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Dental Insurance Design, Fee-for-Service versus Value-Based Payment Models, and Practice Financial Sustainability in the United States

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Abstract:
The financial sustainability of dental practices in the United States is shaped less by clinical skill than by the reimbursement architecture surrounding it: a fragmented, largely fee-for-service payment system spanning commercial dental plans, state Medicaid programs, and near-total exclusion from traditional Medicare. This narrative review examines how dental insurance design and provider payment methodology, fee-for-service, capitation, and emerging value-based payment (VBP) models, shape practice-level financial sustainability and patient access. Fee-for-service remuneration, the dominant model in American dentistry, is associated with higher treatment volume and quality assurance but creates incentives toward overtreatment and leaves practices financially exposed to declining reimbursement and rising overhead. Medicaid reimbursement rates, which vary widely by state and procedure, remain a primary driver of both patient access and dentist participation, while traditional Medicare's exclusion of routine dental care leaves millions of older Americans facing high out-of-pocket costs and measurable declines in dental care use at the age-65 eligibility threshold. Value-based and alternative payment models, prominent in general medicine, remain nascent in dentistry, constrained by unresolved questions about how to define and measure oral health value. The review situates independent practice financial sustainability against the backdrop of accelerating consolidation into dental service organizations, which gain negotiating leverage and administrative economies of scale unavailable to solo practices navigating the same reimbursement pressures. It concludes that reimbursement reform, payment model innovation, and

workforce and access policy are inseparable dimensions of the same structural problem facing American dental care.

Key Word: *dental insurance; fee-for-service; value-based payment; practice financial sustainability; Medicaid reimbursement; United States.*

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I. Introduction

Dental care occupies a distinctive and largely disadvantaged position within American health care financing. Unlike hospital-based medical care, dentistry is financed almost entirely outside Medicare, delivered predominantly through solo and small-group private practices, and reimbursed under a patchwork of commercial dental plans, state Medicaid programs, and direct out-of-pocket payment. This fragmentation has direct and measurable consequences: among a wide range of health care services, dental care presents the highest level of financial barriers to patients of any age, income level, or insurance type[1]. Recent narrative reviews of U.S. dental practice management have similarly identified economic sustainability, alongside strategic leadership and technological innovation, as a core pillar shaping the profession's trajectory[2]. For the practices delivering that care, the same fragmentation translates into a reimbursement environment defined by narrow margins, wide state-to-state variation, and near-total absence of the alternative payment models that have reshaped much of the rest of American medicine over the past decade.

This review examines the relationship between dental insurance design, provider payment methodology, and practice-level financial sustainability in the United States. It addresses three interrelated questions. First, how does the predominant fee-for-service payment model shape both clinical incentives and practice finances, and what do emerging value-based payment models offer as an alternative? Second, how does Medicaid reimbursement policy, and its wide variation by state, affect both patient access and the financial viability of practices that choose to participate? Third, how does the near-exclusion of routine dental care from traditional Medicare shape demand, out-of-pocket spending, and the broader financial environment in which practices operate? Throughout, the review considers how these reimbursement dynamics interact with a companion trend addressed in prior work: the accelerating consolidation of American dentistry into dental service organizations (DSOs), which can leverage administrative scale and negotiating power unavailable to independent practices facing the same underlying reimbursement pressures[3].

II. The Architecture Of Dental Insurance And Payment In The United States

Dental care financing in the United States rests on three largely separate pillars: commercial dental insurance, state Medicaid programs, and out-of-pocket payment, with traditional Medicare providing essentially no coverage for routine care. Commercial dental insurance, typically employer-sponsored, predominantly reimburses providers on a fee-for-service basis, often through preferred provider organization (PPO) networks that negotiate discounted fee schedules in exchange for patient volume. Medicaid dental benefits are federally mandated for children under the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit, but adult dental coverage remains an optional state benefit, resulting in substantial variation: some states offer comprehensive adult benefits, others limited or emergency-only coverage, and this variation has direct, measurable effects on dental care use and tooth loss among low-income adults[4].

A recent narrative synthesis of the broader U.S. oral health care system underscores the scale of this fragmented financing structure: dental care is delivered primarily through private practices financed mostly by private insurance and out-of-pocket payment, while Medicaid coverage for adults varies widely across states and Medicare generally excludes routine dental services altogether[5]. A National Institutes of Health synthesis reached a parallel conclusion, noting that although access to dental care has improved for children and young adults since 2000, coordinated policy and additional resources remain necessary to develop dental insurance programs that meaningfully reduce out-of-pocket costs for lower-income adults[6].

