Appendix C – Access Methodology

Appendix C outlines the methodology used to analyze access and create the Access to Care Index (ACI) for the 2017 Medicaid Provider Rate Review Analysis Report (2017 Analysis Report). Appendix C does not contain any assertions or conclusions on the sufficiency of Medicaid rates to provide adequate access to care.
Definitions

Active Provider: Any provider who billed Medicaid at least once between July 2014 and June 2016 for one of the procedure codes under review.¹

Billing Provider: Based on the billing provider ID, which is generally associated with the entity enrolled with Medicaid. This can be agencies, large provider groups, or individuals.

Rendering Provider: The provider who rendered the service. Rendering provider information is the default information provided in all ACI metric calculations. However, this field is not always complete, so the billing provider is considered in lieu of the rendering provider when there was no rendering provider on the claim.

Provider Counts: All provider counts provided in the report are a distinct count of the number of providers who billed for the service. Whether the provider is billing or rendering is identified in the report.

Client Counts: A distinct count of all clients for which there is a claim for the service from July 2014 through June 2016.

Data

The access and utilization analysis is based on claims data from FY 2014-15 and FY 2015-16 (July 1, 2014 - June 30, 2016) paid through September 28, 2016. Clients with dual Medicaid-Medicare enrollment were included, however, crossover claims (in which Medicare pays first and Medicaid is the payer of last resort) were excluded. References to the Medicaid population are full time-equivalent (FTE)² calculations based on member months obtained in an enrollment table in the decision support system (DSS) called the Client Monthly Table.

Population categories were determined based on client program aid codes, which are indicative of how the client became eligible for Medicaid (i.e.: pregnant woman; Home and Community-Based Elderly, Blind and Disabled; or Foster Care), and budget classifications that are used to determine the percentage of federal match. Clients sometimes move between categories based on various circumstances, such as changing income or enrollment into a waiver program.

For the physician services, utilization in the outpatient hospital facility and school settings was included even though these rates are excluded from the rate review process. Because of the utilization in these settings, it was important to include this data for a more complete picture. This data is not included in the surgery and anesthesia portion of the report because 82.24% was in a facility.

Geographic information is not included on claims for clients with presumptive eligibility, therefore these clients have been removed from all geographic comparisons, but remain in all other calculations.³ Because the majority of presumptively eligible clients enroll after the first claim, most claims eventually map to the correct geographic

¹ Providers who were enrolled with Medicaid during the time frame, but did not bill were not considered because at the time the data was pulled, provider revalidation was not complete and enrolled provider information had not been recently updated.

² FTE calculations are obtained from monthly enrollment files over a 12-month period. For example, if one client was enrolled for nine months and another client was enrolled for three months, together they qualify as one FTE.

³ More information regarding presumptive eligibility is located on the Department’s webpage for Presumptive Eligibility: https://www.colorado.gov/pacific/hcpf/presumptive-eligibility.
region. For this reason, very few clients are entirely excluded. For all services, less than 0.014% of the service
utilizer population was identified as presumptively eligible.

**Access to Care Index Methodology**

The ACI is a tool to standardize the access to care metrics across each service category. Standardization is
necessary because the categories of service have inherently different utilization patterns, so it is expected and
appropriate for one category of service to have lower utilization than another. Therefore, comparing a penetration
rate across services could lead to misleading results and inappropriate conclusions. The five metrics are computed
across regions for each category of service, and then scores are attributed to each region allowing for comparison
across services.

The Department developed the ACI, combining five access-related metrics:

- **Penetration Rate** – the percent of FTE members who used the service.
- **Distance** – the percent of the population that traveled within 30 miles to receive services (measured in a
straight line from the geographic center of the utilizer’s zip code to the geographic center of the provider’s
zip code).
- **Member to Provider Ratio** – the ratio of FTE members compared to active providers.
- **Active Provider Months** – the average number of months that providers billed Medicaid, displayed over a 24-
month time frame.
- **Panel Estimate** – the average number of members seen per rendering provider.

To identify regions for additional examination, the Department attributed points to each of the 21 Health Statistics
Regions (regions), based on these metrics. For all metrics except distance, the Department assigned 20 points to
regions in the top quartile, 15 points to regions in the second quartile, 10 points to regions in the third quartile,
and 5 points to regions in the bottom quartile. For distance, points were assigned based on the percent of the
population that traveled within 30 miles, assigning 20 points to regions where this percent was above 90%, 15
points to regions between 80-90%, 10 points to regions between 70-80%, and 5 points to regions below 70%.
While the total possible points a region could receive equals 100 points, no region received 20 points for all five
metrics and, therefore, no region was attributed 100 points.

In an effort to align with the Colorado Division of Insurance (DOI), the Department referenced Colorado Insurance
Bulletin 4.90 Network Adequacy Standards and Reporting Guidance for Health Benefit Plans. In this bulletin, DOI
outlines standards and guidance for health benefit plan network adequacy filings, which serve as measurable
requirements for adequate networks. Among wait times and provider to enrollee standards, there are geographic
standards outlined for specialties across five geographic county types. The standards outline the maximum road
travel distance of any enrollee within each region type for each specialty, the travel distances range from 5 to 140
miles. There are data limitations that prevent the Department from measuring distance in this precise manner:

- Client location is based on the zip code of client residence, not the client’s actual home address.
- Provider location is based on the zip code of the billing provider ID location, not the actual location of the
practice. In some instances, the rendering provider could be in a different location.
- Provider information is based only on active providers, not ‘available’ providers. Because provider
revalidation was not complete at the time of this analysis, there was not an accurate or reliable source of
information for enrolled providers. Therefore, the Department cannot determine if a client travelling 45 miles to receive a service had any closer providers available.

- The analysis is based on health statistics regions, which do not align with the geographic county types outlined by CMS and DOI, as many regions have more than one county type within the region.

Because of these data limitations, the Department attempted to proxy the provider availability within a distance by calculating the metric for the entire population. The Department used 30 miles as the standard because it was reasonable for the entire state. To improve the ACI in future iterations, the Department will explore the possibility of using different mileage thresholds for urban and rural regions.