a service-specific dashboard, aggregated at the regional or statewide level, and color coded to illustrate results that are better-than-expected or worse-than-expected. Dashboards present service-specific findings as follows.

⁷ Beneficiary age less than nineteen years old.

⁸ Ohio Department of Medicaid aid categories 4009,4603,4619,4620 for CY 2016, and 4603, 4619, and 4620 for CY 2017 and CY 2018.

- Section A: Count of Users. For each year in the study, the number of unique beneficiaries with at least nine months enrollment in FFS who used the service were counted.
- Section B: Utilization per 1000 Member Months. Presents utilization rates per 1000 member months for CY 2016, 2017 and 2018 dates of service for each service category, for each population cohort (total, adult/pediatric, male/female, and disabled/non-disabled).
- Section C: Average Driving Distances. Calculated for unique member-to-rendering provider trips for CY 2018 utilization, using the latitude and longitude of each user member's home and each rendering provider's location in the study. Results were computed for each population cohort, as well as on a geographical basis at the regional and statewide level.
- Section D: Provider Availability. The unique count of enrolled, licensed and billing providers were counted for CY 2018. Provider availability per 1000 Medicaid members was computed for the total population as well as for adult and pediatric cohorts. For those service specific categories that have general population provider availability in the Area Health Resource Files (AHRF) Workforce Data file, provider data was extracted to be used as a benchmark against Medicaid provider availability.

Composite Dashboard

The Composite Dashboard is found in Exhibit I.1. The dashboard is a summary of information from other dashboards in the AMRP using three key metrics of access to care. The data used in the dashboard is for CY 2018 utilization and is presented on a regional basis. The Provider-to-Member Ratio presents provider availability per 1000 members in total (FFS and managed care). Results are benchmarked, where possible, against AHRF provider availability to the general public.

The Utilization Per 1000 Member Months rate presents total FFS utilization on a regional basis using the beneficiary county of residence for the regional assignment. Results for this metric are not benchmarked primarily because the FFS population and corresponding utilization is low compared to the utilization in the entire Medicaid program. Given that Ohio has approximately 90% of its members enrolled in managed care, observations must be put into context by viewing utilization in total to assess whether there is an access to care concern.

The Average Driving Distance presents the weighted average distance traveled, by region, for beneficiaries with a county of residence in that region. Results are color-coded to compare against service-specific driving distance thresholds of:

- 20 miles or less (except Radiology and Surgery which are set at 30 miles or less)
- More than 20 but less than 30 miles (except Radiology and Surgery which are set at more than 30 but less than 50 miles)
- More than 30 miles (except Radiology and Surgery which are set at more than 50 miles)
- Low sample size (which is set at less than 25 trips, except Prenatal/Postpartum and Ear, Nose and Throat which have no minimum threshold)

Overall the Composite Dashboard yields several key findings:

- Ohio Medicaid beneficiaries have better or equal access compared to the general public for most providers that were examined. The only exception is Radiology which has provider availability ratios that are less than the AHRF benchmark value in all regions.
 - The greatest provider availability ratios are for Ear, Nose and Throat and Primary Care providers.
 - The lowest provider availability ratios are for Home Health and DME. Home Health provider availability exceeds the AHRF benchmark, however, for availability in every region. There is no benchmark data available for DME.
- Ohio Medicaid beneficiaries in general travel 30 miles or less (or, in the case of Radiology and Surgery, 50 miles or less) to access service specific providers. The one exception is in the Northwest Region for Dental Care (average is 36.8 miles).

Exhibit I.1 Assessment of Ohio Medicaid Fee for service Member Access Using Three Measures, by Region

| | Primary Care Visits | Dental Visits | Prenatal or Postpartum Visits | Substance Use Disorder Services | Serious Emotional Disturbance & Mental Illness Services | Radiology Services | Surgery Related Services | Ear, Nose and Throat Services | Home Health | Durable Medical Equipment |
|--|---------------------|---------------|-------------------------------|---------------------------------|---|--------------------|--------------------------|-------------------------------|-------------|---------------------------|
| | | | | | | | adult only | pediatric only | | |
| Northwest Region | | | | | | | | | | |
| Provider-to-Member Ratio | 11.92 | 0.84 | 5.56 | 7.61 | 6.38 | 1.20 | 0.96 | 20.70 | 0.29 | 0.29 |
| Utilization Per 1,000 Member Months, CY2018 | 100.78 | 12.55 | 8.18 | 23.24 | 136.80 | 48.84 | 76.65 | 24.77 | 340.34 | 108.65 |
| Average Driving Distance, CY2018 | 19.97 | 36.83 | 15.58 | 25.18 | 23.49 | 35.48 | 30.55 | 20.96 | | |
| North Central Region | | | | | | | | | | |
| Provider-to-Member Ratio | 11.83 | 1.30 | 5.92 | 12.45 | 11.08 | 0.65 | 1.04 | 20.34 | 0.22 | 0.28 |
| Utilization Per 1,000 Member Months, CY2018 | 110.26 | 15.58 | 2.37 | 41.78 | 147.86 | 59.91 | 81.71 | 12.73 | 423.59 | 100.14 |
| Average Driving Distance, CY2018 | 13.68 | 14.87 | 10.63 | 14.83 | 13.24 | 19.00 | 15.67 | 13.35 | | |
| Northeast Region | | | | | | | | | | |
| Provider-to-Member Ratio | 14.50 | 1.09 | 6.65 | 12.75 | 11.36 | 0.79 | 0.89 | 23.58 | 0.17 | 0.22 |
| Utilization Per 1,000 Member Months, CY2018 | 114.39 | 17.82 | 4.67 | 25.70 | 153.13 | 59.31 | 97.88 | 13.42 | 541.42 | 108.78 |
| Average Driving Distance, CY2018 | 15.16 | 17.80 | 13.31 | 16.48 | 15.67 | 20.11 | 17.76 | 13.93 | | |
| Northeast Central Region | | | | | | | | | | |
| Provider-to-Member Ratio | 9.30 | 0.98 | 3.66 | 10.82 | 9.06 | 0.55 | 0.64 | 15.95 | 0.16 | 0.25 |
| Utilization Per 1,000 Member Months, CY2018 | 111.40 | 14.11 | 4.35 | 20.50 | 126.43 | 51.00 | 89.94 | 11.28 | 419.61 | 108.61 |
| Average Driving Distance, CY2018 | 21.22 | 27.22 | 16.53 | 20.05 | 19.17 | 32.96 | 26.38 | 20.10 | | |
| South Central Region | | | | | | | | | | |
| Provider-to-Member Ratio | 14.01 | 1.21 | 5.69 | 11.13 | 9.18 | 0.82 | 0.81 | 22.44 | 0.61 | 0.19 |
| Utilization Per 1,000 Member Months, CY2018 | 133.06 | 22.33 | 6.90 | 32.17 | 259.48 | 75.74 | 89.78 | 43.91 | 2019.00 | 171.14 |
| Average Driving Distance, CY2018 | 15.34 | 14.83 | 14.65 | 19.34 | 18.28 | 19.85 | 18.30 | 12.38 | | |
| Southwest Region | | | | | | | | | | |
| Provider-to-Member Ratio | 12.58 | 0.85 | 5.30 | 11.33 | 9.80 | 0.67 | 0.80 | 20.09 | 0.18 | 0.21 |
| Utilization Per 1,000 Member Months, CY2018 | 104.11 | 15.28 | 5.34 | 29.95 | 170.31 | 59.62 | 93.55 | 29.54 | 538.42 | 132.90 |
| Average Driving Distance, CY2018 | 15.73 | 19.19 | 15.30 | 16.31 | 16.48 | 24.03 | 21.69 | 15.03 | | |
| Southeast Region | | | | | | | | | | |
| Provider-to-Member Ratio | 8.61 | 1.00 | 3.78 | 10.20 | 8.70 | 0.39 | 0.59 | 17.02 | 0.18 | 0.22 |
| Utilization Per 1,000 Member Months, CY2018 | 111.08 | 14.93 | 3.90 | 19.80 | 179.13 | 58.14 | 85.16 | 18.69 | 642.91 | 110.91 |
| Average Driving Distance, CY2018 | 22.15 | 28.71 | 22.01 | 22.67 | 24.25 | 36.55 | 27.67 | 22.25 | | |
| <div> <div> Legend for Member-to-Provider Ratio </div> <div> Legend for Average Distance </div> </div> | | | | | | | | | | |
| <div> <div> Greater than AHRF </div> <div> Equal to AHRF </div> <div> Less than AHRF </div> </div> <div> <div> 20 miles or less, except Radiology and Surgery is 30 miles or less </div> <div> More than 20 to 30 miles, except Radiology and Surgery is more than 30 miles to 50 miles </div> <div> More than 30 miles, except Radiology and Surgery is more than 50 miles </div> <div> Low sample (Less than 25 trips, except 0 for Prenatal/Postpartum, and Ear, Nose and Throat) </div> </div> | | | | | | | | | | |

Average Driving Distance Dashboard

The Average Driving Distance Dashboard, as found in Exhibit I.2, presents average driving distances at a more granular level to access care based on the beneficiaries' county of residence. Home Health and Durable

Medical Equipment are not presented since the primary place of service is the beneficiary's home for these services. The results are color-coded in the same manner as what was shown in the Composite Dashboard.

The Average Driving Distance Dashboard yields several key findings:

- There are regional variations within service categories and between regions on how far a beneficiary must travel to see a provider. For example, the Northwest and Southeast regions have more counties that are above the established threshold for the service category.
- The same variation can be seen among counties within service categories and between counties across all presented services on the dashboard.
 - Coshocton County has 7 out of 8 service categories with average driving distances above the established threshold (Surgery is the only service within benchmark).
 - Counties having 6 or more services above the established driving distance threshold include: Adams, Highland.
 - Counties having 5 or more services above the established driving distance threshold include: Holmes, Noble, Pike, Wyandot.
- Within service categories, dental care has the most counties (37) that are above the established threshold.

**Exhibit I.2 Average Driving Distance Report for Selected Services
Representing Trips from Ohio Medicaid Members in Fee-for-Service
that Took Place in Calendar Year 2018**

| | |
|--|---|
| | 20 miles or less, except Radiology and Surgery is 30 miles or less |
| | More than 20 to 30 miles, except Radiology and Surgery is more than 30 miles to 50 miles |
| | More than 30 miles, except Radiology and Surgery is more than 50 miles |
| | Low sample (Less than 25 trips, except 0 for Prenatal/Postpartum, and Ear, Nose and Throat) |

| Region on Top Line in Bold | Primary Care Visits | Dental Visits | Prenatal or Postpartum Visits | Substance Use Disorder Services | Serious Emotional Disturbance & Mental Illness Services | Radiology Services | Surgery Related Services (Adult only) | Ear, Nose and Throat Services (Pediatric only) |
|-------------------------------|---------------------------|------------------|-------------------------------------|--|--|-----------------------|---|--|
| Northwest | 20.0 | 36.8 | 15.6 | 25.2 | 23.5 | 35.5 | 30.5 | 21.0 |
| Allen | 13.0 | 19.8 | 5.9 | 23.0 | 18.0 | 28.2 | 27.1 | 11.0 |
| Auglaize | 21.1 | 29.5 | 7.2 | 30.0 | 22.9 | 38.2 | 40.0 | 7.8 |
| Defiance | 20.5 | 60.9 | 42.0 | 26.1 | 22.8 | 43.4 | 30.2 | 4.8 |
| Fulton | 24.7 | 33.1 | 0.0 | 31.8 | 22.9 | 23.5 | 24.8 | 11.6 |
| Hancock | 21.4 | 49.6 | 19.2 | 25.7 | 24.6 | 32.7 | 20.1 | 16.9 |
| Hardin | 24.5 | 63.2 | 16.8 | 23.7 | 28.2 | 43.8 | 40.2 | 71.1 |
| Henry | 24.5 | 32.7 | 32.9 | 25.8 | 21.6 | 33.7 | 30.0 | 16.9 |
| Mercer | 23.3 | 44.5 | 37.0 | 23.1 | 24.9 | 46.6 | 37.3 | 49.9 |
| Paulding | 22.5 | 39.7 | 0.0 | 26.8 | 24.2 | 44.0 | 28.7 | 7.3 |
| Putnam | 21.3 | 29.8 | 0.0 | 22.8 | 26.5 | 36.6 | 40.5 | 22.0 |
| Shelby | 27.4 | 21.5 | 27.9 | 27.9 | 34.5 | 53.0 | 34.4 | 31.0 |
| Van Wert | 20.6 | 49.0 | 8.8 | 13.9 | 24.6 | 30.7 | 29.3 | 13.7 |
| Williams | 23.9 | 57.3 | 0.9 | 26.7 | 29.1 | 36.8 | 40.1 | 35.8 |
| Wyandot | 31.8 | 35.5 | 0.9 | 45.4 | 36.4 | 55.0 | 43.2 | 36.1 |
| North Central | 13.7 | 14.9 | 10.6 | 14.8 | 13.2 | 19.0 | 15.7 | 13.4 |
| Lucas | 10.6 | 8.8 | 7.5 | 11.9 | 10.0 | 15.6 | 11.6 | 12.8 |
| Ottawa | 24.8 | 22.3 | 0.0 | 25.5 | 24.9 | 29.3 | 32.1 | 4.4 |
| Sandusky | 23.8 | 43.7 | 28.7 | 29.4 | 26.0 | 37.1 | 34.7 | 33.8 |
| Seneca | 27.9 | 36.5 | 0.0 | 40.6 | 34.4 | 55.1 | 31.6 | 11.8 |
| Wood | 15.9 | 19.1 | 18.2 | 23.6 | 18.7 | 21.0 | 17.4 | 13.9 |
| Northeast | 15.2 | 17.8 | 13.3 | 16.5 | 15.7 | 20.1 | 17.8 | 13.9 |
| Ashtabula | 27.2 | 46.1 | 44.5 | 25.0 | 19.9 | 42.9 | 32.2 | 32.2 |
| Columbiana | 23.9 | 26.5 | 15.9 | 24.9 | 24.9 | 26.6 | 28.1 | 30.4 |
| Cuyahoga | 10.6 | 12.9 | 11.4 | 13.4 | 13.1 | 14.2 | 12.4 | 10.5 |
| Geauga | 20.8 | 24.8 | 10.3 | 19.7 | 18.8 | 24.6 | 24.8 | 15.6 |
| Lake | 17.3 | 23.0 | 20.7 | 18.0 | 15.3 | 26.9 | 22.7 | 10.1 |
| Lorain | 22.4 | 20.3 | 24.5 | 22.9 | 21.4 | 26.5 | 24.9 | 19.5 |
| Mahoning | 19.2 | 13.5 | 7.6 | 15.3 | 17.1 | 24.8 | 20.5 | 13.3 |
| Medina | 22.9 | 23.7 | 21.1 | 33.1 | 24.1 | 30.3 | 28.1 | 15.0 |
| Portage | 22.0 | 20.4 | 22.4 | 15.4 | 16.0 | 32.3 | 24.1 | 18.3 |
| Summit | 14.0 | 19.0 | 9.5 | 13.5 | 13.9 | 19.7 | 15.3 | 8.6 |
| Trumbull | 20.6 | 20.2 | 22.5 | 20.2 | 18.6 | 24.2 | 25.5 | 16.0 |
| Wayne | 28.3 | 32.4 | 6.0 | 25.3 | 26.2 | 38.5 | 30.6 | 29.1 |
| Northeast Central | 21.2 | 27.2 | 16.5 | 20.1 | 19.2 | 33.0 | 26.4 | 20.1 |
| Ashland | 26.2 | 24.7 | 17.4 | 27.9 | 23.5 | 51.4 | 36.3 | 44.0 |
| Carroll | 24.0 | 21.6 | 28.7 | 27.1 | 25.3 | 38.9 | 35.9 | 26.6 |
| Erie | 24.1 | 29.7 | 10.2 | 16.9 | 17.7 | 30.7 | 33.0 | 26.2 |
| Holmes | 35.6 | 39.2 | 19.7 | 34.9 | 37.7 | 39.8 | 35.7 | 62.4 |
| Huron | 26.2 | 44.6 | 2.2 | 34.1 | 25.7 | 43.2 | 35.5 | 13.0 |
| Richland | 22.8 | 36.2 | 21.1 | 19.7 | 19.2 | 51.6 | 36.0 | 31.5 |
| Stark | 16.9 | 21.7 | 14.5 | 16.9 | 15.2 | 18.8 | 19.0 | 13.0 |
| Tuscarawas | 26.9 | 32.3 | 17.7 | 26.0 | 28.5 | 33.4 | 27.3 | 18.6 |

**Exhibit I.2 Average Driving Distance Report for Selected Services
Representing Trips from Ohio Medicaid Members in Fee-for-Service
that Took Place in Calendar Year 2018**

■ 20 miles or less, except Radiology and Surgery is 30 miles or less
■ More than 20 to 30 miles, except Radiology and Surgery is more than 30 miles to 50 miles
■ More than 30 miles, except Radiology and Surgery is more than 50 miles
■ Low sample (Less than 25 trips, except 0 for Prenatal/Postpartum, and Ear, Nose and Throat)

| Region on Top Line in Bold | Primary Care Visits | Dental Visits | Prenatal or Postpartum Visits | Substance Use Disorder Services | Serious Emotional Disturbance & Mental Illness Services | Radiology Services | Surgery Related Services (Adult only) | Ear, Nose and Throat Services (Pediatric only) |
|-------------------------------|---------------------------|------------------|-------------------------------------|--|--|-----------------------|---|--|
| South Central | 15.3 | 14.8 | 14.6 | 19.3 | 18.3 | 19.9 | 18.3 | 12.4 |
| Delaware | 19.7 | 14.8 | 20.1 | 19.6 | 20.8 | 23.8 | 21.4 | 11.7 |
| Fairfield | 18.6 | 21.0 | 17.8 | 22.5 | 22.4 | 26.8 | 22.9 | 18.3 |
| Fayette | 26.7 | 36.1 | 15.6 | 29.7 | 44.2 | 43.5 | 36.8 | 27.7 |
| Franklin | 12.2 | 11.2 | 13.7 | 15.6 | 14.5 | 13.9 | 13.1 | 9.3 |
| Gallia | 19.1 | 34.3 | 0.0 | 27.1 | 26.6 | 25.3 | 24.3 | 27.0 |
| Hocking | 28.8 | 0.0 | 0.0 | 43.3 | 42.8 | 0.0 | 0.0 | 0.0 |
| Jackson | 28.8 | 31.5 | 30.6 | 35.7 | 33.4 | 46.4 | 44.5 | 21.0 |
| Lawrence | 13.2 | 10.2 | 5.2 | 14.0 | 13.8 | 18.6 | 16.0 | 7.6 |
| Logan | 29.5 | 31.3 | 0.0 | 25.8 | 30.4 | 34.1 | 36.9 | 24.0 |
| Madison | 18.1 | 21.3 | 20.1 | 21.8 | 26.1 | 25.4 | 23.9 | 22.3 |
| Marion | 19.5 | 21.2 | 11.7 | 22.0 | 17.2 | 36.8 | 21.1 | 28.7 |
| Meigs | 29.1 | 48.7 | 22.9 | 34.9 | 28.6 | 37.3 | 31.7 | 30.8 |
| Pickaway | 23.4 | 21.4 | 22.2 | 21.8 | 37.6 | 27.0 | 23.5 | 18.2 |
| Pike | 26.9 | 48.1 | 92.8 | 36.0 | 32.1 | 40.3 | 34.9 | 34.8 |
| Ross | 25.9 | 29.6 | 19.7 | 25.5 | 33.0 | 44.9 | 33.5 | 20.9 |
| Scioto | 19.7 | 32.4 | 31.3 | 25.9 | 22.3 | 24.0 | 27.1 | 25.9 |
| Union | 24.1 | 22.9 | 14.0 | 24.9 | 23.3 | 23.0 | 18.5 | 17.6 |
| Vinton | 15.2 | 0.0 | 0.0 | 31.0 | 40.8 | 29.8 | 37.9 | 0.0 |
| Southwest | 15.7 | 19.2 | 15.3 | 16.3 | 16.5 | 24.0 | 21.7 | 15.0 |
| Adams | 32.8 | 49.8 | 36.9 | 41.7 | 34.7 | 43.5 | 36.3 | 33.4 |
| Brown | 23.1 | 35.3 | 12.9 | 33.3 | 27.9 | 38.3 | 33.5 | 23.4 |
| Butler | 15.3 | 20.2 | 19.5 | 16.5 | 16.1 | 27.8 | 22.8 | 15.2 |
| Champaign | 30.0 | 21.2 | 9.5 | 29.8 | 30.8 | 37.5 | 30.2 | 21.1 |
| Clark | 17.7 | 15.7 | 16.8 | 17.8 | 19.6 | 36.7 | 28.1 | 22.5 |
| Clermont | 19.6 | 22.7 | 19.0 | 19.2 | 22.7 | 30.7 | 24.5 | 15.7 |
| Clinton | 27.4 | 20.4 | 14.1 | 27.0 | 25.7 | 52.5 | 36.1 | 27.6 |
| Darke | 24.1 | 40.0 | 20.1 | 15.7 | 19.9 | 37.8 | 29.4 | 24.8 |
| Greene | 19.3 | 21.0 | 24.2 | 16.4 | 15.4 | 25.9 | 25.5 | 18.0 |
| Hamilton | 10.8 | 14.0 | 14.0 | 14.5 | 11.6 | 14.7 | 14.1 | 8.2 |
| Highland | 30.9 | 35.3 | 19.0 | 32.4 | 44.6 | 51.8 | 44.6 | 31.5 |
| Miami | 22.3 | 29.3 | 24.8 | 19.9 | 27.2 | 32.2 | 31.1 | 26.7 |
| Montgomery | 15.0 | 18.1 | 10.5 | 13.4 | 15.0 | 19.6 | 22.8 | 17.0 |
| Preble | 22.7 | 31.4 | 27.9 | 22.8 | 25.2 | 31.1 | 34.8 | 34.3 |
| Warren | 18.2 | 21.1 | 21.2 | 19.3 | 19.8 | 24.2 | 23.6 | 12.7 |
| Southeast | 22.2 | 28.7 | 22.0 | 22.7 | 24.3 | 36.5 | 27.7 | 22.2 |
| Athens | 23.8 | 36.2 | 39.0 | 26.1 | 20.9 | 56.9 | 28.0 | 23.5 |
| Belmont | 19.7 | 27.6 | 9.9 | 17.8 | 20.7 | 19.7 | 22.5 | 27.3 |
| Crawford | 23.4 | 40.4 | 38.0 | 29.9 | 23.0 | 43.1 | 33.0 | 6.9 |
| Coshocton | 40.7 | 48.5 | 57.3 | 35.9 | 38.2 | 52.0 | 44.9 | 35.2 |
| Guernsey | 25.0 | 42.5 | 30.6 | 30.6 | 27.6 | 52.2 | 39.0 | 18.3 |
| Harrison | 35.8 | 35.5 | 0.0 | 32.0 | 30.7 | 43.4 | 42.3 | 15.8 |
| Jefferson | 16.0 | 28.7 | 10.3 | 25.0 | 21.8 | 20.6 | 19.3 | 18.7 |
| Knox | 23.5 | 32.5 | 29.0 | 16.5 | 26.3 | 43.8 | 28.9 | 35.9 |
| Licking | 19.2 | 15.8 | 15.7 | 17.9 | 24.4 | 22.7 | 22.3 | 15.1 |
| Monroe | 28.9 | 43.6 | 8.0 | 31.6 | 35.3 | 37.0 | 27.4 | 28.0 |
| Morgan | 35.4 | 44.5 | 0.0 | 23.0 | 26.4 | 68.5 | 47.6 | 58.6 |
| Morrow | 26.2 | 35.8 | 28.1 | 30.7 | 33.6 | 38.6 | 32.3 | 21.6 |
| Muskingum | 18.2 | 29.5 | 15.5 | 21.0 | 17.9 | 36.0 | 21.8 | 17.0 |
| Noble | 32.3 | 33.8 | 24.5 | 30.7 | 33.3 | 49.1 | 42.2 | 40.5 |
| Perry | 23.6 | 21.8 | 20.5 | 19.6 | 23.5 | 39.2 | 36.1 | 26.5 |
| Washington | 15.2 | 15.4 | 17.0 | 16.1 | 22.1 | 19.4 | 18.2 | 7.5 |

* Low sample size is 25 trips for all services, except Prenatal/Postpartum, and Ear, Nose, and Throat, which are 0 trips

Analysis of payment rates

Ohio is a Medicaid expansion state and does not have a separate Children's Health Insurance Program (CHIP) program, so rates do not differ for adult and pediatric populations. Specific procedure code payment rate comparisons were performed by identifying the top ten procedure codes by volume using CY 2018 FFS professional claims data and comparing these to the Ohio Medicaid 2019 FFS rates and to Medicare 2019 rates.

There were 4,297 procedure codes included in the 2019 FFS payment rate comparison that have claims volume. The included procedure codes range from CPT codes 10021 through 99483 and HCPCS codes G0396 and G0397. The top ten codes represent 39.6% of the Medicaid FFS codes billed. The maximum Medicaid as a percent of Medicare is 93.3% for CPT code 93010, Electrocardiogram, and the minimum is 39% respectively, for CPT codes 99232 and 99233, Subsequent Hospital Care.

For each of the top ten procedure codes, a comparison of the 2016 Medicaid rates to Medicare 2016 rates was performed. This was compared to the 2019 Medicaid rates to Medicare 2019 rates. The percent of Medicare rates established for Ohio FFS among the top ten procedures codes are lower percentages in 2019 than what was found in 2016. This is a result of Medicare physician rate increases measured against static Medicaid rates over the study period.

On average, Ohio is paying approximately 57.3% of Medicare rates. There is wide variability, however, ranging from a high of 240.6% to a low of 6.7%. Among the top ten codes based on volume, Ohio is paying approximately 52.1% of Medicare rates.

Public process

Narrative in this section will be completed after the public comment period is over, including a summary of public comments received on the draft 2019 AMRP. Note that Ohio received no comments in 2016 when the first AMRP was released for public comment.

As of the drafting of the 2019 AMRP, the public process will begin with a notice and link to the draft 2019 AMRP on the department's website for 30 days at: <https://medicaid.ohio.gov/RESOURCES/Public-Notices>. In addition, the department will present the draft AMRP at the August 29, 2019 MCAC meeting. Notice of the MCAC meeting agenda, as well as the ODM presentation will be available at: <https://medicaid.ohio.gov/RESOURCES/Boards-and-Committees/Medical-Care-Advisory-Committee>.

Conclusions and next steps for ongoing monitoring

Key Findings

- Ohio has very few Medicaid beneficiaries who consistently receive services through FFS.
 - In CY 2018, approximately 90% of these beneficiaries are enrolled in managed care which is a ten-percentage point increase from CY 2015.⁹
 - The distribution of FFS member months for the study population is declining over the study period from 14.1% in CY 2016 to 8.3% in CY 2018.

⁹ <https://www.medicicaid.ohio.gov/RESOURCES/Reports-and-Research/Caseload-Reports>

- This is largely the result of additional populations moving to managed care and the Managed Care Day One policy change.
- Composite Dashboard Findings
 - Ohio Medicaid beneficiaries have better or equal access compared to the general public for most service specific providers. The only exception is Radiology which has provider availability ratios that are less than the AHRF benchmark value in all regions.
 - The greatest provider availability ratios are for Ear, Nose and Throat, and Primary Care providers.
 - The lowest provider availability ratios are for Home Health and DME, but the Home Health provider availability in Ohio Medicaid still exceeds the AHRF benchmark for availability in every region.
 - With few exceptions, Ohio Medicaid FFS beneficiaries travel 30 miles or less to seek services.
- Average Distance Dashboard Findings
 - There are regional variations within some service categories and between regions on how far a beneficiary must travel to see a provider. There are greater challenges in the Northwest and Southeast regions than in other regions.
 - There are selected counties where driving distances to services pose greater challenges. Among Ohio's 88 counties,
 - In one county (Coshocton), the driving distance average exceeded the established threshold for 7 out of 8 services studied.
 - In two counties (Adams, Highland), the driving distance average exceeded the threshold in 6 out of 8 services studied.
 - In four counties (Holmes, Noble, Pike, Wyandot), the driving distance average exceeded the threshold in 5 out of 8 services studied..
 - Within service categories, dental care has the most counties (37) that are above the 30 mile established threshold.
- Service Specific Findings
 - *Count of Users.* Despite declining FFS enrollment, in general the percentage of users for most services increased over the study period. The exceptions are dental and prenatal and postpartum care services.
 - *Utilization per 1000, by different demographic cohorts.* In general, downward trends were observed with the exception of Home Health, DME, Radiology and Surgery which primarily exhibited an increase.
 - *Average driving distance.* In comparison to the 2016 AMRP, the average distance traveled to see a provider declined for Dental and Prenatal and Postpartum Care. Increases were observed for Primary Care, Radiology and Surgery. For the remaining services where the 2016 report did not have comparable service categories, the average distance traveled was at or below the established threshold at the regional level.
 - *Provider availability.* In comparison to the 2016 AMRP, the count of actual billing providers by service category usually increased. When measuring providers by using a provider per 1000-member measure, an increase or unchanged value was observed since the 2016 AMRP with the exception of Dental and Prenatal and Postpartum Care. Access to providers for Medicaid

beneficiaries is greater than that for the general public using AHRF as a benchmark with the exception of Radiology.

- Other Measures. The most notable finding in this category is an increase in the use of Telehealth services, and specifically growth in behavioral health observed in CY 2018. This is reflective of the implementation of Behavioral Health Redesign and demonstrates improved access.
- Payment Comparison. Overall, Medicaid payment rates in comparison to Medicare rates experienced slight declines from those observed in the 2016 AMRP. This is not surprising given that Medicare provides annual rate adjustments to physician services.

Conclusion

Overall, Ohio Medicaid has sufficient access to care in its FFS delivery system, even with the decline of FFS enrollment and a decline in the amount of time spent in FFS both contributing to the findings in this report. This made analysis and comparisons to the 2016 AMRP findings challenging given the small sample sizes, the most notable being Prenatal and Postpartum Care services which are largely provided to Medicaid beneficiaries through managed care. While overall access is sufficient, Dental, Prenatal and Postpartum Care, and Radiology are areas that may merit further examination.

Recommended Next Steps

Ohio continues to enroll a larger proportion of the total Medicaid population into managed care. As such, monitoring access on a declining FFS population is challenging and is not representative of access to care in total for Medicaid. With this in mind, the following are recommended next steps to improve measuring and monitoring access to care for Ohio's Medicaid beneficiaries.

- Expand the analysis to include managed care encounter data when calculating utilization per 1000-member month rates. This would alleviate small sample size issues observed in preparation of this report.
- Add ongoing managed care metrics and monitoring efforts to create a complete picture of Ohio's efforts to measure and monitor access to care.
- Consider establishing a static set of core access questions in the state's Ohio Medicaid Assessment Survey that will allow for ongoing trend analysis.

SECTION II: INTRODUCTION

The Ohio Medicaid program provides access to healthcare coverage for low-income adults, children, pregnant women, seniors, individuals with disabilities, parents and other adults. The Ohio Department of Medicaid (ODM) is the single state agency that administers the Medicaid program within the state. In state fiscal year (SFY) 2018, the ODM provided coverage to approximately 3 million enrolled beneficiaries¹⁰ with total expenditures of approximately \$26.3 billion¹¹ and were served by a network of over 135,000 providers¹².

Delivery Systems in Ohio Medicaid

Access to health care services are provided through three main delivery systems: Medicaid Managed Care, MyCare Ohio Dual Eligible Demonstration (MyCare), and Fee for service (FFS). In addition to these delivery systems, Ohio has approved Medicaid home and community- based services waiver authority under Sections 1915(b), (c), and (b)/(c) combination as well as an approved Section 1115 Group VIII Work Requirement and Community Engagement Demonstration waiver¹³.

Medicaid Managed Care

Ohio Medicaid has had some form of managed care since the early 1990's. The current statewide full-risk managed care program has been in place since 2005. Since that time, Ohio has added populations that are required to enroll in managed care. This program has become the primary delivery system for the majority of Ohio's Medicaid beneficiaries. In 2014, Ohio simplified its Medicaid managed care program by moving from a regionally-based managed care system to one that offered enrolled beneficiaries' access to the same five contracted plans on a statewide basis. While the managed care plans (or MCPs as they are referred to in Ohio) are statewide, the State has seven regions that are used for rate setting and monitoring purposes. These seven regions – Northwest, North Central, Northeast, Northeast Central, South Central, Southwest, and Southeast – served as the basis for aggregating county level data to analyze access on a regional basis for the 2019 AMRP. Refer to Exhibit II-1 on the next page for details.

Over time, enrollment and spending for managed care has increased so that approximately 90% of Medicaid enrollees are enrolled in one of the State's managed care plans. Of the 90%, 2.32 million are enrolled with an MCP in what is known as the Medicaid Managed Care program (non-dual eligible children and adults, including the expansion to working adults) and 122,000¹⁴ are enrolled with a MyCare Ohio Plan (MCOP). The 90% of managed care enrollees equates to approximately 80% of Medicaid spending, excluding Department of Developmental Disabilities (DODD) spending on waivers¹⁵.

¹⁰ <https://medicaid.ohio.gov/Portals/0/Resources/Reports/Caseload/2018/06-Caseload.pdf>

¹¹ <https://www.medicicaid.ohio.gov/Portals/0/Resources/Reports/BudgetVariance/2018/BV-6.pdf>

¹² <https://www.medicicaid.ohio.gov/Portals/0/Resources/Budget/ODM-FINAL-Testimony-for-Ohio-Senate-Finance-Subcommittee-on-Health-and-Medicaid.pdf>

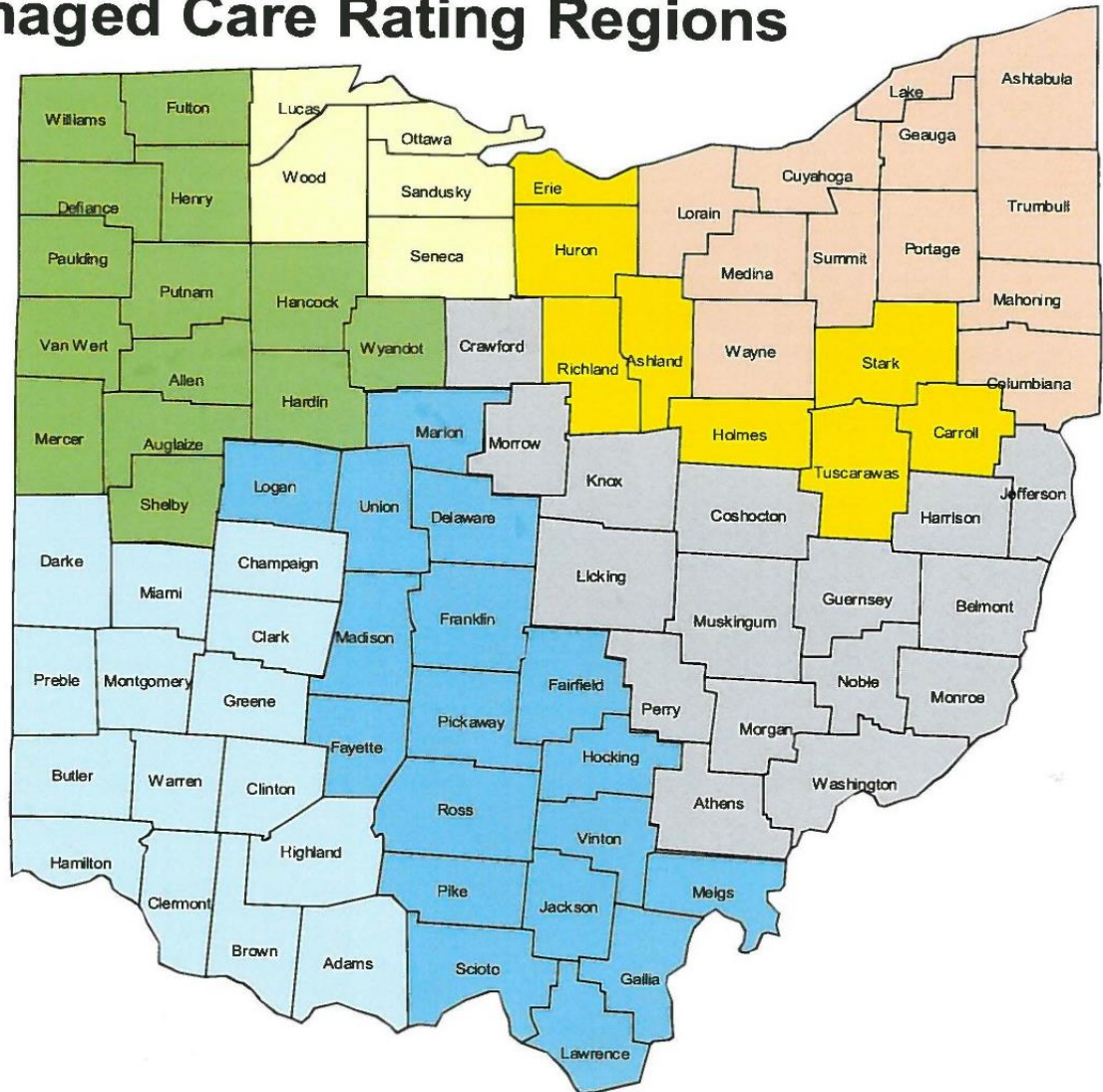
¹³ <https://www.medicicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/index.html>

¹⁴ <https://www.medicicaid.ohio.gov/Portals/0/Resources/Budget/ODM-FINAL-Testimony-for-Ohio-Senate-Finance-Subcommittee-on-Health-and-Medicaid.pdf>

¹⁵ <https://www.medicicaid.ohio.gov/Portals/0/Resources/Budget/ODM-FINAL-Testimony-for-Ohio-Senate-Finance-Subcommittee-on-Health-and-Medicaid.pdf>

Ohio Managed Care Rating Regions

| |
|--------------------------|
| West Region |
| North Central (NC) |
| Northwest (NW) |
| Southwest (SW) |
| Central/Southeast Region |
| South Central (SC) |
| Southeast (SE) |
| Northeast Region |
| Northeast (NE) |
| Northeast Central (NEC) |



MyCare Ohio Dual Eligible Demonstration

In SFY 2014, Ohio implemented the MyCare Ohio Dual Eligible Demonstration program through Section 1915(b)/(c) combination waiver authority to coordinate physical, behavioral and long-term care services for individuals dually eligible for Medicare and Medicaid¹⁷. The program was recently extended through December 31, 2022¹⁸. MyCare Ohio is administered by five MCOPs and operates in 29 counties of the state¹⁹.

