

Centers for Medicare & Medicaid Services
Department of Health and Human Services
Attention: CMS-0042-NC
P.O. Box 8013
Baltimore, MD 21244-8013

Re: Request for Information—CMS-0042-NC: Health Technology Ecosystem

CareQuest Institute for Oral Health appreciates the opportunity to provide input on the Request for Information (RFI) regarding the future of digital health, interoperability, technology-enabled, and value-based care requested by CMS and the Assistant Secretary for Technology/Office of the National Coordinator for Health Information Technology (ASTP/ONC). We commend CMS and ASTP/ONC for recognizing the need to reexamine existing policies and digital infrastructure to improve effectiveness and efficiencies for all stakeholders. We also wish to point out the critical need to elevate dental data collection and sharing within federal efforts to expand interoperability, build digital health infrastructure, and promote value-based care through technology.

CareQuest Institute for Oral Health is a national nonprofit working to improve everyone's oral health — because oral health is health. We advocate for policy changes, support communities through grants, conduct research, and educate providers — all driving towards our mission to improve the oral health of all.

As an organization committed to making oral health care accessible and integrated, we respectfully offer the following observations and recommendations to ensure that oral health is more fully incorporated into the national health information technology (IT) and future policy frameworks. Oral health is critical to achieving CMS's goals of empowering patients, increasing data availability, improving health outcomes, reducing costs, and facilitating care coordination within the health technology ecosystem.

Interoperability and Data Availability are Critical for Oral Health

Oral health is a fundamental component of overall health, yet the dental sector has long been overlooked in national efforts to advance interoperability and improve access to patient data. This disconnect persists despite strong evidence linking oral health to chronic conditions such as diabetes¹, cardiovascular disease², and adverse pregnancy outcomes³.

The continued separation of dental care from broader digital infrastructure hinders effective care coordination and limits patients' ability to access and use their own oral health data. Many dental providers, including those in Federally Qualified Health Centers (FQHCs), community-based settings, and or private practice, lack the technology and resources to fully engage in the digital health ecosystem. Contributing factors include:

- Limited interoperability⁴ of electronic dental records (EDRs) with medical electronic health record (EHR) systems, making it difficult to share patient information across care teams.
- The absence of certified Application Programming Interfaces (APIs) for dental systems, which prevents standardized data exchange and integration.

¹ https://effectivehealthcare.ahrq.gov/sites/default/files/related_files/treatment-outcomes-diabetes-rapid-research.pdf

² <https://pubmed.ncbi.nlm.nih.gov/38141902/>, https://www.carequest.org/system/files/CareQuest-Institute_The-Heart-of-the-Matter-Visual-Report_7.10.24.pdf

³ <https://www.frontiersin.org/journals/medicine/articles/10.3389/fmed.2022.963956/full>

⁴ https://www.carequest.org/system/files/CareQuest_Institute_Medical-Dental-Intergration_8.15.23.pdf

- Insufficient inclusion of dental data elements in national interoperability standards such as the United States Core Data for Interoperability (USCDI), USCDI+, and HL7 implementation guides.
- A lack of incentives and regulatory requirements for dental providers to adopt interoperable systems, in contrast to programs supporting medical EHR adoption.
- Fragmented technical infrastructure and workforce limitations, especially in safety-net settings, inhibit the implementation of modern health IT solutions.

These challenges to engaging with technology are not limited to small or under-resourced dental practices. Even within large, multisite health systems and academic medical centers, dental data often remains siloed. The failure to integrate dental records into shared clinical and operational workflows undermines efforts to improve outcomes, manage chronic conditions, and reduce costs across the health system.

Despite growing recognition of the role oral health plays in managing chronic disease and improving outcomes, oral health continues to be excluded from major national digital health initiatives. Federal leadership is essential to integrate oral health into digital policy and infrastructure on equal footing with medical care. **To close these critical gaps in data sharing⁵, we urge CMS to ensure that oral health is meaningfully included in all future health data interoperability, standardization, and care coordination frameworks.**

PC-2 / PC-8 – Patient Needs, Data Access & Integration

Patients frequently cannot access their oral health information⁶. This directly undermines the goal of empowering patients to make informed health decisions and increasing beneficiaries' access to digital capabilities. Oral health data such as *Current Dental Terminology* (CDT) service codes, risk indications, and periodontal status are valuable but are often not accessible through individual health records or apps.

