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RESEARCH REPORT

## A Simple Alternative Payment Model (APM) to

# Incentivize Periodontal Care for Diabetes Mellitus Patients in Community Health Centers

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# The link between oral health and whole-person health is well known.

For example, strong empirical evidence suggests that treating periodontal disease in patients with co-occurring diabetes mellitus (among other chronic conditions) leads to improved patient outcomes, such as lower HbA1c readings and reduced total patient cost of medical care.[1] Approximately 60% of people with diabetes have co-occurring periodontal disease.[2] But despite the fact that preventive oral health care is a cost-effective driver of improved overall health outcomes, medical value-based care models seldom include oral health, and the oral health system lags behind the medical system in pursuing value-based care.

In integrated care settings, such as some Federally Qualified Health Centers (FQHCs), multidisciplinary care teams (e.g., pharmacy, vision, medical, behavioral, and oral health) work together with communities to provide comprehensive, coordinated care. However, periodontal disease treatment (i.e., scaling and root planing, or SRP) is not a standard reimbursable service across publicly sponsored health programs and other payers. Medicare does not cover these services except in rare circumstances, and only about half (54%) of state Medicaid programs cover scaling and root planing as well as periodontal maintenance at the frequencies outlined in the CareQuest Institute for Oral Health's Medicaid Adult Dental Coverage Checker.[3] When covered, Medicaid reimbursement for SRP is often low.[4] This creates a financial incentive *against* providing these services for most FQHCs, despite their patient- and system-level cost effectiveness and the clear outcomes-based case linking improved periodontal health to better outcomes for people with diabetes. Click on the interactive model below to see why.

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## FQHC PPS REIMBURSEMENT EXAMPLE

### REVENUE EFFECTS OF PROVIDING PERIODONTAL CARE TO MEDICAID PATIENTS WITH DIABETES AND PERIODONTAL DISEASE (TILE 1)

| | |
|---|---|
| Medicaid dental encounter rate | 102 |
| Medicaid medical encounter rate | 91 |
| Medicare dental encounter rate | N/A |
| Medicare medical encounter rate | 187 |
| Cost of one quadrant of SRP | 140 |

| | |
|---|---|
| Cost of performing perio | ($560) |
| Medicaid reimburse perio? | No |
| Medicaid reimbursement | $0 |
| Revenue effect of perio | ($560) |
| Reduction in medical encounters | 2 |

| Payer Mix (Needs to sum to 100%) | |
|---|---|
| Medicaid | 75% |
| Medicare | 15% |
| Other 3rd Party | 10% |
| Self-pay sliding scale | 0% |
| Other third party reimbursement as % of Medicare PPS (average) | 100% |

**USER INSTRUCTIONS**

By setting cell J8 to "No," the user can explore fiscal effects of providing SRP under the assumption that Medicaid does NOT reimburse SRP. When J8 is set to "Yes," the model assumes SRP provided to Medicaid patients is reimbursed.

Cell J12 can be set to 1, 2, or 3 to adjust the expected reduction in medical encounter utilization per patient receiving SRP.

Cells J16-J18 allow the user to adjust the payer mix of the clinic's patient panel. The sum of J16:J18 must be less than or equal to 100%. The self-pay percentage in J19 adjusts automatically such that the sum of J16:J19 equals 100%.

Consider the case of a patient with Medicaid coverage who is seeking care in an FQHC with co-located medical and dental offices and integrated finances. This patient's care is compensated under the CMS Prospective Payment System (PPS) encounter rate for medical and dental services.[i] Neither SRP nor periodontal maintenance care is reimbursable under Medicaid in the state. In this case, the FQHC would incur the unreimbursed costs of SRP. The standard of care for scaling and root planing is to treat half the mouth in an initial 60- to 90-minute appointment and the other half in a second 60- to 90-minute appointment.[5] An appointment for periodontal maintenance care is recommended every three months thereafter. Payers may also require a comprehensive periodontal examination (D0180) to be performed in order to preauthorize SRP.