¹⁶ Ohio Department of Medicaid

¹⁷ <https://medicaid.ohio.gov/FOR-OHIOANS/Programs#623663-mycare-ohio>

¹⁸ <https://www.medicare.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/?entry=19546>

¹⁹ <https://www.ohiomh.com/resources/mycareohiofaq>

Fee for service

As of December 2018, Ohio's FFS delivery system provides access to healthcare to, on average, 282,661 full benefit²⁰ beneficiaries, which has declined over the study period from 422,006²¹ in December 2016. The full benefit beneficiaries receiving care through FFS primarily include individuals with disabilities and the elderly, with a small number of non-elderly or non-disabled adults and children not enrolled in managed care.

Key programmatic goals for the DeWine Administration

The Ohio Medicaid Program supports Governor DeWine and Lt. Governor Husted's priorities^{22, 23} to help Ohioans most in need. Key programmatic goals and initiatives are Investment in Kids, Recovery Ohio Initiative, and Sustainability, Quality & Access. The recently enacted budget for SFY 2020 and 2021 targets specific initiatives designed to improve access, quality of care and improved outcomes in the following areas.

Investing in Kids Initiatives²⁴

Ohio's Medicaid program covers 1.6 million children. In some counties of the state, more than 80 percent of children under age 5 are enrolled in Medicaid. As such, Medicaid is very important to ensure coverage and access to care for Ohio's children across the state. Specific initiatives include the following:

- *Improving Health for Moms and Babies*: ODM will invest in home visiting services and continue investment in infant vitality efforts to reduce the disparities in African American infant mortality on a targeted basis in nine counties.
- *Behavioral Health Care in Schools*: ODM is in the process of modifying the Telehealth benefit to facilitate access to behavioral health care services in schools.
- *Child Protection Transformation*: ODM is partnering with both the Governor's Office and the Ohio Department of Job and Family Services to implement the Family First Prevention Services Act. Specific efforts will focus on reconfiguration of the Behavioral Health Care Coordination (BHCC) model to better meet the needs of a wider range of needs for children, including those with complex multi-system that "...require very intensive coordination of services and supports."²⁵
- *Wellness for Kids through Comprehensive Primary Care (CPC)*: ODM will refine the pediatric CPC model of care to "... refine this model of care to honor the wellness and preventive services required for the healthy growth and development of pediatric populations."²⁶
- *Lead Testing and Hazard Control*: In addition to investments in lead testing and abatement, ODM will emphasize lead testing and abatement in its new pediatric CPC program.

²⁰ <https://medicaid.ohio.gov/Portals/0/Resources/Reports/Caseload/2018/12-Caseload.pdf>

²¹ <https://www.medicare.ohio.gov/Portals/0/Resources/Reports/Caseload/2016/12-Caseload.pdf>

²² <https://www.medicare.ohio.gov/RESOURCES/Budget>

²³ <https://www.medicare.ohio.gov/Portals/0/Resources/Budget/ODM-FINAL-Testimony-for-Ohio-Senate-Finance-Subcommittee-on-Health-and-Medicaid.pdf>

²⁴ Ibid, pages 14 and 15

²⁵ Ibid, page 15

²⁶ Ibid, page 15

- *Enhancing Support for Multi-System Youth:* In addition to the initiatives mentioned in Child Protection Transformation, ODM is encouraging multi-system youth innovation, and will specifically fund services for autism spectrum disorders in SFY 2021.

Investing in Recovery²⁷

Governor DeWine created the Recovery Ohio Initiative to address the state’s drug overdose and mental illness epidemic. In SFY 2018, “...approximately 26 percent of all Medicaid enrollees received a behavioral health service, including approximately 23 percent of children (ages 0-20), and 29 percent of adults (age 21 and older).”²⁸ Specific initiatives include the following:

- *Continued Evaluation of Behavioral Health Redesign:* ODM is partnering with the Ohio Department of Mental Health and Addiction Services (MHAS), the Ohio Department of Health (ODH), and other state and local resources to continue evaluating the impact of Behavioral Health Redesign, managed care integration, and the recently redesigned benefit.
- *1115 Substance Use Disorder Waiver:* ODM is currently engaged in the development of an 1115 demonstration waiver which will stabilize funding for treatment in residential settings, enhance care coordination services, and provide opportunities for improved clinical consistency while measuring outcomes and performance.

Sustainability, Quality & Access²⁹

Additional initiatives have been created to ensure Medicaid’s sustainability as well as improvements to the quality of care delivered and access to care:

- *Procurement of New Managed Care Contracts:* ODM is in the process of rebidding the managed care contracts using a transparent and inclusive process to solicit information and feedback from a wide variety of stakeholders using a request for information and regional meetings. The information gathered will inform development of a request for application and the resulting managed care provider agreements.
- *Modernizing Medicaid’s Pharmacy Program:* The proposed policy will create a unified preferred drug list across FFS and all five MCPs to reduce provider administrative burden, reduce member confusion, and drive improved adherence for chronic conditions, thus improving health outcomes.
- *Enhancements to Clinical Program and Interventions:* Many of the proposed policy changes for kids and recovery will provide the opportunity to target efforts towards populations where it can have the most benefit, leading to reduction in long-term costs and improvements in quality of life. “For example, efforts to curb infant mortality and improve postpartum care, better treat opiate addiction, enhance behavioral health services in schools, and reduce treatment of multi-system youth in expensive out-of-state placements are all areas where expensive care can be

²⁷ Ibid, pages 16 and 17

²⁸ Ibid, page 16

²⁹ Ibid, pages 9 to 13

eliminated or replaced with less expensive alternatives that emphasize prevention and early intervention.”³⁰

For its 2019 AMRP, Ohio has tailored, where permissible, the mandatory and optional metrics to take into account Ohio’s specific needs and the DeWine-Husted priorities as outlined above. As such, the population cohorts and provider/service specialties analyzed in this report reflect the Administration’s targeted goals. For example, in this AMRP, disabled children are analyzed discretely from disabled adults. Behavioral health metrics are created to separately analyze services for individuals with substance use disorder, serious emotional disturbance, and serious mental illness.

Key programmatic changes since the 2016 AMRP

Since the release of the 2016 AMRP, Ohio has implemented several key initiatives related to delivery system and benefit package design:

- *Managed Care Day One*: Effective January 1, 2018, ODM reduced the lag time between initial enrollment in Medicaid and selection of a managed care plan from 90 days to the first day of the month that the State’s data system (MITS) receives the enrollment information. This means that Ohio Medicaid beneficiaries, in most cases, do not have FFS Medicaid enrollment prior to enrollment in managed care.³¹
- *Additional Populations Enrolled in Managed Care*: Since the 2016 report, Ohio added populations that must enroll with a Medicaid MCP. The additional populations include: children receiving adoption assistance; foster care maintenance; foster care or other out of home placement; and children receiving services through the ODH Bureau of Children with Medical Handicaps, or other program receiving grant funds under Section 501(a)(1)(D) of Title V of the Social Security Act; and individuals receiving Specialized Recovery Services (SRS) under the 1915(i) state plan option. In addition to the populations that must enroll, Ohio offers the option for individuals to enroll in managed care.³²
- *Behavioral Health Redesign*: Implemented in January 1, 2018, Ohio’s Behavioral Health Redesign is a “... transformative initiative aimed at rebuilding Ohio’s community behavioral health system capacity. Key proposals include adding new services for people with high intensity service and support needs and aligning the procedure codes used by Ohio’s behavioral health providers to better integrate physical and behavioral healthcare.”³³ In addition to benefit redesign, Ohio integrated behavioral health services into managed care for enrolled populations.³⁴
- *Expanded Telehealth Benefit*: Effective July 4, 2019, the Telehealth benefit was revised to expand the types of practitioners that are eligible to render services using telehealth and the list of patient site locations to include home or school.³⁵
- *Dental Quality Alliance – Medicaid Quality Improvement Learning Academy*: Of the 11 identified dentists with a primary practice in Defiance County, none are enrolled with Ohio Medicaid, leaving

³⁰ Ibid, page 12

³¹ <https://www.medicaid.ohio.gov/Portals/0/Providers/ProviderTypes/Managed%20Care/MC-Day-One.pdf?ver=2018-01-05-102822-057>

³² <http://codes.ohio.gov/oac/5160-26-02v1>

³³ <https://bh.medicaid.ohio.gov/>

³⁴ Ibid

³⁵ http://www.registerofohio.state.oh.us/pdfs/phn/5160_NO_326225_20190419_1142.pdf

Defiance County without access to a dentist within the county. Ohio Medicaid, in collaboration with the Ohio Dental Association, MCPs, local providers, schools, social services, and oral health manufacturers and suppliers are developing a program to improve undertaking a pilot program to provide access to a dental home within the county.

DRAFT

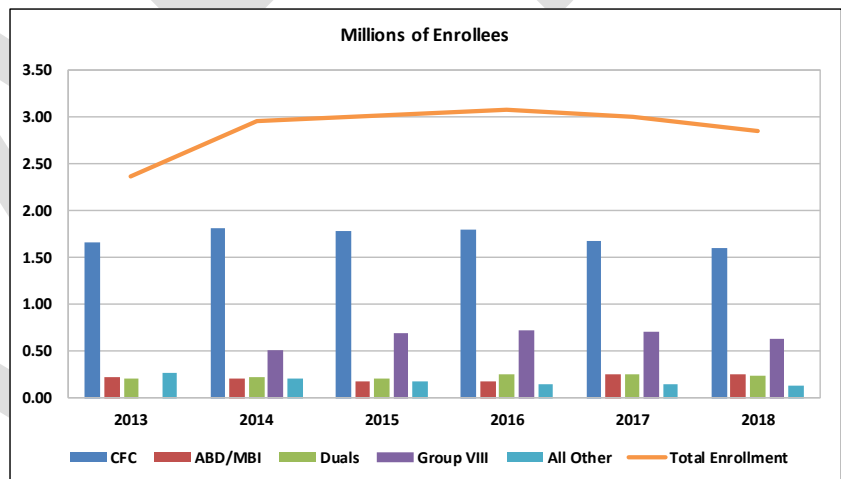
SECTION III: SUMMARY OF BENEFICIARY POPULATION

Ohio Medicaid has made a number of significant changes in Medicaid eligibility since January 1, 2014:

- The method under which eligibility is determined when based on income was changed by applying a new Modified Adjusted Gross Income (MAGI) budgeting methodology for children, pregnant women and parent/caretaker relatives;
- Eligibility was extended to certain individuals with income at or below 138 percent of the federal poverty level (FPL) using MAGI budgeting (Group VIII expansion);
- Presumptive eligibility for certain individuals with income at or below 138 percent FPL as well as former foster care adults and parent /caretaker relatives was added;
- The eligibility age for former foster care adults was extended up to age 26;
- Hospitals and the department of youth services (DYS) have become qualified entities for presumptive eligibility; and
- The five-year bar for children and pregnant women with qualified non-citizen status was removed.

Ohio has experienced periods of both increasing and decreasing enrollment in the last six years. As can be seen in Exhibit III.1, enrollment increased to just over three million individuals and this was sustained through the early part of Calendar Year (CY) 2017. Beginning with April 2017, enrollment began to decline. As recently as February 2019, Ohio hit the lowest point in Medicaid enrollment since 2013. Among eligibility categories, all except Aged, Blind and Disabled and Medicaid Buy-in for Workers with Disabilities (ABD/MBI)

Exhibit III.1 Ohio Medicaid Point in Time Enrollment - December in each Calendar Year



trended in line with total enrollment, including the largest category of Covered Families and Children (CFC).³⁶

Description of the Medicaid Fee for Service (FFS) Population

In CY 2018, the Ohio Medicaid program provided point-in-time coverage to nearly 3 million enrolled beneficiaries. Approximately 90% of these beneficiaries were enrolled in managed care which is a ten-percentage point increase from what was reported in the 2016 AMRP where the managed care penetration rate was reported at 80% of total Medicaid enrollment in CY 2015.³⁷

As of December 2018, Ohio's FFS delivery system provides access to healthcare to, on average, 282,661 full benefit³⁸ beneficiaries, which has declined over the study period from 422,006³⁹ in December 2016. The study

³⁶ <https://www.medicaid.ohio.gov/RESOURCES/Reports-and-Research/Caseload-Reports>

³⁷ <https://www.medicaid.ohio.gov/RESOURCES/Reports-and-Research/Caseload-Reports>

³⁸ <https://medicaid.ohio.gov/Portals/0/Resources/Reports/Caseload/2018/12-Caseload.pdf>

³⁹ <https://www.medicaid.ohio.gov/Portals/0/Resources/Reports/Caseload/2016/12-Caseload.pdf>

population includes beneficiaries who are not dually eligible for Medicare and Medicaid and are under age 65. Within this group, the distribution of member months follows a similar pattern as the number of enrollees, where the percentage of member months for FFS enrollees is declining over the study period in this AMRP. As seen in Exhibit III.2, within the study population, the distribution of FFS enrollees by member months has declined from 14.1% in CY 2016 to 8.3% in CY 2018. This is largely the result of additional populations moving to managed care and the Managed Care Day One policy change.

Within the study population, the distribution of enrollee member months by population cohorts can be found in Exhibit III.3. In Exhibit III.3, the distribution by adult versus pediatric members remain relatively the same over the study period, with a slight increase in the percentage of member months that are attributable to pediatric beneficiaries.

The distribution of member months for disabled versus non-disabled members in the study population is shown in Exhibit III.4. Over the study period, the proportion of disabled member months has increased from 5.1% in CY 2016 to 8.4% in CY 2018.

Exhibit III.2 Distribution of Enrollees by Member Months, Managed Care vs. Fee for Service

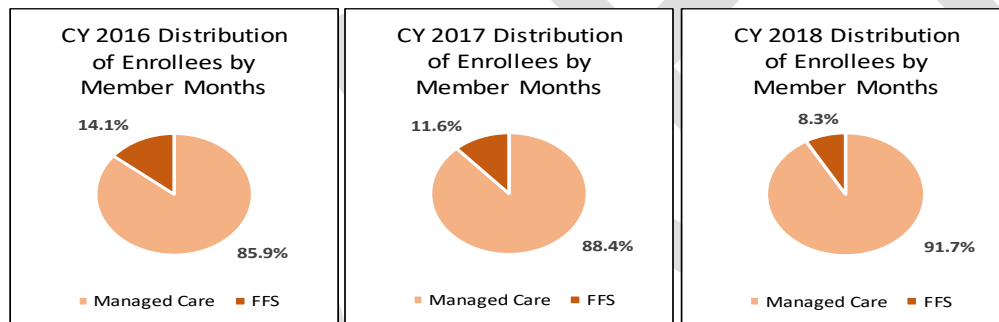


Exhibit III.3 Distribution of Enrollees by Member Months, Adult vs. Pediatric

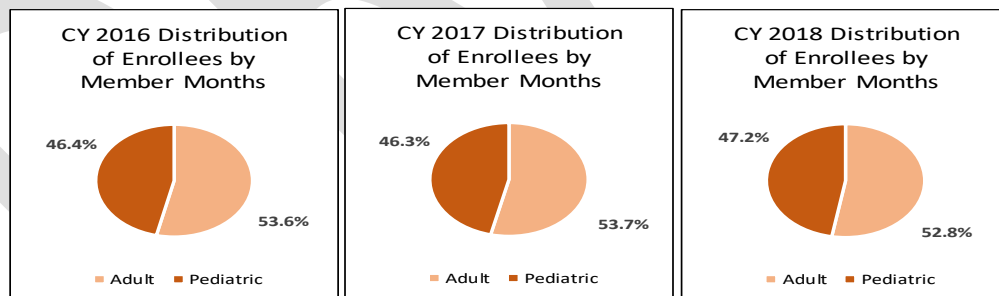
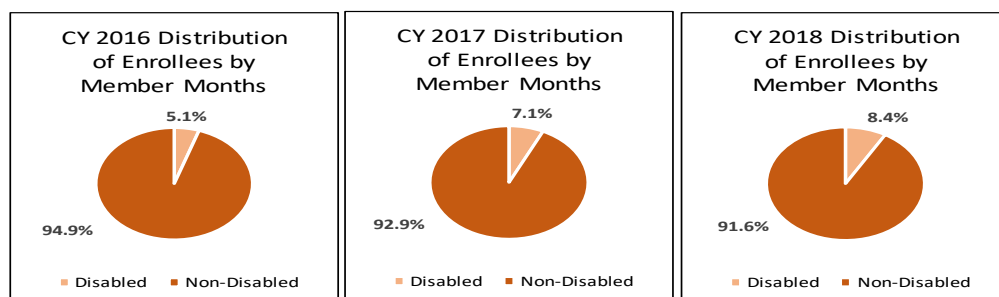


Exhibit III.4 Distribution of Enrollees by Member Months, Disabled vs. Non-Disabled



Description of the Medicaid Population by Delivery System

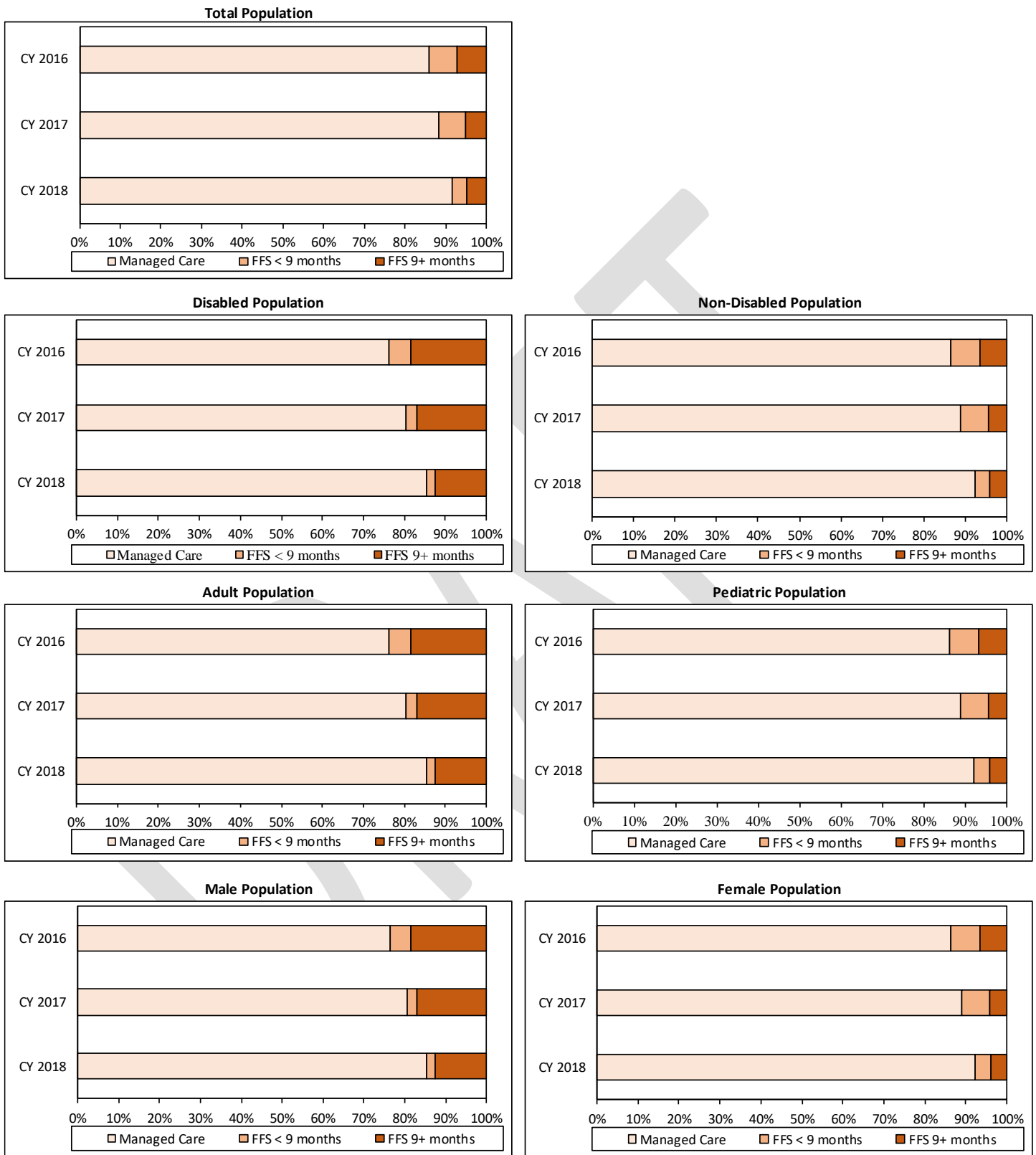
As stated previously, the full benefit beneficiaries receiving care through FFS primarily include individuals with disabilities and the elderly, with a small number of non-elderly or non-disabled adults and children not enrolled in managed care. The study population includes beneficiaries who are not dually eligible for Medicare and Medicaid and are under age 65. Within this group, the FFS program represents 8.4% of all Medicaid member months, and some members are only in FFS for a transitory period. As shown in the top left box for Total Population in Exhibit III.5 on the next page, among the study population the number of member months for beneficiaries enrolled in FFS in CY 2016 was approximately 14.1% of total member months. Among these, slightly more beneficiary member months in FFS were represented by members enrolled for at least nine of the twelve months in the calendar year. The number of member months overall in FFS has dropped to approximately 8.3% of total member months in CY 2018, with more than half of the FFS member months for beneficiaries enrolled in FFS for at least nine of the twelve months in the calendar year.

In the second set of stacked bars, the same distribution as presented in the top box is illustrated for the disabled versus non-disabled beneficiaries included in the study population. Between 76.3% of disabled members in CY 2016 to 85.4% in CY 2018 are receiving their health care in a managed care program. Of those disabled members receiving care in FFS, fewer are enrolled in FFS for 9 months or longer over the most recent three years studied. The non-disabled population cohort is largely following the trend of the total population.

In the third set of stacked bars, adult versus pediatric beneficiaries in the study population are examined. In general, the majority of adults and pediatric beneficiaries receive care through a managed care plan. Adult beneficiaries tend to have a higher proportion of member months attributable to continuous enrollment in FFS for 9 or more months than the pediatric population. For both adults and pediatric beneficiaries, the proportion of FFS member months has declined over the study period.

Male versus female members in the study population appear in the fourth set of stacked bars. In general, the majority of male and female beneficiaries receive care through a managed care plan, although the proportion is higher for females. Male beneficiaries tend to have a higher proportion of member months attributable to continuous enrollment in FFS for 9 or more months than the female population. For both male and female beneficiaries, the proportion of FFS member months has declined over the study period.

Exhibit III.5 Distribution of Member Months in Ohio Medicaid's Managed Care and Fee for service Programs, By Year



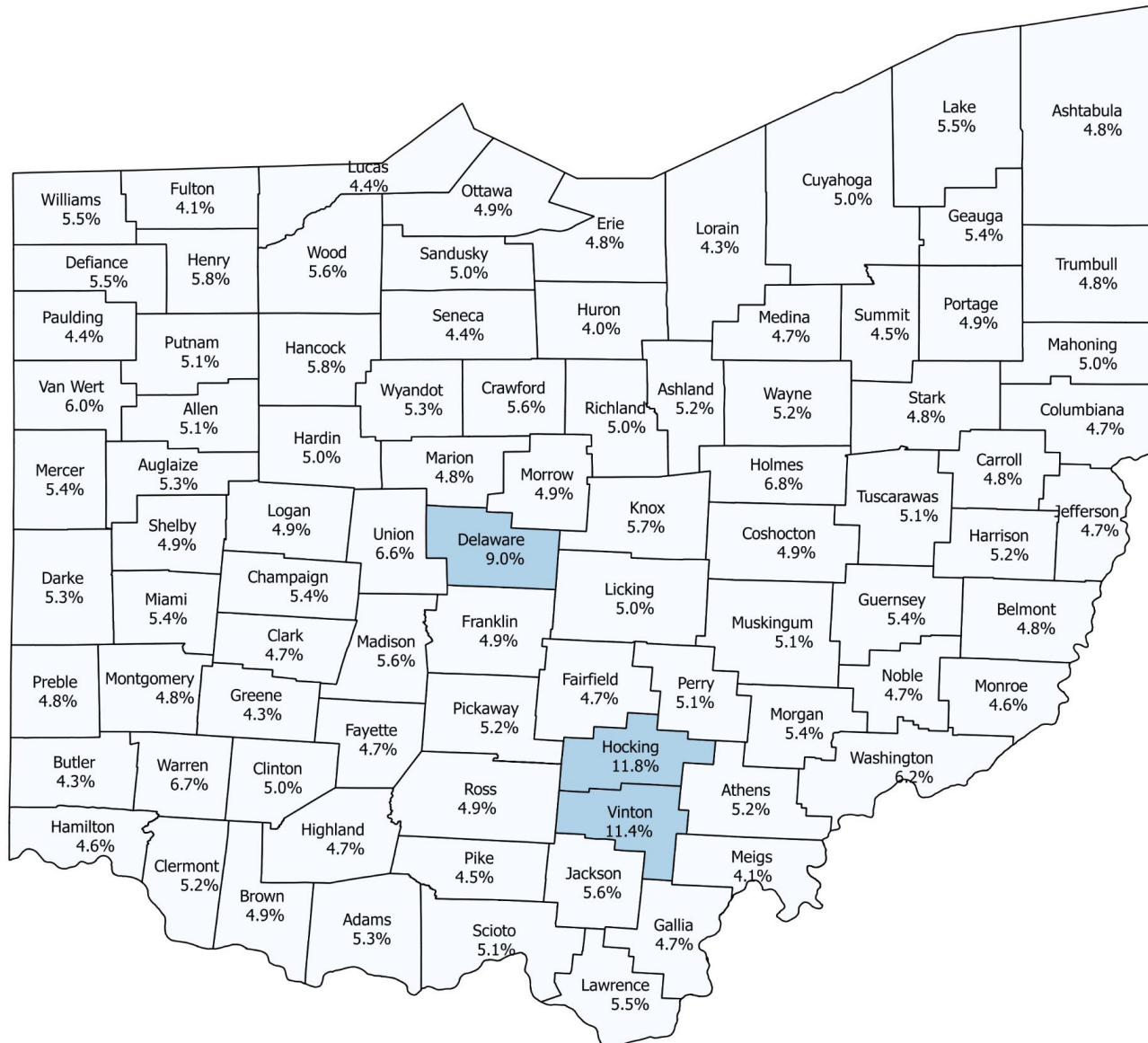
Total Member Months: CY 2016 = 33,112,265; CY 2017 = 32,896,009; CY 2018 = 31,206,454

Exhibit III.6 examines FFS member months as a percent of total Medicaid member months for enrolled beneficiaries in the study by county. For 85 of Ohio's 88 counties, FFS member months represent less than 7% of all Medicaid member months. Of the three remaining counties, Delaware County is at 9.0%, Vinton County at 11.4% and Hocking County at 11.8%.

Exhibit III.6 Fee for Service Enrollee Density by County, CY 2018

Enrollee Density by County, CY 2018, FFS, Members with Minimum 9 Months Enrollment in the Year

(Figures are in Percent of Member Months in the CY. *Dual eligible and age 65 and older excluded*.)



SECTION IV: SERVICES REVIEWED IN THE OHIO MEDICAID 2019 AMRP

Defining the study population

Medicaid FFS beneficiaries who are not dually eligible for Medicare and under age 65 who were enrolled during CY 2016, 2017 and 2018 serve as the basis for the 2019 AMRP study population. Population cohorts of pediatric/adult, male/female, and disabled/non-disabled are used for utilization comparative purposes.

Data sources common to all services reviewed

Claims and encounters with dates of service in CY 2016, 2017 and 2018 were included in the study. Institutional, professional and dental claim types were used to create the initial subset of claims for each service category included in the AMRP.

Beneficiary enrollment data from the same three-year time period was used to identify aid categories (i.e., duals) and age groups (i.e., 65 and older for all services except home health) that should be excluded. In addition, the enrollment data is used to create flags for beneficiaries based on demographic attributes (e.g., male/female, pediatric⁴⁰/adult, disabled⁴¹/non-disabled). Flags were also created to identify whether the beneficiary was enrolled in FFS or managed care. Member months for each beneficiary were accumulated for each demographic cohort in the study.

The State's provider enrollment file was used to assist with capturing the number of providers for each specific service category studied. The latitude and longitude coordinates of rendering providers that were identified in the utilization analysis were used to capture location of the provider for driving distance calculations.

All claims, beneficiary and provider enrollment data originated from the Ohio Department of Medicaid Information Technology System (MITS) BIAR Data Warehouse as of March 2019.

Methodology components for all services reviewed

First, the State's enrollment files were used to identify and compute the member months for those members that were enrolled a minimum of nine months in FFS for each year in the study. Once this was done, the claims utilization was collected for just these members. All other beneficiary utilization data was excluded. A deduplication process was conducted to ensure that only one claim per beneficiary per provider per date of service was retained for analytical purposes.

Each service reviewed in the 2019 AMRP followed a common methodology to prepare service-specific datasets for further analysis.

- Key variables were used to filter claims to identify the appropriate claim type, provider type, provider specialty and place of service for inclusion in the service specific dataset. Additional filters that were sometimes used include specific CPT/HCPCS code and/or diagnosis codes (behavioral health, prenatal and postpartum care).

⁴⁰ Beneficiary age less than nineteen years old.

⁴¹ Ohio Department of Medicaid aid categories 4009,4603,4619,4620 for CY 2016, and 4603, 4619, and 4620 for CY 2017 and CY 2018.

- The utilization was tested for claims completion rates by month date of service to ensure that the dataset was complete.
- Utilization reports were produced for each service specific category using the claims data set that passed the service-specific key variables criteria for inclusion. Member months for beneficiaries enrolled at least nine months in each CY were accumulated to compute utilization per 1000-member month statistics.
- Each service category that is reported here went through two rounds of review with the state's AMRP workgroup to ensure that the filtering process to define each service category was appropriate.
- Once the service definitions and utilization were finalized, the dataset was filtered to identify unique member-to-rendering provider trips. For each trip, the driving distance was computed. Average driving distance values were computed for each service category reported with the exception of home health and durable medical equipment (since the primary place of service in each instance was the beneficiary's home).
- Provider availability reports identified the unique unduplicated count of enrolled, licensed and billing providers for each service category studied. Enrolled providers and licensed provider counts originated from the Ohio Medicaid provider enrollment file. Billing provider counts were identified from the final round of FFS claims used in addition to managed care encounters. Member months from the enrollment data set were used to calculate the provider availability per 1000 members for each service category. Where benchmark data for availability to the general population is available, it was incorporated into the service-specific analysis and resulting dashboards.

What services were reviewed

In accordance with 42 CFR 447.203, Ohio developed an AMRP for the following service categories provided under a fee for service arrangement:

- Primary Care Services, including Federally Qualified Health Centers and Rural Health Clinics
- Dental Care Services
- Prenatal and Postpartum obstetric services, including labor and delivery
- Home Health Services
- Behavioral Health Services. This service category is subcategorized by diagnosis code and age cohorts. For presentation purposes, the findings and assessment of access combines Serious Emotional Disturbance and Serious Mental Illness as they share a common set of diagnosis codes.
 - Substance use disorder (SUD)
 - Serious Emotional Disturbance (SED)
 - Serious Mental Illness (SMI)
- Physician Specialist Services. The service categories were selected based upon evaluating utilization in total and for adult and pediatric population cohorts.
 - Radiology. This service category focuses on access to radiology services for adult and pediatric cohorts.
 - Surgery. This service category focuses on access to surgical services for only the Adult cohort.
 - Ear, Nose and Throat. This service category focuses on access to ear, nose and throat services for only the Pediatric cohort.

- Durable Medical Equipment (DME)

What was analyzed for each service reviewed

For each service category included in the study, a uniform set of metrics were calculated to evaluate access. The metrics are combined into a service-specific dashboard, aggregated at the regional or statewide level, and color coded to illustrate results that are better-than-expected or worse-than-expected. Dashboards present service-specific findings as follows.

- Section A: Count of Users
 - For each year in the study, count the number of unique beneficiaries with at least nine months enrollment in FFS (the denominator).
 - Using the final utilization dataset, count the number of individuals in the denominator who used the service in each study year (the numerator).
 - Calculate the percent of unique users of each service, per year, among the FFS beneficiaries meeting the nine-month enrollment criterion.
- Section B: Utilization per 1000 Member Months
 - Presents utilization rates per 1000 member months for CY 2016, 2017 and 2018 dates of service for each service category.
 - Calculate service specific utilization rates using:
 - Detail lines included on those claims passing the service-specific filtering logic for inclusion
 - Point in time member months in total and for each population cohort (total, adult/pediatric, male/female, and disabled/non-disabled) and geographical breakout (county, region, statewide).
 - Beneficiary county of residence was used to aggregate claims and member month data to the county level. This was then rolled up into regional and statewide levels for development of service-specific dashboards.
- Section C: Average Driving Distances
 - Calculated for unique member-to-rendering provider trips for CY 2018 utilization. For example, if a beneficiary went to the same primary care doctor five times in CY 2018, only one claim is counted in the average driving distance analysis.
 - Capture the latitude and longitude of each user member's home and each rendering provider's location in the study.
 - Use Google Distance Matrix of BING Maps web service to collect the driving distance for each member-to-provider claim.
 - Exclude results that appear to incorrect (defined as distance values less than 0.2 miles or greater than 100 miles).
 - Compute the average driving distance by county for CY 2018. Averages were also computed for adult/pediatric, male/female, and disabled/non-disabled population cohorts as well as on a geographical basis at the regional and statewide levels.
 - A dashboard was created to display the average driving distance by each cohort studied with color coding to assess trends.

- Average distance color coding is based on the ranges 0 to 20 (green), 21 to 30 (blue) and greater than 30 miles (red) for all services except for specialist services for surgery and radiology, which are set at 0 to 30 (green), 31 to 50 (blue), and greater than 50 (red).
 - In some instances, low samples were found and are not reported. Low sample size thresholds are set at 25 trips for all services except for prenatal/postpartum and ear, nose and throat (ENT). For these services, the trip threshold is set at zero.
- Section D: Provider Availability
 - Filtering logic was applied to the Ohio Medicaid Provider Enrollment file to count the unique number of enrolled and licensed providers with active provider contracts, and with active Medicaid enrollment during CY 2018, for each service examined as follows:
 - Enrolled providers – met the provider type and/or specialty filter logic
 - Licensed providers – met the provider type and/or specialty filter logic and either the license type or license number fields are populated, as required by Ohio Medicaid as a condition of enrollment
 - Using the CY 2018 final utilization claims and encounters dataset, filtering logic as applicable to the specific service category was applied, and then the count of the number of unique billing providers who billed for the specific service category was performed.
 - Using the CY 2018 total member months (includes both FFS and managed care member months), calculate the average number of members by dividing total member months by twelve for the total population, adults and pediatric cohorts.
 - Calculate provider availability per 1000 Medicaid members by computing total CY 2018 enrolled providers divided by average 12-month Medicaid enrollees, then multiply by 1000. Rates were calculated for the total population as well as for adult and pediatric cohorts.
 - For those service specific categories that have general population provider availability in the Area Health Resource Files (AHRF) Workforce Data, use the following method to extract provider data to be used as a benchmark against Medicaid provider availability.
 - Use the July 31, 2018 AHRF SAS file to extract 2016 Ohio-specific data at the county level (includes provider counts by specialty, and 2016 Census County Population Estimates).
 - For each provider service specific area that is available in AHRF
 - Use the provider type and/or specialty filter criteria used to compile the service-specific provider availability reports to extract comparable data from the AHRF.
 - Compute the provider availability per 1000 general population at the county and regional level for the state’s general population.
 - Create a dashboard, by region, that shows Medicaid enrolled provider availability for the total population, adult and pediatric cohorts. Color code regions as better-than-expected or worse-than-expected results in comparison to general population availability using the AHRF file.

SECTION V: SERVICE-SPECIFIC ANALYSES

Primary Care

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Professional and outpatient claims
- CPT/HCPCS: E&M codes 99201 through 99499, except the following were excluded: 99217 – 99239, 99251 – 99255, and 99281 – 99285.
- Provider Types: Rural Health Clinic, Federally Qualified Health Center, Physician/Osteopath Individual, Physician Assistant, Free-Standing Clinic, Clinical Nurse Specialist Individual, Nurse Practitioner Individual
- Percent of Primary Care Claims for FFS compared to Managed Care: 3.7% (325,234) in CY 2016, but declining to 2.2% (195,481) in CY 2018.
- Total Detail Lines: Between 11 to 11.7 million total detail lines, with 99201 through 99215 making up between 78% to 80% of the included detail lines for primary care services.

Key Findings

Exhibit V.1 is the dashboard for Primary Care Services. Key findings include:

- Count of users: Overall, there is a slight increase when comparing CY 2016 to CY 2018 in the percentage of primary care users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled population has the lowest utilization rates over the three-year study period.
 - The disabled population had the highest utilization rates followed by the pediatric population.
 - Utilization rates in general are declining over the three years with the exception of the disabled population.
- Average driving distances:
 - Count of counties by distance range:
 - The statewide FFS average driving distance was 16.2 miles for CY 2018.
 - For the majority of counties, beneficiaries traveled 21 to 30 miles, followed by 20 and under.
 - There are nine counties where beneficiaries traveled more than 30 miles, and two counties with a low sample size.
 - The majority of counties are at or less than 30 miles driving distance.
 - Average distance by region:
 - All regions are below 30 miles average driving distance, with a range from 13.7 miles (North Central) to (Southeast).
- Provider availability:
 - Pediatric patients in the Northeast have the highest primary care providers per 1000 pediatric Medicaid member ratio at 32.2.
 - Adults in the Southeast region have the lowest rate at 15.9 primary care providers per 1000 adult Medicaid members.