In many cases, patients must request and manually transfer dental records or x-rays when changing providers, a process that can delay care and reduce continuity. Moreover, patients may not recognize the importance of sharing their oral health information with their primary care providers or specialists, further fragmenting care. Even patients who do wish to share this information with their other health providers may not have easy access to their records and data. This fragmentation limits opportunities for prevention, coordinated management of chronic conditions, and whole-person care.

Caries risk assessments are one important example of structured data that should be accessible but is not currently included in standard health information exchanges or easily available to patients. The caries risk assessment is a routine health screening tool used by dental providers and some medical providers to identify and track the risk of dental disease. This can be documented using established ICD-10-CM diagnosis codes, which include:

- Z91.841 – Risk for dental caries, low
- Z91.842 – Risk for dental caries, moderate
- Z91.843 – Risk for dental caries, high
- Z91.849 – Risk for dental caries, unspecified

These diagnosis codes fall under the category of factors influencing health status and contact with health services and allow oral health providers to indicate a patient's assessed level of risk for developing dental

⁵ https://www.carequest.org/system/files/CareQuest_Institute_Missed-Connections-Providers-and-Consumers-Want-More-Medical-Dental-Integration_FINAL.pdf

⁶ <https://www.carequest.org/resource-library/patient-portals-patient-perspectives-and-opportunities-practices>

caries in a standardized, interoperable way. These standardized, interoperable data elements should be included, but are not yet, in USCDI.

Recommendations:

- Expand USCDI to include key oral health data elements, such as:
 - Caries risk assessments and associated ICD-10-CM diagnosis codes
 - CDT codes
 - Periodontal status
- Incentivize EHR and EDR vendors to enable Fast Healthcare Interoperability Resources (FHIR)-based API exchanges that include dental data.
- Support initiatives to integrate oral health information into patient access apps and longitudinal health records.
- Encourage cross-provider access and patient education initiatives that promote sharing of oral health information beyond dental settings.
- Explore opportunities to enhance technical assistance for EHR-EDR interoperability between dental and medical providers, focusing on Medicare and coordinated efforts with payers involved with other public sponsored programs like Medicaid and TRICARE.
- Prioritize scalable, standards-based solutions that enable seamless data exchange and support care continuity.
- Promote the development and certification of electronic tools and interfaces that are user-friendly and accessible to patients across literacy and technology comfort levels.

PR-1 – Digital Health Product Adoption by Providers

Adoption of digital health tools in dentistry remains low due to high implementation costs, lack of certified APIs in most EDRs, and limited vendor options that meet interoperability requirements.

Recommendations:

- Create incentive programs for EDR vendors to develop and certify FHIR-enabled APIs.
- Offer technical assistance and resource support to oral health providers in safety-net settings for EHR/EDR upgrades.
- Include dental-specific use cases in future updates to the ONC Health IT Certification Program.

PR-3 – Provider Data Access

Dental providers, especially in community health settings, need interoperable tools to support care coordination and would benefit from improved data access, regardless of format. Dental records often come in the form of scanned documents, faxes, PDFs, and proprietary record formats - reducing their utility for integration and decision support. These data format limitations exacerbate challenges faced by dental providers, such as high costs, lack of technical guidance, and vendor constraints. The lack of structured, shareable data negatively impacts care quality, particularly when dental information is critical for managing chronic conditions or coordinating referrals. Efforts to convert unstructured data into usable formats increase administrative burden and raise privacy risks. Improving access to all data types, especially in underserved settings, is a high priority and foundational to ensuring oral health integration and equity in the broader digital health ecosystem. As CMS advances data access initiatives and interoperability requirements, it should consider guidance and resources to help dental practices adopt standardized data formats compatible with FHIR and other national standards.