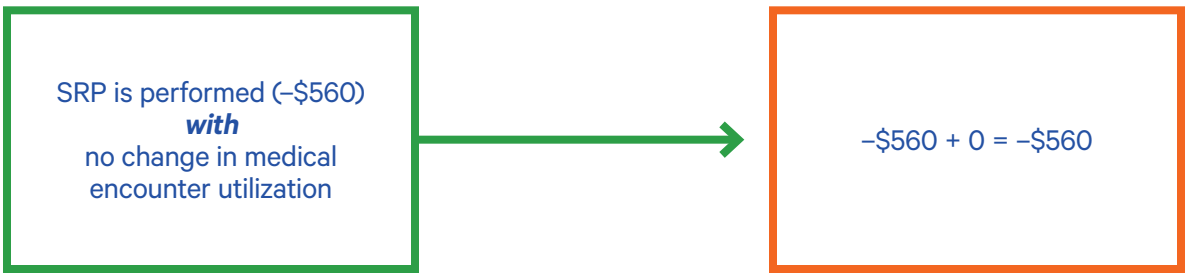
A 2024 literature review of dental practice costs and reimbursement rates for SRP suggests that $140 is a reasonable estimate for the cost of providing an hour of SRP care.[6] The same literature review found a Medicaid reimbursement of approximately $50 for the comprehensive periodontal examination, while a 2020 American Dental Association Health Policy Institute survey of private practice dentists found that the median fee for this service was approximately $100.[7] Medicaid reimbursement for periodontal maintenance (D4910) ranged from $50 to $70 in the literature review. The private practice 2020 median was $147.

Meanwhile, FQHC patients face logistical challenges to receiving care, such as arranging childcare, taking time off work, and accessing transportation. When paired with capacity constraints (e.g., staffing shortages) experienced by many FQHCs, these challenges tend to significantly reduce the frequency of follow-up for patients who receive SRP at FQHCs. For the purposes of our interactive model, then, we assume the patient is seen at the FQHC for three hours of SRP plus a comprehensive periodontal examination and/or one maintenance appointment at a total cost of $560 ($140 x 4 hours of care).[ii] Should the patient's glucose control (HbA1c measurement) subsequently improve, several scenarios for the practice are possible (Figures 1–2).

**FQHC patients face logistical challenges to receiving care, such as arranging childcare, taking time off work, and accessing transportation.**

If the patient's medical and dental utilization at the clinic remain unchanged (that is, the patient has the same number of encounters as they would have without receiving the periodontal care), presuming the patient qualifies for waived payments under the FQHC's sliding fee schedule, the net effect of treating the patient's periodontal disease on the center's bottom line is a loss of $560.

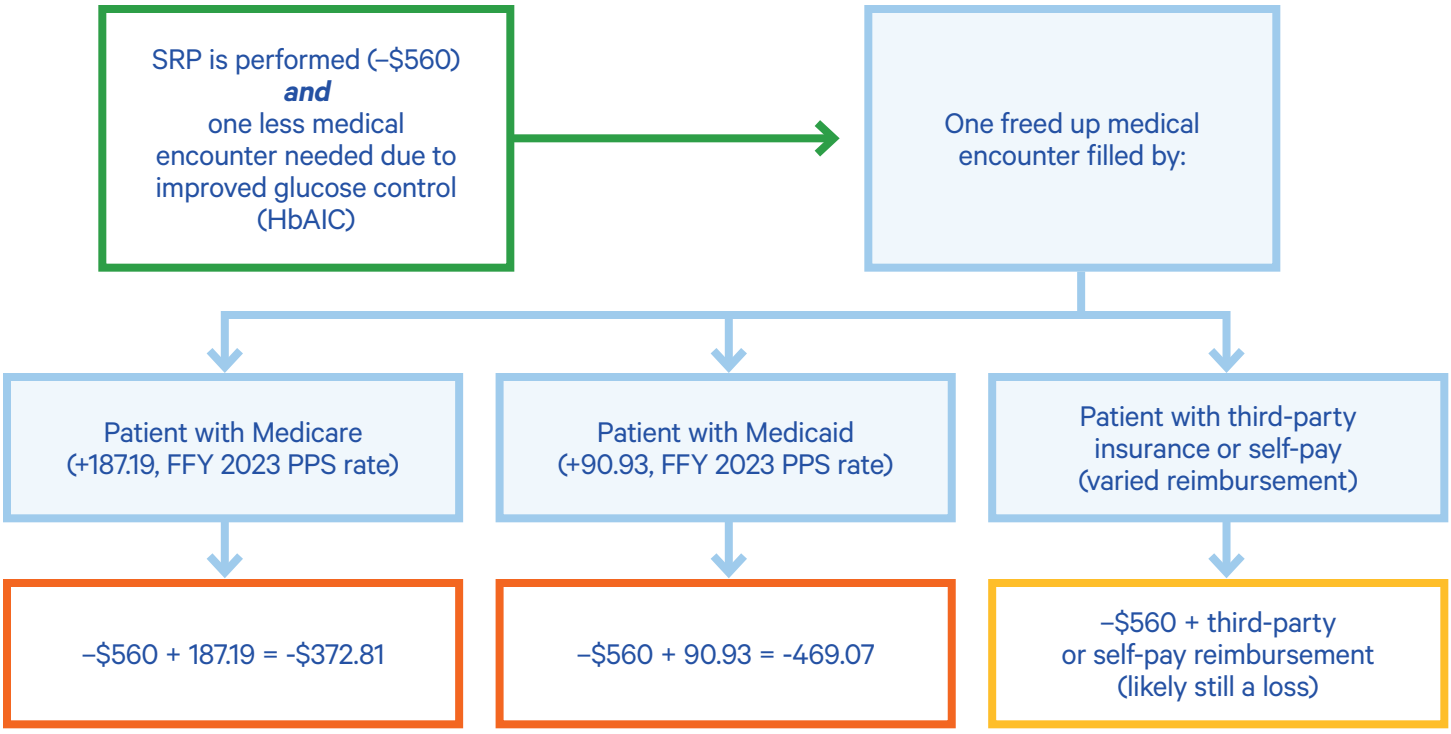
**Figure 1: The patient's medical and dental utilization remain otherwise unchanged or the patient leaves the health center after SRP.**




i An encounter rate is an all-inclusive payment for a patient's visit to a clinic, which may include appointments with multiple clinicians. For more information on the Medicaid encounter rates, see Medicaid and CHIP Payment and Access Commission, *Medicaid Payment Policy for Federally Qualified Health Centers,* Washington, DC: 2017. For Medicare, see "FQHC PPS," CMS, accessed October 2, 2024, https://www.cms.gov/medicare/payment/prospective-payment-systems/fqhc_pps.

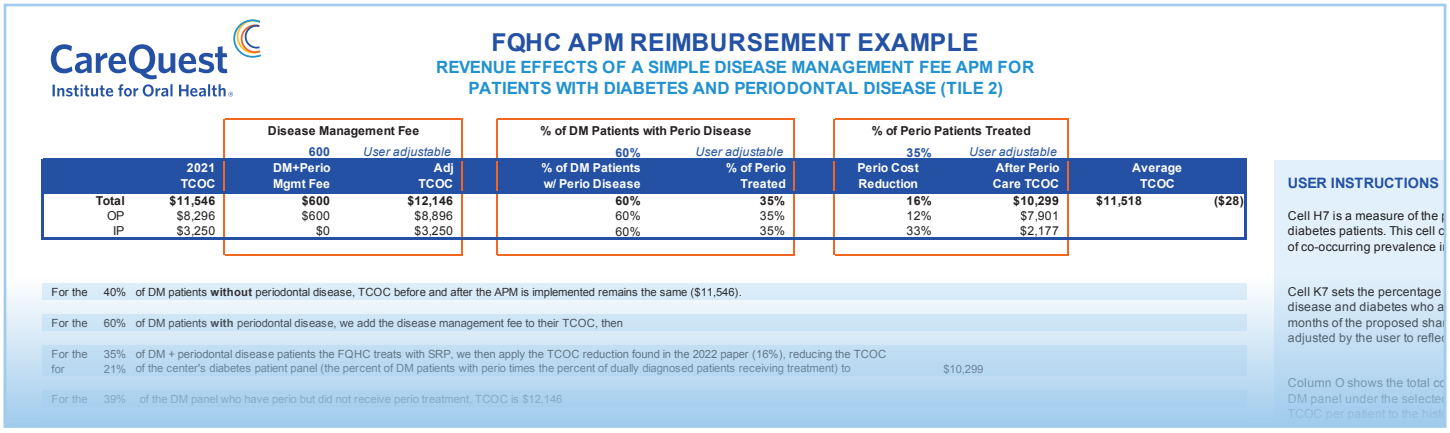
ii While not all patients will require full-mouth SRP, we make this simplifying assumption because reductions in resource cost to the clinic for providing SRP also increase the net gain from the proposed APM (if the clinic spends less on providing SRP, it keeps more of the $600 management fee).