- In comparison to AHRF, Medicaid has much greater primary care provider availability on a per 1000 members basis than that of the general population.
- Comparison to the 2016 AMRP:
 - Average driving distance: The statewide average driving distance has increased since CY 2015 from 14.6 miles to 16.2 miles. This is likely the result of the FFS sample size declining from more than 1.5 million trips to just 264,690.
 - Provider availability: The count of billing providers was used in the 2016 AMRP. Comparing CY 2018 to CY 2015, the unique count of billing providers has increased from 22,690 to 24,996, as has the availability per 1000 members since CY 2015.

Exhibit V.1 Primary Care Services Dashboard

PRIMARY CARE

A. USERS

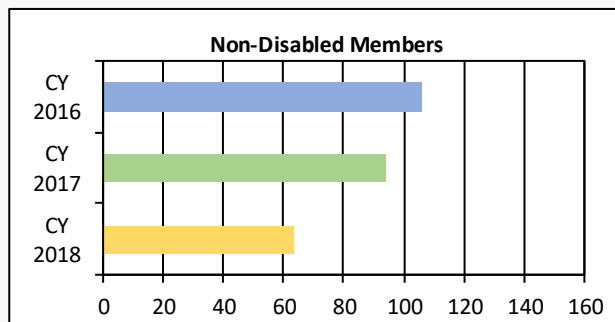
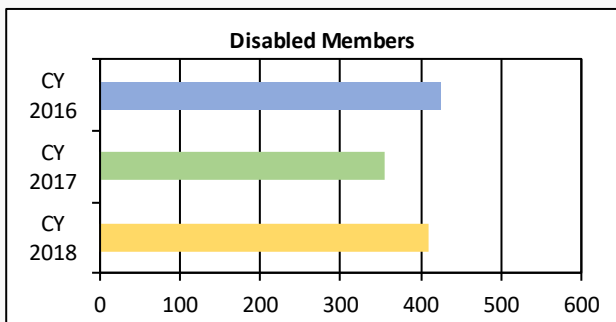
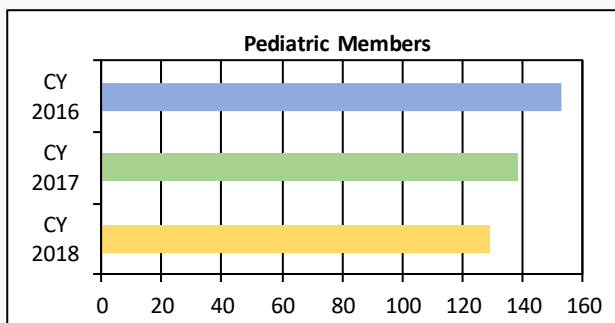
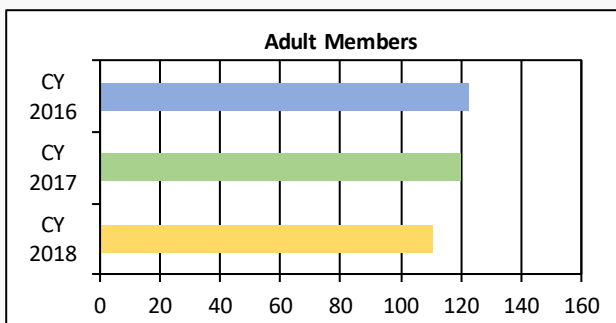
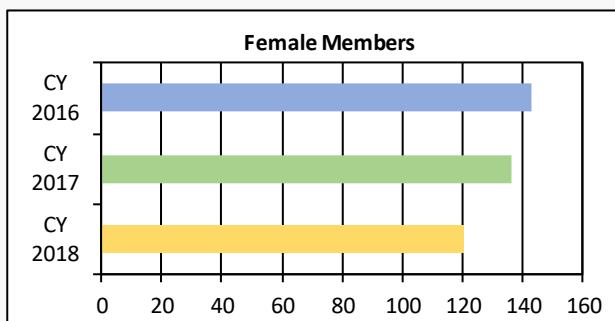
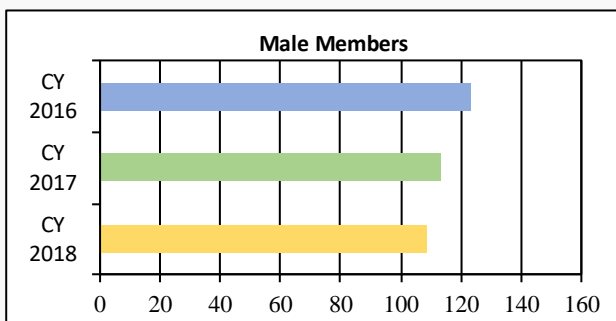
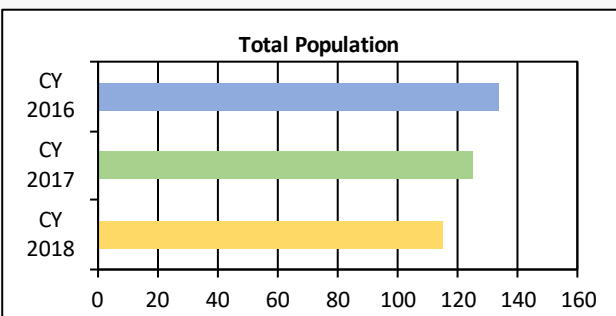
Percent of FFS Members with a Primary Care Visit Each Calendar Year

CY 2016 20%

CY 2017 11%

CY 2018 21%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



PRIMARY CARE

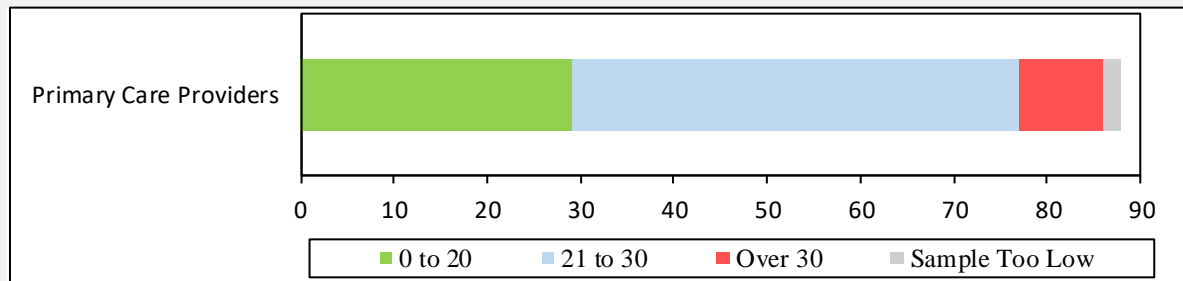
C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS

Statewide Average - FFS

16.2

CY 2018 Primary Care Utilization

Colored Bars Plot Number of Counties (out of 88) in Each Distance Range



Number of Counties that Fell Into Each Distance Range

| | 0 to 20 | 21 to 30 | Over 30 | Sample Too Low |
|------------------------|---------|----------|---------|----------------|
| Primary Care Providers | 29 | 48 | 9 | 2 |

| | Adult | Pediatric | Disabled | Non-Disabled |
|------------------|--------|-----------|----------|--------------|
| # trips analyzed | 90,199 | 42,146 | 58,016 | 74,329 |
| avg distance | 16.2 | 16.2 | 17.2 | 15.4 |

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # trips analyzed | 9,144 | 13,702 | 79,618 | 15,948 | 70,378 | 59,668 | 16,232 |
| avg distance | 20.0 | 13.7 | 15.2 | 21.2 | 15.3 | 15.7 | 22.2 |

| | | |
|------------------|--------------------------|--------------------|
| 20 miles or less | More than 20 to 30 miles | More than 30 miles |
|------------------|--------------------------|--------------------|

D. PROVIDER AVAILABILITY - CY 2018

Licensed

31,845

Enrolled

32,264

Billed

24,996

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # providers in region | 1,173 | 1,922 | 11,300 | 1,596 | 7,101 | 7,559 | 1,613 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|------------|------|------|------|------|------|------|------|
| Adults | 24.5 | 22.5 | 26.4 | 18.0 | 28.1 | 24.7 | 15.9 |
| Pediatrics | 23.2 | 24.9 | 32.2 | 19.2 | 28.0 | 25.6 | 18.8 |

| | | |
|-------------------|---------------|----------------|
| Greater than AHRF | Equal to AHRF | Less than AHRF |
|-------------------|---------------|----------------|

Area Health Resource File (AHRF) General Availability

Provider-to-1000 population ratio

| | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|
| Total | 1.4 | 2.1 | 2.4 | 1.6 | 2.2 | 2.2 | 1.3 |
|-------|-----|-----|-----|-----|-----|-----|-----|

Dental Care

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Dental, professional and outpatient claims
- CPT/HCPSCS: Dental and other codes billed by included dental providers
- Provider Types: Federally Qualified Health Center, Dentist Individual, Professional Dental Group, Free-Standing Clinic.
- Percent of Dental Claims for FFS compared to Managed Care: 3.1% (61,519) in CY 2016, declining to 1.2% (25,259) in CY 2018.
- Total Detail Lines: Between 6.1 million to 6.2 million total detail lines, with dental D codes making up between 98% to 99% of the total.

Key Findings

Exhibit V.2 is the dashboard for Dental Care Services. Key findings include:

- Count of users: Overall there is a decline when comparing CY 2016 to CY 2018 in the percentage of dental care users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled population has the lowest utilization rates over the three-year study period.
 - The disabled and pediatric populations have the highest utilization rates.
 - Rates are variable over the study period, but in general are declining consistently over the three years, with the exception of the disabled and pediatric populations which saw declines from CY 2016 to CY 2017, but an increase from CY 2017 to CY 2018.
- Average driving distances:
 - Count of counties by distance range:
 - The statewide FFS average driving distance was 18.9 miles for CY 2018.
 - For the majority of counties, beneficiaries traveled less than 30 miles.
 - There are 37 counties where beneficiaries traveled 30 miles and five counties with a low sample size.
 - Average distance by region:
 - Five of the six regions are below 30 miles average driving distance.
 - The Northwest region is above 30 miles with an average of 36.8 miles.
 - The South Central region had the lowest average driving distance at 14.8 miles.
- Provider availability:
 - Pediatric patients in the North Central region have the highest dental care providers per 1000 Medicaid member ratio at 2.9.
 - Adults in the Northwest and Southwest regions have the lowest rate at 1.6 dental care providers per 1000 Medicaid members.
 - In comparison to AHRF, Medicaid has much greater dental care provider availability on a per 1000 members basis than that of the general population.
- Comparison to the 2016 AMRP:

- Average driving distance: The statewide average driving distance has improved with a decline in the average distance traveled in CY 2015 from 23.6 miles to 18.9 miles. During this same time period, the FFS number of trips declined from 541,538 to just 41,462.
- Provider availability: The count of billing providers was used in the 2016 AMRP. Comparing CY 2018 to CY 2015, the unique count of billing providers has increased from 2,005 to 2,147, but the availability per 1000 members has decreased slightly from 1.30 to 1.05 since CY 2015.

DRAFT

Exhibit V.2 Dental Care Services Dashboard

DENTAL CARE

A. USERS

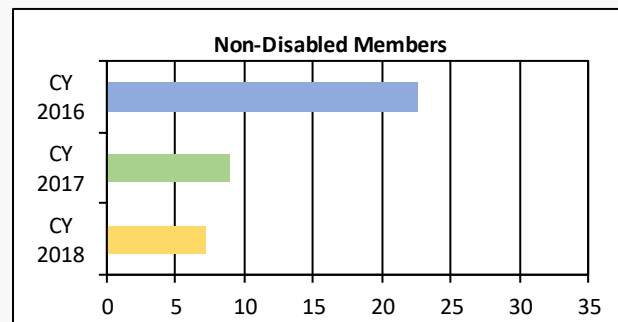
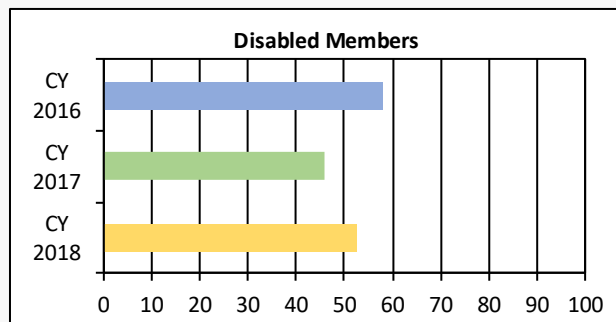
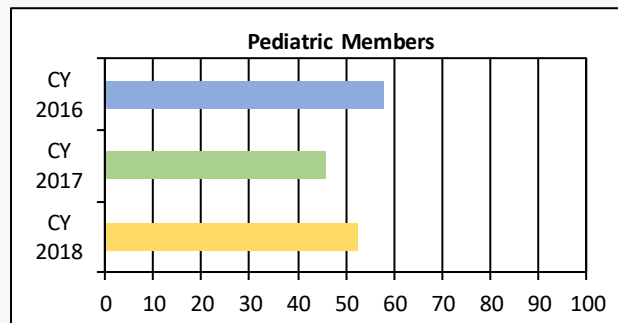
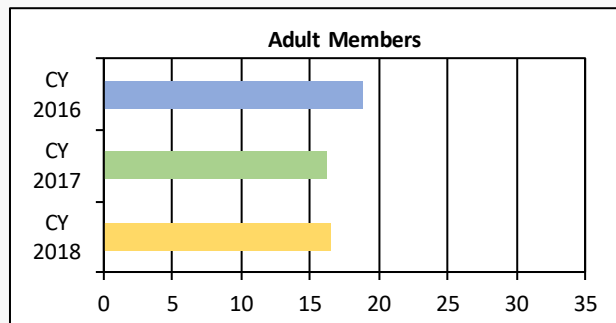
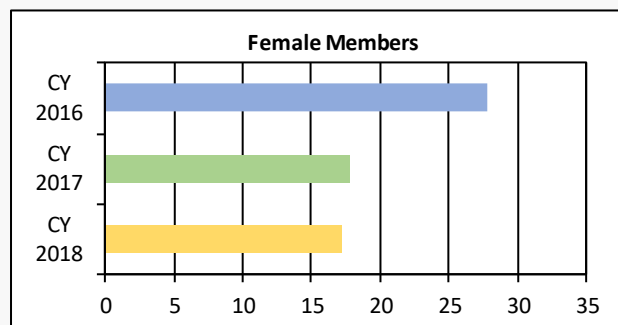
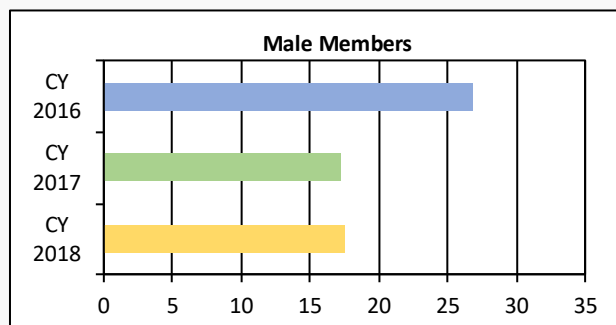
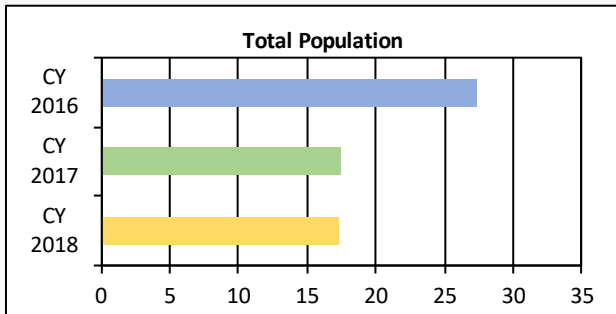
Percent of FFS Members with a Dental Care Visit Each Calendar Year

CY 2016 11%

CY 2017 6%

CY 2018 9%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



DENTAL CARE

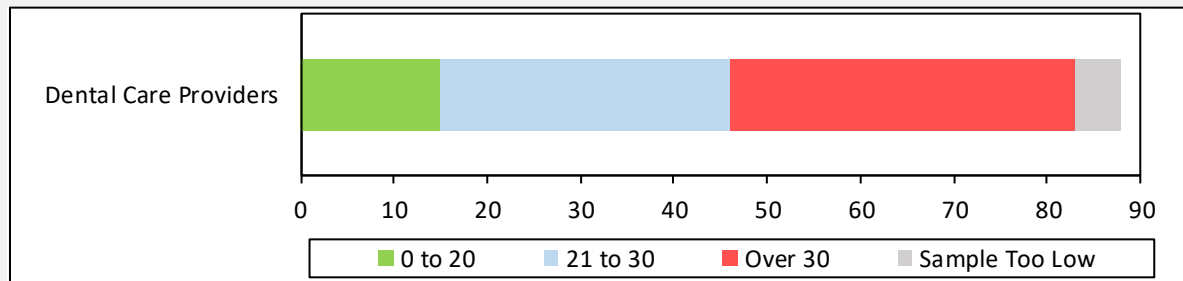
C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS

Statewide Average - FFS

18.9

CY 2018 Dental Care Utilization

Colored Bars Plot Number of Counties (out of 88) in Each Distance Range



Number of Counties that Fell Into Each Distance Range

| | 0 to 20 | 21 to 30 | Over 30 | Sample Too Low |
|-----------------------|---------|----------|---------|----------------|
| Dental Care Providers | 15 | 31 | 37 | 5 |

| | Adult | Pediatric | Disabled | Non-Disabled |
|------------------|--------|-----------|----------|--------------|
| # trips analyzed | 15,964 | 4,767 | 10,747 | 9,984 |
| avg distance | 18.8 | 19.0 | 20.2 | 17.5 |

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|------------------|------------------|--------------------------|--------------------|-------------------|---------------|-----------|-----------|
| # trips analyzed | 1,156 | 2,010 | 13,406 | 2,428 | 11,598 | 8,296 | 2,568 |
| avg distance | 36.8 | 14.9 | 17.8 | 27.2 | 14.8 | 19.2 | 28.7 |
| | 20 miles or less | More than 20 to 30 miles | More than 30 miles | | | | |

D. PROVIDER AVAILABILITY - CY 2018

Licensed 2,468

Enrolled 2,468

Billed 2,147

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # providers in region | 77 | 199 | 805 | 159 | 573 | 478 | 177 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|
| Adults | 1.6 | 2.3 | 1.9 | 1.8 | 2.3 | 1.6 | 1.7 |
| Pediatrics | 1.7 | 2.9 | 2.6 | 2.2 | 2.6 | 1.8 | 2.3 |

| | | |
|-------------------|---------------|----------------|
| Greater than AHRF | Equal to AHRF | Less than AHRF |
|-------------------|---------------|----------------|

Area Health Resource File (AHRF) General Availability

Provider-to-1000 population ratio

| | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|
| Total | 0.4 | 0.6 | 0.7 | 0.6 | 0.7 | 0.6 | 0.4 |
|-------|-----|-----|-----|-----|-----|-----|-----|

Prenatal and Postpartum Care

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Professional claims.
- CPT/HCPCS: Evaluation and management 99201 - 99499 plus TH modifier or with a pregnancy diagnosis; 90935 – 91299; 92302 – 95199; 96000 – 96999; 10000 - 79999 with pregnancy diagnosis; 59000 – 59899; 80055 – 84703; 0500F - 0503F; G0101, H1000 - H1003.
- Provider Type: Physician or Osteopath Individual, Physician Assistant, Free-Standing Clinic, Clinical Nurse Specialist Individual, Nurse Midwife Individual, Nurse Practitioner Individual
- Provider Specialty or Specialties: Obstetrics and Gynecology, Gynecology, Gynecological Oncology, Physician Assistant, Obstetrics, Family Planning Clinic, Clinical Nurse Specialist, Nurse Midwife, Nurse Practitioner.
- Diagnosis Codes: O00 – O9A, Z32.01, Z33.x, Z34.x, Z37.x, Z39.x in any of the 24 occurrences.
- Percent of Prenatal and Postpartum Claims for FFS compared to Managed Care: 1.2% (12,014) in CY 2016, declining to 0.42% (3,741) in CY 2018.
- Total Detail Lines: Between 3.2 million to 3.8 million total detail lines, with prenatal and postpartum care codes making up between 37% to 44% of the included detail lines for prenatal and postpartum care services.

Key Findings

Exhibit V.3 is the dashboard for Prenatal and Postpartum Care Services. Key findings include:

- Count of users: Overall there is a slight decline when comparing CY 2016 to CY 2018 in the percentage of prenatal and postpartum care users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled and adult populations have the lowest utilization rates in CY 2018, but the highest rates in CY 2016.
 - The disabled and pediatric populations have the highest utilization rates when looking at CY 2018.
 - Rates are variable over the study period, but in general are declining for the non-disabled and adult populations, but have slightly increased for pediatric and disabled populations.
- Average driving distances:
 - Count of counties by distance range:
 - The statewide FFS average driving distance was 14.8 miles for CY 2018.
 - For the majority of counties, beneficiaries traveled less than 30 miles.
 - There are 12 counties where beneficiaries traveled over 30 miles, and 11 counties with a low sample size.
 - Average distance by region:
 - All regions are below 30 miles average driving distance.
 - The Southeast region has the highest average driving distance at 22 miles.
 - The North Central region had the lowest average driving distance at 10.6 miles.
- Provider availability:

- Pediatric patients in the Northeast have the highest prenatal and postpartum care providers per 1000 Medicaid member ratio at 16.4.
- Adults in the Southeast region have the lowest rate at 6.5 prenatal and postpartum care providers per 1000 Medicaid members.
- In comparison to AHRF, Medicaid has much greater prenatal and postpartum care provider availability on a per 1000 members basis than that of the general population.
- Comparison to the 2016 AMRP:
 - Average driving distance: The statewide average driving distance has improved with a decline in the average distance traveled in CY 2015 from 21.3 miles to 14.8 miles. During this same time period, the FFS number of trips declined from 86,389 to just 3,760.
 - Provider availability: The count of billing providers was used in the 2016 AMRP. Comparing CY 2018 to CY 2015, the unique count of billing providers has increased from 1,606 to 3,362, while the availability per 1000 members has declined from 13.35 to 5.6. This is likely an artifact of declining FFS enrollment from CY 2015 to CY 2018, and only 1,069 FFS beneficiaries receiving prenatal and postpartum services.

PRENATAL AND POSTPARTUM CARE

A. USERS

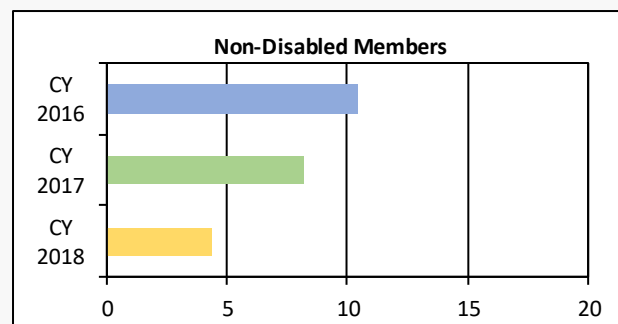
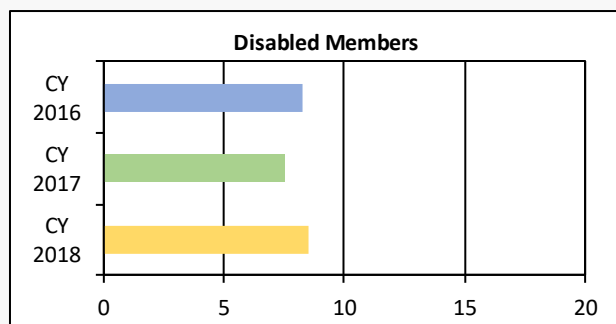
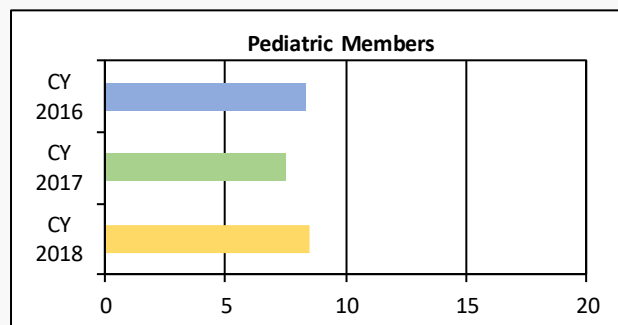
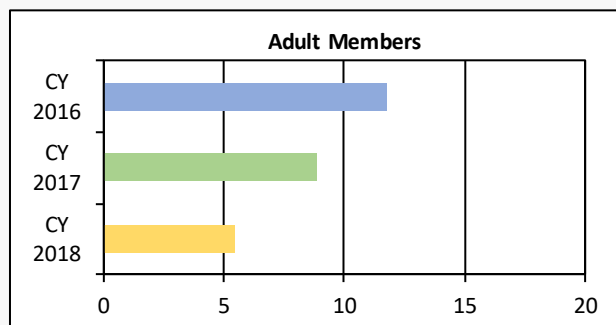
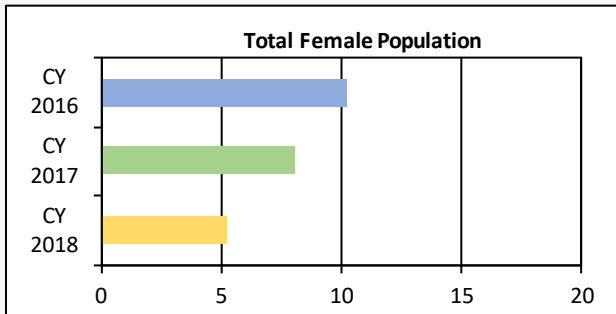
Percent of FFS Members with a Prenatal and Postpartum Care Visit Each Calendar Year

CY 2016 1%

CY 2017 1%

CY 2018 1%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



PRENATAL AND POSTPARTUM CARE

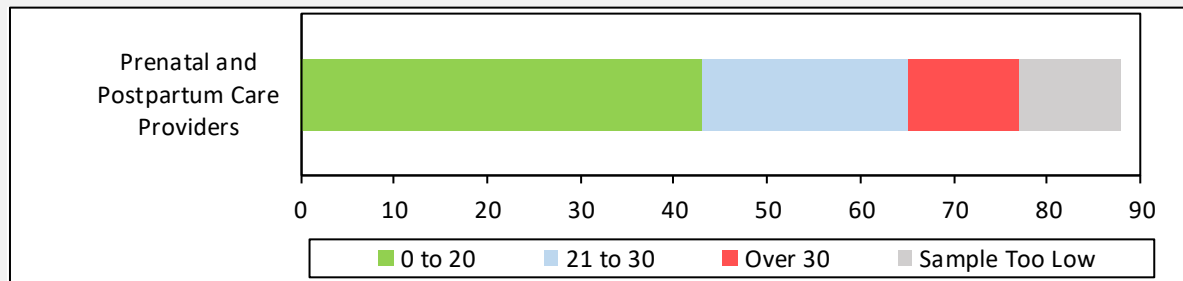
C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS

Statewide Average - FFS

14.8

CY 2018 Prenatal and Postpartum Care Utilization

Colored Bars Plot Number of Counties (out of 88) in Each Distance Range



Number of Counties that Fell Into Each Distance Range

| | 0 to 20 | 21 to 30 | Over 30 | Sample Too Low |
|----------------------------------|---------|----------|---------|----------------|
| Prenatal and Postpartum Care Pro | 43 | 22 | 12 | 11 |

| | Adult | Pediatric | Disabled | Non-Disabled |
|------------------|-------|-----------|----------|--------------|
| # trips analyzed | 1,721 | 159 | 740 | 1,140 |
| avg distance | 14.8 | 14.8 | 14.7 | 14.8 |

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # trips analyzed | 186 | 116 | 1,144 | 230 | 982 | 920 | 182 |
| avg distance | 15.6 | 10.6 | 13.3 | 16.5 | 14.6 | 15.3 | 22.0 |

| | | |
|--|--|--|
| 20 miles or less | More than 20 to 30 miles | More than 30 miles |
|--|--|--|

D. PROVIDER AVAILABILITY - CY 2018

Licensed

7,655

Enrolled

7,659

Billed

3,362

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # providers in region | 302 | 524 | 2,815 | 345 | 1,559 | 1,732 | 382 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|------------|------|------|------|-----|------|------|-----|
| Adults | 10.2 | 10.3 | 11.2 | 6.4 | 10.4 | 9.5 | 6.5 |
| Pediatrics | 12.2 | 13.9 | 16.4 | 8.5 | 12.6 | 12.0 | 9.1 |

| | | |
|---|---|--|
| Greater than AHRF | Equal to AHRF | Less than AHRF |
|---|---|--|

Area Health Resource File (AHRF) General Availability

Provider-to-1000 population ratio

| | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|
| Total | 0.7 | 1.1 | 1.2 | 0.8 | 1.1 | 1.1 | 0.6 |
|-------|-----|-----|-----|-----|-----|-----|-----|

Home Health Care

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Professional and outpatient claims.
- CPT/HCPCS: G0151 – G0154; G0156; G0299 – G0300; T1000 – T1001.
- Provider Type: Medicare Certified Home Health Agency.
- Percent of Home Health Claims FFS compared to Managed Care: 62% (in excess of 1.9 million) in CY 2016, declining to 53% (in excess of 1.8 million) in CY 2018.
- Total Detail Lines: Between 11.1 million to 12.5 million total detail lines, with home health codes making up between 60% to 63% of the total claims considered for home health services.

Key Findings

Exhibit V-4 is the dashboard for Home Health Care Services. Key findings include:

- Count of users: Overall there is an increase when comparing CY 2016 to CY 2018 in the percentage of home health care users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled population has the lowest utilization rates across the three study years.
 - The disabled and pediatric populations have the highest utilization rates across each of the study years.
 - Rates are variable over the study period, but in general are increasing for all populations except for the disabled population, which saw a decline from CY 2016 to CY 2018.
- Average driving distances: Not applicable for this service category as the primary place of service is the member's home.
- Provider availability:
 - Pediatric and adult patients in the South Central region have the highest home health care providers per 1000 Medicaid member ratio at 1.2.
 - Adults in the Northeast, Northeast Central, Southwest, and Southeast regions have the lowest rate at 0.3 home health care providers per 1000 adult Medicaid members.
 - Pediatric members in the Northeast have the lowest rate at 0.3 home health care providers per 1000 pediatric Medicaid members.
 - In comparison to AHRF, Medicaid has much greater home health care provider availability on a per 1000 members basis than that of the general population.
- Comparison to the 2016 AMRP:
 - Provider availability: The count of billing providers was used in the 2016 AMRP. Comparing CY 2018 to CY 2015, the unique count of billing providers has increased from 582 to 635, as well as the availability per 1000 members.

HOME HEALTH

A. USERS

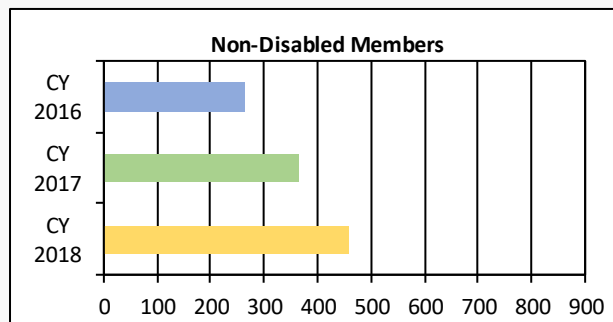
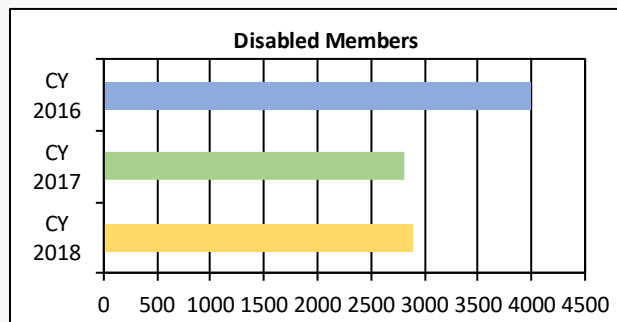
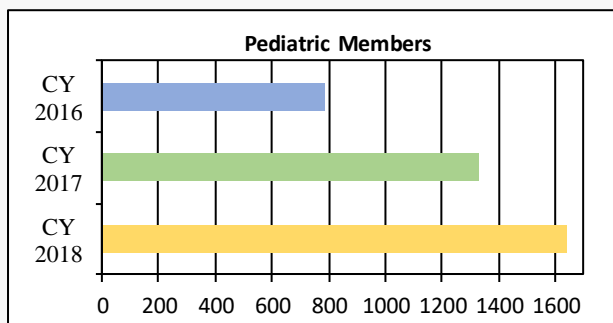
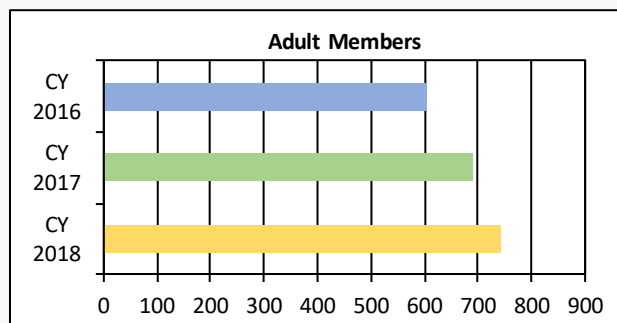
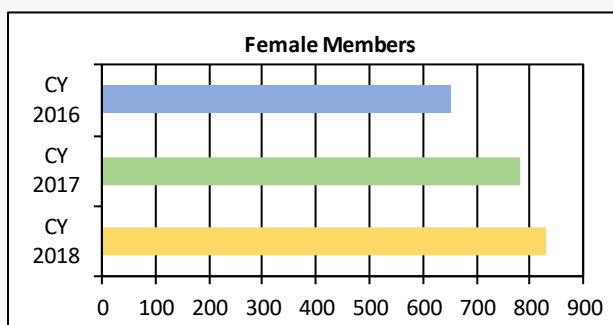
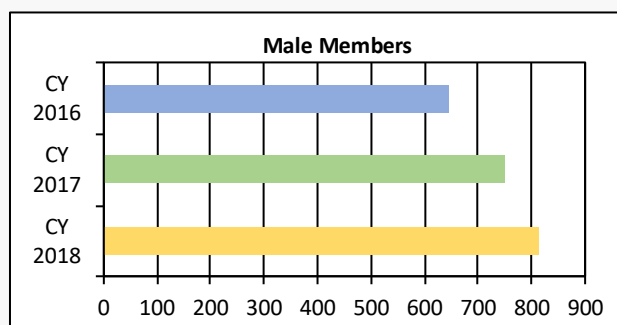
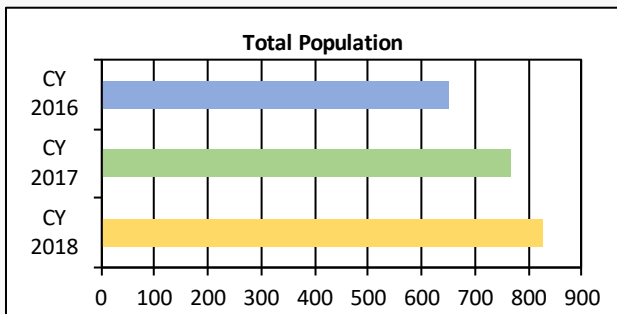
Percent of FFS Members with a Home Health Visit Each Calendar Year

CY 2016 2%

CY 2017 2%

CY 2018 8%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



HOME HEALTH

C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS

Could not be computed for this service category as the primary place of service is the member's home.

D. PROVIDER AVAILABILITY - CY 2018

Licensed 52 Enrolled 696 Billed 635

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|------------------|-----------|----------------------|------------------|-----------|-----------|
| # providers in region | 29 | 36 | 141 | 28 | 316 | 111 | 35 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|
| Adults | 0.6 | 0.4 | 0.3 | 0.3 | 1.2 | 0.3 | 0.3 |
| Pediatrics | 0.6 | 0.5 | 0.4 | 0.3 | 1.2 | 0.4 | 0.4 |

Greater than AHRF
 Equal to AHRF
 Less than AHRF

Area Health Resource File (AHRF) General Availability

Provider-to-1000 population ratio

| | | | | | | | |
|-------|------|------|------|------|------|------|------|
| Total | 0.05 | 0.06 | 0.05 | 0.04 | 0.14 | 0.05 | 0.05 |
|-------|------|------|------|------|------|------|------|

Behavioral Health Substance Use Disorder (BH SUD)

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Professional and outpatient claims.
- CPT/HCPCS: Evaluation and management 99201 – 99215, 99341 – 99350, 99354 – 99355; 90785; 90791 – 90792; 90832 – 90840; 90845 – 90849, 98053; 90863; 90865; 90867 – 90899; 9300 – 93010; 96101 – 96127; 96150 – 96155; 96372; G0396 – G0397; H0001 – H0007; H0010 – H0016; H0020; H0036; H0038; H0040; H0048; H2012 – H2020; H2034; H2036; J0400; J0571 – J0575; J2212; J2310; J2315; j2358; J2426; J2794; J8499; S5000; T1002 – T1003; T1502; 0359T; 0359T – 0369T; S0281; S9484; H0031, H0011.
- Provider Type: Used only for provider availability reports. Limited to: Hospital, Psychiatric Hospital, Rural Health Clinic, Federally Qualified Health Center, Physician/Osteopath Individual, Physician Assistant, Social Work, Non-Agency RN or LPN, Psychology, Clinical Counseling, Mental Health Clinic, Marriage and Family Therapy, Certified Ohio Behavior Analyst, Chemical Dependency, Clinical Nurse Specialist, Nurse Practitioner Individual, Ohio Department of Mental Health Provider, ODADAS Certified/Licensed Treatment Program, Para-Professionals.
- Provider Specialty or Specialties: Used only for provider availability reports. Limited to: Psychiatric, Addiction Medicine, Addiction Psychiatry, Licensed Independent Social Worker, Licensed Social Worker, Social Worker Trainee, Social Worker Assistant, Licensed Psychologist, Board Licensed School Psychologist, Psychology Trainee, Psychology Assistant, Psychology Intern, Licensed Professional Counselor, Counselor or Trainee, Licensed Professional Clinical Counselor, Counselor or Trainee, Other Mental Health Clinic, Out-of-State Drug and Alcohol Treatment Center, Licensed Independent Marriage and Family Therapist, Licensed Marriage/Family Counselor, Marriage/Family Counselor or Trainee, Licensed Independent Chemical Dependency Counselor, Chemical Dependency Counselor II and III, Chemical Dependency Counselor Assistant, ODMH Community Mental Health Agency, Community Mental Health Medical Services, ODADAS Certified/Licensed Treatment Program, ODADAS Methadone Program, Opioid Treatment Program, SUD Residential Facility, Qualified MH Specialist and Specialist 3, Care Management Specialist, Peer Recovery Supporter, IPS-SE, Psych.
- Diagnosis Codes: F10 – F19 in any of the 24 occurrences.
- Percent of BH SUD Claims FFS compared to Managed Care: 3.4% (156,320) in CY 2016, declining to 0.8% (41,448) in CY 2018.
- Total Detail Lines: Between 22.6 million to 25.8 million total detail lines, with BH SUD codes making up between 29.1% to 30.2% of the included detail lines for BH SUD services.