III. Fee-For-Service Incentives And Their Limits

Fee-for-service (FFS) remuneration remains the dominant payment methodology in American dentistry, and its incentive structure has been studied for decades. Systematized conceptual work has characterized the trade-off across payment systems: fee-for-service payments tend to secure high quality of care but increase costs, plausibly through supplier-induced demand, while per-capita payments secure efficiency but carry risk of under-treatment and patient selection, with mixed payment systems combining a prospective per-capita component with a retrospective fee-for-service component intended to balance efficiency against quality[7].

These theoretical trade-offs have direct financial implications for practices. Because FFS revenue scales directly with billed procedures, practices operating under this model are financially exposed whenever

reimbursement rates lag behind rising overhead costs, a dynamic that becomes particularly acute for practices with a substantial share of Medicaid patients, given that Medicaid fee schedules are set unilaterally by state legislatures and have historically lagged behind both private market fees and practice cost inflation[8]. A companion body of evidence on Medicaid managed care, which substitutes capitated payments to managed care organizations (MCOs) for direct state fee-for-service reimbursement to providers, shows that this substitution is not a purely technical financing choice: an analysis of the transition of pediatric Medicaid beneficiaries to managed care in several states found that the shift could increase or decrease dental care utilization depending on how MCOs structured provider reimbursement and utilization controls, an empirically ambiguous question rather than a settled one[9].

IV. Value-Based And Alternative Payment Models In Dentistry

Value-based payment (VBP), which ties provider reimbursement to measured quality or outcomes rather than to procedure volume alone, has reshaped substantial portions of American medicine over the past fifteen years but has remained largely absent from oral health care. A foundational framework adapted the Centers for Medicare & Medicaid Services' payment reform taxonomy specifically for dentistry, describing nine distinct payment mechanisms across four payment categories, ranging along a continuum of financial risk and value orientation[10]. Implementation, however, has lagged conceptual development. A review of four value-based oral health care case studies found that adaptation is complicated by dentistry's historically siloed development apart from the broader medical system, identifying the creation of multidisciplinary care units, measurement of patient-centered outcomes, cost attribution, and payment bundling as recurring, unresolved implementation challenges[11].

At the federal level, the Centers for Medicare & Medicaid Services has used grants and technical assistance to pilot alternative payment approaches for oral health care through state demonstration programs. A qualitative analysis comparing twelve such dental demonstrations across six domains, including grant structure, stakeholder engagement, and care-setting context, found that CMS increasingly views these initiatives as steps toward a more accountable, integrated, and accessible oral health care system, even though most demonstrations remain small in scale relative to the size of the national Medicaid dental population[12]. Underlying all of this implementation activity is a definitional problem that value-based payment in dentistry has yet to resolve: unlike many medical conditions with well-established outcome metrics, oral health outcomes and the appropriate time horizon for measuring treatment success vary considerably by procedure, complicating the design of quality metrics that could anchor a dental value-based payment system in the way analogous metrics anchor value-based payment in general medicine.

V. Reimbursement Policy, Patient Access, And Practice Financial Sustainability

Medicaid reimbursement rates function as a direct lever on both patient access and dentist participation, and the empirical relationship between the two is well established. A state-level analysis found that reimbursement rates and access to dental care were directly related, and estimated that more than 1.8 million additional children would have had access to dental care nationally if reimbursement rates in low-paying states matched those in higher-paying states, with the relationship moderated by both dentist density and dentist participation rates in each state[13]. A quasi-experimental analysis using a decade of national survey data found a modest but statistically significant positive relationship between Medicaid payment rates and dental care utilization, and a smaller but positive effect of payment rates on the likelihood that a dentist accepted any Medicaid patients at all, implying that raising Medicaid fees to private-market levels would improve access but at a substantial cost per additional visit induced[8].

Reimbursement rate alone, however, is not the only barrier to Medicaid participation practices report. Qualitative interviews with 67 dentists across eight states identified system-level barriers, including low reimbursement, administrative burden, and restrictive benefit design, alongside dentist-level concerns about financial sustainability and patient-level barriers such as appointment adherence and limited oral health literacy, concluding that improving Medicaid dental access requires policy efforts beyond reimbursement increases alone, including streamlined administrative processes and stronger dentist engagement supports[14]. A related cross-sectional analysis of all fifty states and Washington, DC found that the share of states offering comprehensive adult dental benefits through Medicaid managed care organizations increased from 64.7% in 2016 to 70.6% in 2022, yet benefit generosity between managed care and fee-for-service programs remained misaligned across states despite this improvement, underscoring that the shift toward managed care delivery has not by itself resolved the underlying coverage fragmentation[15].