**Figure 2: The patient needs fewer medical encounters per year owing to improved control of their diabetes.**




Another scenario is one in which the patient requires fewer medical appointments after SRP because their HbA1c levels improve. Using the $187.19 Medicare PPS rate for FQHCs in FFY 2023 and a $90.93 Medicaid medical encounter rate,[iii] if the patient has one less medical encounter in the 12 months following periodontal intervention, the likely effect on the FQHC's bottom line is a loss of up to the entire $560. The amount depends on the reimbursement received from the patient who replaces the patient on the clinic schedule, as shown in Figure 2.

As noted above, about half of states do reimburse periodontal treatment for adults under Medicaid.[8] The interactive model allows the user to explore revenue effects of providing this care under the unreimbursed scenario and a scenario assuming the center is reimbursed for three encounters (two encounters for SRP and one for an evaluation or maintenance appointment) at the dental encounter rate. Reimbursement for periodontal services increases the likelihood of a revenue-earning scenario for the clinic, but the user will still find that under most likely scenarios — the PPS and fee-for-service models — FQHCs still have little to no incentive to provide this patient-centered intervention. Alternative payment models (APMs) can provide a powerful solution to this problem, and make the case for integrated, value-based care. Click on the interactive model below to see how.




iii This is the New York state FQHC medical encounter ceiling rate for FFY 2023 for upstate rural clinics.

Behind Tile 2, we present a simple APM demonstrating the potential of APMs to incentivize appropriate periodontal care for patients with diabetes and periodontal disease while saving the health care system money. Consider the case of a patient with Medicaid managed care coverage who receives care at an FQHC. The patient's Medicaid managed care organization (MCO) offers a $600 disease management fee to the FQHC for all its patients with both diabetes and periodontal disease.[iv]

Using Merative MarketScan data for adult Medicaid members in 2021 with a diagnosis of diabetes mellitus and care utilization during the same year at an FQHC, we calculated average outpatient costs per patient per year (PMPY) of $8,296 and average inpatient PMPY of $3,250, resulting in an average total cost of care (TCOC) PMPY of $11,546. The analysis from a 2023 paper by Thakkar-Samtani, et al. leveraging the same data source estimates a 16% reduction in TCOC for dually diagnosed diabetes and periodontal disease patients who received three periodontal service appointments in the preceding year.[9] The interactive model shows that, under these cost and savings assumptions, if the FQHC then treats at least 35% of their Medicaid dual-diagnosis patients for periodontitis with SRP, overall the MCO should realize *savings* on the TCOC of the panel. Adjusting the percentage of patients receiving periodontal care in the interactive tool shows that savings increase as the proportion of the panel receiving periodontal care increases.

The impact to the FQHC's bottom line is $600 – $560 = $40 per panel patient treated for periodontitis and $600 per panel patient untreated, raising the specter of FQHCs accepting management payments and then not committing the dental "chair time" to periodontal care. Adding a shared savings[v] component to decrease or withhold the management fee if targets for total cost of care reductions or periodontal treatment are not met should provide adequate incentive for providing the periodontal care.

Note that this simple design does not require tracking and measuring quality metrics. However, quality measures, such as HbA1c tracking, emergency department (ED) utilization, etc., should be considered by program designers, and results tied to reimbursement over time. The Health Center Program, in fact, already requires community health centers to track a variety of clinical quality measures for chronic disease management, including HbA1c tracking to measure rates of uncontrolled diabetes (HbA1c > 9%), in the Health Resources and Services Administration's (HRSA) Health Center Program Uniform Data System (UDS). Quality tracking under this simple alternative payment model could therefore leverage existing clinic data collection, minimizing administrative overhead.