Key Findings

Exhibit V.5 is the dashboard for BH SUD Services. Key findings include:

- Count of users: Overall there is a slight increase when comparing CY 2016 to CY 2018 in the percentage of BH SUD users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled and adult populations have the lowest utilization rates in CY 2018, but the highest rates in CY 2016.

- The disabled population has the highest utilization rates when looking at CY 2018.
- Rates are variable over the study period, but in general are increasing for the disabled population but are declining for all other population cohorts.
- Average driving distances:
 - Count of counties by distance range:
 - The statewide FFS average driving distance was 17.8 miles for CY 2018.
 - For the majority of counties, beneficiaries traveled less than 30 miles.
 - There are nineteen counties where beneficiaries traveled over 30 miles, and two counties with a low sample size.
 - Average distance by region:
 - All regions are below 30 miles average driving distance.
 - The Northwest region has the highest average driving distance at 25.2 miles.
 - The North Central region had the lowest average driving distance at 14.8 miles.
- Provider availability:
 - Pediatric patients in the Northeast have the highest BH SUD providers per 1000 Medicaid member ratio at 28.
 - The highest rate for adults is in the North Central region at 26 BH SUD providers per 1000 Medicaid members.
 - Pediatric patients have the lowest ratio at 15 per 1000 Medicaid members in the Northwest region.
 - In comparison to AHRF, Medicaid has much greater BH SUD provider availability on a per 1000 members basis than that of the general population. Note that AHRF only had data for psychiatrists, child psychiatrists, and licensed psychologists as the remaining provider types used for provider availability analyses were not reported.
- Comparison to the 2016 AMRP: Not applicable as the breakdown for CY 2016 was behavioral health medical and community and is not comparable to the 2019 AMRP behavioral health sub-categories.

BEHAVIORAL HEALTH - SUBSTANCE USE DISORDER

A. USERS

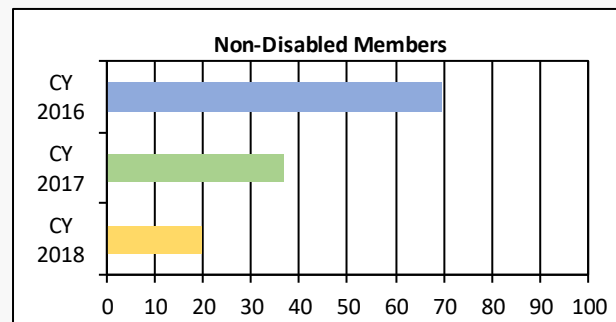
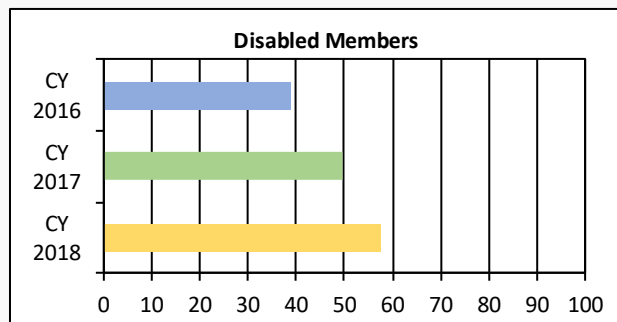
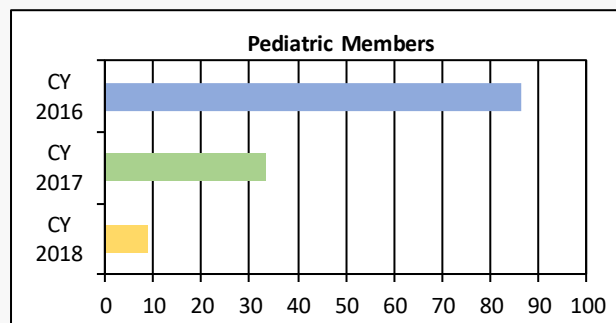
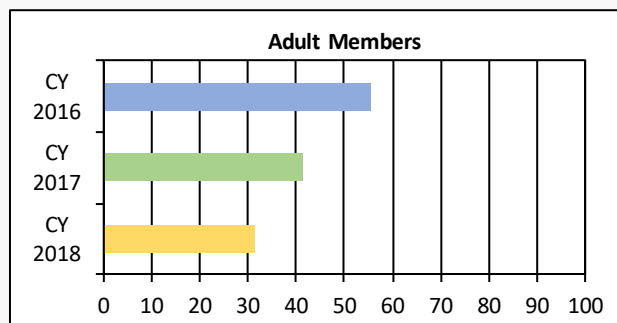
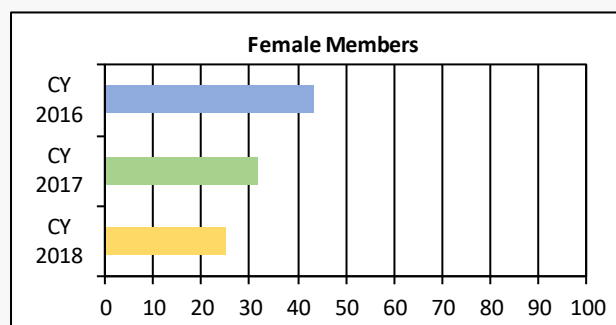
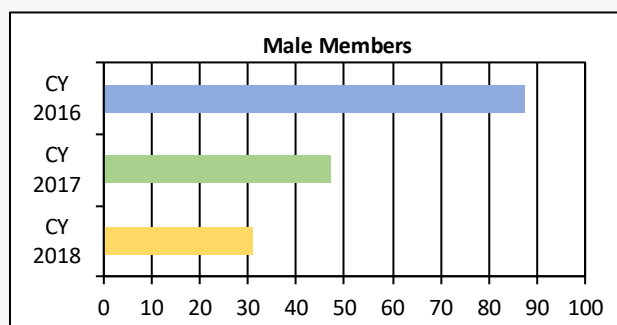
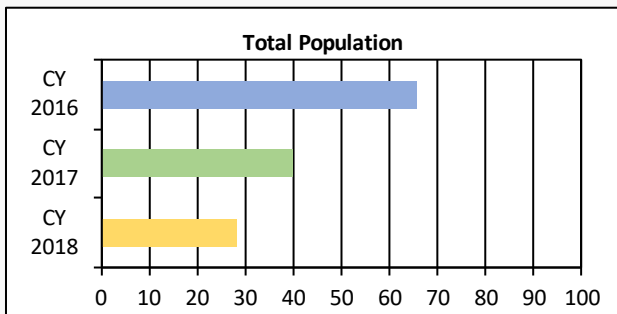
Percent of FFS Members with a BH-SUD Visit Each Calendar Year

CY 2016 3%

CY 2017 3%

CY 2018 4%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



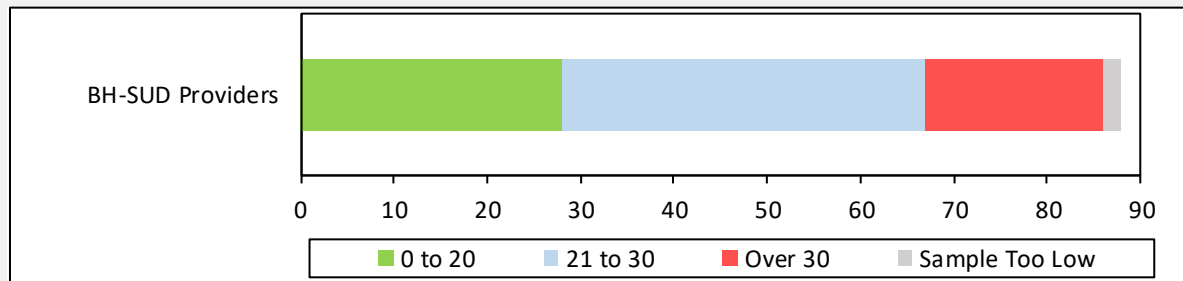
BEHAVIORAL HEALTH - SUBSTANCE USE DISORDER**C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS**

Statewide Average - FFS

17.8

CY 2018 BH-SUD Utilization

Colored Bars Plot Number of Counties (out of 88) in Each Distance Range



Number of Counties that Fell Into Each Distance Range

| | 0 to 20 | 21 to 30 | Over 30 | Sample Too Low |
|------------------|---------|----------|---------|----------------|
| BH-SUD Providers | 28 | 39 | 19 | 2 |

| | Adult | Pediatric | Disabled | Non-Disabled |
|------------------|--------|-----------|----------|--------------|
| # trips analyzed | 38,386 | 961 | 8,007 | 31,340 |
| avg distance | 17.7 | 21.4 | 16.0 | 18.3 |

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # trips analyzed | 3,270 | 7,044 | 20,022 | 5,058 | 15,234 | 23,446 | 4,620 |
| avg distance | 25.2 | 14.8 | 16.5 | 20.1 | 19.3 | 16.3 | 22.7 |

20 miles or less
More than 20 to 30 miles
More than 30 miles

D. PROVIDER AVAILABILITY - CY 2018

Licensed 20,603

Enrolled 28,931

Billed 9,341

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # providers in region | 749 | 2,022 | 9,940 | 1,856 | 5,644 | 6,809 | 1,911 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|------------|----|----|----|----|----|----|----|
| Adults | 16 | 24 | 23 | 21 | 22 | 22 | 19 |
| Pediatrics | 15 | 26 | 28 | 22 | 22 | 23 | 22 |

| | | |
|--|--|---|
| Greater than AHRF | Equal to AHRF | Less than AHRF |
|--|--|---|

Area Health Resource File (AHRF) General Availability

Provider-to-1000 population ratio

| | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|
| Total | 0.1 | 0.4 | 0.5 | 0.2 | 0.4 | 0.5 | 0.2 |
|-------|-----|-----|-----|-----|-----|-----|-----|

Behavioral Health Serious Emotional Disturbance (BH SED) and Serious Mental Illness (BH SMI)

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Professional and outpatient claims.
- CPT/HCPCS: Evaluation and management 99201 – 99215, 99341 – 99350, 99354 – 99355; 90785; 90791 – 90792; 90832 – 90840; 90845 – 90849, 98053; 90863; 90865; 90867 – 90899; 9300 – 93010; 96101 – 96127; 96150 – 96155; 96372; G0396 – G0397; H0001 – H0007; H0010 – H0016; H0020; H0036; H0038; H0040; H0048; H2012 – H2020; H2034; H2036; J0400; J0571 – J0575; J2212; J2310; J2315; J2358; J2426; J2794; J8499; S5000; T1002 – T1003; T1502; 0359T; 0359T – 0369T; S0281; S9484; H0031, H0011. CPT/HCPCS codes for BH-SED also includes H0046 and H0047 in addition to the aforementioned.
- Provider Type: Used only for provider availability reports. Limited to: Hospital, Psychiatric Hospital, Rural Health Clinic, Federally Qualified Health Center, Physician/Osteopath Individual, Physician Assistant, Social Work, Non-Agency RN or LPN, Psychology, Clinical Counseling, Mental Health Clinic, Marriage and Family Therapy, Certified Ohio Behavior Analyst, Chemical Dependency, Clinical Nurse Specialist, Nurse Practitioner Individual, Ohio Department of Mental Health Provider, ODADAS Certified/Licensed Treatment Program, Para-Professionals. Provider types for BH SED also includes Medicaid School Program in addition to the aforementioned.
- Provider Specialty or Specialties: Used only for provider availability reports. Limited to: Psychiatric, Licensed Independent Social Worker, Licensed Social Worker, Social Worker Trainee, Social Worker Assistant, Licensed Psychologist, Board Licensed School Psychologist, Psychology Trainee, Psychology Assistant, Psychology Intern, Licensed Professional Counselor, Counselor or Trainee, Licensed Professional Clinical Counselor, Counselor or Trainee, Other Mental Health Clinic, Licensed Independent Marriage and Family Therapist, Licensed Marriage/Family Counselor, Marriage/Family Counselor or Trainee, ODMH Community Mental Health Agency, Community Mental Health Medical Services, Qualified MH Specialist and Specialist 3, Care Management Specialist, IPS-SE, Psych.
- Diagnosis Codes: F20 – F99 in any of the 24 occurrences.
- Percent of BH SED/SMI Claims FFS compared to Managed Care: 10.2% (846,394) in CY 2016, declining to 2.8% (263,480) in CY 2018.
- Total Detail Lines: Between 41.5 million to 44.9 million total detail lines, with BH SED and BH SMI codes making up between 24.9% to 27.1% of the included detail lines for BH SED and BH SMI services.

Key Findings

Exhibit V.6 is the dashboard for BH SED and BH SMI Services. Key findings include:

- Count of users: Overall there is a slight increase when comparing CY 2016 to CY 2018 in the percentage of BH SED and BH SMI users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled population has the lowest utilization rates in CY 2018.
 - The disabled population has the highest utilization rates in CY 2018, with the pediatric population following as having the second highest utilization rates in CY 2018.

- Rates are variable over the study period, but in general are decreasing for all population cohorts.
- Average driving distances:
 - Count of counties by distance range:
 - The statewide FFS average driving distance was 17.4 miles for CY 2018.
 - For the majority of counties, beneficiaries traveled less than 30 miles.
 - There are 19 counties where beneficiaries traveled more than 30 miles, and three counties with a low sample size.
 - Average distance by region:
 - All regions are below 30 miles average driving distance.
 - The Southeast region has the highest average driving distance at 24.3 miles.
 - The North Central region had the lowest average driving distance at 13.2 miles.
- Provider availability:
 - Pediatric patients in the Northeast have the highest BH SED/SMI providers per 1000 Medicaid member ratio at 25.
 - Adult patients in the North Central region have the highest rate for the cohort at 21 BH SED/SMI providers per 1000.
 - Pediatric patients in the Northwest region have the lowest rate at 12 BH SED/SMI providers per 1000 Medicaid members.
 - In comparison to AHRF, Medicaid has much greater BH SED and BH SMI provider availability on a per 1000 members basis than that of the general population. Note that AHRF only had data for psychiatrists, child psychiatrists, and licensed psychologists as the remaining provider types used for provider availability analyses were not reported.
- Comparison to the 2016 AMRP: Not applicable as the breakdown for CY 2016 was behavioral health medical and community and is not comparable to the 2019 AMRP behavioral health sub-categories.

BEHAVIORAL HEALTH - SED & SMI

A. USERS

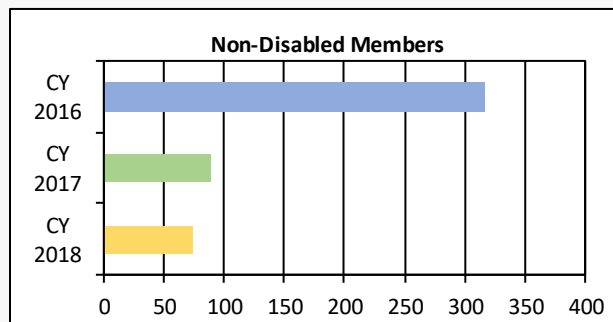
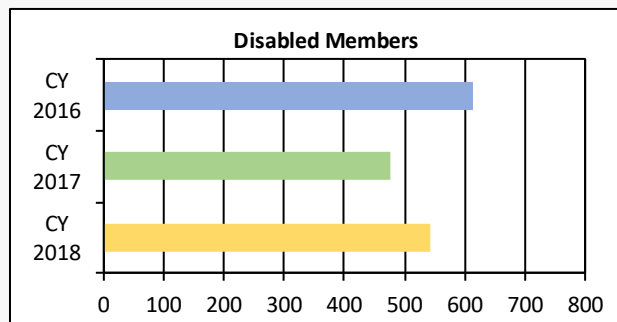
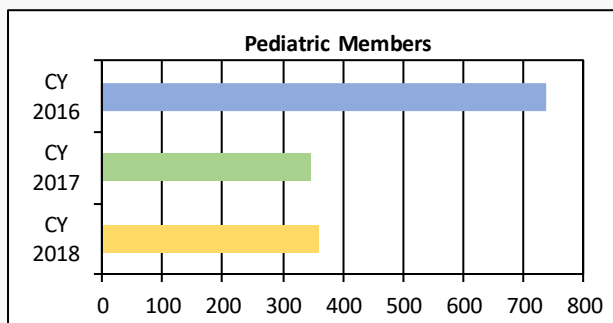
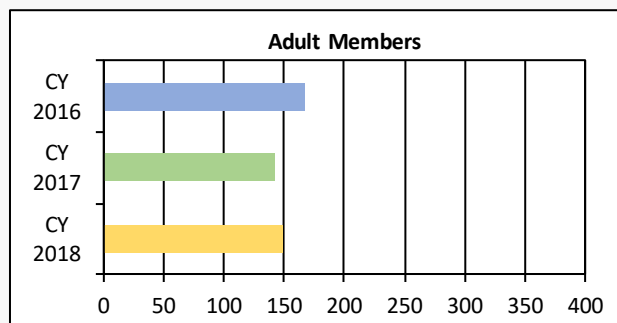
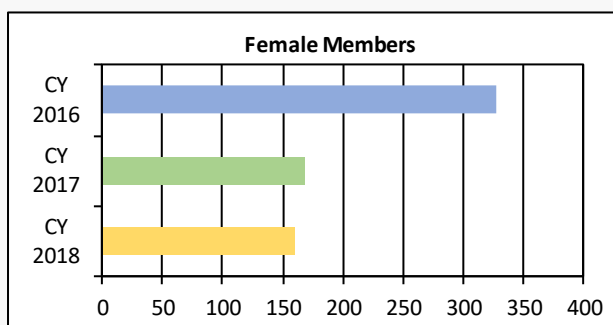
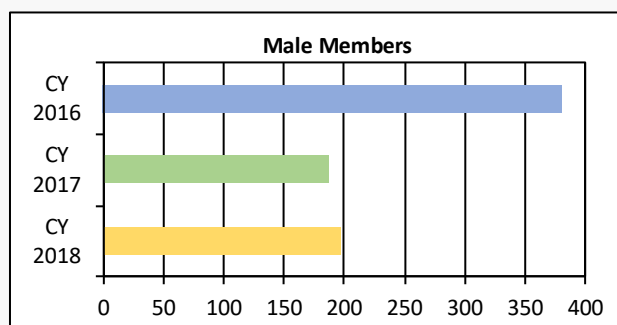
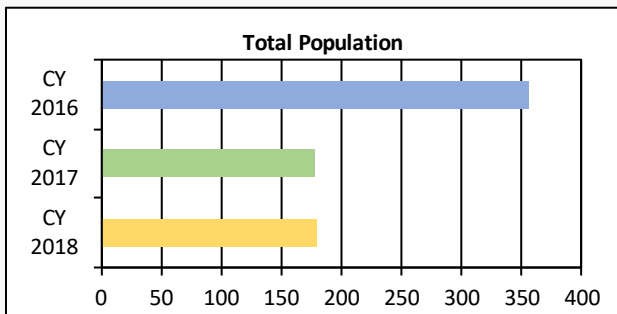
Percent of FFS Members with a BH-SED/SMI Visit Each Calendar Year

CY 2016 13%

CY 2017 7%

CY 2018 14%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



BEHAVIORAL HEALTH - SED & SMI

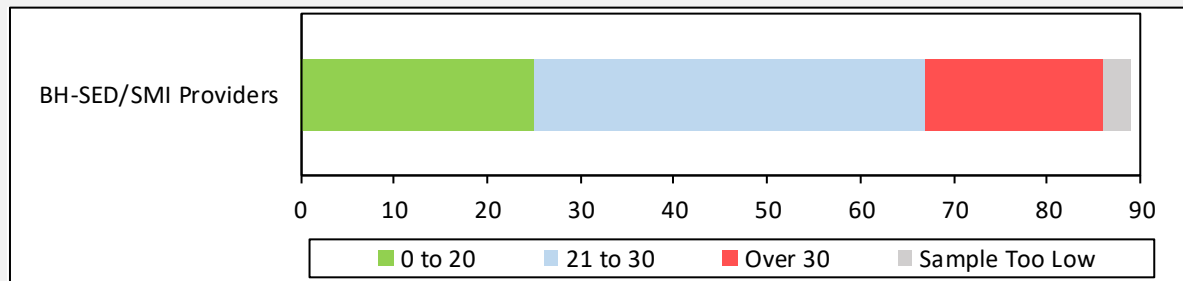
C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS

Statewide Average - FFS

17.4

CY 2018 BH-SED/SMI Utilization

Colored Bars Plot Number of Counties (out of 88) in Each Distance Range



Number of Counties that Fell Into Each Distance Range

| | 0 to 20 | 21 to 30 | Over 30 | Sample Too Low |
|----------------------|---------|----------|---------|----------------|
| BH-SED/SMI Providers | 25 | 42 | 19 | 3 |

| | Adult | Pediatric | Disabled | Non-Disabled |
|------------------|--------|-----------|----------|--------------|
| # trips analyzed | 68,904 | 20,221 | 41,917 | 47,208 |
| avg distance | 16.7 | 19.9 | 17.8 | 17.1 |

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # trips analyzed | 6,530 | 11,866 | 52,414 | 11,130 | 44,634 | 39,388 | 12,288 |
| avg distance | 23.5 | 13.2 | 15.7 | 19.2 | 18.3 | 16.5 | 24.3 |

20 miles or less
More than 20 to 30 miles
More than 30 miles

D. PROVIDER AVAILABILITY - CY 2018

Licensed 17,137

Enrolled 25,006

Billed 9,013

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # providers in region | 628 | 1,800 | 8,850 | 1,554 | 4,652 | 5,892 | 1,630 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|------------|----|----|----|----|----|----|----|
| Adults | 13 | 21 | 21 | 18 | 18 | 19 | 16 |
| Pediatrics | 12 | 23 | 25 | 19 | 18 | 20 | 19 |

| | | |
|--|--|---|
| Greater than AHRF | Equal to AHRF | Less than AHRF |
|--|--|---|

Area Health Resource File (AHRF) General Availability

Provider-to-1000 population ratio

| | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|
| Total | 0.1 | 0.4 | 0.5 | 0.2 | 0.4 | 0.5 | 0.2 |
|-------|-----|-----|-----|-----|-----|-----|-----|

Durable Medical Equipment (DME)

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Professional claims.
- CPT/HCPCS: A complete list of the DME codes included in the analysis are found in Appendix A.
- Provider Type: Pharmacy, and Durable Medical Equipment Supplier.
- Provider Specialty or Specialties: Pharmacy, DME Supplier, ORCB Licensed DME Supplier, Orthotics and Prosthetics.
- Percent of DME Claims FFS compared to Managed Care: 23% (226,857) in CY 2016, declining to 19% (187,450) in CY 2018.
- Total Detail Lines: Between 3.1 million to 3.3 million total detail lines, with DME codes making up between 83% and 84% of the included detail lines for DME services.

Key Findings

Exhibit V.7 is the dashboard for DME services. Key findings include:

- Count of users: Overall there is an increase from CY 2016 to CY 2018 in the percentage of DME users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled population has the lowest utilization rates across the three study years.
 - The disabled and pediatric populations have the highest utilization rates across each of the study years.
 - Rates are variable over the study period, but in general are increasing for all populations, except for the disabled population, which saw a decline from CY 2016 to CY 2018.
- Average driving distances: Could not be computed for this service category as the primary place of service is the member's home.
- Provider availability:
 - Adult patients in the Northwest region have the highest rate of DME providers at 0.6 per 1000 Medicaid members, as do pediatric patients in the Northwest and North Central regions.
 - Adults and pediatric patients have the lowest rate at 0.4 DME providers per 1000 Medicaid members in the South Central and Southwest region, as do adult patients in the Southeast region.
 - No comparative data is available in AHRF for this service category.
- Comparison to the 2016 AMRP: Not applicable as this is a new service category for the 2019 AMRP.

Exhibit V.7 Durable Medical Equipment Service Specific Dashboard

DURABLE MEDICAL EQUIPMENT

A. USERS

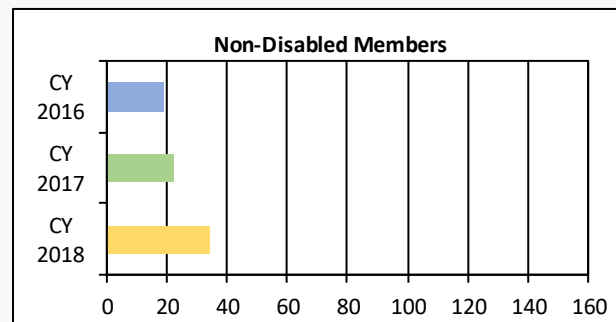
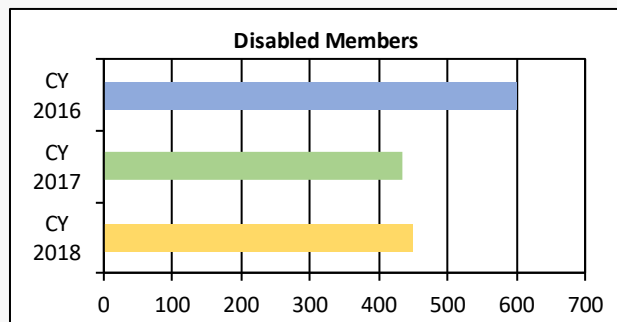
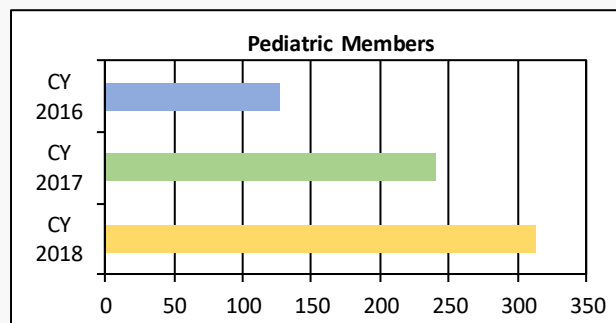
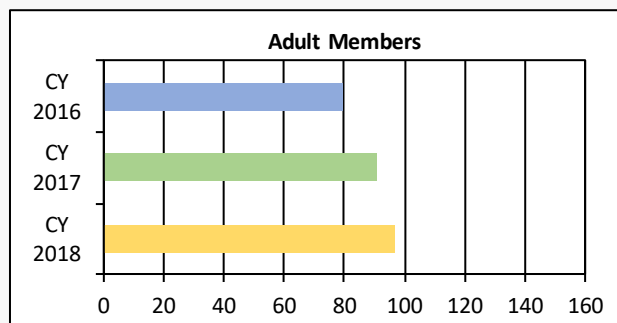
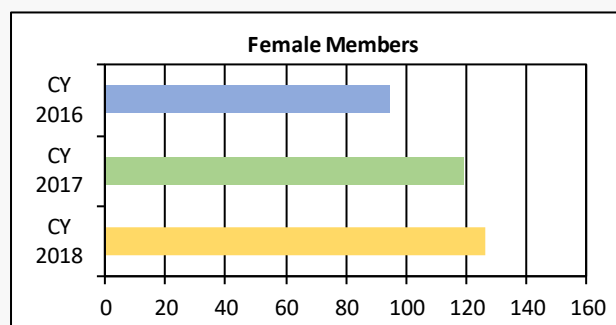
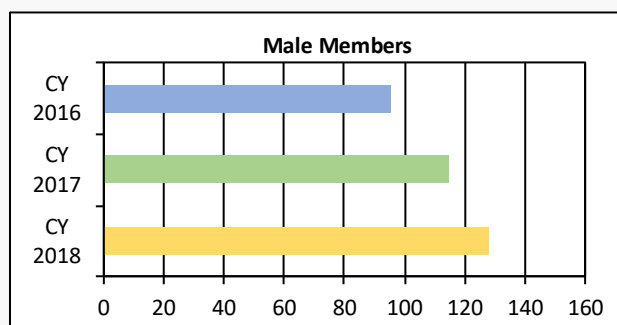
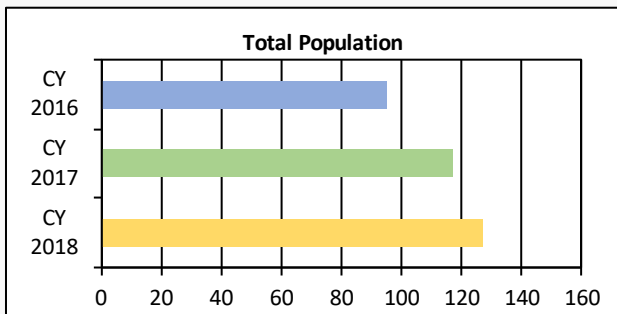
Percent of FFS Members with a Durable Medical Equipment Visit Each Calendar Year

CY 2016 4%

CY 2017 3%

CY 2018 10%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



DURABLE MEDICAL EQUIPMENT**C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS**

Could not be computed for this service category as the primary place of service is the member's home.

D. PROVIDER AVAILABILITY - CY 2018

Licensed 327 Enrolled 552 Billed 459

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|------------------|-----------|----------------------|------------------|-----------|-----------|
| # providers in region | 29 | 45 | 174 | 43 | 94 | 125 | 42 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|
| Adults | 0.6 | 0.5 | 0.4 | 0.5 | 0.4 | 0.4 | 0.4 |
| Pediatrics | 0.6 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 |

Greater than AHRF
 Equal to AHRF
 Less than AHRF

Area Health Resource File (AHRF) General Availability

No comparative data available in AHRF

Radiology

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Professional and outpatient claims.
- CPT/HCPCS: 70010 – 79999.
- Provider Type: Used only for provider availability reports. Limited to: Physician or Osteopath Individual.
- Provider Specialty or Specialties: Used only for provider availability reports. Limited to: Radiation Oncology, Diagnostic Radiology, Nuclear Medicine, and Radiology.
- Percent of Radiology Claims FFS compared to Managed Care: 2.2% (123,301) in CY 2016, declining to 2.2% (91,101) in CY 2018.
- Total Detail Lines: Between 165.5 million to 177.1 million total detail lines, with radiology codes making up between 4.5% to 5.0% of the included detail lines for radiology services.

Key Findings

Exhibit V.8 is the dashboard for Radiology Services. Key findings include:

- Count of users: Overall there is an increase over the study period when comparing CY 2016 to CY 2018 in the percentage of radiology users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled have the lowest utilization rates over the study period.
 - The disabled population has the highest utilization rates over the study period and the highest rate in CY 2018.
 - Rates are variable over the study period, but in general are increasing for all population cohorts except the non-disabled, which are declining.
- Average driving distances:
 - Count of counties by distance range:
 - The statewide FFS average driving distance was 23.1 miles for CY 2018.
 - For the majority of counties, beneficiaries traveled less than 50 miles.
 - There are 11 counties where beneficiaries traveled more than 50 miles, and one county with a low sample size.
 - Average distance by region:
 - All regions are below 50 miles average driving distance.
 - The Southeast region has the highest average driving distance at 36.5 miles.
 - The North Central region had the lowest average driving distance at 19.0 miles.
- Provider availability:
 - Adult patients in the Northwest have the highest radiology providers per 1000 Medicaid member ratio at 2.5 radiology providers, followed by pediatric patients at 2.3.
 - Adults in the Southeast region have the lowest rate at 0.7 radiology providers per 1000 Medicaid members.

- In comparison to AHRF, Medicaid has lower radiology care provider availability on a per 1000 members basis than that of the general population, except for adults and pediatric members in the Northwest region.
- Comparison to the 2016 AMRP:
 - Average driving distance: The statewide average driving distance has improved with a decline in the average distance traveled in CY 2015 from 24.7 miles to 23.1 miles. During this same time period, the FFS number of trips declined from 236,441 to 128,466.
 - Provider availability: The count of billing providers was used in the 2016 AMRP. Comparing CY 2018 to CY 2015, the unique count of billing providers has declined from 1,926 to 1,586, while the ratio per 1000 Medicaid members has remained relatively unchanged.

Exhibit V.8 Radiology Service Specific Dashboard

RADIOLOGY

A. USERS

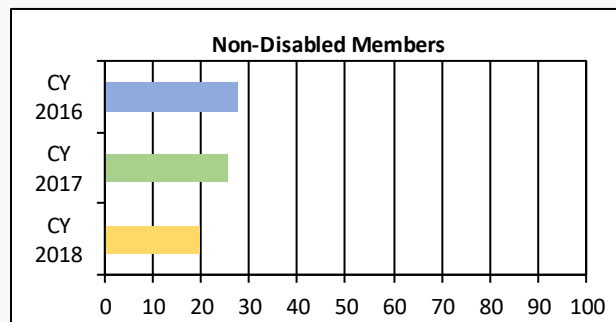
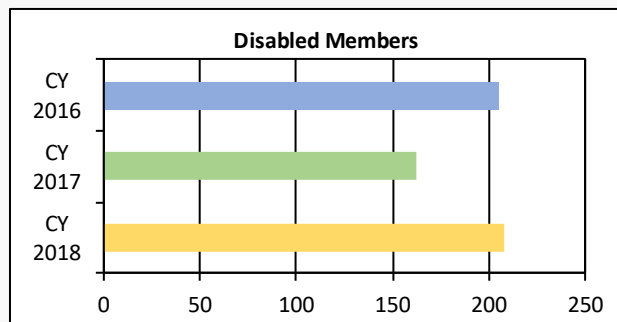
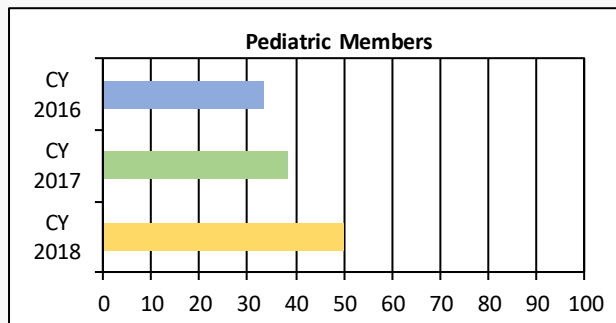
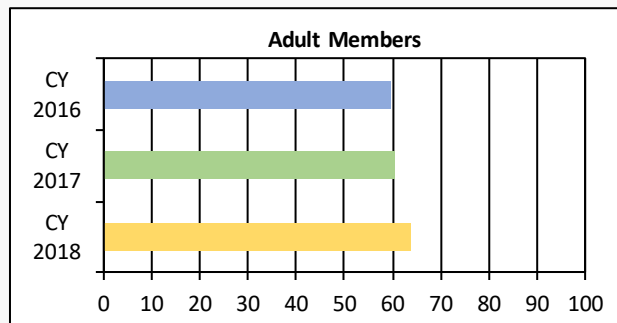
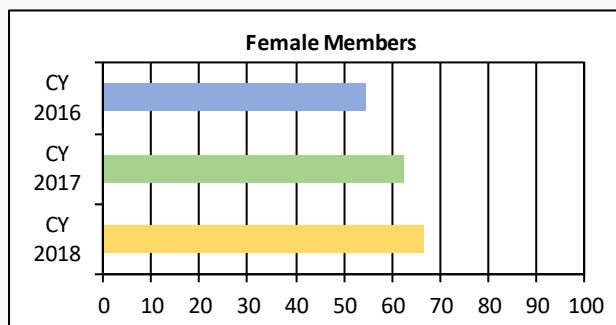
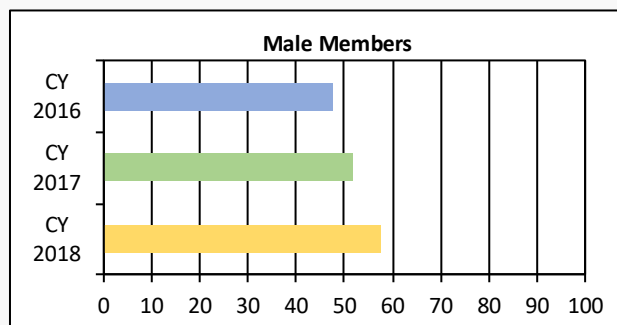
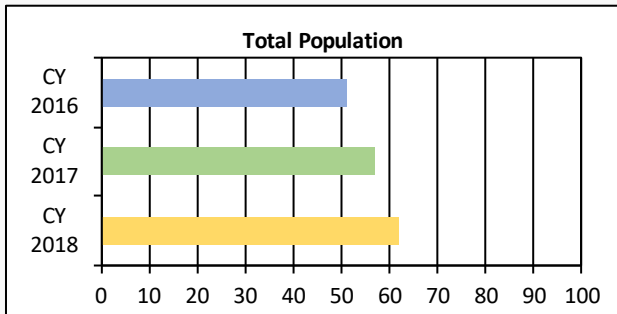
Percent of FFS Members with a Radiology Visit Each Calendar Year

CY 2016 10%

CY 2017 9%

CY 2018 13%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



RADIOLOGY

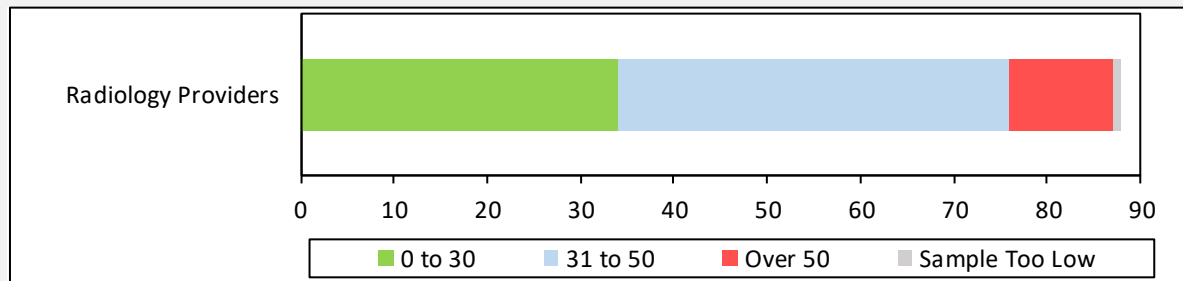
C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS

Statewide Average - FFS

23.1

CY 2018 Radiology Utilization

Colored Bars Plot Number of Counties (out of 88) in Each Distance Range



Number of Counties that Fell Into Each Distance Range

| | 0 to 30 | 31 to 50 | Over 50 | Sample Too Low |
|---------------------|---------|----------|---------|----------------|
| Radiology Providers | 34 | 42 | 11 | 1 |

| | Adult | Pediatric | Disabled | Non-Disabled |
|------------------|--------|-----------|----------|--------------|
| # trips analyzed | 58,387 | 5,846 | 50,750 | 13,483 |
| avg distance | 22.5 | 28.7 | 23.0 | 23.4 |

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # trips analyzed | 3,964 | 6,704 | 38,534 | 5,676 | 33,666 | 31,090 | 8,832 |
| avg distance | 35.5 | 19.0 | 20.1 | 33.0 | 19.9 | 24.0 | 36.5 |



D. PROVIDER AVAILABILITY - CY 2018

Licensed

1,823

Enrolled

1,823

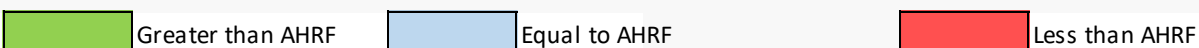
Billed

1,586

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # providers in region | 118 | 105 | 612 | 94 | 417 | 404 | 73 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|
| Adults | 2.5 | 1.2 | 1.4 | 1.1 | 1.6 | 1.3 | 0.7 |
| Pediatrics | 2.3 | 1.4 | 1.7 | 1.1 | 1.6 | 1.4 | 0.9 |



Area Health Resource File (AHRF) General Availability

Provider-to-1000 population ratio

| | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|
| Total | 1.4 | 2.1 | 2.3 | 1.6 | 2.2 | 2.1 | 1.3 |
|-------|-----|-----|-----|-----|-----|-----|-----|

Surgery – Adult Only

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Professional and outpatient claims.
- CPT/HCPCS: 10000 – 69999.
- Provider Type: Used only for provider availability reports. Limited to: Physician or Osteopath Individual.
- Provider Specialty or Specialties: Used only for provider availability reports. Limited to: General Surgery.
- Population: Adult only.
- Percent of Adult Surgery Claims FFS compared to Managed Care: 4.0% (117,332) in CY 2016, increasing to 4.7% (135,369) in CY 2018.
- Total FFS Lines: Between 165.5 million to 177.1 million total detail lines, with surgery codes making up between 3.2% to 3.4% of the included detail lines for adult surgery services.