Traditional Medicare's near-total exclusion of routine dental care compounds this fragmented financing picture for the population aged sixty-five and older. Using a regression discontinuity design around the age-65 Medicare eligibility threshold, one analysis found that complete tooth loss increased by 4.8 percentage points and the receipt of restorative dental care decreased by 8.7 percentage points immediately upon reaching Medicare eligibility, with enrollment in Medicare Advantage plans, which may offer supplemental dental benefits, not

associated with materially greater dental service use relative to traditional Medicare[16]. An earlier policy analysis estimated that high-income Medicare beneficiaries were nearly three times as likely to have received dental care in the prior year compared to low-income beneficiaries, of whom 74% received no dental care at all, and modeled two illustrative financing options, a voluntary premium-financed benefit and inclusion of basic dental coverage within core Medicare Part B, to expand access through income-related subsidies[17]. Demand-side evidence reinforces this picture: private dental insurance was associated with a 25% increase in preventive service use among older adults, and dental coverage through Medicaid increased use of basic and major restorative services by 23% and 36% respectively, suggesting that a Medicare dental benefit could substantially increase dental service use among the population it would newly cover[18]. Consistent with the financial-barriers literature more broadly, a matched analysis of survey data found that individuals without private health insurance who nonetheless carried private dental coverage paid higher out-of-pocket dental costs than similarly situated individuals without dental coverage, a counterintuitive finding the authors attributed to higher utilization and less comprehensive coverage design among dental-only plans, underscoring that insurance status alone does not straightforwardly predict a patient's, or by extension a practice's, financial exposure[19].

VI. Discussion And Limitations

Read together, this literature situates dental practice financial sustainability at the intersection of three structural forces: a payment methodology, fee-for-service, that ties revenue directly to procedure volume and exposes practices to reimbursement stagnation; a value-based payment movement that remains conceptually developed but only thinly implemented in dentistry, constrained by unresolved outcome-measurement questions; and a public financing structure, spanning variable state Medicaid benefits and near-total Medicare exclusion, that leaves both patients and the practices serving them financially exposed in ways not present in most of the rest of American health care. None of the evidence reviewed here suggests that fee-for-service, capitation, managed care, or value-based payment is uniformly superior; each carries a distinct, empirically documented trade-off between access, cost, quality, and administrative complexity, and the evidence on which model best serves any given patient population or practice type remains setting-dependent rather than universal.

This review's central limitation is the scarcity of dentistry-specific evidence directly linking payment model choice to practice-level financial outcomes, as distinct from patient-level access and utilization outcomes, which are considerably better documented. Much of the value-based payment literature cited here is conceptual or implementation-focused rather than outcome-based, and no study identified in this review directly compares practice revenue, overhead ratios, or long-term financial viability across fee-for-service, capitation, and value-based payment arrangements within the same U.S. dental market. A further limitation is that this reimbursement landscape does not operate independently of the ownership consolidation addressed in prior work: dental service organizations, whose share of the dentist workforce roughly doubled between 2015 and 2021, can negotiate payer contracts and absorb administrative costs at a scale unavailable to independent practices, meaning that the same reimbursement pressures analyzed throughout this review may be financially survivable for a DSO-affiliated practice in ways they are not for an independent one, a comparison that available payment-model research has not yet made directly[3,20].

A concrete research agenda follows from these gaps. Studies linking dental claims data to practice-level financial indicators, revenue per patient, overhead ratios, days in accounts receivable, stratified by payment model (fee-for-service, capitation, value-based arrangement) and by ownership structure (independent versus DSO-affiliated), would directly test whether payment reform improves practice sustainability or primarily shifts financial risk from payers to providers. Further piloting and rigorous evaluation of the nine payment mechanisms identified in the oral health value-based payment framework[10], particularly for common, high-cost conditions such as periodontal disease, would help establish which value-based models are administratively feasible for solo and small-group practices rather than only for larger, better-resourced organizations.

VII. National Interest And Significance

The reimbursement dynamics reviewed here carry significance well beyond individual practice finances. Dental care presents the highest level of financial barriers of any health care service category in the United States[1], and the population affected spans low-income children and adults dependent on variably generous state Medicaid benefits[4], older Americans facing a near-total Medicare dental coverage gap[17,16], and independent practices whose financial survival increasingly competes against DSO-affiliated practices operating at greater administrative and negotiating scale[3]. Because Medicaid reimbursement policy is set at the state level, and CMS payment demonstrations remain small relative to national need[12], the aggregate effect of this fragmentation, measured in forgone care, practice closures, and geographic maldistribution of participating providers, is a matter of national health workforce and access policy rather than a set of isolated state or local concerns. Coordinated federal and state action on Medicaid reimbursement adequacy, value-based payment piloting suited to independent practice

capacity, and the long-debated question of Medicare dental coverage together represent the most direct policy levers available to address the financial barriers and practice sustainability pressures this review has identified.

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