Recommendations:

- Provide implementation guidance to dental practices on structured documentation and adoption of HL7 Clinical Document Architecture (CDA) and FHIR formats.
- Support EDR vendors in transitioning to standards-based data formats through certification requirements and financial incentives.

PR-5 – Data Exchange

Most dental providers are either unaware of API requirements or use EDR systems that lack certified FHIR-based APIs. This limits providers' ability to exchange data, coordinate care, or meet modern

interoperability standards. Improving API availability and awareness in dentistry is critical to advancing whole person, connected care.

Recommendations:

- Incentivize EDR vendors to implement and certify FHIR-based APIs (e.g., patient access, provider access, bulk FHIR – a secure large-scale flat data export and transfer standard).
- Provide education, technical assistance, and grants to help dental providers understand and adopt API-enabled tools.
- Support pilots that demonstrate oral health use cases for Substitutable Medical Applications Reusable Technologies (SMART) on FHIR, such as referrals and case management.
- Ensure ONC's API certification criteria clearly include dental systems.

PA-5 – Payers Support Providers

To reduce administrative burden and support providers, dental and medical payers need assistance in implementing the infrastructure, standards, and workflows necessary to access and utilize FHIR-based or API-based clinical data in real-time. This includes aligning a common data model to ease data reporting, quality data exchange across payers, improving benefit coordination, and making dual-purpose technology investments that streamline reporting to CMS and other stakeholders. While EHR technology continues to advance, many payers have not been positioned to take full advantage of these innovations, particularly FHIR-enabled bulk data exchange that would allow them to perform clinical quality calculations on behalf of providers. Clear federal guidance, technical standards, and targeted incentives can help payers maximize available technology and shift quality measurement activities upstream, where they can add the most value. The following recommendations support expanded payer access to clinical data and promote the use of FHIR-based exchange to advance quality measurement and care coordination.

Recommendations:

- Promote bi-directional FHIR-based data exchanges between medical and dental payers to align benefits, preventive care coordination, and risk stratification.
- Leverage advancements in dental EHR technology to enable bulk extraction of clinical data using a common data model, reducing provider burden by allowing payers to perform quality calculations and reporting.
- Provide payers with technical guidance and implementation standards for integrating oral health data in alternative payment model (APM) reporting and analytics, including alignment on dental-specific coding systems such as CDT and ICD-10-CM.
- Encourage appropriate use of ICD-10-CM diagnosis codes for dental services reimbursement to improve data consistency and support claims-based quality metrics, support development of integrated data exchange platforms, enabling dental providers to submit quality data once for multiple payers and regulatory bodies.
- Align state Medicaid dental IT systems and federal interoperability standards (USCDI, FHIR) to consolidate provider reporting requirements to CMS and other payers.
- Improve coordination of benefits through integrated data exchange frameworks.
- Incentivize payer investments in infrastructure that enables timely, accurate information sharing between dental and medical systems.

TD-7 – USCDI Limitations

Current USCDI data elements do not adequately represent dental clinical concepts, problem lists, or procedure codes. The Gravity Project's methodology⁷ provides a relevant example of how to incorporate standardized, actionable social and clinical data into the USCDI framework. By defining consensus-based

⁷ https://www.healthit.gov/sites/default/files/facas/2021-04-08_Gravity_Project_Presentation.pdf

value sets and use cases for social risk data, the project has informed the expansion of USCDI beyond clinical data alone.

While the Gravity Project primarily focuses on social determinants of health (SDOH) and has not directly resulted in immediate addition of new dental data elements to USCDI, it offers a valuable model of stakeholder collaboration and consensus-building that could be applied to oral health. A similar approach could be used to identify and prioritize oral health data elements in USCDI, especially those with strong links to health outcomes or care integration opportunities. This would ensure that oral health is not only technically represented but strategically aligned with the goals of interoperability and value-based care. For example, key elements such as caries risk assessments, periodontal status, dental referrals, and CDT codes are all essential for supporting integrated care and digital quality measurement. Adding these dental elements would add value by enabling better integrated care and supporting quality measurement across medical and dental domains.