Key Findings

Exhibit V.9 is the dashboard for Surgery. Key findings include:

- Count of users: Overall there is an increase when comparing CY 2016 to CY 2018 in the percentage of adult surgery users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled population has the lowest utilization rates across all three years in the study.
 - The disabled population has the highest utilization rates when looking across all three years.
 - Females have higher utilization than males across all three years in the study.
 - Rates are variable over the study period, but in general are increasing for all population cohorts, except the non-disabled which remained relatively unchanged over the study period.
- Average driving distances:
 - Count of counties by distance range:
 - The statewide FFS average driving distance was 20.4 miles for CY 2018.
 - For the majority of counties, beneficiaries traveled less than 50 miles.
 - There are no counties where beneficiaries traveled more than 50 miles, and two counties with a low sample size.
 - Average distance by region:
 - All regions are below 50 miles average driving distance.
 - The Northwest region has the highest average driving distance at 30.5 miles.
 - The North Central region had the lowest average driving distance at 15.7 miles.
- Provider availability:
 - Adults in the Northwest and North Central regions have the highest ratio of general surgeons per 1000 Medicaid members at 1.0.
 - Adults in the Southeast and Northeast Central regions have the lowest rate at 0.4 general surgeons per 1000 Medicaid members.

- In comparison to AHRF, Medicaid has greater general surgeon provider availability on a per 1000 members basis than that of the general population for all regions except South Central, which is lower than AHRF.
- Comparison to the 2016 AMRP:
 - Average driving distance: The statewide average driving distance has improved with a decline in the average distance traveled in CY 2015 from 23.4 miles to 20.4 miles. During this same time period, the FFS number of trips increased from 66,588 to 105,876.
 - Provider availability: The count of billing providers was used in the 2016 AMRP. Comparing CY 2018 to CY 2015, the unique count of billing providers has declined from 1,277 to 1,028, however, the count per 1000 Medicaid members has increased.

SURGERY - ADULT ONLY

A. USERS

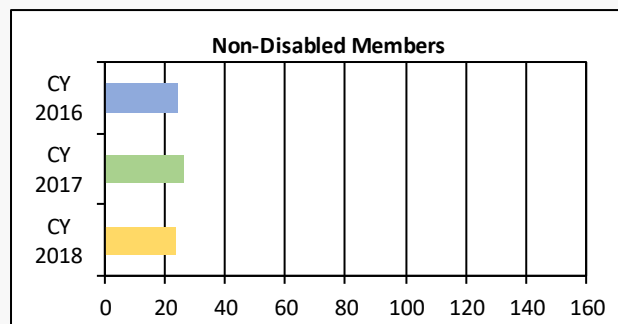
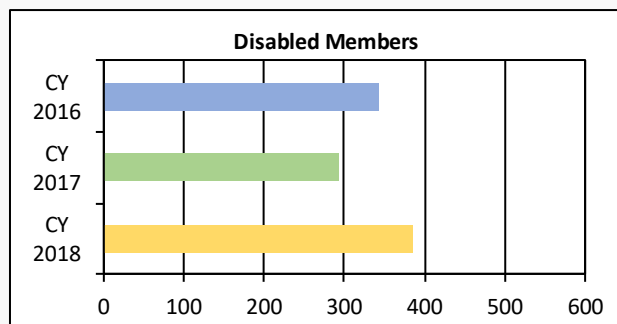
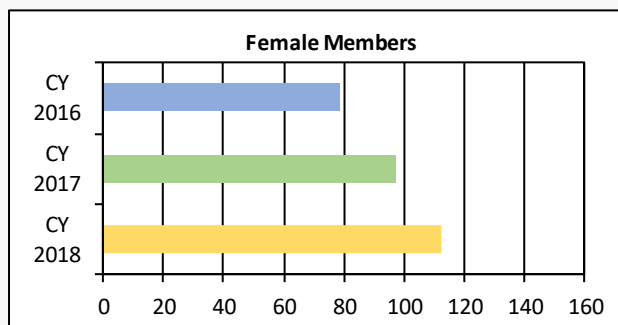
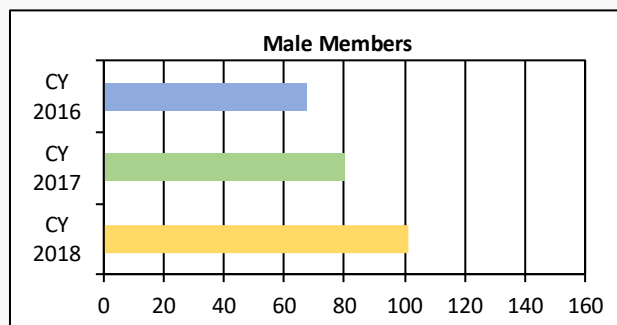
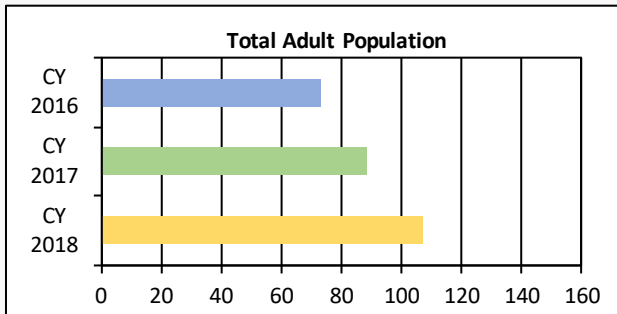
Percent of FFS Members with a Surgery Visit Each Calendar Year

CY 2016 8%

CY 2017 8%

CY 2018 17%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



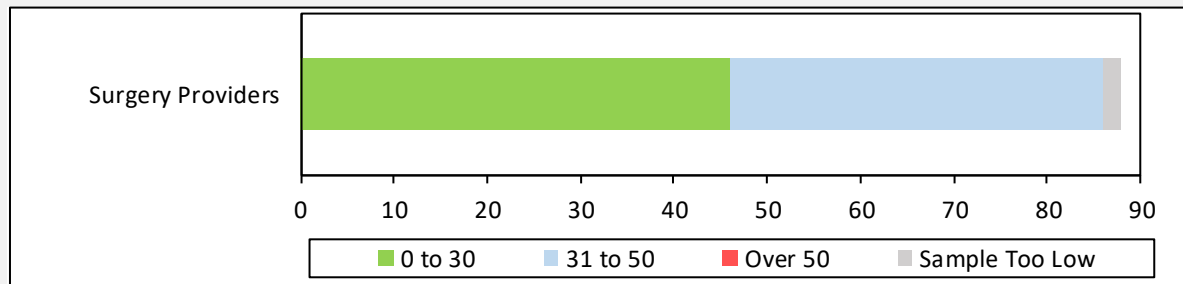
SURGERY - ADULT ONLY**C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS**

Statewide Average - FFS

20.4

CY 2018 Surgery Utilization

Colored Bars Plot Number of Counties (out of 88) in Each Distance Range



Number of Counties that Fell Into Each Distance Range

| | 0 to 30 | 31 to 50 | Over 50 | Sample Too Low |
|-------------------|---------|----------|---------|----------------|
| Surgery Providers | 46 | 40 | 0 | 2 |

| | Adult | Pediatric | Disabled | Non-Disabled |
|------------------|--------|-----------|----------|--------------|
| # trips analyzed | 52,938 | 0 | 42,036 | 10,902 |
| avg distance | 20.4 | N/A | 20.5 | 20.4 |

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|------------------|------------------|--------------------------|--------------------|-------------------|---------------|-----------|-----------|
| # trips analyzed | 3,566 | 6,194 | 31,548 | 7,518 | 24,672 | 24,720 | 7,658 |
| avg distance | 30.5 | 15.7 | 17.8 | 26.4 | 18.3 | 21.7 | 27.7 |
| | 30 miles or less | More than 30 to 50 miles | More than 50 miles | | | | |

D. PROVIDER AVAILABILITY - CY 2018

Licensed 1,084

Enrolled 1,084

Billed 1,028

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # providers in region | 46 | 89 | 382 | 57 | 206 | 244 | 60 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|
| Adults | 1.0 | 1.0 | 0.9 | 0.6 | 0.8 | 0.8 | 0.6 |
|--------|-----|-----|-----|-----|-----|-----|-----|

Greater than AHRF Equal to AHRF Less than AHRF

Area Health Resource File (AHRF) General Availability

Provider-to-1000 population ratio

| | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|
| Total | 0.5 | 0.8 | 0.8 | 0.6 | 0.9 | 0.8 | 0.4 |
|-------|-----|-----|-----|-----|-----|-----|-----|

Ear, Nose and Throat – Pediatric Only

Methodology – includes filters specific to the service category

Following lists the key variables and overall summary of the service specific data included in this category.

- Claim Type: Professional and outpatient claims.
- CPT/HCPCS: 21010 - 21499; 21501 - 21899; 30000 - 31899; 40490 – 42999 (except 41800 – 41899 are excluded); 69000 - 69979; 92502 – 92700.
- Provider Type: Used only for provider availability reports. Limited to: Physician or Osteopath Individual, Physician Assistant, Medicaid School Program, Speech Language Pathologist Individual, Audiologist Individual, Nurse Practitioner Individual.
- Provider Specialty or Specialties: Used only for provider availability reports. Limited to: Physician or Osteopath Individual, General Practice, Otolaryngology, Family Practice, Pediatric, Physician Assistant, Medicaid School Program, Speech Language Pathology or Therapy, Audiology, Language or Audiology Clinics, Nurse Practitioner.
- Population: Pediatric only
- Percent of Pediatric ENT Claims FFS compared to Managed Care: 5.8% (85,080) in CY 2016, declining to 2.8% (35,788) in CY 2018.
- Total Detail Lines: Between 165.5 million to 177.1 million total detail lines, with ENT codes making up between 1.2% to 1.1% of the included detail lines for ENT services.

Key Findings

Exhibit V.10 is the dashboard for Prenatal and Postpartum Care Services. Key findings include:

- Count of users: Overall there is an increase when comparing CY 2016 to CY 2018 in the percentage of ENT users.
- Utilization per 1000, by different demographic cohorts:
 - The non-disabled and female populations have the lowest utilization rates in over the three-year study period.
 - The disabled population has the highest utilization rates over the study period.
 - Rates are variable over the study period, but in general are declining for the disabled population but increasing for other cohorts.
- Average driving distances:
 - Count of counties by distance range:
 - The statewide FFS average driving distance was 14.6 miles for CY 2018.
 - For the majority of counties, beneficiaries traveled less than 30 miles.
 - There are 20 counties where beneficiaries traveled over 30 miles, and two counties with a low sample size.
 - Average distance by region:
 - All of regions are below 30 miles average driving distance.
 - The Southeast region has the highest average driving distance at 22.2 miles.
 - The South Central region had the lowest average driving distance at 12.4 miles.
- Provider availability:

- Pediatric patients in the Northeast have the highest ENT care providers per 1000 Medicaid member ratio at 23.6.
- Pediatric patients in the Northeast Central region have the lowest rate at 15.9 ENT providers per 1000 Medicaid members.
- In comparison to AHRF, Medicaid has much greater ENT provider availability on a per 1000 members basis than that of the general population. Note that AHRF only had data for otolaryngology, licensed audiologists and licensed speech language pathologists as the remaining provider types used for provider availability analyses were not reported.
- Comparison to the 2016 AMRP: Not applicable as this is a new service category for the 2019 AMRP.

EAR, NOSE AND THROAT (ENT) - PEDIATRIC ONLY

A. USERS

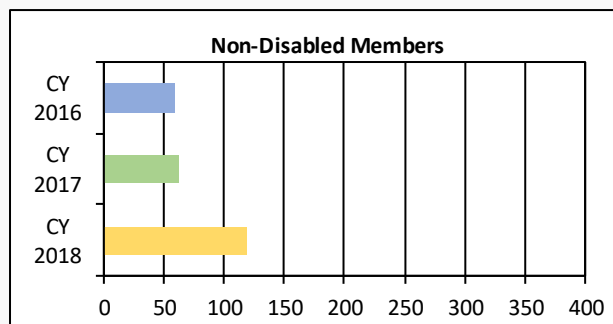
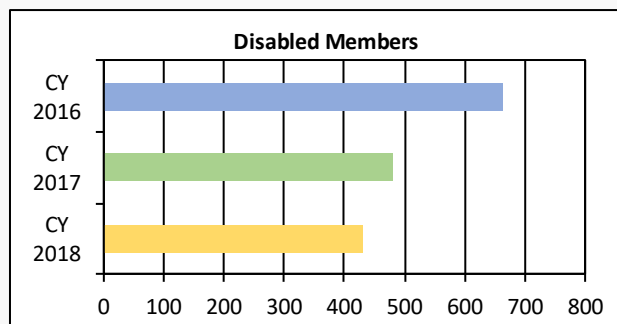
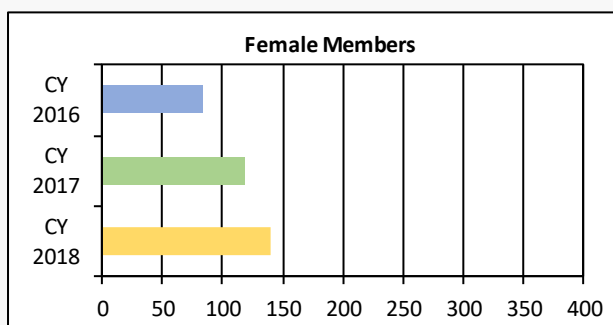
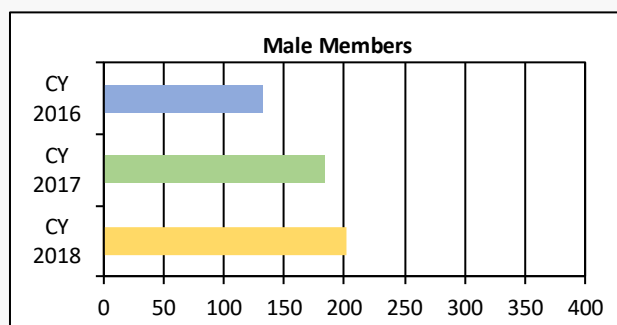
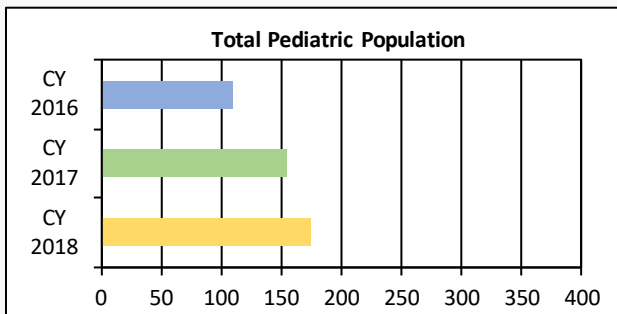
Percent of FFS Members with a ENT Visit Each Calendar Year

CY 2016 11%

CY 2017 9%

CY 2018 17%

B. UTILIZATION PER 1000 FEE-FOR-SERVICE MEMBER MONTHS



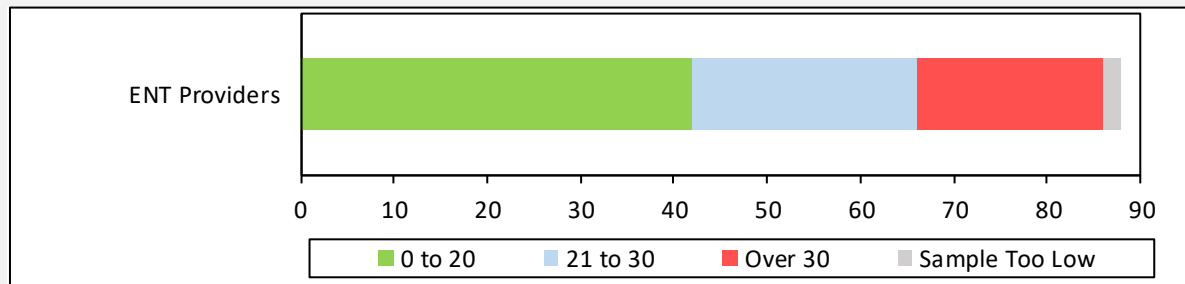
EAR, NOSE AND THROAT (ENT) - PEDIATRIC ONLY**C. AVERAGE DRIVING DISTANCE - CY 2018 TRIPS**

Statewide Average - FFS

14.6

CY 2018 ENT Utilization

Colored Bars Plot Number of Counties (out of 88) in Each Distance Range



Number of Counties that Fell Into Each Distance Range

| | 0 to 20 | 21 to 30 | Over 30 | Sample Too Low |
|---------------|---------|----------|---------|----------------|
| ENT Providers | 42 | 24 | 20 | 2 |

| | Adult | Pediatric | Disabled | Non-Disabled |
|------------------|-------|-----------|----------|--------------|
| # trips analyzed | 0 | 4,684 | 2,116 | 2,568 |
| avg distance | N/A | 14.6 | 15.2 | 14.1 |

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|------------------|------------------|--------------------------|-----------|-------------------|---------------|--------------------|-----------|
| # trips analyzed | 298 | 328 | 1,614 | 324 | 3,570 | 2,668 | 566 |
| avg distance | 21.0 | 13.4 | 13.9 | 20.1 | 12.4 | 15.0 | 22.2 |
| | 20 miles or less | More than 20 to 30 miles | | | | More than 30 miles | |

D. PROVIDER AVAILABILITY - CY 2018

Licensed 24,649

Enrolled 25,300

Billed 11,422

| | Northwest | North Central | Northeast | Northeast Central | South Central | Southwest | Southeast |
|-----------------------|-----------|---------------|-----------|-------------------|---------------|-----------|-----------|
| # providers in region | 1,047 | 1,570 | 8,273 | 1,325 | 5,701 | 5,924 | 1,460 |

Provider-to-1000 Medicaid members ratio

| | | | | | | | |
|------------|------|------|------|------|------|------|------|
| Pediatrics | 20.7 | 20.3 | 23.6 | 15.9 | 22.4 | 20.1 | 17.0 |
|------------|------|------|------|------|------|------|------|

| | | |
|-------------------|---------------|----------------|
| Greater than AHRF | Equal to AHRF | Less than AHRF |
|-------------------|---------------|----------------|

Area Health Resource File (AHRF) General Availability

Provider-to-1000 population ratio

| | | | | | | | |
|-------|------|------|------|------|------|------|------|
| Total | 0.42 | 0.59 | 0.64 | 0.50 | 0.52 | 0.59 | 0.35 |
|-------|------|------|------|------|------|------|------|

SECTION VI: OTHER MEASURES

Top 5 Physical and Behavioral Health Conditions by Prevalence

The Top 5 Physical and Behavioral Health Conditions were identified by prevalence for each sub-population across each study year as seen in Exhibits V.1 through V.3 found on the following pages. A unique count of members by primary ICD-10 CM code was performed to identify the top five clinical conditions for physical and behavioral health for each study year. Results are presented by study population and to the third digit of the primary diagnosis code.

Adult

Across all three years in the study, F79, unspecified intellectual disabilities, was the top physical health clinical condition for adults, followed by I10, essential (primary) hypertension. While the ranking may not have been consistent, the same four physical health conditions for adults were present in the top five over the study period.

The top behavioral health clinical condition for adults was F41, other anxiety disorders, for CY 2018 and CY 2017. This was the second highest behavioral health clinical condition in CY 2016. While the ranking may not have been consistent, the same four behavioral health clinical conditions for adults were present in the top five over the study period.

Pediatric

The top physical health condition for the pediatric population varied for each study year in terms of the top condition and those codes in the top five. F79, unspecified intellectual disabilities, and Z00, encounter for general exam appeared in the top five over the entire three-year study period. The remaining physical health clinical conditions for pediatric patients in the top five varied over the study period.

Across all three years in the study, the top behavioral health clinical condition was F90, attention-deficit hyperactivity disorders, followed by F43, reaction to severe stress, and adjustment disorders. While the ranking may not have been consistent, the same four behavioral health clinical conditions for pediatrics were present in the top five across the study period.

Disabled

Across all three years in the study, F79, unspecified intellectual disabilities, was the top physical health clinical condition for the disabled population. While the ranking may not have been consistent, three other physical health conditions for the disabled population were present in the top five over the study period.

Across all three years in the study, the top behavioral health clinical condition for the disabled population was F41, other anxiety disorders, followed by F31, bipolar disorder. While the ranking may not have been consistent, the same four behavioral health clinical conditions were present in the top five across the study period.

Non-Disabled

In two of the three study years, Z00, encounter for general exam was the top physical health condition. In CY 2018, F79, unspecified intellectual disabilities, was the top physical health clinical condition for the non-

disabled population. While the ranking may not have been consistent, the same four physical health conditions were present in the top five over the study period.

The top behavioral health clinical condition for the non-disabled population varied over the three-year study period. However, the same three behavioral health clinical condition codes were present in the top five over the study period even if their ranking changed from year to year.

DRAFT

Exhibit VI.1 Top 5 Physical and Behavioral Health Conditions – CY 2016

Unique Count of Members by ICD Category by Population Group

| Adult Physical Health Conditions | | | | Adult Behavioral Health Conditions | | | |
|---|------|--|--------|---|------|---|-------|
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | F79 | Unspecified intellectual disabilities | 11,913 | 1 | F31 | Bipolar disorder | 3,897 |
| 2 | I10 | Essential (primary) hypertension | 8,022 | 2 | F41 | Other anxiety disorders | 3,887 |
| 3 | H52 | Disorders of refraction and accommodation | 7,625 | 3 | F33 | Major depressive disorder, recurrent | 3,881 |
| 4 | M25 | Other joint disorder, not elsewhere classified | 6,113 | 4 | F32 | Major depressive disorder, single episode | 3,485 |
| 5 | E11 | Type 2 diabetes mellitus | 6,083 | 5 | F25 | Schizoaffective disorders | 2,357 |
| Pediatric Physical Health Conditions | | | | Pediatric Behavioral Health Conditions | | | |
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | Z00 | Encntr for general exam w/o complaint, susp or reprtd dx | 18,833 | 1 | F90 | Attention-deficit hyperactivity disorders | 7,666 |
| 2 | H52 | Disorders of refraction and accommodation | 8,102 | 2 | F43 | Reaction to severe stress, and adjustment disorders | 6,250 |
| 3 | F79 | Unspecified intellectual disabilities | 5,511 | 3 | F91 | Conduct disorders | 3,628 |
| 4 | J02 | Acute pharyngitis | 4,720 | 4 | F41 | Other anxiety disorders | 1,821 |
| 5 | Z23 | Encounter for immunization | 4,318 | 5 | F32 | Major depressive disorder, single episode | 1,758 |
| Disabled Physical Health Conditions | | | | Disabled Behavioral Health Conditions | | | |
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | F79 | Unspecified intellectual disabilities | 15,204 | 1 | F41 | Other anxiety disorders | 2,214 |
| 2 | I10 | Essential (primary) hypertension | 4,937 | 2 | F31 | Bipolar disorder | 1,816 |
| 3 | H52 | Disorders of refraction and accommodation | 4,707 | 3 | F32 | Major depressive disorder, single episode | 1,792 |
| 4 | B35 | Dermatophytosis | 4,357 | 4 | F33 | Major depressive disorder, recurrent | 1,737 |
| 5 | E11 | Type 2 diabetes mellitus | 4,176 | 5 | F90 | Attention-deficit hyperactivity disorders | 1,369 |
| Non - Disabled Physical Health Conditions | | | | Non - Disabled Behavioral Health Conditions | | | |
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | Z00 | Encntr for general exam w/o complaint, susp or reprtd dx | 18,866 | 1 | F90 | Attention-deficit hyperactivity disorders | 7,468 |
| 2 | H52 | Disorders of refraction and accommodation | 11,020 | 2 | F43 | Reaction to severe stress, and adjustment disorders | 7,384 |
| 3 | Z01 | Encntr for oth sp exam w/o complaint, suspected or reprtd dx | 5,559 | 3 | F91 | Conduct disorders | 3,515 |
| 4 | J02 | Acute pharyngitis | 5,261 | 4 | F41 | Other anxiety disorders | 3,494 |
| 5 | R10 | Abdominal and pelvic pain | 5,055 | 5 | F32 | Major depressive disorder, single episode | 3,451 |

Exhibit VI.2 Top 5 Physical and Behavioral Health Conditions – CY 2017

Unique Count of Members by ICD Category by Population Group

| Adult Physical Health Conditions | | | | Adult Behavioral Health Conditions | | | |
|----------------------------------|------|---|--------|------------------------------------|------|---|-------|
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | F79 | Unspecified intellectual disabilities | 12,686 | 1 | F41 | Other anxiety disorders | 3,144 |
| 2 | I10 | Essential (primary) hypertension | 6,658 | 2 | F33 | Major depressive disorder, recurrent | 2,964 |
| 3 | H52 | Disorders of refraction and accommodation | 5,626 | 3 | F31 | Bipolar disorder | 2,807 |
| 4 | E11 | Type 2 diabetes mellitus | 5,162 | 4 | F32 | Major depressive disorder, single episode | 2,682 |
| 5 | R10 | Abdominal and pelvic pain | 4,875 | 5 | F20 | Schizophrenia | 1,762 |

| Pediatric Physical Health Conditions | | | | Pediatric Behavioral Health Conditions | | | |
|--------------------------------------|------|--|-------|--|------|---|-------|
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | Z00 | Encntr for general exam w/o complaint, susp or reprtd dx | 4,910 | 1 | F90 | Attention-deficit hyperactivity disorders | 1,314 |
| 2 | F79 | Unspecified intellectual disabilities | 4,546 | 2 | F43 | Reaction to severe stress, and adjustment disorders | 971 |
| 3 | F80 | Specific developmental disorders of speech and language | 1,827 | 3 | F91 | Conduct disorders | 612 |
| 4 | F84 | Pervasive developmental disorders | 1,604 | 4 | F41 | Other anxiety disorders | 475 |
| 5 | J06 | Acute upper resp infections of multiple and unsp sites | 1,468 | 5 | F32 | Major depressive disorder, single episode | 332 |

| Disabled Physical Health Conditions | | | | Disabled Behavioral Health Conditions | | | |
|-------------------------------------|------|--|--------|---------------------------------------|------|---|-------|
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | F79 | Unspecified intellectual disabilities | 14,713 | 1 | F41 | Other anxiety disorders | 2,169 |
| 2 | I10 | Essential (primary) hypertension | 4,703 | 2 | F31 | Bipolar disorder | 1,941 |
| 3 | H52 | Disorders of refraction and accommodation | 4,229 | 3 | F33 | Major depressive disorder, recurrent | 1,855 |
| 4 | B35 | Dermatophytosis | 4,060 | 4 | F32 | Major depressive disorder, single episode | 1,746 |
| 5 | Z00 | Encntr for general exam w/o complaint, susp or reprtd dx | 3,945 | 5 | F20 | Schizophrenia | 1,384 |

| Non - Disabled Physical Health Conditions | | | | Non - Disabled Behavioral Health Conditions | | | |
|---|------|--|-------|---|------|---|-------|
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | Z00 | Encntr for general exam w/o complaint, susp or reprtd dx | 4,813 | 1 | F43 | Reaction to severe stress, and adjustment disorders | 1,573 |
| 2 | H52 | Disorders of refraction and accommodation | 2,637 | 2 | F41 | Other anxiety disorders | 1,450 |
| 3 | F79 | Unspecified intellectual disabilities | 2,519 | 3 | F33 | Major depressive disorder, recurrent | 1,346 |
| 4 | R10 | Abdominal and pelvic pain | 2,463 | 4 | F32 | Major depressive disorder, single episode | 1,268 |
| 5 | Z01 | Encntr for oth sp exam w/o complaint, suspected or reprtd dx | 2,197 | 5 | F31 | Bipolar disorder | 1,043 |

Exhibit VI.3 Top 5 Physical and Behavioral Health Conditions – CY 2018

Unique Count of Members by ICD Category by Population Group

| Adult Physical Health Conditions | | | | Adult Behavioral Health Conditions | | | |
|----------------------------------|------|---|--------|------------------------------------|------|---|-------|
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | F79 | Unspecified intellectual disabilities | 12,477 | 1 | F41 | Other anxiety disorders | 2,921 |
| 2 | I10 | Essential (primary) hypertension | 5,777 | 2 | F33 | Major depressive disorder, recurrent | 2,658 |
| 3 | H52 | Disorders of refraction and accommodation | 4,915 | 3 | F31 | Bipolar disorder | 2,456 |
| 4 | E11 | Type 2 diabetes mellitus | 4,612 | 4 | F32 | Major depressive disorder, single episode | 2,195 |
| 5 | Z79 | Long term (current) drug therapy | 4,338 | 5 | F25 | Schizoaffective disorders | 1,708 |

| Pediatric Physical Health Conditions | | | | Pediatric Behavioral Health Conditions | | | |
|--------------------------------------|------|--|-------|--|------|---|-------|
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | F79 | Unspecified intellectual disabilities | 4,190 | 1 | F90 | Attention-deficit hyperactivity disorders | 981 |
| 2 | Z00 | Encntr for general exam w/o complaint, susp or reprtd dx | 3,146 | 2 | F43 | Reaction to severe stress, and adjustment disorders | 570 |
| 3 | F84 | Pervasive developmental disorders | 1,393 | 3 | F41 | Other anxiety disorders | 425 |
| 4 | F80 | Specific developmental disorders of speech and language | 1,383 | 4 | F91 | Conduct disorders | 391 |
| 5 | G80 | Cerebral palsy | 1,017 | 5 | F88 | Other disorders of psychological development | 207 |

| Disabled Physical Health Conditions | | | | Disabled Behavioral Health Conditions | | | |
|-------------------------------------|------|--|--------|---------------------------------------|------|---|-------|
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | F79 | Unspecified intellectual disabilities | 13,022 | 1 | F41 | Other anxiety disorders | 2,337 |
| 2 | I10 | Essential (primary) hypertension | 4,588 | 2 | F31 | Bipolar disorder | 1,935 |
| 3 | Z00 | Encntr for general exam w/o complaint, susp or reprtd dx | 4,114 | 3 | F33 | Major depressive disorder, recurrent | 1,892 |
| 4 | H52 | Disorders of refraction and accommodation | 4,034 | 4 | F32 | Major depressive disorder, single episode | 1,674 |
| 5 | Z79 | Long term (current) drug therapy | 3,835 | 5 | F25 | Schizoaffective disorders | 1,414 |

| Non - Disabled Physical Health Conditions | | | | Non - Disabled Behavioral Health Conditions | | | |
|---|------|--|-------|---|------|---|-------|
| Rank | Code | Description | Count | Rank | Code | Description | Count |
| 1 | F79 | Unspecified intellectual disabilities | 3,645 | 1 | F41 | Other anxiety disorders | 1,009 |
| 2 | Z00 | Encntr for general exam w/o complaint, susp or reprtd dx | 2,977 | 2 | F33 | Major depressive disorder, recurrent | 880 |
| 3 | H52 | Disorders of refraction and accommodation | 1,692 | 3 | F43 | Reaction to severe stress, and adjustment disorders | 877 |
| 4 | Z01 | Encntr for oth sp exam w/o complaint, suspected or reprtd dx | 1,382 | 4 | F90 | Attention-deficit hyperactivity disorders | 735 |
| 5 | R10 | Abdominal and pelvic pain | 1,360 | 5 | F32 | Major depressive disorder, single episode | 721 |

Ability to get care

Ohio uses surveys and national metrics to monitor the ability for enrolled beneficiaries to get care. The following is a description of each tool and results for the 2019 AMRP.

Consumer Assessment of Healthcare Providers and Systems

Ohio collects and analyzes the Consumer Assessment of Healthcare Providers and Systems (CAHPS) surveys for those served by managed care. Comparable data is not available for the FFS population, but ODM believes the results are indicative of what the FFS population experiences. Since the data is retrospective, it may not demonstrate current access, but it is an indicator of whether or not beneficiaries are able to access medical services when they are needed. For this report, Ohio is using SFY 2017 and CY 2018 CAHPS survey data and specifically looked at access to primary care and specialists.

As shown in Exhibit VI.4, Getting Needed Care as found on the next page, over 84.7% of adults and 89.7% of parents with children reported they were satisfied with getting needed care in 2018. As shown in Exhibit VI.5, Getting Care Quickly as found on the subsequent page, 86.6% of adults and 92.7% of parents with children reported they were satisfied with getting care quickly. In both instances, Ohio Medicaid beneficiary satisfaction scores were above national average scores in 2017. The most current results reflect an upward trend in satisfaction scores when comparing to those reported in the 2016 AMRP.

Ohio Medicaid Assessment Survey Measures

The Ohio Medicaid Assessment Survey (OMAS) is a telephone survey that samples both landline and cell phones in Ohio. The survey examines access to the health system, health status, and health determinant characteristics of Ohio's Medicaid, Medicaid eligible, and non-Medicaid populations. OMAS is an important tool to help ODM and state agencies identify gaps in needed health services, develop strategies to increase service capacity, and monitor Ohioans' health status and health risk.

Key findings from the 2017 OMAS show that 90.1% of Medicaid-only enrolled adults and 88.3% of newly-enrolled Medicaid eligible adults reported that they had a usual source of care. Parents of Medicaid enrolled children have slightly higher rates with 93.1% of parents of Medicaid enrolled children indicating they have a usual source of care.⁴² Compared to the 2015 OMAS survey, the rate of Medicaid enrolled adults in total reporting no usual source of care has increased from 7.0% to 7.6%.⁴³ Medicaid enrolled children followed a similar pattern with reported no usual source of care increasing from 4.0% in the 2015 OMAS⁴⁴ to 6.9% for 2017. A change in the survey did not allow for comparison to the 2016 AMRP for ability to get health care compared to 3 years ago.

⁴² <https://medicaid.ohio.gov/Portals/0/Resources/Research/2017-Med-Assess-Survey.pdf>

⁴³ http://grc.osu.edu/sites/default/files/inline-files/Usual_Source_2017OMAS.pdf

⁴⁴ http://grc.osu.edu/sites/default/files/inline-files/MedicaidChildrenChartbookFINAL_1.pdf

Exhibit VI.4 CAHPS Getting Needed Care – Composite and Component Metrics

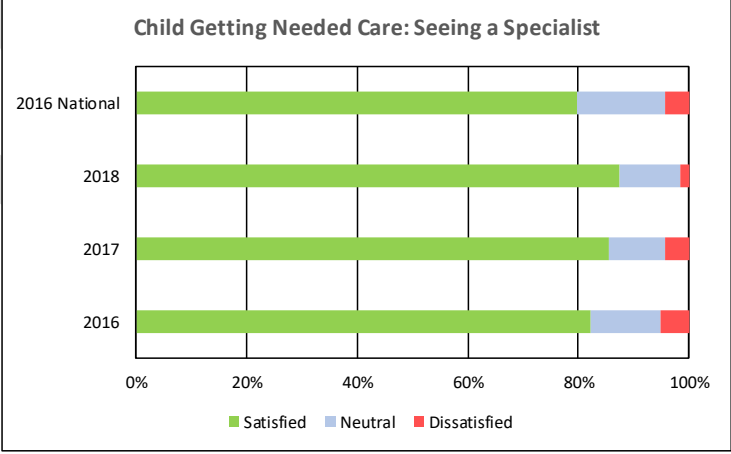
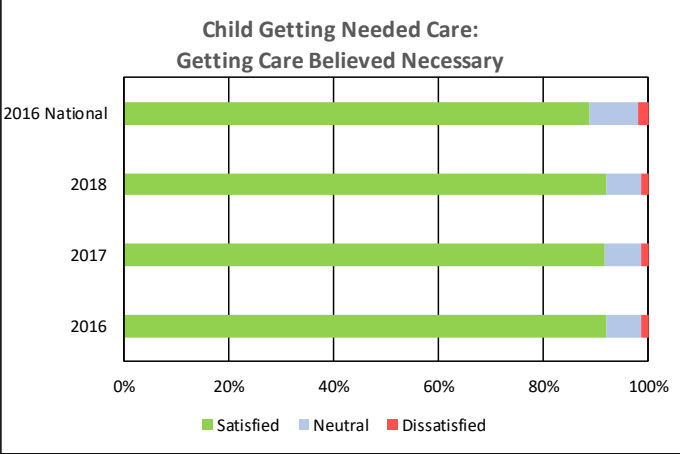
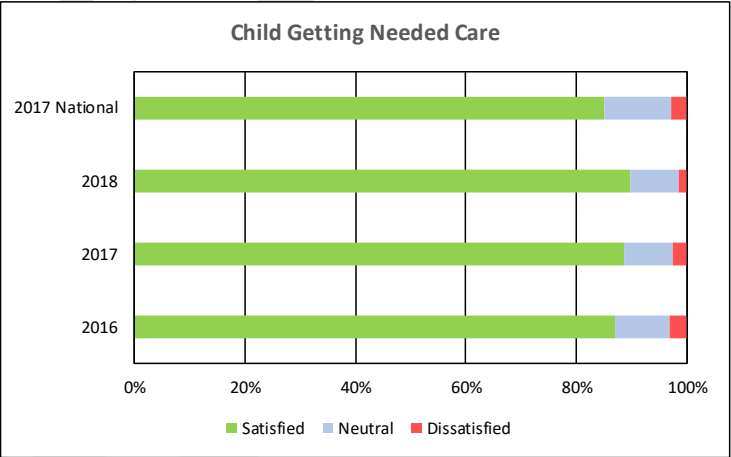
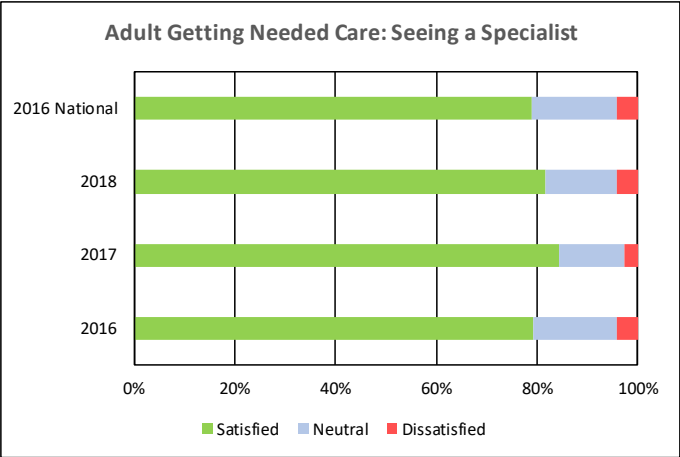
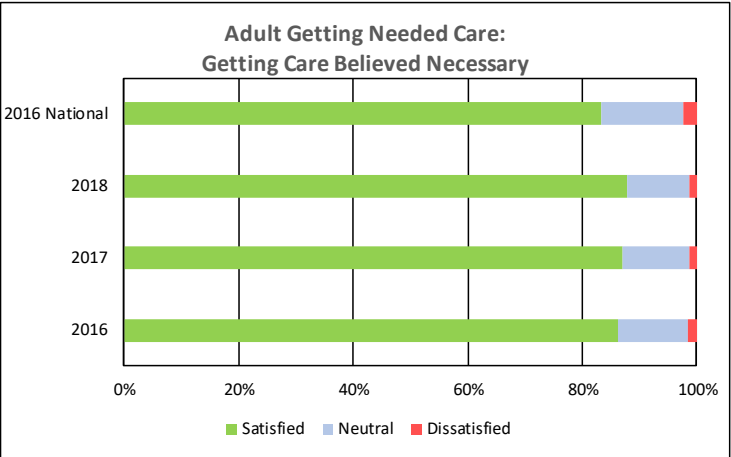
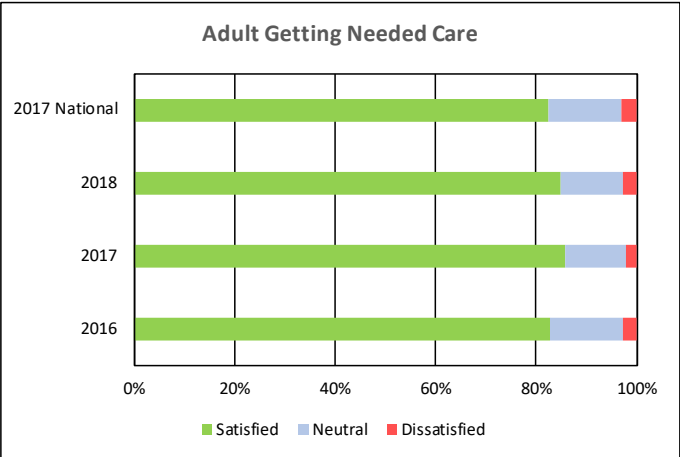
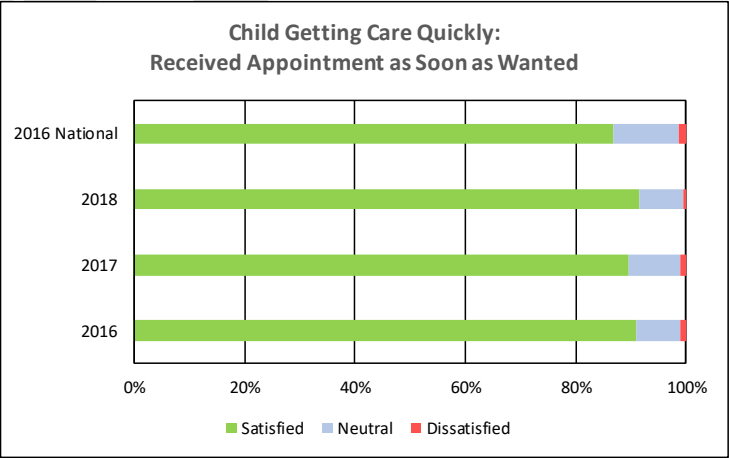
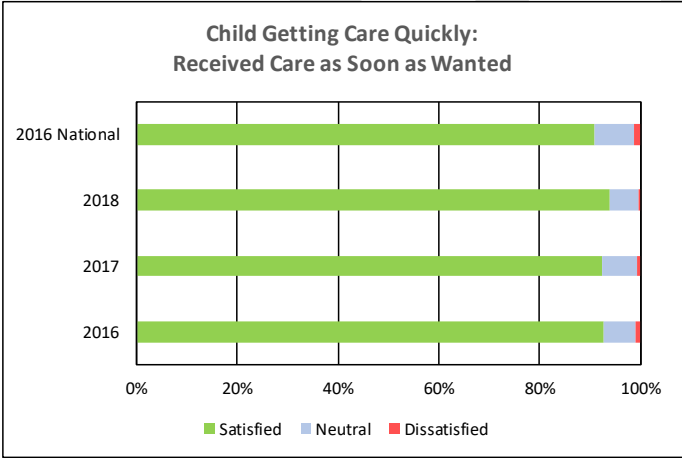
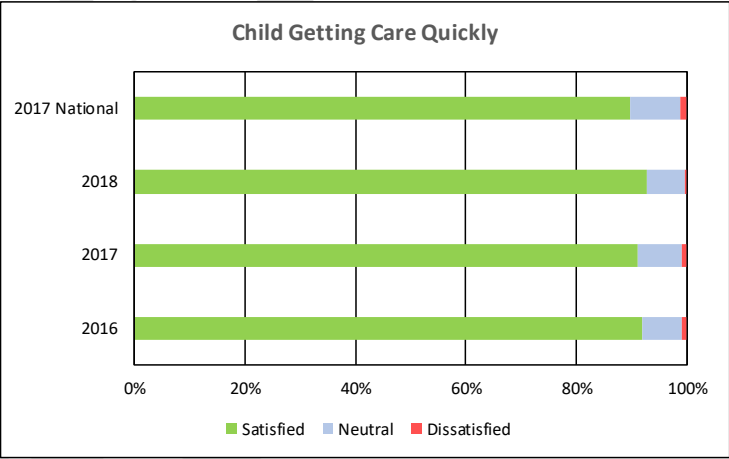
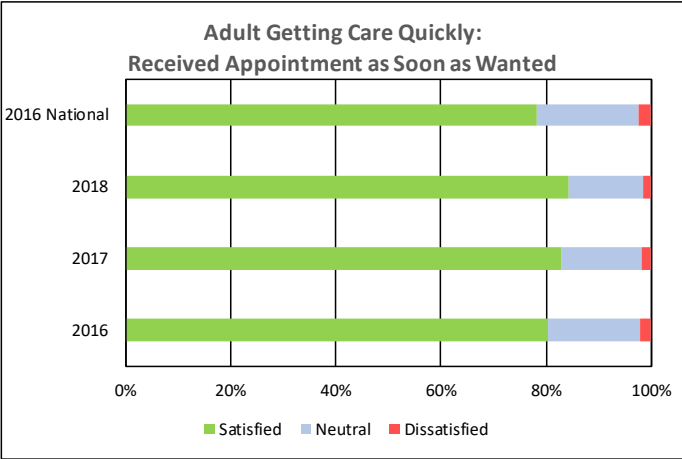
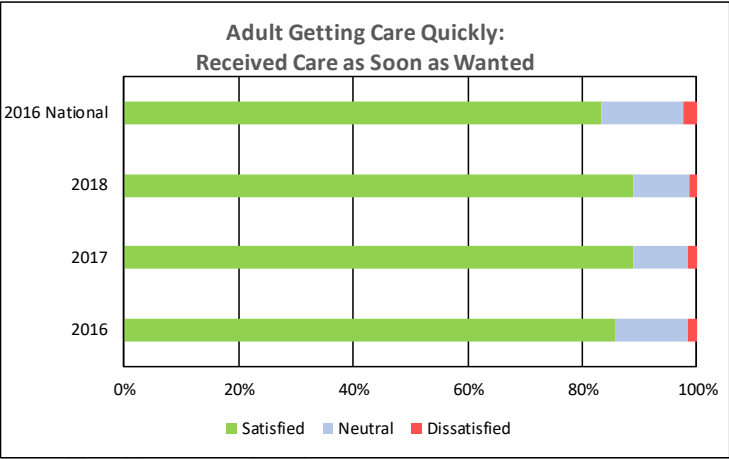
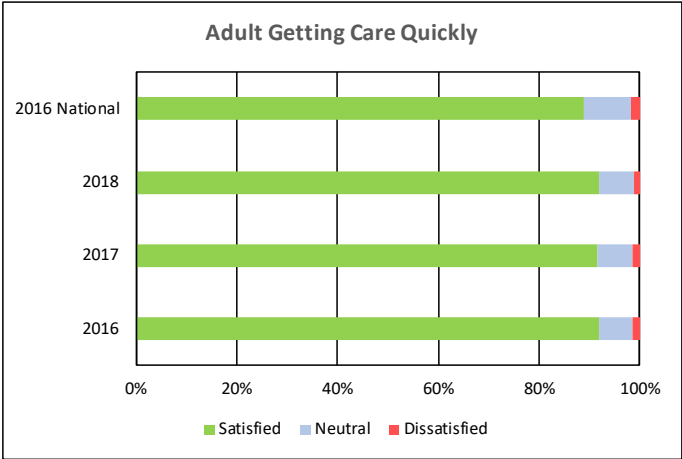


Exhibit VI.5 CAHPS Getting Care Quickly – Composite and Component Metrics



Healthcare Effectiveness Data and Information Set measures

Results from the Healthcare Effectiveness Data and Information Set (HEDIS) measures of access were analyzed as part of the development of the 2019 AMRP. Since Ohio FFS enrollment has declined significantly since the 2016 AMRP, ODM computed rates on the total FFS and managed care population for CY 2016 and CY 2017 for Adult Access to Preventive/Ambulatory Services (AAP), Children's Access to Primary Care Provider (CAP), and Prenatal and Postpartum Care (PPC) metrics. The CY 2016 and CY 2017 metrics were compared against the CY 2013 and 2014 rates as presented in the 2016 AMRP. As shown in Exhibit VI.6, improvement has been shown for all measures except for access to primary care for children ages 12 to 24 months and for 25 months to 6 years. The timeliness of prenatal care has also declined since the 2016 AMRP. Compared to National Medicaid HEDIS benchmarks, childrens access to primary care providers for ages 7 to 11 years and 12 to 19 years both exceeded the national benchmark.

Exhibit VI.6 Trends in Healthcare Effectiveness Data and Information Set Measures of Access

| Adult Access to Preventive/Ambulatory Services | CY 2013 | CY 2014 | CY 2016 | CY 2017 | CY 2017 National Medicaid Benchmark* |
|--|---------|---------|---------|---------|--------------------------------------|
| Ohio Medicaid Combined | 78.0% | 76.0% | 78.3% | 78.8% | 80.0% |

| Childrens Access to Primary Care Provider | | | | | |
|---|---------|---------|---------|---------|--------------------------------------|
| Ohio Medicaid Combined | CY 2013 | CY 2014 | CY 2016 | CY 2017 | CY 2017 National Medicaid Benchmark* |
| 12 to 24 Mo. | 95.9% | 92.3% | 92.3% | 93.8% | 94.8% |
| 25 Mo. To 6 Years | 86.4% | 82.6% | 84.5% | 86.0% | 87.1% |
| 7 to 11 Years | 89.2% | 88.2% | 88.8% | 90.0% | 89.9% |
| 12 to 19 Years | 88.6% | 87.2% | 88.0% | 89.6% | 88.5% |

| Prenatal and Postpartum Care | | | | | |
|------------------------------|---------|---------|---------|---------|--------------------------------------|
| Timeliness of Prenatal Care | CY 2013 | CY 2014 | CY 2016 | CY 2017 | CY 2017 National Medicaid Benchmark* |
| Ohio Medicaid Combined | 70.6% | 69.2% | 67.8% | 68.4% | 81.7% |
| Postpartum Care | CY 2013 | CY 2014 | CY 2016 | CY 2017 | CY 2017 National Medicaid Benchmark* |
| Ohio Medicaid Combined | 50.7% | 49.6% | 51.1% | 52.1% | 63.8% |

* Source: Ohio Department of Medicaid

<https://medicaid.ohio.gov/Portals/0/Medicaid%20101/QualityStrategy/Measures/SFY2018-HEDIS-Aggregate-Report.pdf>

Telehealth utilization

ODM began offering telemedicine for the medical-surgical program in January 2015. Effective July 4, 2019, the Telehealth benefit was revised to expand the types of practitioners that are eligible to render services using telehealth, in particular in support of Behavioral Health Redesign, to include physician assistants, clinical nurse specialists, certified nurse midwives, certified nurse practitioners, licensed independent social workers, licensed independent chemical dependency counselors, licensed independent marriage and family therapists, and licensed professional clinical counselors. The list of patient site locations also was expanded to include

home and school.⁴⁵ Over the study period, the total number of Medicaid beneficiaries who use Telehealth services has increased by 12,985 beneficiaries, with the vast majority of Telehealth services provided to those enrolled in a managed care plan as shown in Exhibit VI.7. When looking at the number and types of Telehealth services, as found in Exhibit VI.8, the volume has increased by 38,601 over the study period, with the majority of services provided to members enrolled in a managed care plan.

Exhibit VI.7 Distribution of Beneficiaries Receiving Telehealth Services, by Delivery System and Population

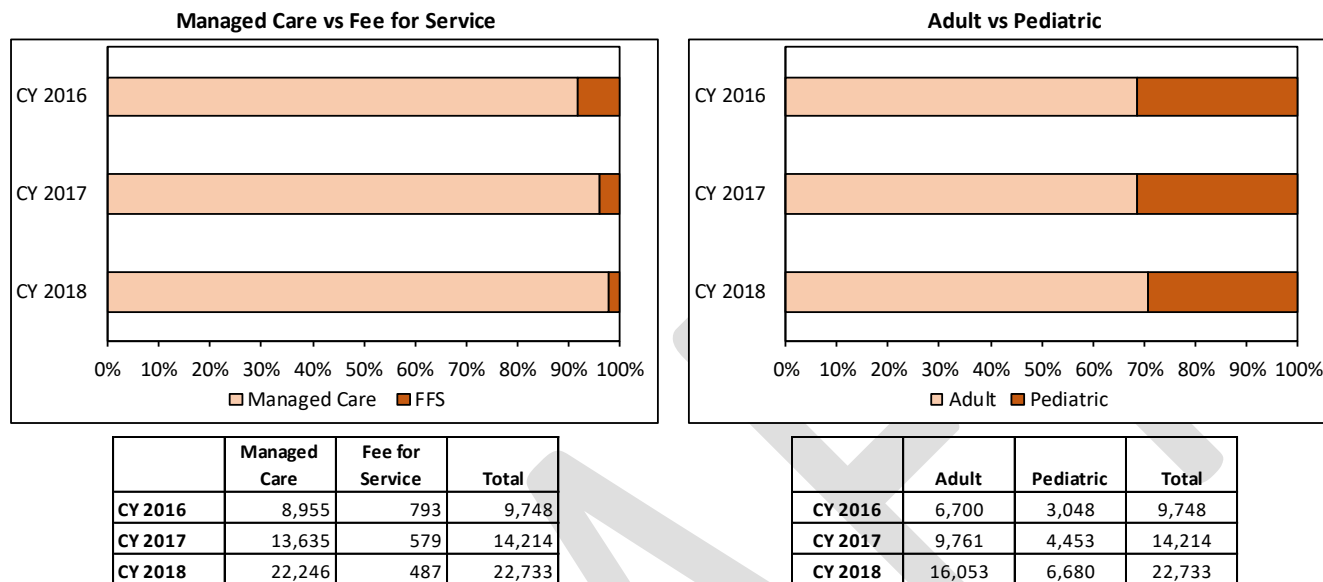
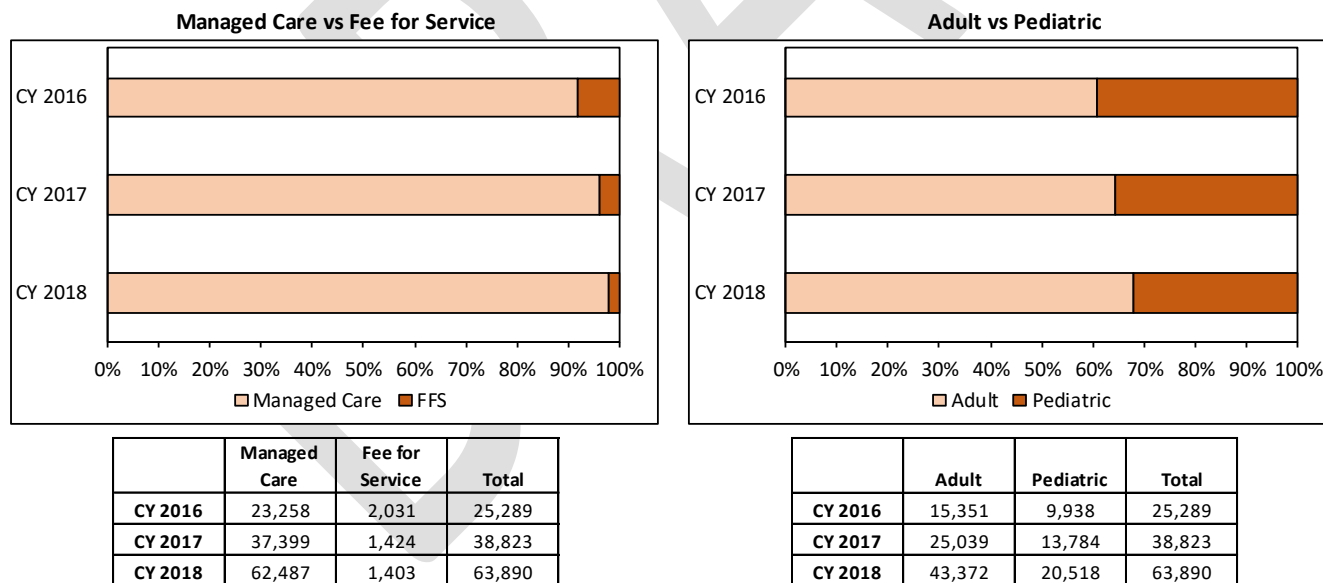


Exhibit VI.8 Distribution of Telehealth Services, by Delivery System and Population



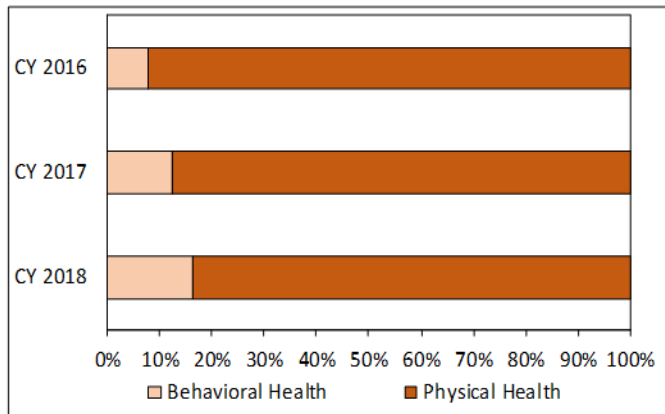
When looking at the services provided to Medicaid beneficiaries in Exhibit VI.9, the proportion of behavioral health services has grown over the study period from approximately 8% to 17% of total services provided,

⁴⁵ http://www.registerofohio.state.oh.us/pdfs/phn/5160_NO_326225_20190419_1142.pdf

with the largest increase occurring in CY 2018. This coincides with the implementation of Ohio's Behavioral Health Redesign.

The same trend of increasing provision of behavioral health services through Telehealth also is seen in the top five rankings of originating site providers, as shown in Exhibit VI.10, and the top 5 distant site providers, as shown in Exhibit VI.11. The most pronounced change occurs in CY 2018, Psychology and Ohio Department of Mental Health Provider are both in the top 5 originating provider sites. This same effect is seen in the top 5 distant provider sites with Clinical Nurse Specialist, Clinical Counseling and Social Work all entering the top 5 in CY 2018.

Exhibit VI.9 Telehealth Service Distribution



| | Behavioral Health | Physical Health | Total |
|---------|-------------------|-----------------|--------|
| CY 2016 | 2,252 | 26,937 | 29,189 |
| CY 2017 | 5,394 | 38,139 | 43,533 |
| CY 2018 | 11,551 | 58,373 | 69,924 |

Exhibit VI.10 Top 5 Telehealth Originating Site Rankings

| Description | Ranking | | |
|---|---------|---------|---------|
| | CY 2016 | CY 2017 | CY 2018 |
| Physician/Osteopath Individual | 1 | 1 | 1 |
| Psychology | | | 2 |
| Nurse Practitioner Individual | | 3 | 3 |
| Professional Medical Group | | | 4 |
| Ohio Department of Mental Health Provider | | | 5 |
| Rural Health Clinic | 2 | 2 | |
| Federally Qualified Health Center | | 3 | |

Exhibit VI.11 Top 5 Telehealth Distant Site Rankings

| Description | Ranking | | |
|---|---------|---------|---------|
| | CY 2016 | CY 2017 | CY 2018 |
| Physician/Osteopath Individual | 2 | 2 | 1 |
| Nurse Practitioner Individual | | 3 | 2 |
| Clinical Nurse Specialist Individual | | | 3 |
| Clinical Counseling | | 5 | 4 |
| Social Work | 4 | | 5 |
| Ohio Department of Mental Health Provider | 1 | 1 | |
| Psychology | 3 | 4 | |
| Hospital | 5 | | |

Seeing New Patients

Using the claims and encounter data set used to develop the service level dashboards, a unique count of providers seeing new patients was performed for each of the study years. To identify when a provider saw a new patient, CPT codes 99201 through 99205 and 99341 through 99345 were used as filtering criteria. Over the study period, there are eleven provider types that had a top ten ranking in at least one of the study years as shown in Exhibit VI.12. Overall, this set of provider types comprised more than ninety-eight percent of the provider types that saw new patients. In each of the study years, the top two provider types remained constant, with Physician/Osteopath Individual ranked at number one, and Nurse Practitioner Individual ranked number two.

Exhibit VI.12 Provider Types Seeing New Patients, Top 10 Rankings by Calendar Year

| Provider Type | CY 2016 | | | CY 2017 | | | CY 2018 | | |
|--------------------------------------|---------|------|--------------------|---------|------|--------------------|---------|------|--------------------|
| | Count | Rank | Cumulative Percent | Count | Rank | Cumulative Percent | Count | Rank | Cumulative Percent |
| Physician/Osteopath Individual | 8,759 | 1 | 62.3% | 9,408 | 1 | 73.5% | 8,320 | 1 | 56.8% |
| Nurse Practitioner Individual | 2,524 | 2 | 80.3% | 1,294 | 2 | 83.6% | 4,021 | 2 | 84.3% |
| Physician Assistant | 599 | 3 | 84.5% | 494 | 4 | 87.5% | 818 | 3 | 89.9% |
| Chiropractor Individual | 545 | 4 | 88.4% | 193 | 6 | 89.0% | 288 | 5 | 91.9% |
| Professional Medical Group | 512 | 5 | 92.0% | 322 | 5 | 91.5% | 129 | 6 | 92.8% |
| Optometrist Individual | 144 | 8 | 93.1% | 666 | 3 | 96.7% | 129 | 6 | 93.6% |
| Podiatrist Individual | 373 | 6 | 95.7% | 75 | 7 | 97.3% | 353 | 4 | 96.1% |
| Nurse Midwife Individual | 140 | 9 | 96.7% | 57 | 8 | 97.7% | 127 | 9 | 96.9% |
| Federally Qualified Health Center | 175 | 7 | 98.0% | 44 | 10 | 98.1% | 75 | 10 | 97.4% |
| Clinical Nurse Specialist Individual | 54 | | | 40 | | | 129 | 6 | 98.3% |
| Free Standing Clinic | 57 | 10 | 98.4% | 47 | 9 | 98.5% | 17 | | |

SECTION VII: MEDICAID PAYMENT RATE COMPARISON TO MEDICARE

Ohio is a Medicaid expansion state and does not have a separate CHIP program, so rates do not differ for adult and pediatric populations. Specific procedure code payment rate comparisons were performed by identifying the top ten procedure codes by volume using CY 2018 FFS professional claims data and comparing the Ohio Medicaid 2019 rates to Medicare 2019 rates.

There were 4,297 procedure codes included in the 2019 FFS payment rate comparison that have claims volume. The procedure codes range included was CPT codes 10021 through 99483 and HCPCS codes G0396 and G0397. As shown in Exhibit VII.1, the top ten codes represent 39.6% of the Medicaid FFS codes billed. The maximum Medicaid as a percent of Medicare is 93.3% for CPT code 93010, Electrocardiogram. The minimum is 39% for CPT codes 99232 and 99233, Subsequent Hospital Care.

For the same top ten procedure codes, a comparison of the 2016 Medicaid rates to Medicare 2016 rates was performed. As found in Exhibit VII.2, the percent Medicaid rates are of Medicare rates are higher than those for 2019, primarily the result of Medicare physician rate increases measured against static Medicaid rates over the study period.

On average, Ohio is paying approximately 57.3% of Medicare rates as found in Exhibit VII.3.

There is variability of Medicaid to Medicare rates within the codes included in the 2019 payment comparison analysis, ranging from a high of 240.6% to a low of 6.7%. Variation is greatest among the low-volume services. The spread of the Medicaid-to-Medicare rate is lower among the high-volume services.

Exhibit VII.1. Comparison of Medicaid Fee for Service Rate to Medicare Rates, Top 10 Codes by Volume

| Rank | Code | Description | Fee for Service Count | Cumulative Percent of Total | 2019 ¹ | | |
|------|-------|------------------------------|-----------------------|-----------------------------|-------------------|---------------|------------------------------|
| | | | | | Medicaid Rate | Medicare Rate | Medicaid Percent of Medicare |
| 1 | 99213 | Office/outpatient visit, est | 185,157 | 7.5% | \$43.61 | \$72.19 | 60.4% |
| 2 | 99232 | Subsequent hospital care | 172,680 | 14.4% | \$28.18 | \$72.22 | 39.0% |
| 3 | 99214 | Office/outpatient visit, est | 144,300 | 20.3% | \$66.14 | \$105.93 | 62.4% |
| 4 | 99233 | Subsequent hospital care | 96,729 | 24.2% | \$40.28 | \$103.26 | 39.0% |
| 5 | 90837 | Psytx pt&/family 60 minutes | 75,363 | 27.2% | \$81.99 | \$134.90 | 60.8% |
| 6 | 93010 | Electrocardiogram report | 66,786 | 29.9% | \$7.90 | \$8.47 | 93.3% |
| 7 | 99308 | Nursing fac care, subseq | 65,811 | 32.5% | \$29.76 | \$67.84 | 43.9% |
| 8 | 99285 | Emergency dept visit | 65,491 | 35.2% | \$88.90 | \$174.08 | 51.1% |
| 9 | 99284 | Emergency dept visit | 62,314 | 37.7% | \$59.35 | \$118.11 | 50.2% |
| 10 | 99309 | Nursing fac care, subseq | 47,121 | 39.6% | \$41.58 | \$90.25 | 46.1% |

¹Source: Ohio Department of Medicaid Rate Analysis

Exhibit VII.2. Comparison of Medicaid Fee for Service Rate to Medicare Rates, Top 10 Codes by Volume

| Rank | Code | Description | Fee for Service Count | Cumulative Percent of Total | 2016 | | |
|------|-------|------------------------------|-----------------------|-----------------------------|----------------------------|----------------------------|------------------------------|
| | | | | | Medicaid Rate ¹ | Medicare Rate ² | Medicaid Percent of Medicare |
| 1 | 99213 | Office/outpatient visit, est | 185,157 | 7.5% | \$43.61 | \$70.42 | 61.9% |
| 2 | 99232 | Subsequent hospital care | 172,680 | 14.4% | \$28.18 | \$71.05 | 39.7% |
| 3 | 99214 | Office/outpatient visit, est | 144,300 | 20.3% | \$66.14 | \$103.93 | 63.6% |
| 4 | 99233 | Subsequent hospital care | 96,729 | 24.2% | \$40.28 | \$102.55 | 39.3% |
| 5 | 90837 | Psytx pt&/family 60 minutes | 75,363 | 27.2% | \$81.99 | \$126.77 | 64.7% |
| 6 | 93010 | Electrocardiogram report | 66,786 | 29.9% | \$7.90 | \$8.41 | 93.9% |
| 7 | 99308 | Nursing fac care, subseq | 65,811 | 32.5% | \$29.76 | \$67.71 | 44.0% |
| 8 | 99285 | Emergency dept visit | 65,491 | 35.2% | \$88.90 | \$173.15 | 51.3% |
| 9 | 99284 | Emergency dept visit | 62,314 | 37.7% | \$59.35 | \$117.26 | 50.6% |
| 10 | 99309 | Nursing fac care, subseq | 47,121 | 39.6% | \$41.58 | \$89.29 | 46.6% |

¹Source:

¹ Medicaid Appendix DD Fee Schedule, downloaded March 22, 2016

² Medicare Physician Fee Schedule Search

<https://www.cms.gov/apps/physician-fee-schedule/search/search-criteria.aspx>

**Exhibit VII.3. Comparison of Medicaid Fee for Service Rate to Medicare Rates
Trend by Code Rank Range, CY 2019 Rates**

| Code Rank Range | Fee for Service Count | Percent of Total | Cumulative Percent of Total | Medicaid as Percent of Medicare | | | |
|-----------------|-----------------------|------------------|-----------------------------|---------------------------------|---------|---------|--------|
| | | | | Weighted Average | Minimum | Maximum | Spread |
| Top 10 | 981,752 | 39.6% | 39.6% | 52.1% | 39.0% | 93.3% | 54.3% |
| 11 to 50 | 778,654 | 31.4% | 71.0% | 54.5% | 36.1% | 120.4% | 84.3% |
| 50 to 100 | 265,641 | 10.7% | 81.7% | 62.7% | 30.4% | 104.0% | 73.7% |
| 101 to 200 | 212,208 | 8.6% | 90.3% | 58.6% | 23.5% | 105.5% | 82.0% |
| 201 to 4297 | 241,129 | 9.7% | 100.0% | 64.8% | 6.7% | 240.6% | 233.9% |
| Total | 2,479,384 | | | 57.3% | | | |

¹Source: Ohio Department of Medicaid Rate Analysis

SECTION VIII: MECHANISMS FOR BENEFICIARY AND PROVIDER INPUT

ODM offers multiple opportunities for beneficiaries and providers to provide input on access to care including:

- Ohio Medicaid Consumer Hotline
- Constituent Inquiries SharePoint Solution
- Provider Assistance Call Center
- Medical Care Advisory Committee Hearings
- Dedicated Stakeholder meetings
- Administrative rule process
- Biennial budget process

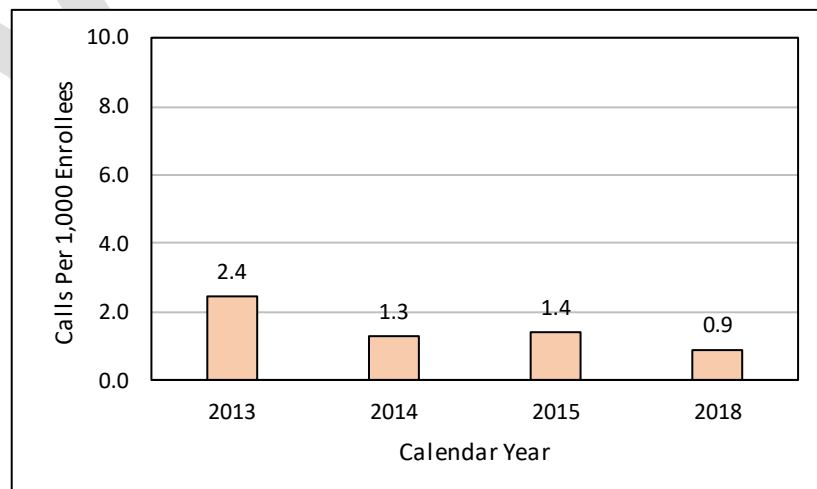
Consumer Hotline

Ohio operates a beneficiary call center, Ohio Medicaid Consumer Hotline, as a service to beneficiaries and as a way to engage beneficiaries and assist them with their needs. Each beneficiary's Medicaid card includes the toll-free number for the call center along with information about how to seek assistance if they have difficulty finding a provider or scheduling an appointment. The call center operates daily from Monday through Friday, 7am to 8 pm and Saturday, 8 am to 5 pm, and utilizes a messaging service after hours. Calls into the call center are logged detailing the issues raised and the resolution. On a bi-weekly basis, a report is produced detailing the number of calls, the issues raised and the resolution of the issue, including the timeliness.

The majority of calls in which the beneficiary requests assistance with locating a provider are resolved immediately by call center staff. These calls are tracked and repeat callers seeking assistance in locating the same type of provider are flagged as this might indicate a potential access issue.

Exhibit VIII.1 shows that the total number of hotline calls per 1000 Medicaid Enrollee⁴⁶ related to locating a provider continues to decline. This may, in part, be a reflection of declining enrollment overall and the implementation of Managed Care Day One in January 2018.

Exhibit VIII.1 Consumer Hotline Calls to Locate Provider per 1000 Enrollee

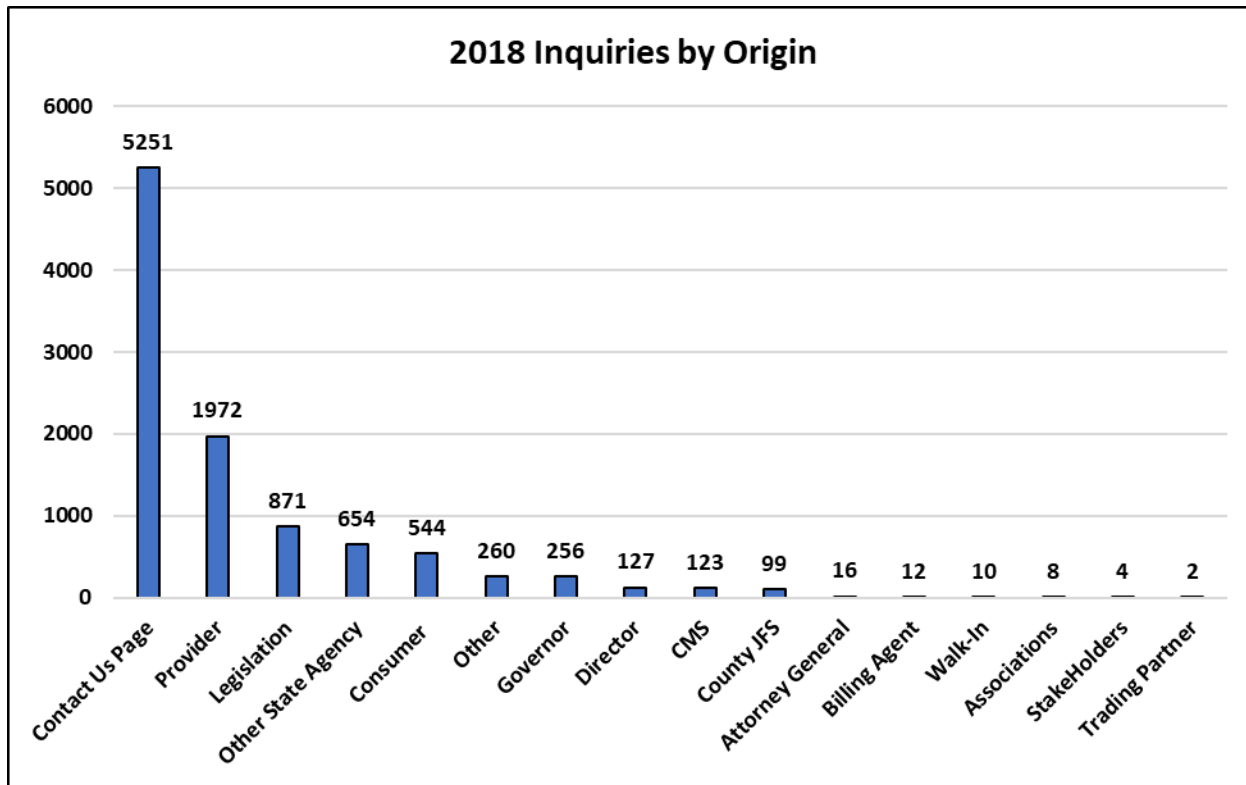


⁴⁶ [Ohio Department of Medicaid 2016 Access Monitoring Review Plan, Exhibit 7](https://medicaid.ohio.gov/Provider/ManagedCare/ConsumerHotlineMonthlyReports#1633186-2018-reports), and CY 2018 Consumer Hotline Monthly Reports available at: <https://medicaid.ohio.gov/Provider/ManagedCare/ConsumerHotlineMonthlyReports#1633186-2018-reports>

Constituent Inquiries

Beneficiaries also may contact ODM through its Constituent Inquiries SharePoint solution. In CY 2018, the Contact Us page had more hits than all other categories combined.

Exhibit VIII.2 Constituent Inquires SharePoint Solution CY 2018 Report⁴⁷



Provider Assistance Call Center

The department also runs a dedicated provider call center that can be accessed through an Interactive Voice Response System (IVR). The IVR is available 24 hours a day, 7 days a week. The call center is staffed with a team of Provider Representatives weekdays from 8:00 a.m. through 4:30 p.m., and provides access to information regarding beneficiary eligibility, claims and payment status, and provider information.⁴⁸ As shown in Exhibit VIII.3, the total number of inquiries logged by provider call center staff were 63,040, with 42% of all inquiries related to claims denials.

Exhibit VIII.3 Provider Assistance Call Center Inquires by Topic, CY 2018

| Topic | Number | Percent of Total |
|---------------------------------------|---------------|------------------|
| CY 2018 Total | 63,040 | |
| Claims Denial | 26,164 | 42% |
| Others | 17,755 | 28% |
| Eligibility Search | 4,914 | 8% |
| Claims/Claims Status | 3,018 | 5% |
| Referral | 2,998 | 5% |
| Referral/Enrollment | 2,605 | 4% |
| Coordination of Benefits or Crossover | 2,112 | 3% |
| Referral/Prior Authorization Problem | 1,565 | 2% |
| Eligibility Multiple Billing Number | 999 | 2% |
| Eligibility Service Limitation | 910 | 1% |

⁴⁷ Ohio Department of Medicaid

⁴⁸ <https://medicaid.ohio.gov/provider/EnrollmentandSupport/ProviderAssistance>

Medical Care Advisory Committee

The Medical Care Advisory Committee (MCAC) serves in an advisory capacity to the department in development and refinement of the Medicaid program. Department staff present proposed changes to benefits to the MCAC, which provides feedback. In addition, the MCAC provides “...feedback on current and evolving issues in Medicaid. Advocates, service providers, and public agencies strive to work together and share their experience and knowledge to maximize the care available to low-income Ohioans.”⁴⁹ The meeting dates, agendas and minutes are posted on the ODM website, and the general public can request to receive updates on MCAC through a dedicated mailbox at MCAC@medicaid.ohio.gov.

Dedicated Stakeholder Meetings and Information Gathering

The department also holds dedicated stakeholder meetings with organizations representing beneficiaries and providers when developing policy changes. These are generally topic-specific and are scheduled on an ad hoc basis. In addition, ODM will solicit input using a request for information. Recent examples include the following:

- *Behavioral Health Redesign*: The behavioral health stakeholder update and discussion session was held on May 29, 2019 to provide an overview of the DeWine Administration vision, values, and priorities for: investing in recovery; increasing resources for children and families, including multi-system children; implications of Family First Prevention; and other budget updates.⁵⁰
- *Managed Care Procurement*: A request for information was released June 13, 2019, requesting input from stakeholders to provide experiences with the program, ideas and solutions for improving the program.⁵¹

Administrative Rule Process⁵²

The department maintains a dedicated website that provides access to current and proposed Medicaid administrative rules. In addition, there are important links to rule related sites, where the general public can view information about administrative rules and the rule process. The department also maintains a dedicated mailbox where the general public, beneficiaries and providers have opportunities to comment on proposed rules at Rules@medicaid.ohio.gov.

ODM Guidance

The department publishes specific guidance for both beneficiaries and providers. Beneficiary specific information can be found on the department’s website under the “For Ohioans” category at: <https://medicaid.ohio.gov/>. Information provided includes: links to information for enrollees; Medicaid covered services; program specific information; eligibility and how to get coverage; and managed care resources. A link to the consumer hotline is featured on each beneficiary landing page.

The ODM website also contains provider specific information under the “Providers” category at: <https://medicaid.ohio.gov/provider>. Providers can access: recent provider news articles; The Standard

⁴⁹ <https://medicaid.ohio.gov/RESOURCES/Boards-and-Committees/Medical-Care-Advisory-Committee>

⁵⁰ <https://bh.medicaid.ohio.gov/>

⁵¹ <https://medicaid.ohio.gov/FOR-OHIOANS/Managed-Care-Procurement>

⁵² <https://medicaid.ohio.gov/RESOURCES/Legal-and-Contracts/Rules>

Authorization Form; fee schedules and rates; Medicaid forms; primary care clinician report cards; episode of care reports; education sessions; billing; Medicaid policy transmittals; MITS specific resources; information about managed care; and historical e-manuals.

Biennial Budget⁵³

The department maintains a dedicated website that provides access to Medicaid budget initiatives, testimony, and budget related data to the general public. There are dedicated links to both the Consumer and Provider call centers. Throughout the biennial budget process, beneficiaries, providers and the general public have opportunities to provide input through the legislative process.

Public Process for the 2019 AMRP

Narrative in this section will be completed after the public comment period is over, including a summary of public comments received on the draft 2019 AMRP. Note that Ohio received no comments in 2016 when the first AMRP was released for public comment.

As of the drafting of the 2019 AMRP, the public process will begin with a notice and link to the draft 2019 AMRP on the department's website for 30 days at: <https://medicaid.ohio.gov/RESOURCES/Public-Notices>. In addition, the department will present the draft AMRP at the August 29, 2019, MCAC meeting. Notice of the MCAC meeting agenda, as well as the ODM presentation will be available at: <https://medicaid.ohio.gov/RESOURCES/Boards-and-Committees/Medical-Care-Advisory-Committee>.

⁵³ <https://medicaid.ohio.gov/RESOURCES/Budget>

SECTION IX: CONCLUSION AND NEXT STEPS TO MONITOR ACCESS OVER THE COMING YEARS

Key Findings

- Ohio has very few Medicaid beneficiaries who consistently receive services through FFS.
 - In CY 2018, approximately 90% of these beneficiaries are enrolled in managed care which is a ten-percentage point increase from CY 2015.⁵⁴
 - The distribution of FFS member months for the study population is declining over the study period from 14.1% in CY 2016 to 8.3% in CY 2018.
 - This is largely the result of additional populations moving to managed care and the Managed Care Day One policy change.
- Composite Dashboard Findings
 - Ohio Medicaid beneficiaries have better or equal access compared to the general public for most service specific providers. The only exception is Radiology, which has provider availability ratios that are less than the AHRF benchmark value in all regions.
 - The greatest provider availability ratios are for Ear, Nose and Throat, and Primary Care providers.
 - The lowest provider availability ratios are for Home Health and DME. Home Health provider availability exceeds the AHRF benchmark, however, for availability in every region. There is no benchmark data available for DME.
 - Ohio Medicaid beneficiaries in general travel 30 miles or less (or, in the case of Radiology and Surgery, 50 miles or less) to access service specific providers. The exceptions to this that was found was in the Northwest Region for Dental Care, which had an average of 36.8 miles.
- Average Distance Dashboard Findings
 - There are regional variations within service categories and between regions on how far a beneficiary must travel to see a provider. The Northwest and Southeast regions had counties with the greatest challenges meeting the established distance threshold for the service category.
 - The same variation can be seen among counties within service categories and between counties across all presented services on the dashboard.
 - Coshocton County has 7 out of 8 service categories with average driving distances above the established threshold (Surgery only service within benchmark).
 - Counties having 6 or more services above the established driving distance threshold include: Adams, Highland.
 - Counties having 5 or more services above the established driving distance threshold include: Holmes, Noble, Pike, Wyandot.
 - Within service categories, dental care has the most counties (37) that are above the 30 mile established threshold.
- Service Specific Findings

⁵⁴ <https://www.medicaid.ohio.gov/RESOURCES/Reports-and-Research/Caseload-Reports>

- *Count of Users.* Despite declining FFS enrollment, the percentage of users for most services increased over the study period. The exceptions are dental and prenatal and postpartum care services.
- *Utilization per 1000, by different demographic cohorts.* In general, downward trends were observed with the exception of Home Health, DME, Radiology and Surgery, which primarily exhibited an increase. At the population cohort level, there was variation in observed trends between service categories, largely a reflection of declining FFS enrollment.
- *Average driving distance.* In comparison to the 2016 AMRP, the average distance traveled to see a provider declined for Dental and Prenatal and Postpartum Care. Increases were observed for Primary Care, Radiology and Surgery. For the remaining services where the 2016 report did not have comparable service categories, the average distance traveled was at or below the established threshold at the regional level.
- *Provider availability.* In comparison to the 2016 AMRP, the count of actual billing providers by service category usually increased. When measuring providers by using a provider per 1000-member measure, an increase or unchanged value was observed since the 2016 AMRP with the exception of Dental and Prenatal and Postpartum Care. Access to providers for Medicaid beneficiaries is greater than that for the general public using AHRF as a benchmark with the exception of Radiology.
- **Other Measures.** The most notable finding in this category is an increase in the use of Telehealth services, and specifically growth in behavioral health observed in CY 2018. This is reflective of the implementation of Behavioral Health Redesign and demonstrates improved access.
- **Payment Comparison.** Overall, Medicaid payment rates in comparison to Medicare rates experienced slight declines from those observed in the 2016 AMRP. This is not surprising given that Medicare provides annual rate adjustments to physician services.

Conclusion

Overall, Ohio Medicaid has sufficient access to care in its FFS delivery system, even with the decline of FFS enrollment and a decline in the amount of time spent in FFS both contributing to the findings in this report. This made analysis and comparisons to the 2016 AMRP findings challenging given the small sample sizes, most notable being Prenatal and Postpartum Care services which are largely provided to Medicaid beneficiaries through managed care. While overall access is sufficient, Dental, Prenatal and Postpartum Care, and Radiology are areas that may merit further examination.

Recommended Next Steps

Ohio continues to enroll a larger proportion of the total Medicaid population into managed care, and as such, monitoring access on a declining FFS population is challenging and is not representative of access to care in total for Medicaid. With this in mind, the following are recommended next steps to improve measuring and monitoring access to care for Ohio's Medicaid beneficiaries.

- Expand the analysis to include managed care encounter data when calculating utilization per 1000-member month rates. This would alleviate small sample size issues observed in preparation of this report.

- Add ongoing managed care metrics and monitoring efforts to create a complete picture of Ohio's efforts to measure and monitor access to care.
- Consider establishing a static set of core access questions in the Ohio Medicaid Assessment Survey that will allow for ongoing trend analysis.

DRAFT

Appendix A: 2019 Ohio AMRP Durable Medical Equipment Codes Included in Analysis

| Procedure Code | Short Descriptor | Procedure Code | Short Descriptor | Procedure Code | Short Descriptor |
|----------------|------------------------------|----------------|-------------------------------|----------------|------------------------------|
| A4207 | 2 cc sterile syringe&needle | A4372 | Skin barrier solid 4x4 equiv | A4618 | Breathing circuits |
| A4208 | 3 cc sterile syringe&needle | A4373 | Skin barrier with flange | A4619 | Face tent |
| A4209 | 5+ cc sterile syringe&needle | A4375 | Drainable plastic pch w fcpl | A4620 | Variable concentration mask |
| A4212 | Non coring needle or stylet | A4377 | Drainable plstic pch w/o fp | A4623 | Tracheostomy inner cannula |
| A4213 | 20+ cc syringe only | A4378 | Drainable rubber pch w/o fp | A4624 | Tracheal suction tube |
| A4216 | Sterile water/saline, 10 ml | A4381 | Urinary plastic pouch w/o fp | A4625 | Trach care kit for new trach |
| A4217 | Sterile water/saline, 500 ml | A4382 | Urinary hvy plstc pch w/o fp | A4626 | Tracheostomy cleaning brush |
| A4221 | Maint drug infus cath per wk | A4383 | Urinary rubber pouch w/o fp | A4628 | Oropharyngeal suction cath |
| A4222 | Infusion supplies with pump | A4384 | Ostomy faceplt/silicone ring | A4629 | Tracheostomy care kit |
| A4223 | Infusion supplies w/o pump | A4385 | Ost skn barrier sld ext wear | A4635 | Underarm crutch pad |
| A4224 | Supply insulin inf cath/wk | A4387 | Ost clsd pouch w att st barr | A4636 | Handgrip for cane etc |
| A4225 | Sup/ext insulin inf pump syr | A4388 | Drainable pch w ex wear barr | A4637 | Repl tip cane/crutch/walker |
| A4230 | Infus insulin pump non needl | A4389 | Drainable pch w st wear barr | A4640 | Alternating pressure pad |
| A4231 | Infusion insulin pump needle | A4390 | Drainable pch ex wear convex | A4649 | Surgical supplies |
| A4232 | Syringe w/needle insulin 3cc | A4391 | Urinary pouch w ex wear barr | A4660 | Sphyg/bp app w cuff and stet |
| A4244 | Alcohol or peroxide per pint | A4392 | Urinary pouch w st wear barr | A4663 | Dialysis blood pressure cuff |
| A4246 | Betadine/phisoex solution | A4393 | Urine pch w ex wear bar conv | A4670 | Automatic bp monitor, dial |
| A4247 | Betadine/iodine swabs/wipes | A4396 | Peristomal hernia supprt blt | A4927 | Non-sterile gloves |
| A4265 | Paraffin | A4397 | Irrigation supply sleeve | A4930 | Sterile, gloves per pair |
| A4266 | Diaphragm | A4398 | Ostomy irrigation bag | A5051 | Pouch clsd w barr attached |
| A4267 | Male condom | A4399 | Ostomy irrig cone/cath w brs | A5052 | Clsd ostomy pouch w/o barr |
| A4268 | Female condom | A4400 | Ostomy irrigation set | A5053 | Clsd ostomy pouch faceplate |
| A4269 | Spermicide | A4402 | Lubricant per ounce | A5054 | Clsd ostomy pouch w/flange |
| A4305 | Drug delivery system >=50 ml | A4404 | Ostomy ring each | A5055 | Stoma cap |
| A4306 | Drug delivery system <=50 ml | A4405 | Nonpectin based ostomy paste | A5061 | Pouch drainable w barrier at |
| A4310 | Insert tray w/o bag/cath | A4406 | Pectin based ostomy paste | A5062 | Drnble ostomy pouch w/o barr |
| A4311 | Catheter w/o bag 2-way latex | A4407 | Ext wear ost skn barr <=4sq" | A5063 | Drain ostomy pouch w/flange |
| A4312 | Cath w/o bag 2-way silicone | A4408 | Ext wear ost skn barr >4sq" | A5071 | Urinary pouch w/barrier |
| A4313 | Catheter w/bag 3-way | A4409 | Ost skn barr convex <=4 sq i | A5072 | Urinary pouch w/o barrier |
| A4314 | Cath w/drainage 2-way latex | A4410 | Ost skn barr extnd >4 sq | A5073 | Urinary pouch on barr w/flng |
| A4315 | Cath w/drainage 2-way silcne | A4414 | Ost sknbar w/o conv<=4 sq in | A5081 | Stoma plug or seal, any type |
| A4316 | Cath w/drainage 3-way | A4415 | Ost skn barr w/o conv >4 sqi | A5082 | Continent stoma catheter |
| A4320 | Irrigation tray | A4421 | Ostomy supply misc | A5093 | Ostomy accessory convex inse |
| A4322 | Irrigation syringe | A4450 | Non-waterproof tape | A5102 | Bedside drain btl w/wo tube |
| A4326 | Male external catheter | A4452 | Waterproof tape | A5105 | Urinary suspensory |
| A4327 | Fem urinary collect dev cup | A4455 | Adhesive remover per ounce | A5112 | Urinary leg bag |
| A4328 | Fem urinary collect pouch | A4458 | Reusable enema bag | A5113 | Latex leg strap |
| A4330 | Stool collection pouch | A4467 | Belt strap sleev grmnt cover | A5114 | Foam/fabric leg strap |
| A4331 | Extension drainage tubing | A4483 | Moisture exchanger | A5120 | Skin barrier, wipe or swab |
| A4333 | Urinary cath anchor device | A4490 | Above knee surgical stocking | A5121 | Solid skin barrier 6x6 |
| A4334 | Urinary cath leg strap | A4495 | Thigh length surg stocking | A5122 | Solid skin barrier 8x8 |
| A4335 | Incontinence supply | A4500 | Below knee surgical stocking | A5126 | Disk/foam pad +or- adhesive |
| A4338 | Indwelling catheter latex | A4510 | Full length surg stocking | A5131 | Appliance cleaner |
| A4340 | Indwelling catheter special | A4554 | Disposable underpads | A5500 | Diab shoe for density insert |
| A4344 | Cath indw foley 2 way silicn | A4556 | Electrodes, pair | A5501 | Diabetic custom molded shoe |
| A4346 | Cath indw foley 3 way | A4557 | Lead wires, pair | A5512 | Multi den insert direct form |
| A4349 | Disposable male external cat | A4558 | Conductive gel or paste | A5513 | Multi den insert custom mold |
| A4351 | Straight tip urine catheter | A4561 | Pessary rubber, any type | A6010 | Collagen based wound filler |
| A4352 | Coude tip urinary catheter | A4562 | Pessary, non rubber, any type | A6011 | Collagen gel/paste wound fil |
| A4353 | Intermittent urinary cath | A4565 | Slings | A6021 | Collagen dressing <=16 sq in |
| A4354 | Cath insertion tray w/bag | A4566 | Should sling/vest/abrestrain | A6022 | Collagen drsg>16<=48 sq in |
| A4355 | Bladder irrigation tubing | A4570 | Splint | A6023 | Collagen dressing >48 sq in |
| A4356 | Ext ureth clmp or compr dvc | A4580 | Cast supplies (plaster) | A6154 | Wound pouch each |
| A4357 | Bedside drainage bag | A4590 | Special casting material | A6196 | Alginate dressing <=16 sq in |
| A4358 | Urinary leg or abdomen bag | A4595 | Tens suppl 2 lead per month | A6197 | Alginate drsg >16 <=48 sq in |
| A4361 | Ostomy face plate | A4604 | Tubing with heating element | A6198 | Alginate dressing > 48 sq in |
| A4362 | Solid skin barrier | A4605 | Trach suction cath close sys | A6199 | Alginate drsg wound filler |
| A4364 | Adhesive, liquid or equal | A4606 | Oxygen probe used w oximeter | A6203 | Composite drsg <= 16 sq in |
| A4367 | Ostomy belt | A4612 | Battery cables | A6204 | Composite drsg >16<=48 sq in |
| A4369 | Skin barrier liquid per oz | A4616 | Tubing (oxygen) per foot | A6205 | Composite drsg > 48 sq in |
| A4371 | Skin barrier powder per oz | A4617 | Mouth piece | A6206 | Contact layer <= 16 sq in |

Appendix A: 2019 Ohio AMRP Durable Medical Equipment Codes Included in Analysis

| Procedure Code | Short Descriptor | Procedure Code | Short Descriptor | Procedure Code | Short Descriptor |
|----------------|-------------------------------|----------------|-------------------------------|----------------|------------------------------|
| A6207 | Contact layer >16<= 48 sq in | A6452 | High compres band w>=3"<5"/yd | A8000 | Soft protect helmet prefab |
| A6208 | Contact layer > 48 sq in | A6453 | Self-adher band w <3"/yd | A8001 | Hard protect helmet prefab |
| A6209 | Foam drsg <=16 sq in w/o bdr | A6454 | Self-adher band w>=3" <5"/yd | A8002 | Soft protect helmet custom |
| A6210 | Foam drg >16<=48 sq in w/o b | A6455 | Self-adher band >=5"/yd | A8003 | Hard protect helmet custom |
| A6211 | Foam drg > 48 sq in w/o brdr | A6502 | Compres burngarment chinstrp | A9273 | Hot/cold h2obot/cap/col/wrap |
| A6212 | Foam drg <=16 sq in w/border | A6503 | Compres burngarment facehood | A9274 | Ext amb insulin delivery sys |
| A6213 | Foam drg >16<=48 sq in w/bdr | A6504 | Cmprsburngarment glove-wrist | A9276 | Disposable sensor, cgm sys |
| A6214 | Foam drg > 48 sq in w/border | A6505 | Cmprsburngarment glove-elbow | A9277 | External transmitter, cgm |
| A6215 | Foam dressing wound filler | A6506 | Cmprsburngrmnt glove-axilla | A9278 | External receiver, cgm sys |
| A6216 | Non-sterile gauze<=16 sq in | A6507 | Cmprs burngarment foot-knee | B4034 | Enter feed supkit syr by day |
| A6217 | Non-sterile gauze>16<=48 sq | A6508 | Cmprs burngarment foot-thigh | B4035 | Enteral feed supp pump per d |
| A6218 | Non-sterile gauze > 48 sq in | A6509 | Compres burn garment jacket | B4036 | Enteral feed sup kit grav by |
| A6219 | Gauze <= 16 sq in w/border | A6510 | Compres burn garment leotard | B4081 | Enteral ng tubing w/ stylet |
| A6220 | Gauze >16 <=48 sq in w/bordr | A6511 | Compres burn garment panty | B4082 | Enteral ng tubing w/o stylet |
| A6221 | Gauze > 48 sq in w/border | A6512 | Compres burn garment, noc | B4083 | Enteral stomach tube levine |
| A6222 | Gauze <=16 in no w/sal w/o b | A6530 | Compression stocking bk18-30 | B4087 | Gastro/jejuno tube, std |
| A6223 | Gauze >16<=48 no w/sal w/o b | A6531 | Compression stocking bk30-40 | B4088 | Gastro/jejuno tube, low-pro |
| A6224 | Gauze > 48 in no w/sal w/o b | A6532 | Compression stocking bk40-50 | B4100 | Food thickener oral |
| A6231 | Hydrogel dsg<=16 sq in | A6533 | Gc stocking thighlngh 18-30 | B4102 | Ef adult fluids and electro |
| A6232 | Hydrogel dsg>16<=48 sq in | A6534 | Gc stocking thighlngh 30-40 | B4103 | Ef ped fluid and electrolyte |
| A6233 | Hydrogel dressing >48 sq in | A6535 | Gc stocking thighlngh 40-50 | B4149 | Ef blenderized foods |
| A6234 | Hydrocolld drg <=16 w/o bdr | A6536 | Gc stocking full lngth 18-30 | B4150 | Ef complet w/intact nutrient |
| A6235 | Hydrocolld drg >16<=48 w/o b | A6537 | Gc stocking full lngth 30-40 | B4152 | Ef calorie dense>=1.5kcal |
| A6236 | Hydrocolld drg > 48 in w/o b | A6538 | Gc stocking full lngth 40-50 | B4153 | Ef hydrolyzed/amino acids |
| A6237 | Hydrocolld drg <=16 in w/bdr | A6539 | Gc stocking waistlngth 18-30 | B4154 | Ef spec metabolic noninherit |
| A6238 | Hydrocolld drg >16<=48 w/bdr | A6540 | Gc stocking waistlngth 30-40 | B4155 | Ef incomplete/modular |
| A6240 | Hydrocolld drg filler paste | A6541 | Gc stocking waistlngth 40-50 | B4157 | Ef special metabolic inherit |
| A6241 | Hydrocolloid drg filler dry | A6549 | G compression stocking | B4158 | Ef ped complete intact nut |
| A6242 | Hydrogel drg <=16 in w/o bdr | A7000 | Disposable canister for pump | B4159 | Ef ped complete soy based |
| A6243 | Hydrogel drg >16<=48 w/o bdr | A7002 | Tubing used w suction pump | B4160 | Ef ped caloric dense>=0.7kc |
| A6244 | Hydrogel drg >48 in w/o bdr | A7003 | Nebulizer administration set | B4161 | Ef ped hydrolyzed/amino acid |
| A6245 | Hydrogel drg <= 16 in w/bdr | A7004 | Disposable nebulizer sml vol | B4162 | Ef ped specmetabolic inherit |
| A6246 | Hydrogel drg >16<=48 in w/b | A7005 | Nondisposable nebulizer set | B4220 | Parenteral supply kit premix |
| A6247 | Hydrogel drg > 48 sq in w/b | A7006 | Filtered nebulizer admin set | B4222 | Parenteral supply kit homemi |
| A6248 | Hydrogel drsg gel filler | A7007 | Lg vol nebulizer disposable | B4224 | Parenteral administration ki |
| A6251 | Absorpt drg <=16 sq in w/o b | A7012 | Nebulizer water collec devic | B9002 | Enteral infusio pump w/ ala |
| A6252 | Absorpt drg >16 <=48 w/o bdr | A7015 | Aerosol mask used w nebulize | B9004 | Parenteral infus pump portab |
| A6253 | Absorpt drg > 48 sq in w/o b | A7018 | Water distilled w/nebulizer | B9006 | Parenteral infus pump statio |
| A6254 | Absorpt drg <=16 sq in w/bdr | A7025 | Replace chest compress vest | B9998 | Enteral supp not otherwise c |
| A6255 | Absorpt drg >16<=48 in w/bdr | A7030 | Cpap full face mask | B9999 | Parenteral supp not othrws c |
| A6256 | Absorpt drg > 48 sq in w/bdr | A7031 | Replacement facemask interfa | E0100 | Cane adjust/fixed with tip |
| A6257 | Transparent film <= 16 sq in | A7032 | Replacement nasal cushion | E0105 | Cane adjust/fixed quad/3 pro |
| A6258 | Transparent film >16<=48 in | A7033 | Replacement nasal pillows | E0110 | Crutch forearm pair |
| A6259 | Transparent film > 48 sq in | A7034 | Nasal application device | E0111 | Crutch forearm each |
| A6261 | Wound filler gel/paste /oz | A7035 | Pos airway press headgear | E0112 | Crutch underarm pair wood |
| A6262 | Wound filler dry form / gram | A7036 | Pos airway press chinstrap | E0114 | Crutch underarm pair no wood |
| A6266 | Impreg gauze no h20/sal/yard | A7037 | Pos airway pressure tubing | E0116 | Crutch underarm each no wood |
| A6402 | Sterile gauze <= 16 sq in | A7038 | Pos airway pressure filter | E0130 | Walker rigid adjust/fixed ht |
| A6403 | Sterile gauze>16 <= 48 sq in | A7039 | Filter, non disposable w pap | E0135 | Walker folding adjust/fixed |
| A6404 | Sterile gauze > 48 sq in | A7048 | Vacuum drain bottle/tube kit | E0140 | Walker w trunk support |
| A6441 | Pad band w>=3" <5"/yd | A7504 | Tracheostoma hmes filter | E0141 | Rigid wheeled walker adj/fix |
| A6442 | Conform band n/s w<3"/yd | A7505 | Hmes or trach valve housing | E0143 | Walker folding wheeled w/o s |
| A6443 | Conform band n/s w>=3" <5"/yd | A7506 | Hmes/trachvalve adhesivedisk | E0144 | Enclosed walker w rear seat |
| A6444 | Conform band n/s w>=5"/yd | A7507 | Integrated filter & holder | E0147 | Walker variable wheel resist |
| A6445 | Conform band s w <3"/yd | A7508 | Housing & integrated adhesiv | E0148 | Heavyduty walker no wheels |
| A6446 | Conform band s w>=3" <5"/yd | A7509 | Heat & moisture exchange sys | E0149 | Heavy duty wheeled walker |
| A6447 | Conform band s w >=5"/yd | A7520 | Trach/laryn tube non-cuffed | E0154 | Walker platform attachment |
| A6448 | Lt compres band <3"/yd | A7521 | Trach/laryn tube cuffed | E0155 | Walker wheel attachment,pair |
| A6449 | Lt compres band >=3" <5"/yd | A7522 | Trach/laryn tube stainless | E0156 | Walker seat attachment |
| A6450 | Lt compres band >=5"/yd | A7525 | Tracheostomy mask | E0157 | Walker crutch attachment |
| A6451 | Mod compres band w>=3" <5"/yd | A7526 | Tracheostomy tube collar | E0158 | Walker leg extenders set of4 |

Appendix A: 2019 Ohio AMRP Durable Medical Equipment Codes Included in Analysis

| Procedure Code | Short Descriptor | Procedure Code | Short Descriptor | Procedure Code | Short Descriptor |
|----------------|------------------------------|----------------|-------------------------------|----------------|------------------------------|
| E0159 | Brake for wheeled walker | E0455 | Oxygen tent excl croup/ped t | E0944 | Pelvic belt/harness/boot |
| E0163 | Commode chair with fixed arm | E0465 | Home vent invasive interface | E0945 | Belt/harness extremity |
| E0165 | Commode chair with detacharm | E0466 | Home vent non-invasive inter | E0950 | Tray |
| E0167 | Commode chair pail or pan | E0470 | Rad w/o backup non-inv intfc | E0951 | Loop heel |
| E0168 | Heavyduty/wide commode chair | E0471 | Rad w/backup non inv intrfc | E0952 | Toe loop/holder, each |
| E0181 | Press pad alternating w/ pum | E0472 | Rad w backup invasive intrfc | E0953 | W/c lateral thigh/knee sup |
| E0182 | Replace pump, alt press pad | E0480 | Percussor elect/pneum home m | E0954 | Foot box, any type each foot |
| E0184 | Dry pressure mattress | E0481 | Intrpulumnry percuss vent sys | E0955 | Cushioned headrest |
| E0185 | Gel pressure mattress pad | E0482 | Cough stimulating device | E0956 | W/c lateral trunk/hip suppor |
| E0186 | Air pressure mattress | E0483 | Chest compression gen system | E0957 | W/c medial thigh support |
| E0188 | Synthetic sheepskin pad | E0484 | Non-elec oscillatory pep dvc | E0958 | Whlchr att- conv 1 arm drive |
| E0189 | Lambswool sheepskin pad | E0500 | Ippb all types | E0959 | Amputee adapter |
| E0190 | Positioning cushion | E0561 | Humidifier nonheated w pap | E0960 | W/c shoulder harness/straps |
| E0191 | Protector heel or elbow | E0562 | Humidifier heated used w pap | E0961 | Wheelchair brake extension |
| E0193 | Powered air flotation bed | E0565 | Compressor air power source | E0966 | Wheelchair head rest extensi |
| E0196 | Gel pressure mattress | E0570 | Nebulizer with compression | E0967 | Manual wc hand rim w project |
| E0197 | Air pressure pad for mattres | E0575 | Nebulizer ultrasonic | E0970 | Wheelchair no. 2 footplates |
| E0199 | Dry pressure pad for mattres | E0580 | Nebulizer for use w/ regulat | E0971 | Wheelchair anti-tipping devi |
| E0202 | Phototherapy light w/ photom | E0600 | Suction pump portab hom modl | E0973 | W/ch access det adj armrest |
| E0210 | Electric heat pad standard | E0601 | Cont airway pressure device | E0974 | W/ch access anti-rollback |
| E0215 | Electric heat pad moist | E0602 | Manual breast pump | E0978 | W/c acc,saf belt pelv strap |
| E0235 | Paraffin bath unit portable | E0603 | Electric breast pump | E0980 | Wheelchair safety vest |
| E0240 | Bath/shower chair | E0604 | Hosp grade elec breast pump | E0982 | Back upholstery, replacement |
| E0241 | Bath tub wall rail | E0605 | Vaporizer room type | E0983 | Add pwr joystick |
| E0243 | Toilet rail | E0618 | Apnea monitor | E0985 | W/c seat lift mechanism |
| E0244 | Toilet seat raised | E0619 | Apnea monitor w recorder | E0986 | Man w/c push-rim pow assist |
| E0245 | Tub stool or bench | E0621 | Patient lift sling or seat | E0992 | Wheelchair solid seat insert |
| E0246 | Transfer tub rail attachment | E0625 | Patient lift bathroom or toi | E0994 | Wheelchair arm rest |
| E0247 | Trans bench w/wo comm open | E0630 | Patient lift hydraulic | E1002 | Pwr seat tilt |
| E0248 | Hdtrans bench w/wo comm open | E0637 | Combination sit to stand sys | E1003 | Pwr seat recline |
| E0255 | Hospital bed var ht w/ matt | E0638 | Standing frame sys | E1004 | Pwr seat recline mech |
| E0256 | Hospital bed var ht w/o matt | E0641 | Multi-position stnd fram sys | E1005 | Pwr seat recline pwr |
| E0260 | Hosp bed semi-elect w/ matt | E0650 | Pneuma compresor non-segment | E1006 | Pwr seat combo w/o shear |
| E0261 | Hosp bed semi-elect w/o mat | E0651 | Pneum compressor segmental | E1007 | Pwr seat combo w/shear |
| E0271 | Mattress innerspring | E0655 | Pneumatic appliance half arm | E1008 | Pwr seat combo pwr shear |
| E0272 | Mattress foam rubber | E0660 | Pneumatic appliance full leg | E1010 | Add pwr leg elevation |
| E0275 | Bed pan standard | E0666 | Pneumatic appliance half leg | E1011 | Ped wc modify width adjustm |
| E0276 | Bed pan fracture | E0667 | Seg pneumatic appl full leg | E1012 | Ctr mount pwr elev leg rest |
| E0277 | Powered pres-redu air matt | E0668 | Seg pneumatic appl full arm | E1014 | Reclining back add ped w/c |
| E0293 | Hosp bed var ht w/o rail w/ | E0669 | Seg pneumatic appli half leg | E1015 | Shock absorber for man w/c |
| E0294 | Hosp bed semi-elect w/ matt | E0700 | Safety equipment | E1016 | Shock absorber for power w/c |
| E0295 | Hosp bed semi-elect w/o matt | E0705 | Transfer device | E1018 | Hd shck absrber for hd powwc |
| E0301 | Hd hosp bed, 350-600 lbs | E0720 | Tens two lead | E1020 | Residual limb support system |
| E0302 | Ex hd hosp bed > 600 lbs | E0730 | Tens four lead | E1028 | W/c manual swingaway |
| E0303 | Hosp bed hvy dty xtra wide | E0747 | Elec osteogen stim not spine | E1029 | W/c vent tray fixed |
| E0304 | Hosp bed xtra hvy dty x wide | E0748 | Elec osteogen stim spinal | E1030 | W/c vent tray gimbaled |
| E0305 | Rails bed side half length | E0760 | Osteogen ultrasound stimltor | E1031 | Rollabout chair with casters |
| E0310 | Rails bed side full length | E0770 | Functional electric stim nos | E1035 | Patient transfer system <300 |
| E0325 | Urinal male jug-type | E0776 | Iv pole | E1037 | Transport chair, ped size |
| E0326 | Urinal female jug-type | E0781 | External ambulatory infus pu | E1038 | Transport chair pt wt<=300lb |
| E0328 | Ped hospital bed, manual | E0784 | Ext amb infusn pump insulin | E1039 | Transport chair pt wt >300lb |
| E0329 | Ped hospital bed semi/elect | E0791 | Parenteral infusion pump sta | E1060 | Wheelchair detachable arms |
| E0371 | Nonpower mattress overlay | E0850 | Traction stand free standing | E1070 | Wheelchair detachable foot r |
| E0373 | Nonpowered pressure mattress | E0860 | Tract equip cervical tract | E1083 | Hemi-wheelchair fixed arms |
| E0424 | Stationary compressed gas O2 | E0900 | Trac stand free stand pelvic | E1092 | Wheelchair wide w/ leg rests |
| E0431 | Portable gaseous O2 | E0910 | Trapeze bar attached to bed | E1093 | Wheelchair wide w/ foot rest |
| E0434 | Portable liquid O2 | E0912 | Hd trapeze bar free standing | E1130 | Whlchr stand fxd arm ft rest |
| E0439 | Stationary liquid O2 | E0935 | Cont pas motion exercise dev | E1140 | Wheelchair standard detach a |
| E0441 | Stationary O2 contents, gas | E0940 | Trapeze bar free standing | E1150 | Wheelchair standard w/ leg r |
| E0442 | Stationary O2 contents, liq | E0941 | Gravity assisted traction de | E1161 | Manual adult wc w tiltinspac |
| E0445 | Oximeter non-invasive | E0942 | Cervical head harness/halter | E1180 | Wheelchair amputee w/ foot r |

Appendix A: 2019 Ohio AMRP Durable Medical Equipment Codes Included in Analysis

| Procedure Code | Short Descriptor | Procedure Code | Short Descriptor | Procedure Code | Short Descriptor |
|----------------|------------------------------|----------------|------------------------------|----------------|------------------------------|
| E1225 | Manual semi-reclining back | E2312 | Mini-prop remote joystick | E2607 | Skin pro/pos wc cus wd <22in |
| E1226 | Manual fully reclining back | E2313 | Pwc harness, expand control | E2608 | Skin pro/pos wc cus wd>=22in |
| E1227 | Wheelchair spec sz spec ht a | E2321 | Hand interface joystick | E2609 | Custom fabricate w/c cushion |
| E1228 | Wheelchair spec sz spec ht b | E2324 | Chin cup interface | E2610 | Powered w/c cushion |
| E1230 | Power operated vehicle | E2325 | Sip and puff interface | E2611 | Gen use back cush wdth <22in |
| E1231 | Rigid ped w/c tilt-in-space | E2326 | Breath tube kit | E2612 | Gen use back cush wdth>=22in |
| E1232 | Folding ped wc tilt-in-space | E2328 | Head/extremity control inter | E2613 | Position back cush wd <22in |
| E1233 | Rig ped wc tltnspc w/o seat | E2329 | Head control nonproportional | E2614 | Position back cush wd>=22in |
| E1234 | Fld ped wc tltnspc w/o seat | E2330 | Head control proximity switc | E2615 | Pos back post/lat wdth <22in |
| E1235 | Rigid ped wc adjustable | E2331 | Attendant control | E2616 | Pos back post/lat wdth>=22in |
| E1236 | Folding ped wc adjustable | E2340 | W/c wdth 20-23 in seat frame | E2617 | Custom fab w/c back cushion |
| E1237 | Rgd ped wc adjstabl w/o seat | E2341 | W/c wdth 24-27 in seat frame | E2619 | Replace cover w/c seat cush |
| E1238 | Fld ped wc adjstabl w/o seat | E2342 | W/c dpth 20-21 in seat frame | E2620 | Wc planar back cush wd <22in |
| E1239 | Ped power wheelchair nos | E2343 | W/c dpth 22-25 in seat frame | E2621 | Wc planar back cush wd>=22in |
| E1240 | Whchr litwt det arm leg rest | E2351 | Electronic sgd interface | E2622 | Adj skin pro w/c cus wd<22in |
| E1260 | Wheelchair lightwt foot rest | E2359 | Gr34 sealed leadacid battery | E2623 | Adj skin pro wc cus wd>=22in |
| E1290 | Wheelchair hvy duty detach a | E2360 | 22nf nonsealed leadacid | E2624 | Adj skin pro/pos cus<22in |
| E1295 | Wheelchair heavy duty fixed | E2361 | 22nf sealed leadacid battery | E2625 | Adj skin pro/pos wc cus>=22 |
| E1297 | Wheelchair special seat dept | E2362 | Gr24 nonsealed leadacid | E2626 | Seo mobile arm sup att to wc |
| E1298 | Wheelchair spec seat depth/w | E2363 | Gr24 sealed leadacid battery | E2628 | Mobile arm supports reclinin |
| E1300 | Whirlpool portable | E2364 | U1nonsealed leadacid battery | E2631 | Elevat proximal arm support |
| E1340 | Oxygen concentrator | E2365 | U1 sealed leadacid battery | E8000 | Posterior gait trainer |
| E1372 | Oxy suppl heater for nebuliz | E2366 | Battery charger, single mode | E8001 | Upright gait trainer |
| E1390 | Oxygen concentrator | E2367 | Battery charger, dual mode | E8002 | Anterior gait trainer |
| E1390 | Oxygen concentrator | E2368 | Pwr wc drivewheel motor repl | K0001 | Standard wheelchair |
| E1391 | Oxygen concentrator, dual | E2369 | Pwr wc drivewheel gear repl | K0002 | Stnd hemi (low seat) whlchr |
| E1392 | Portable oxygen concentrator | E2370 | Pwr wc dr wh motor/gear comb | K0003 | Lightweight wheelchair |
| E1399 | Durable medical equipment mi | E2371 | Gr27 sealed leadacid battery | K0004 | High strength ltwt whlchr |
| E2201 | Man w/ch acc seat w>=20"<24" | E2373 | Hand/chin ctrl spec joystick | K0005 | Ultralightweight wheelchair |
| E2202 | Seat width 24-27 in | E2374 | Hand/chin ctrl std joystick | K0006 | Heavy duty wheelchair |
| E2203 | Frame depth less than 22 in | E2375 | Non-expandable controller | K0007 | Extra heavy duty wheelchair |
| E2204 | Frame depth 22 to 25 in | E2376 | Expandable controller, repl | K0008 | Cstm manual wheelchair/base |
| E2205 | Manual wc accessory, handrim | E2377 | Expandable controller, initl | K0009 | Other manual wheelchair/base |
| E2206 | Complete wheel lock assembly | E2378 | Pw actuator replacement | K0010 | Stnd wt frame power whlchr |
| E2207 | Crutch and cane holder | E2381 | Pneum drive wheel tire | K0011 | Stnd wt pwr whlchr w control |
| E2210 | Wheelchair bearings | E2382 | Tube, pneum wheel drive tire | K0014 | Other power whlchr base |
| E2211 | Pneumatic propulsion tire | E2383 | Insert, pneum wheel drive | K0015 | Detach non-adjus hght armrst |
| E2212 | Pneumatic prop tire tube | E2384 | Pneumatic caster tire | K0017 | Detach adjust armrest base |
| E2213 | Pneumatic prop tire insert | E2385 | Tube, pneumatic caster tire | K0018 | Detach adjust armrst upper |
| E2214 | Pneumatic caster tire each | E2386 | Foam filled drive wheel tire | K0019 | Arm pad each |
| E2215 | Pneumatic caster tire tube | E2387 | Foam filled caster tire | K0020 | Fixed adjust armrest pair |
| E2216 | Foam filled propulsion tire | E2388 | Foam drive wheel tire | K0037 | High mount flip-up footrest |
| E2217 | Foam filled caster tire each | E2389 | Foam caster tire | K0038 | Leg strap each |
| E2218 | Foam propulsion tire each | E2390 | Solid drive wheel tire | K0039 | Leg strap h style each |
| E2220 | Solid propulsion tire each | E2391 | Solid caster tire | K0040 | Adjustable angle footplate |
| E2221 | Solid caster tire each | E2392 | Solid caster tire, integrate | K0042 | Standard size footplate each |
| E2222 | Solid caster integrated whl | E2396 | Caster fork | K0043 | Ftrst lower extension tube |
| E2224 | Propulsion whl excludes tire | E2397 | Pwc acc, lith-based battery | K0044 | Ftrst upper hanger bracket |
| E2225 | Caster wheel excludes tire | E2500 | Sgd digitized pre-rec <=8min | K0045 | Footrest complete assembly |
| E2226 | Caster fork replacement only | E2502 | Sgd prerec msg >8min <=20min | K0046 | Elevat legrst low extension |
| E2228 | Mwc acc, wheelchair brake | E2506 | Sgd prerec msg > 40 min | K0047 | Elevat legrst up hangr brack |
| E2231 | Solid seat support base | E2508 | Sgd spelling phys contact | K0051 | Cam relese assem ftrst/lgrst |
| E2291 | Planar back for ped size wc | E2510 | Sgd w multi methods msg/accs | K0052 | Swingaway detach footrest |
| E2292 | Planar seat for ped size wc | E2511 | Sgd sftwre prgrm for pc/pda | K0053 | Elevate footrest articulate |
| E2293 | Contour back for ped size wc | E2512 | Sgd accessory, mounting sys | K0056 | Seat ht <17 or >=21 ltwt wc |
| E2294 | Contour seat for ped size wc | E2599 | Sgd accessory noc | K0065 | Spoke protectors |
| E2295 | Ped dynamic seating frame | E2602 | Gen w/c cushion wdth >=22 in | K0069 | Rear whl complete solid tire |
| E2300 | Pwr seat elevation sys | E2603 | Skin protect wc cus wd <22in | K0070 | Rear whl compl pneum tire |
| E2301 | Pwr standing | E2604 | Skin protect wc cus wd>=22in | K0071 | Front castr compl pneum tire |
| E2310 | Electro connect btw control | E2605 | Position wc cush wdth <22 in | K0072 | Frnt cstr cmpl sem-pneum tir |
| E2311 | Electro connect btw 2 sys | E2606 | Position wc cush wdth>=22 in | K0073 | Caster pin lock each |

Appendix A: 2019 Ohio AMRP Durable Medical Equipment Codes Included in Analysis

| Procedure Code | Short Descriptor | Procedure Code | Short Descriptor | Procedure Code | Short Descriptor |
|----------------|------------------------------|----------------|-------------------------------|----------------|------------------------------|
| K0077 | Front caster assem complete | L0180 | Cer post col occ/man sup adj | L1290 | Lateral trochanteric pad |
| K0105 | Iv hanger | L0190 | Cerv collar supp adj cerv ba | L1300 | Body jacket mold to patient |
| K0195 | Elevating whlchair leg rests | L0200 | Cerv col supp adj bar & thor | L1499 | Spinal orthosis nos |
| K0552 | Supply/ext inf pump syr type | L0220 | Thor rib belt custom fabrica | L1600 | Ho flex frejka w/cov pre cst |
| K0553 | Ther cgm supply allowance | L0450 | Tlso flex trunk/thor pre ots | L1620 | Ho flex pavlik harns pre cst |
| K0554 | Ther cgm receiver/monitor | L0452 | Tlso flex custom fab thoraci | L1630 | Abduct control hip semi-flex |
| K0730 | Ctrl dose inh drug deliv sys | L0454 | Tlso trnk sj-t9 pre cst | L1640 | Pelv band/spread bar thigh c |
| K0733 | 12-24hr sealed lead acid | L0466 | Tlso r fram soft ant pre cst | L1650 | Ho abduction hip adjustable |
| K0738 | Portable gas oxygen system | L0468 | Tlso rig fram pelvic pre cst | L1660 | Ho abduction static plastic |
| K0739 | Repair/svc dme non-oxygen eq | L0470 | Tlso rigid frame pre subclav | L1680 | Pelvic & hip control thigh c |
| K0800 | Pov group 1 std up to 300lbs | L0472 | Tlso rigid frame hyperex pre | L1685 | Post-op hip abduct custom fa |
| K0801 | Pov group 1 hd 301-450 lbs | L0480 | Tlso rigid plastic custom fa | L1686 | Ho post-op hip abduction |
| K0802 | Pov group 1 vhd 451-600 lbs | L0482 | Tlso rigid lined custom fab | L1690 | Combination bilateral ho |
| K0806 | Pov group 2 std up to 300lbs | L0484 | Tlso rigid plastic cust fab | L1730 | Legg perthes orth scottish r |
| K0807 | Pov group 2 hd 301-450 lbs | L0486 | Tlso rigidlined cust fab two | L1755 | Legg perthes patten bottom t |
| K0808 | Pov group 2 vhd 451-600 lbs | L0488 | Tlso rigid lined pre one pie | L1810 | Ko elastic with joints |
| K0814 | Pwc gp 1 std port cap chair | L0621 | Sio flex pelvic/sacr pre ots | L1820 | Ko elas w/ condyle pads & jo |
| K0816 | Pwc gp 1 std cap chair | L0625 | Lo flex l1-below l5 pre ots | L1830 | Ko immob canvas long pre ots |
| K0821 | Pwc gp 2 std port cap chair | L0626 | Lo sag rig pnl stays pre cst | L1832 | Ko adj jnt pos r sup pre cst |
| K0822 | Pwc gp 2 std seat/back | L0627 | Lo sag ri an/pos pnl pre cst | L1834 | Ko w/o joint rigid molded to |
| K0823 | Pwc gp 2 std cap chair | L0628 | Lso flex no ri stays pre ots | L1840 | Ko derot ant cruciate custom |
| K0824 | Pwc gp 2 hd seat/back | L0630 | Lso r post pnl sj-t9 pre cst | L1843 | Ko single upright pre cst |
| K0825 | Pwc gp 2 hd cap chair | L0631 | Lso sag r an/pos pnl pre cst | L1844 | Ko w/adj jt rot cntrl molded |
| K0826 | Pwc gp 2 vhd seat/back | L0633 | Lso scr r pos/lat pnl pre cst | L1845 | Ko double upright pre cst |
| K0827 | Pwc gp vhd cap chair | L0634 | Lso flexion control custom | L1846 | Ko w adj flex/ext rotat mold |
| K0829 | Pwc gp 2 xtra hd cap chair | L0635 | Lso sagit rigid panel prefab | L1847 | Ko dbl upright w/air pre cst |
| K0831 | Pwc gp2 std seat elevate cap | L0636 | Lso sagittal rigid panel cus | L1850 | Ko swedish type pre ots |
| K0835 | Pwc gp2 std sing pow opt s/b | L0639 | Lso s/c shell/panel prefab | L1851 | Ko single upright prefab ots |
| K0836 | Pwc gp2 std sing pow opt cap | L0640 | Lso s/c shell/panel custom | L1852 | Ko double upright prefab ots |
| K0837 | Pwc gp 2 hd sing pow opt s/b | L0710 | Ctlso a-p-l control w/ inter | L1860 | Ko supracondylar socket mold |
| K0838 | Pwc gp 2 hd sing pow opt cap | L0810 | Halo cervical into jckt vest | L1900 | Afo sprng wir drsflx calf bd |
| K0839 | Pwc gp2 vhd sing pow opt s/b | L0859 | Mri compatible system | L1902 | Afo ankle gauntlet pre ots |
| K0840 | Pwc gp2 xhd sing pow opt s/b | L0970 | Tlso corset front | L1906 | Afo multilig ank sup pre ots |
| K0841 | Pwc gp2 std mult pow opt s/b | L0972 | Lso corset front | L1907 | Afo supramalleolar custom |
| K0842 | Pwc gp2 std mult pow opt cap | L0974 | Tlso full corset | L1920 | Afo sing upright w/ adjust s |
| K0843 | Pwc gp2 hd mult pow opt s/b | L0976 | Lso full corset | L1930 | Afo plastic |
| K0848 | Pwc gp 3 std seat/back | L0980 | Peroneal straps pair pre ots | L1932 | Afo rig ant tib prefab tcf/= |
| K0849 | Pwc gp 3 std cap chair | L0984 | Protect body sock ea pre ots | L1940 | Afo molded to patient plasti |
| K0850 | Pwc gp 3 hd seat/back | L0999 | Add to spinal orthosis nos | L1945 | Afo molded plas rig ant tib |
| K0851 | Pwc gp 3 hd cap chair | L1000 | Ctlso milwaukee initial model | L1951 | Afo spiral prefabricated |
| K0852 | Pwc gp 3 vhd seat/back | L1010 | Ctlso axilla sling | L1960 | Afo pos solid ank plastic mo |
| K0853 | Pwc gp 3 vhd cap chair | L1020 | Kyphosis pad | L1970 | Afo plastic molded w/ankle j |
| K0854 | Pwc gp 3 xhd seat/back | L1025 | Kyphosis pad floating | L1971 | Afo w/ankle joint, prefab |
| K0855 | Pwc gp 3 xhd cap chair | L1030 | Lumbar bolster pad | L1980 | Afo sing solid stirrup calf |
| K0856 | Pwc gp3 std sing pow opt s/b | L1040 | Lumbar or lumbar rib pad | L1990 | Afo doub solid stirrup calf |
| K0857 | Pwc gp3 std sing pow opt cap | L1050 | Sternal pad | L2000 | Kafo sing fre stirr thi/calf |
| K0858 | Pwc gp3 hd sing pow opt s/b | L1060 | Thoracic pad | L2010 | Kafo sng solid stirrup w/o j |
| K0860 | Pwc gp3 vhd sing pow opt s/b | L1070 | Trapezius sling | L2020 | Kafo dbl solid stirrup band/ |
| K0861 | Pwc gp3 std mult pow opt s/b | L1080 | Outrigger | L2030 | Kafo dbl solid stirrup w/o j |
| K0862 | Pwc gp3 hd mult pow opt s/b | L1110 | Ring flange plas/leather mol | L2034 | Kafo pla sin up w/wo k/a cus |
| K0863 | Pwc gp3 vhd mult pow opt s/b | L1120 | Covers for upright each | L2035 | Kafo plastic pediatric size |
| K0868 | Pwc gp 4 std seat/back | L1200 | Furnsh initial orthosis only | L2036 | Kafo plas doub free knee mol |
| K0877 | Pwc gp4 std sing pow opt s/b | L1210 | Lateral thoracic extension | L2037 | Kafo plas sing free knee mol |
| K0884 | Pwc gp4 std mult pow opt s/b | L1220 | Anterior thoracic extension | L2038 | Kafo w/o joint multi-axis an |
| K0891 | Pwc gp5 ped mult pow opt s/b | L1230 | Milwaukee type superstructur | L2040 | Hkafo torsion bil rot straps |
| L0120 | Cerv flex n/adj foam pre ots | L1240 | Lumbar derotation pad | L2050 | Hkafo torsion cable hip pelv |
| L0140 | Cervical semi-rigid adjustab | L1250 | Anterior asis pad | L2060 | Hkafo torsion ball bearing j |
| L0170 | Cervical collar molded to pt | L1260 | Anterior thoracic derotation | L2106 | Afo tib fx cast plaster mold |
| L0172 | Cerv col sr foam 2pc pre ots | L1270 | Abdominal pad | L2108 | Afo tib fx cast molded to pt |
| L0174 | Cerv sr 2pc thor ext pre ots | L1280 | Rib gusset (elastic) each | L2112 | Afo tibial fracture soft |

Appendix A: 2019 Ohio AMRP Durable Medical Equipment Codes Included in Analysis

| Procedure Code | Short Descriptor | Procedure Code | Short Descriptor | Procedure Code | Short Descriptor |
|----------------|------------------------------|----------------|------------------------------|----------------|------------------------------|
| L2114 | Afo tib fx semi-rigid | L2660 | Thoracic control thoracic ba | L3400 | Shoe metatarsal bar wedge ro |
| L2116 | Afo tibial fracture rigid | L2680 | Thorac cont lat support upri | L3410 | Shoe metatarsal bar between |
| L2126 | Kafo fem fx cast thermoplas | L2755 | Carbon graphite lamination | L3420 | Full sole/heel wedge btween |
| L2128 | Kafo fem fx cast molded to p | L2760 | Extension per extension per | L3430 | Sho heel count plast reinfor |
| L2136 | Kafo femoral fx cast rigid | L2768 | Ortho sidebar disconnect | L3440 | Heel leather reinforced |
| L2180 | Plas shoe insert w ank joint | L2785 | Drop lock retainer each | L3450 | Shoe heel sach cushion type |
| L2182 | Drop lock knee | L2795 | Knee control full kneecap | L3460 | Shoe heel new rubber standar |
| L2186 | Adj motion knee jnt lerman t | L2800 | Knee cap medial or lateral p | L3480 | Shoe heel pad & depress for |
| L2188 | Quadrilateral brim | L2810 | Knee control condylar pad | L3500 | Ortho shoe add leather insol |
| L2190 | Waist belt | L2820 | Soft interface below knee se | L3510 | Orthopedic shoe add rub insl |
| L2192 | Pelvic band & belt thigh fla | L2830 | Soft interface above knee se | L3530 | Ortho shoe add half sole |
| L2200 | Limited ankle motion ea jnt | L2840 | Tibial length sock fx or equ | L3540 | Ortho shoe add full sole |
| L2210 | Dorsiflexion assist each joi | L2850 | Femoral lgth sock fx or equa | L3550 | O shoe add standard toe tap |
| L2220 | Dorsi & plantar flex ass/res | L2999 | Lower extremity orthosis nos | L3570 | O shoe add instep extension |
| L2230 | Split flat caliper stirr & p | L3000 | Ft insert ucb berkeley shell | L3580 | O shoe add instep velcro clo |
| L2240 | Round caliper and plate atta | L3001 | Foot insert remov molded spe | L3595 | Ortho shoe add march bar |
| L2250 | Foot plate molded stirrup at | L3002 | Foot insert plastazote or eq | L3600 | Trans shoe calip plate exist |
| L2260 | Reinforced solid stirrup | L3010 | Foot longitudinal arch suppo | L3610 | Trans shoe caliper plate new |
| L2265 | Long tongue stirrup | L3020 | Foot longitud/metatarsal sup | L3620 | Trans shoe solid stirrup exi |
| L2270 | Varus/valgus strap padded/li | L3030 | Foot arch support remov prem | L3630 | Trans shoe solid stirrup new |
| L2275 | Plastic mod low ext pad/line | L3040 | Ft arch suprt premold longit | L3649 | Orthopedic shoe modifica nos |
| L2280 | Molded inner boot | L3050 | Foot arch supp premold metat | L3650 | So 8 abd restraint pre ots |
| L2300 | Abduction bar jointed adjust | L3060 | Foot arch supp longitud/meta | L3670 | So acro/clav can web pre ots |
| L2310 | Abduction bar-straight | L3100 | Hallus-valgus nt dyn pre ots | L3674 | So airplane w/wo joint cf |
| L2320 | Non-molded lacer | L3140 | Abduction rotation bar shoe | L3675 | So vest canvas/web pre ots |
| L2330 | Lacer molded to patient mode | L3150 | Abduct rotation bar w/o shoe | L3710 | Eo elas w/metal jnts pre ots |
| L2335 | Anterior swing band | L3160 | Shoe styled positioning dev | L3720 | Forearm/arm cuffs free motio |
| L2340 | Pre-tibial shell molded to p | L3170 | Foot plas heel stabi pre ots | L3730 | Forearm/arm cuffs ext/flex a |
| L2350 | Prosthetic type socket molde | L3201 | Oxford w supinat/pronat inf | L3740 | Cuffs adj lock w/ active con |
| L2360 | Extended steel shank | L3202 | Oxford w/ supinat/pronator c | L3760 | Eo withjoint, prefabricated |
| L2370 | Patten bottom | L3203 | Oxford w/ supinator/pronator | L3763 | Ewho rigid w/o jnts cf |
| L2375 | Torsion ank & half solid sti | L3204 | Hightop w/ supp/pronator inf | L3764 | Ewho w/joint(s) cf |
| L2380 | Torsion straight knee joint | L3206 | Hightop w/ supp/pronator chi | L3807 | Whfo w/o joints pre cst |
| L2385 | Straight knee joint heavy du | L3207 | Hightop w/ supp/pronator jun | L3808 | Whfo, rigid w/o joints |
| L2390 | Offset knee joint each | L3208 | Surgical boot each infant | L3900 | Hinge extension/flex wrist/f |
| L2395 | Offset knee joint heavy duty | L3209 | Surgical boot each child | L3901 | Hinge ext/flex wrist finger |
| L2397 | Suspension sleeve lower ext | L3211 | Surgical boot each junior | L3906 | Who w/o joints cf |
| L2405 | Knee joint drop lock ea jnt | L3215 | Orthopedic ftwear ladies oxf | L3908 | Who cock-up nonmolde pre ots |
| L2415 | Knee joint cam lock each joi | L3216 | Orthoped ladies shoes dpth i | L3912 | Hfo flexion glove pre ots |
| L2425 | Knee disc/dial lock/adj flex | L3217 | Ladies shoes hightop depth i | L3923 | Hfo without joints pre cst |
| L2430 | Knee jnt ratchet lock ea jnt | L3219 | Orthopedic mens shoes oxford | L3925 | Fo pip dip jnt/sprng pre ots |
| L2492 | Knee lift loop drop lock rin | L3221 | Orthopedic mens shoes dpth i | L3929 | Hfo nontorsion jnts pre cst |
| L2510 | Th/wght bear quad-lat brim m | L3222 | Mens shoes hightop depth inl | L3931 | Whfo nontorsion joint prefab |
| L2520 | Th/wght bear quad-lat brim c | L3224 | Woman's shoe oxford brace | L3956 | Add joint upper ext orthosis |
| L2525 | Th/wght bear nar m-l brim mo | L3225 | Man's shoe oxford brace | L3960 | Sewho airplan desig abdu pos |
| L2526 | Th/wght bear nar m-l brim cu | L3230 | Custom shoes depth inlay | L3980 | Upp ext fx orthosis humeral |
| L2530 | Thigh/wght bear lacer non-mo | L3251 | Shoe molded to pt silicone s | L3982 | Upper ext fx orthosis rad/ul |
| L2540 | Thigh/wght bear lacer molded | L3252 | Shoe molded plastazote cust | L3984 | Upper ext fx orthosis wrist |
| L2550 | Thigh/wght bear high roll cu | L3253 | Shoe molded plastazote cust | L3995 | Sock fracture or equal each |
| L2570 | Hip clevis type 2 posit jnt | L3257 | Orth foot add charge split s | L3999 | Upper limb orthosis nos |
| L2580 | Pelvic control pelvic sling | L3300 | Sho lift taper to metatarsal | L4040 | Replace molded thigh lacer |
| L2600 | Hip clevis/thrust bearing fr | L3310 | Shoe lift elev heel/sole neo | L4045 | Replace non-molded thigh lac |
| L2610 | Hip clevis/thrust bearing lo | L3320 | Shoe lift elev heel/sole cor | L4050 | Replace molded calf lacer |
| L2620 | Pelvic control hip heavy dut | L3332 | Shoe lifts tapered to one-ha | L4055 | Replace non-molded calf lace |
| L2622 | Hip joint adjustable flexion | L3334 | Shoe lifts elevation heel /i | L4060 | Replace high roll cuff |
| L2624 | Hip adj flex ext abduct cont | L3340 | Shoe wedge sach | L4070 | Replace prox & dist upright |
| L2627 | Plastic mold recipro hip & c | L3350 | Shoe heel wedge | L4080 | Repl met band kafo-afo prox |
| L2628 | Metal frame recipro hip & ca | L3360 | Shoe sole wedge outside sole | L4090 | Repl met band kafo-afo calf/ |
| L2630 | Pelvic control band & belt u | L3370 | Shoe sole wedge between sole | L4100 | Repl leath cuff kafo prox th |
| L2640 | Pelvic control band & belt b | L3380 | Shoe clubfoot wedge | L4110 | Repl leath cuff kafo-afo cal |
| L2650 | Pelv & thor control gluteal | L3390 | Shoe outflare wedge | L4205 | Ortho dvc repair per 15 min |

Appendix A: 2019 Ohio AMRP Durable Medical Equipment Codes Included in Analysis

| Procedure Code | Short Descriptor | Procedure Code | Short Descriptor | Procedure Code | Short Descriptor |
|----------------|------------------------------|----------------|------------------------------|----------------|------------------------------|
| L4210 | Orth dev repair/repl minor p | L5654 | Socket insert symes | L5950 | Endo ak ultra-light material |
| L4350 | Ankle control ortho pre ots | L5655 | Socket insert below knee | L5960 | Endo hip ultra-light materia |
| L4360 | Pneumat walking boot pre cst | L5656 | Socket insert knee articul | L5962 | Below knee flex cover system |
| L4370 | Pneum full leg splnt pre ots | L5658 | Socket insert above knee | L5964 | Above knee flex cover system |
| L4386 | Non-pneum walk boot pre cst | L5661 | Multi-durometer symes | L5966 | Hip flexible cover system |
| L4392 | Replace afo soft interface | L5665 | Multi-durometer below knee | L5968 | Multiaxial ankle w dorsiflex |
| L4396 | Static or dynami afo pre cst | L5666 | Below knee cuff suspension | L5970 | Foot external keel sach foot |
| L4631 | Afo, walk boot type, cus fab | L5668 | Bk molded distal cushion | L5972 | Flexible keel foot |
| L5000 | Sho insert w arch toe filler | L5670 | Bk molded supracondylar susp | L5974 | Foot single axis ankle/foot |
| L5010 | Mold socket ank hgt w/ toe f | L5671 | Bk/ak locking mechanism | L5975 | Combo ankle/foot prosthesis |
| L5020 | Tibial tubercle hgt w/ toe f | L5672 | Bk removable medial brim sus | L5976 | Energy storing foot |
| L5050 | Ank symes mold sckt sach ft | L5673 | Socket insert w lock mech | L5978 | Ft prosth multiaxial ankl/ft |
| L5100 | Molded socket shin sach foot | L5676 | Bk knee joints single axis p | L5979 | Multi-axial ankle/ft prosth |
| L5200 | Kne sing axis fric shin sach | L5677 | Bk knee joints polycentric p | L5980 | Flex foot system |
| L5210 | No knee/ankle joints w/ ft b | L5678 | Bk joint covers pair | L5981 | Flex-walk sys low ext prosth |
| L5220 | No knee joint with artic ali | L5679 | Socket insert w/o lock mech | L5982 | Exoskeletal axial rotation u |
| L5230 | Fem focal defic constant fri | L5680 | Bk thigh lacer non-molded | L5984 | Endoskeletal axial rotation |
| L5301 | Bk mold socket sach ft endo | L5681 | Intl custm cong/latyp insert | L5985 | Lwr ext dynamic prosth pylon |
| L5321 | Ak open end sach | L5682 | Bk thigh lacer glut/ischia m | L5986 | Multi-axial rotation unit |
| L5331 | Hip disart canadian sach ft | L5683 | Initial custom socket insert | L5987 | Shank ft w vert load pylon |
| L5341 | Hemipelvectomy canadian sach | L5684 | Bk fork strap | L5988 | Vertical shock reducing pylo |
| L5400 | Postop dress & 1 cast chg bk | L5685 | Below knee sus/seal sleeve | L5999 | Lowr extremity prosthes nos |
| L5410 | Postop dsq bk ea add cast ch | L5686 | Bk back check | L6000 | Part hand thumb rem |
| L5430 | Postop dsq ak ea add cast ch | L5688 | Bk waist belt webbing | L6010 | Part hand little/ring |
| L5510 | Prep bk ptb plaster molded | L5690 | Bk waist belt padded and lin | L6020 | Part hand no fingers |
| L5535 | Prep bk ptb open end socket | L5692 | Ak pelvic control belt light | L6050 | Wrst mld sck flx hng tri pad |
| L5540 | Prep bk ptb laminated socket | L5694 | Ak pelvic control belt pad/l | L6100 | Elb mold sock flex hinge pad |
| L5580 | Prep ak ischial thermo mold | L5695 | Ak sleeve susp neoprene/equa | L6110 | Elbow mold sock suspension t |
| L5585 | Prep ak ischial open end | L5696 | Ak/knee disartic pelvic join | L6130 | Elbow stump activated lock h |
| L5590 | Prep ak ischial laminated | L5697 | Ak/knee disartic pelvic band | L6200 | Elbow mold outsid lock hinge |
| L5610 | Above knee hydracadence | L5698 | Ak/knee disartic silesian ba | L6250 | Elbow inter loc elbow forarm |
| L5611 | Ak 4 bar link w/fric swing | L5700 | Replace socket below knee | L6300 | Shldr disart int lock elbow |
| L5613 | Ak 4 bar ling w/hydraul swig | L5701 | Replace socket above knee | L6370 | Thoracic passive restor cap |
| L5614 | 4-bar link above knee w/swng | L5702 | Replace socket hip | L6400 | Below elbow prosth tiss shap |
| L5616 | Ak univ multiplex sys frict | L5704 | Custom shape cover bk | L6450 | Elb disart prosth tiss shap |
| L5617 | Ak/bk self-aligning unit ea | L5705 | Custom shape cover ak | L6500 | Above elbow prosth tiss shap |
| L5618 | Test socket symes | L5706 | Custom shape cvr knee disart | L6550 | Shldr disar prosth tiss shap |
| L5620 | Test socket below knee | L5707 | Custom shape cvr hip disart | L6600 | Polycentric hinge pair |
| L5622 | Test socket knee disarticula | L5711 | Knee-shin exo mnl lock ultra | L6605 | Single pivot hinge pair |
| L5624 | Test socket above knee | L5785 | Exoskeletal bk ultralt mater | L6615 | Disconnect locking wrist uni |
| L5626 | Test socket hip disarticulat | L5790 | Exoskeletal ak ultra-light m | L6616 | Disconnect insert locking wr |
| L5628 | Test socket hemipelvectomy | L5795 | Exoskel hip ultra-light mate | L6620 | Flexion/extension wrist unit |
| L5629 | Below knee acrylic socket | L5810 | Endoskel knee-shin mnl lock | L6623 | Spring-ass rot wrst w/ latch |
| L5630 | Syme typ expandabl wall sckt | L5811 | Endo knee-shin mnl lck ultra | L6628 | Quick disconn hook adapter o |
| L5631 | Ak/knee disartic acrylic soc | L5812 | Endo knee-shin frct swg & st | L6629 | Lamination collar w/ couplin |
| L5632 | Symes type ptb brim design s | L5814 | Endo knee-shin hydral swg ph | L6630 | Stainless steel any wrist |
| L5634 | Symes type poster opening so | L5818 | Endo knee-shin frct swg & st | L6632 | Latex suspension sleeve each |
| L5636 | Symes type medial opening so | L5822 | Endo knee-shin pneum swg frc | L6635 | Lift assist for elbow |
| L5637 | Below knee total contact | L5824 | Endo knee-shin fluid swing p | L6637 | Nudge control elbow lock |
| L5638 | Below knee leather socket | L5826 | Miniature knee joint | L6641 | Excursion amplifier pulley t |
| L5640 | Knee disarticulat leather so | L5828 | Endo knee-shin fluid swg/sta | L6642 | Excursion amplifier lever ty |
| L5643 | Hip flex inner socket ext fr | L5830 | Endo knee-shin pneum/swg pha | L6645 | Shoulder flexion-abduction j |
| L5645 | Bk flex inner socket ext fra | L5840 | Multi-axial knee/shin system | L6650 | Shoulder universal joint |
| L5646 | Below knee cushion socket | L5845 | Knee-shin sys stance flexion | L6655 | Standard control cable extra |
| L5647 | Below knee suction socket | L5850 | Endo ak/hip knee extens assi | L6660 | Heavy duty control cable |
| L5648 | Above knee cushion socket | L5855 | Mech hip extension assist | L6665 | Teflon or equal cable lining |
| L5649 | Isch containmt/narrow m-l so | L5910 | Endo below knee alignable sy | L6670 | Hook to hand cable adapter |
| L5650 | Tot contact ak/knee disart s | L5920 | Endo ak/hip alignable system | L6672 | Harness chest/shldr saddle |
| L5651 | Ak flex inner socket ext fra | L5925 | Above knee manual lock | L6675 | Harness figure of 8 sing con |
| L5652 | Suction susp ak/knee disart | L5930 | High activity knee frame | L6676 | Harness figure of 8 dual con |
| L5653 | Knee disart expand wall sock | L5940 | Endo bk ultra-light material | L6680 | Test sock wrist disart/bel e |

Appendix A: 2019 Ohio AMRP Durable Medical Equipment Codes Included in Analysis

| Procedure Code | Short Descriptor | Procedure Code | Short Descriptor |
|----------------|------------------------------|----------------|---|
| L6682 | Test sock elbw disart/above | S8420 | Custom gradient sleev/glov |
| L6684 | Test socket shldr disart/tho | S8421 | Ready gradient sleev/glov |
| L6686 | Suction socket | S8422 | Custom grad sleeve med |
| L6687 | Frame typ socket bel elbow/w | S8423 | Custom grad sleeve heavy |
| L6688 | Frame typ sock above elb/dis | S8424 | Ready gradient sleeve |
| L6689 | Frame typ socket shoulder di | S8425 | Custom grad glove med |
| L6691 | Removable insert each | S8426 | Custom grad glove heavy |
| L6692 | Silicone gel insert or equal | S8427 | Ready gradient glove |
| L6693 | Lockingelbow forearm cntrbal | S8428 | Ready gradient gauntlet |
| L6704 | Term dev, sport/rec/work att | S9435 | Medical foods for inborn err |
| L6706 | Term dev mech hook vol open | T4521 | Adult size brief/diaper sm |
| L6707 | Term dev mech hook vol close | T4522 | Adult size brief/diaper med |
| L6708 | Term dev mech hand vol open | T4523 | Adult size brief/diaper lg |
| L6709 | Term dev mech hand vol close | T4524 | Adult size brief/diaper xl |
| L6805 | Term dev modifier wrist unit | T4525 | Adult size pull-on sm |
| L6890 | Prefab glove for term device | T4526 | Adult size pull-on med |
| L6905 | Hand restoration multiple fi | T4527 | Adult size pull-on lg |
| L7368 | Lithium ion battery charger | T4528 | Adult size pull-on xl |
| L7499 | Upper extremity prosthes nos | T4529 | Ped size brief/diaper sm/med |
| L7510 | Prosthetic device repair rep | T4530 | Ped size brief/diaper lg |
| L7520 | Repair prosthesis per 15 min | T4531 | Ped size pull-on sm/med |
| L8000 | Mastectomy bra | T4532 | Ped size pull-on lg |
| L8010 | Mastectomy sleeve | T4533 | Youth size brief/diaper |
| L8015 | Ext breastprosthesis garment | T4534 | Youth size pull-on |
| L8020 | Mastectomy form | T4535 | Disposable liner/shield/pad |
| L8030 | Breast prosthes w/o adhesive | T4536 | Reusable pull-on any size |
| L8035 | Custom breast prosthesis | T4537 | Reusable underpad bed size |
| L8300 | Truss single w/ standard pad | T4538 | Diaper serv reusable diaper |
| L8310 | Truss double w/ standard pad | T4540 | Reusable underpad chair size |
| L8330 | Truss add to std pad scrotal | T4541 | Large disposable underpad |
| L8400 | Sheath below knee | T4542 | Small disposable underpad |
| L8410 | Sheath above knee | T4543 | Adult disp brief/diap abv xl |
| L8415 | Sheath upper limb | T4544 | Adlt disp und/pull on abv xl |
| L8417 | Pros sheath/sock w gel cushn | T5999 | Supply, nos |
| L8420 | Prosthetic sock multi ply bk | V5014 | Hearing aid repair/modifying |
| L8430 | Prosthetic sock multi ply ak | V5040 | Body-worn hearing aid bone |
| L8435 | Pros sock multi ply upper lm | V5050 | Hearing aid monaural in ear |
| L8440 | Shrinker below knee | V5060 | Behind ear hearing aid |
| L8460 | Shrinker above knee | V5130 | In ear binaural hearing aid |
| L8465 | Shrinker upper limb | V5140 | Behind ear binaur hearing ai |
| L8470 | Pros sock single ply bk | V5160 | Dispensing fee binaural |
| L8480 | Pros sock single ply ak | V5170 | Within ear cros hearing aid |
| L8485 | Pros sock single ply upper l | V5180 | Behind ear cros hearing aid |
| L8499 | Unlisted misc prosthetic ser | V5200 | Cros hearing aid dispens fee |
| L8500 | Artificial larynx | V5210 | In ear bicros hearing aid |
| L8501 | Tracheostomy speaking valve | V5220 | Behind ear bicros hearing ai |
| L8615 | Coch implant headset replace | V5240 | Dispensing fee bicros |
| L8616 | Coch implant microphone repl | V5241 | Dispensing fee, monaural |
| L8617 | Coch implant trans coil repl | V5247 | Hearing aid, prog, mon, bte |
| L8618 | Coch implant tran cable repl | V5252 | Hearing aid, prog, bin, ite |
| L8619 | Coch imp ext proc/contr rplc | V5253 | Hearing aid, prog, bin, bte |
| L8621 | Repl zinc air battery | V5256 | Hearing aid, digit, mon, ite |
| L8622 | Repl alkaline battery | V5257 | Hearing aid, digit, mon, bte |
| L8624 | Lith ion batt cid, ear level | V5260 | Hearing aid, digit, bin, ite |
| L8627 | Cid ext speech process repl | V5261 | Hearing aid, digit, bin, bte |
| L8628 | Cid ext controller repl | V5264 | Ear mold/insert |
| L8629 | Cid transmit coil and cable | V5266 | Battery for hearing device |
| L8691 | Osseointegrated snd proc rpl | V5267 | Hearing aid sup/access/dev |
| Q9994 | Enzyme cartridge enteral nut | Y2032 | Res care, nos waiver/month |
| S1040 | Cranial remolding orthosis | Y9167 | Sharps Container for Disposal, Capacity 200 |
| S8101 | Spacer with mask | | |