

February 20, 2026

Assistant Secretary for Technology Policy and the
Office of the National Coordinator for Health Information Technology
Attention: HHS Health Sector AI RFI
Mary E. Switzer Building, Mail Stop: 7033A
330 C Street SW
Washington, DC 20201

Re: Docket No. HHS-ONC-2026-0001—Accelerating the Adoption and Use of Artificial Intelligence
as Part of Clinical Care

To Whom It May Concern:

As the leading authority on oral health in the United States, the American Dental Association (ADA) submits the enclosed response to the request for information about accelerating the adoption and use of artificial intelligence as part of clinical care, as outlined in the Federal Register notice of December 23, 2025 (90 FR 60108).

The American Dental Association, an ANSI-Accredited Standards Developer (ASD), leads national and international efforts to advance dental standards that ensure the safety, reliability, and effectiveness of dental products and technologies. The ADA is the only standards development organization that represents the United States in international standardization, serving as the U.S. Technical Advisory Group (TAG) Secretary to ISO Technical Committee 106 on Dentistry. Additionally, the ADA contributes to global health informatics standards as Co-Secretary of the systems and devices interoperability working group under ISO/TC 215 (Health Informatics). Supported by more than 400 volunteer experts, the ADA Standards Program develops national and international standards, specifications, and guidelines for products that promote oral health through the application of information technology, interoperability, and innovation in dentistry's clinical and administrative operations. The ADA Standards Program has positioned itself as a leader in setting standards for these new technologies in dentistry.

In 2022, the **ADA Standards Program** published the first [white paper](#) covering clinical and non-clinical applications of AI in dentistry, which includes information about the current regulatory environment. It followed by developing the first U.S. [standard](#) in AI in dentistry approved by the American National Standards Institute. Additional AI-related standards, white papers, and technical reports are forthcoming.

The **ADA Forsyth Institute** is collaborating with industry and academic partners to develop physics-based digital twins, or high-fidelity, computational surrogates, that couple first-principles multiphysics simulation with machine-learning-enabled parameter estimation and data assimilation. The platform continuously ingests experimental data to calibrate model states and material parameters, forecast performance under novel conditions, and solve inverse-design/optimization problems to recommend formulations and processing conditions that achieve specified target properties. Supported by a [five-year award](#) from the National Institute of Dental and Craniofacial Research (NIDCR), the team is deploying digital twins to accelerate the development of next-generation smart dental materials with unprecedented performance. The award represents NIDCR's first major investment in applying AI to basic oral health research.

AI's impact extends well beyond engineering and materials research. It is increasingly central to accelerating biomedical discovery as well. At ADA Forsyth, scientists are using cutting edge AI/ML toolkits to accelerate many important tasks such as guiding RNA/CRISPR design, drug discovery, receptor-ligand binding, microbiome profiling, cell culture media formulation, next-generation sequencing analysis, host-pathogen interactions, spatial transcriptomics, and integrative multi-omics workflows with metapangenomics. These capabilities greatly compress what were historically deliberate, resource-intensive cycles, by reducing the number of wet-lab iterations. As a result, ADA Forsyth scientists can prioritize more high-value hypotheses, and shift discovery from largely intuition driven, trial-and-error approach to also include predictive, data-driven experimentation.

We are pleased to enclose our detailed responses to some of the questions HHS has posed. We respectfully offer the following considerations to help small businesses overcome hurdles preventing AI adoption in the clinical space.

Thank you for providing the opportunity to comment. We look forward to working with HHS and other agencies on any regulatory actions and grant opportunities that will help shape the use of AI in health care. If you have any questions or wish to talk further, please contact Mr. David Linn at 202-789-5170 or linnd@ada.org.

Sincerely,

/s/

Richard J. Rosato, D.M.D.
President

RJR:EAS:rjb
Enclosure

/s/

Elizabeth Shapiro, D.D.S., J.D., C.A.E.
Interim Executive Director

ATTACHMENT A

1. What are the biggest barriers to private sector innovation in AI for health care and its adoption and use in clinical care?

The American Dental Association has identified several primary barriers to private-sector innovation and adoption of AI technologies in clinical practice.

Data heterogeneity in training data sets: Dental data sets are highly heterogeneous because electronic dental records (EDRs) are designed and used differently than electronic medical records (EMRs). Most EDRs focus on documenting procedures and visit-based details rather than capturing standardized diagnostic information. As a result:

- Data are often recorded at very granular clinical levels, such as tooth, surface, or probing site, but are not maintained by dental technology systems in consistent, structured formats suitable for research or use for training algorithms.
- ANSI/ADA Standard No. 2000.8, SNODENT (Systematized Nomenclature of Dentistry), the dental-specific diagnostic coding system, exists and is harmonized with SNOMED CT, but it is not widely adopted in dentistry, further limiting standardization across providers and systems.
- Procedure-based documentation typically lacks structured detail on materials, methods, duration, or complexity, contributing to fragmented and incomplete data.

Heterogeneity in the underlying data may lead to unstable modeling, reduced accuracy, and poor application performance. In dentistry, imaging data (radiographs, cone-beam CT, intraoral scans, and photos) are among the most readily available and reliable sources of training data because they are routinely, repeatedly, and longitudinally captured across patient encounters.¹ Despite extensive imaging availability, the predominance of non-standard or unstructured numerical and free-text data introduces significant variability and noise, thereby constraining the development, training, and generalizability of advanced AI modeling pipelines.

Data interoperability and exchange challenges: Dental data remains difficult to use for AI development because it is often inaccessible, siloed, and stored in systems with limited interoperability. Electronic records frequently exhibit low variable completeness. In addition, sampling bias arises when datasets overrepresent specific populations, such as individuals who are sicker, healthier, or more affluent, resulting in skewed input data. AI models trained on such data inherit these biases, limiting their fairness, reliability, and generalizability.²

Limitations of dental claims data for research and development: The utility of training AI models on dental claims datasets may initially seem appealing; however, these claims systems are designed for benefit administration and rule-based plan design, not for capturing the clinical complexity of oral disease or treatment. The information contained within even large “all-payer” databases is inherently narrow and poorly aligned with data required for AI-driven clinical decision support. It is critical to note the difference between medical and dental claims data, in which dental data is typically collected and adjudicated based on covered services rather than on documenting underlying conditions, disease severity, or treatment complexity.

Data governance at scale: Data governance at scale to support AI innovation has yet to be realized. Implementing standardized, secure, and automated processes would improve trust in data quality; however, this cannot be managed through a fragmented policy and technology landscape. The current environment of state-specific privacy, disclosure, consent, and oversight rules which often have more restrictions than federal privacy and security rules, forces AI developers to operate under the toughest

¹ Schwendicke, F., