Medicaid dental delivery systems vary by state. In this paper, we discuss the trade-offs associated with these programs and analyze publicly available quality score data.

Under the Social Security Act (the Act), state Medicaid programs are required to cover comprehensive dental services for children, and many opt to cover some level of dental care for adults.

Thoughtful implementation of a state’s dental program is important and has implications for states, vendors, dental providers, and beneficiaries. This paper outlines the options for Medicaid dental delivery systems, their current usage, and considerations for each option. We will also present statistics related to the most recent child dental quality scores and discuss best practices for states to increase these scores.

Options for state delivery systems

In this paper, we explore four broad types of delivery systems.

Fee-for-service (FFS)

Under a FFS Medicaid dental program, dental benefits are administered by the state and the state pays dentists directly.

Key stakeholder considerations:

- The state has direct control over the program, and needs to hire staff to manage the program internally.
- Dentists and beneficiaries have a centralized point of contact and information resource.

Administrative services only (ASO)/third-party administrator (TPA)

The major difference between a FFS program and an ASO or TPA is that certain administrative functions are outsourced to a vendor. The state retains the insurance risk and may retain some administrative responsibilities; the split of administration responsibilities between the state and the vendor can vary based on the specifics of the contract.

Key stakeholder considerations:

- Relative to FFS, the state still retains insurance risk for dental claims, but does not have direct operational control over the program or need to retain as much internal staff.
- Dentists and beneficiaries may interface with two entities (the state and the TPA). Administrative processes should be in sync between the two entities.

Carve-in

Under a carve-in dental program, the state contracts with one or more medical managed care organizations (MCOs), which integrate (“carve in”) dental into their medical managed care programs. The state pays these MCOs a fixed per member per month (PMPM) capitation rate.

Key stakeholder considerations:

- The state cedes insurance risk to the MCOs, and does not have direct control over the program nor need to retain as much internal staff.
- The state may need the support of other vendors, such as actuaries, to support a managed care program.
- Depending on the number of MCOs, dentists and beneficiaries may interface with multiple entities with varying administrative processes.
- MCOs may subcontract with dental managed care companies, or the same dental managed care company, leading to complex vendor relationships.
- Dentists and beneficiaries may experience more care integration with physical health.
Carve-out
Under a carve-out dental program type, the state contracts with one or more dental managed care organizations (DMCOs), separate from any medical MCOs.

Key stakeholder considerations are similar to a carve-in program except:

- The state may have more vendors to manage if dental care is managed separately from medical care.
- There may be less integration of physical and oral health through the vendor if dental is separately managed or administered.
- The vendor may bring more dental-specific focus and expertise to the program.

Figure 1 shows the distribution of these delivery systems across states and Washington, D.C.

We note that our classification of states is subjective and is based on the most commonly used program for Medicaid children in each state during the federal fiscal year (FFY) 2018 period (October 2017 through September 2018). Others may categorize state programs differently and states may incorporate two or more approaches in their dental delivery systems.

To classify each state, we reviewed Medicaid dental enrollment information from the Centers for Medicare and Medicaid Services (CMS) Medicaid Managed Care Enrollment reports from 2014 to 2017, results from a 50-state survey conducted by the Kaiser Family Foundation, and other publicly available information from each state. For states that used more than one delivery system during FFY 2018, we used the following hierarchy for final classification:

1. For states that transitioned from one delivery system to another during FFY 2018, we used the system in place at the end of the federal fiscal year, September 30, 2018.

2. For the handful of states that use multiple delivery systems, states were assigned to one delivery system in the following order:
   a. Carve-in
   b. Carve-out
   c. ASO/TPA
   d. FFS

As an example, Nevada historically provided Medicaid children with dental benefits through a carve-in program in urban areas and FFS in rural areas. Effective July 1, 2017, the entire state moved to FFS. On January 1, 2018, it moved to a carve-out delivery system for urban members. Rural members continued to receive dental services through the FFS delivery system. According to our methodology, Nevada is classified as carve-out.

Figure 2 summarizes basic parameters of these delivery systems. They are intended to be generalizations and do not capture all nuances of each dental coverage delivery system.

EVALUATING DELIVERY SYSTEMS
A state’s Medicaid dental program can achieve its goals under any delivery system. However, the state must weigh the trade-offs when evaluating its preferred delivery system, such as program cost, administrative control, and desire for managed care program elements.
CMS child core sets

Utilization of dental services is often used as a measure of the success of a dental program. Higher utilization of preventive services is indicative of a program that is successful in providing access to dental care and educating beneficiaries about its importance, and because earlier and lower-cost preventive interventions can improve population oral health.

CMS SCORECARD DATA

With the first release in June 2018, CMS Medicaid and Children’s Health Insurance Program (CHIP) released child core set data containing quality metrics for each state. One quality metric is the percentage of children ages 1 to 20 with at least one preventive dental service (PDENT) in that year.

We used the categorization of dental program type by state as identified in Figure 1 above. Medicaid child dental utilization (using 2018 CMS PDENT scores) by program type is shown in Figure 3.

Figure 3 shows that the median PDENT statistics are between 45% and 55% for all program types, and that FFS and carve-out programs may have wider variation in preventive dental utilization outcomes for children. However, there does not appear to be a statistical difference among the program types.

While it appears that the ASO/TPA construct may result in slightly higher child dental utilization numbers overall, we are hesitant to draw any major conclusions based on this one statistic, due to its limitations. In particular, PDENT indicates absolute levels of child Medicaid dental utilization, which can depend on state-specific characteristics such as geography (i.e., more rural versus more urban states), number of licensed and participating dental providers, and demographics of the Medicaid population. As a result, this statistic may not adequately isolate for the effectiveness of a particular Medicaid dental program type.

It is important to note that a correlation between dental utilization and another statistic does not imply a causative relationship between the two variables. The success of any Medicaid dental program is based on a myriad of interrelated factors and state-specific characteristics. We present observations based on publicly available data; we are not advocating for any particular Medicaid dental delivery system.

Additionally, other factors beyond program design may impact the quality differences observed in Figure 1 above. For example, providers who are paid via a PMPM capitation payment may have less incentive to submit full and complete encounter data to the insurer and the state. The CMS Scorecard data relies on encounter information submitted by providers (often by way of the insurers), which may be inherently underreported in carve-in or carve-out delivery systems. Similarly, if dental services are paid through other payment rates (such as at a Federally Qualified Health Center encounter rate), preventive dental services may be underreported. This could apply under any of the delivery systems.

Box Plot Tips: How to Read Box Plots

The box plot can be read as follows:

Top line – This is the upper bound, or highest value, in the sample data (excluding outliers).

Top of Box – This is the upper quartile, meaning that 75% of data points are below this level.

Middle of Box – This is the median, meaning that 50% of data points are below this level.

Bottom of Box – This is the bottom quartile, meaning that 25% of data points are below this level.

Bottom Line – This is the lowest value in the sample data (excluding outliers).

Individual Data Points – These represent outlier data.

Discussion

As evidenced by the PDENT scores arranged by type of Medicaid dental program, a program’s structure does not appear to be a main driver of pediatric dental utilization. Any type of dental program can be successful with the proper focus, incentive alignment, funding, and performance measurement and management. Key factors for success in improving Medicaid dental utilization include the following:

**Provider reimbursement rates**

Low Medicaid dental provider reimbursement rates are often cited as a primary driving force for dentists’ reluctance to participate in state Medicaid programs, and states have seen improvement in provider participation as a result of increasing provider fees. In 2008, Connecticut dental reimbursement rates were increased to the 70th percentile of commercial dental insurance rates, resulting in a significant increase in provider participation. In 2007, the Texas Medicaid program increased dental reimbursement rates by more than 50%. By 2010, dental care utilization among Medicaid-enrolled children in Texas increased so much that it actually exceeded the rate of those with commercial insurance.4

**Administrative processes**

In 2011, CMS published an eight-state review summarizing best practices among specific states that had successfully increased Medicaid dental utilization. One key success factor was the simplification of administrative processes for providers, which states implemented in various forms, including moving from multiple claim forms to a single universal one, reducing the prior authorizations necessary for dental services, and providing member education and follow-up for missed appointments.5

**Education and outreach**

The CMS eight-state study highlighted Nebraska’s beneficiary outreach effort, in which public health nurses contracted with Medicaid to contact new enrollees to inform families of benefits and provide education on the importance of utilizing those benefits. Louisiana’s recent request for proposal (RFP) for Medicaid dental benefit managers included promotion of dental education and enrollee responsibility as a key outcome.6

**Transportation**

Despite the fact that Medicaid includes a nonemergency medical transportation benefit, beneficiaries may lack convenient or consistent transportation to dental appointments. A study published in the Journal of Dental Research using Iowa Medicaid dental data found that transportation concerns represent a substantial barrier to dental care. While distance to a provider was not found to be a major indicator of dental utilization, other transportation issues such as relying on public transportation or walking to appointments were impediments to accessing care, and concern about the cost of transportation had the strongest association with dental utilization.7 Programs that improve the convenience, simplicity, and timeliness of transportation to dental appointments could enable higher utilization of dental services.

**Community-based care**

Another way to combat the difficulty some Medicaid beneficiaries face in traveling to dental appointments is to provide care in places where those beneficiaries live, work, go to school, or access other services. A pilot program in New Hampshire is experimenting with co-delivery of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and oral health services in the same setting.8 California’s Virtual Dental Home model uses hygienists or other professionals in community settings and relies on teledentistry to connect with dentists as needed or refers patients for in-person dental visits.9

**Other success factors**

The CMS eight-state review also highlighted the importance of having a high-profile dental “champion” in the state who is willing to take on a public leadership role in prioritizing, promoting, and engaging with stakeholders on Medicaid oral health initiatives, such as the state Medicaid or Dental Director, or, as in states such as Maryland and Rhode Island, a representative from the governor’s office or state legislature.10 Partnering with state dental education programs can also prove useful; dental schools

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10 CMS, Eight State Reports, op cit.
in states such as Alabama, Nebraska, and North Carolina operate dental clinics in underserved rural areas, staffed by dental students, to improve access to care in those areas as well as promote outreach and education. CMS’s eight-state review also indicated that five of the reviewed states (Alabama, Maryland, Nebraska, North Carolina, and Texas) have loan repayment programs for dentists that generally require a student to serve in a rural area for a period of time in order to receive an annual payment for dental school loans.11

Focusing on these types of initiatives, along with strong vendor contracting and performance metrics, can provide a pathway to success for a Medicaid dental program using any type of delivery system.

These considerations are not intended to be exhaustive, and each state will need to review its specific population, benefits, and other program parameters to find the delivery system that best meets the dental needs of its population.

Limitations

This report was developed to help readers better understand the relationship between preventive dental visits and Medicaid delivery systems. This information may not be appropriate, and should not be used, for other purposes. Milliman does not endorse any specific policy or regulatory action on matters discussed in this report.

The authors are actuaries for Milliman, members of the American Academy of Actuaries, and meet the qualification standards of the Academy to render the actuarial opinion contained herein. To the best of our knowledge and belief, this information is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices.

This report outlines the review and opinions of the authors and not necessarily those of Milliman.

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