Recommendations:

- Include dental-specific data elements (e.g., CDT codes, caries risk assessment, periodontal findings) in future USCDI versions.
- Encourage collaboration between HL7, ONC, and dental stakeholders to align data elements with the needs of integrated care models.
- Collaborate with HL7, Agency for Healthcare Research and Quality (AHRQ), and dental experts to define and prioritize oral health concepts for future USCDI versions.
- Include stakeholders from the dental community in USCDI+ and FHIR Accelerator initiatives.
- Consider lessons from The Gravity Project's methodology as a model for incorporating oral health related social determinants and clinical data into national standards.
- Incentivize the consistent use of diagnostic coding in dental records and claims by encouraging state Medicaid agencies and private dental payers to require valid diagnosis coding for reimbursement.

TD-9 — Burden Reduction Through Interoperability

Dental providers often document similar data in multiple locations (e.g., state Medicaid portals, internal EDRs, external referrals), creating redundant work and limiting care coordination. The absence of dental-relevant interoperability standards not only increases provider burden but also complicates patients' and caregivers' ability to access and engage with their dental health information through digital tools.

Recommendations:

- Invest in technical assistance to advance dental interoperability, in collaboration with other payers and programs. Focus on reducing administrative burden by supporting standards-based integration between EDRs, health information exchanges (HIEs), and public health systems. Improved interoperability facilitates timely and comprehensive access to oral health data for patients and caregivers via patient portals and apps.
- Reduce duplication by aligning payer and provider dental data submission requirements with national standards.
- Create templates and implementation guides to support automated, standards-based dental data sharing (e.g., e-referrals, procedure codes, risk scores).
- Promote communication strategies and tools that leverage interoperable data to deliver tailored patient and caregiver notifications, educational resources, and care reminders through digital platforms.
- Support reimbursement policies that incentivize the adoption and meaningful use of interoperable digital health products by providers, ensuring these tools are sustainably integrated into care delivery.

VB-1 and VB-3 – Value-Based Care & Digital Tools

Dental services are often excluded from APMs, limiting the ability to support full-person and preventive care. APMs continue to overlook oral health as a core part of population health strategies, despite its

importance in managing chronic diseases such as diabetes and cardiovascular disease. Many existing APMs are focused on primary or behavioral health and lack incentives or infrastructure to incorporate oral health metrics, referrals, or care coordination. Integration of dental metrics would enhance outcomes for chronic disease management. For APM participants focused on population health and prevention, inclusion of oral health data is essential. Integrated care planning is difficult without visibility into a patient's oral health status.

Recommendations:

- Encourage the use of APMs that include oral health quality metrics and risk stratification indicators.
- Fund demonstration projects to test digital tools that support integrated care planning across dental, behavioral, and medical providers.
- Require certified electronic dental record (EDR) tools to include capabilities for care planning, referral management, and reporting that align with value-based models.
- Supporting digital infrastructure grants or incentives for electronic dental record (EDR) vendors to build FHIR-compatible tools.
- Expanding value-based care metrics to recognize oral health's role in chronic disease management.
- Develop oral health-specific APM models or integrate oral health into existing Center for Medicare and Medicaid Innovation (CMMI) and Medicaid APM pilots.

CareQuest Institute for Oral Health strongly supports CMS's vision for a more connected, equitable, and efficient health system, and believes that this future must include **oral health as a core component of overall health**. Addressing the current data and interoperability gaps facing dental providers, vendors, and patients will help realize the promise of whole-person care. **Including oral health in national standards, infrastructure funding, and certification programs will help ensure the dental community is not left behind. We urge CMS and ASTP/ONC to actively engage oral health stakeholders in this important work moving forward.**

We thank CMS and ASTP/ONC for the opportunity to submit these comments and welcome continued engagement on this important work. Please reach out via email (rmathews@carequest.org) with any questions.

Sincerely,



Rebekah Mathews

Vice President, Health Transformation
CareQuest Institute for Oral Health