**Untreated periodontal disease is proven to worsen outcomes in people with a variety of common and/or chronic medical conditions (e.g., diabetes, hypertension, cardiac disease, pregnancy), yet many patients struggle to access this care due to low or no reimbursement for these services and lack of care coordination across specialties.**

Untreated periodontal disease is proven to worsen outcomes in people with a variety of common and/or chronic medical conditions (e.g., diabetes, hypertension, cardiac disease, pregnancy), yet many patients struggle to access this care due to low or no reimbursement for these services and lack of care coordination across specialties.[10] The incentive model proposed in this paper provides an example of a simple innovation to encourage utilization, improve outcomes, and even reduce costs.

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iv Considering the proposed management fee in comparison to other proposed Medicaid dental benefits for people with diabetes, we note that Nevada Medicaid's actuaries estimated a PMPY expense of $1,280 for a proposed (though not yet implemented) limited dental benefit waiver (up to five visits per year), including periodontal care, for patients with diabetes. The Nevada benefit is also designed to be piloted through community health centers. See Steve Sisolak and Richard Whitley, "Section 1115 Demonstration Waiver Application: Whole Mouth Whole Body Connections for Adults with Diabetes," State of Nevada Department of Health and Human Services, 2022.

v In a shared savings model, participating providers receive incremental payments if spending for their patient panel is lower than a cost target. Rachael Matulis, "The Evolution of Shared Savings Payment Methodologies for Medicaid Accountable Care Organizations," Center for Health Care Strategies, June 28, 2017.

# References


1. Thakar-Samtani, Madhuli, Lisa J. Heaton, Abigail L. Kelly, Shelly Dionne Taylor, Linda Vidone, and Eric P. Tranby. "Periodontal Treatment Associated with Decreased Diabetes Mellitus-Related Treatment Costs: An Analysis of Dental and Medical Claims Data." *Journal of the American Dental Association* 154, no. 4 (April 2023): 283–292. DOI: 10.1016/j.adaj.2022.12.011
2. National Institute of Dental and Craniofacial Research. "Periodontal Disease in Adults (Age 30 or Older)." Accessed October 2, 2024. https://www.nidcr.nih.gov/research/data-statistics/periodontal-disease/adults.
3. CareQuest Institute for Oral Health. "Medicaid Adult Dental Benefit Expansion." Accessed October 2, 2024. https://www.carequest.org/Medicaid-Adult-Dental-Coverage-Checker.
4. New York State Department of Health. "2023 NYS Medicaid Dental Policy and Procedure Code Manual and Updated Fee Schedule." Accessed October 2, 2024. https://www.emedny.org/ProviderManuals/Dental/PDFS/Updated_Dental_Manual_2023.pdf.
5. Author interview with Shelly Dionne Taylor, DMD, MPH, July 19, 2024.
6. Arizona Health Care Cost Containment System. "Dental FFS Rates & Codes." Accessed October 2, 2024. https://www.azahcccs.gov/PlansProviders/RatesAndBilling/FFS/Dental.html.
7. American Dental Association, Health Policy Institute. *Dental Fees: Results from the 2020 Survey of Dental Fees.* 2020.
8. CareQuest Institute for Oral Health. "Medicaid Adult Dental Benefit Expansion." Accessed October 2, 2024. https://www.carequest.org/Medicaid-Adult-Dental-Coverage-Checker.
9. Thakar-Samtani, Madhuli, Lisa J. Heaton, Abigail L. Kelly, Shelly Dionne Taylor, Linda Vidone, and Eric P. Tranby. "Periodontal Treatment Associated with Decreased Diabetes Mellitus-Related Treatment Costs." *Journal of the American Dental Association* 154, no. 4 (April 2023): 283–292. DOI: 10.1016/j.adaj.2022.12.011
10. CareQuest Institute for Oral Health. "Impacts Beyond the Mouth." Accessed November 7, 2024. https://www.carequest.org/resource-library/impacts-beyond-mouth.

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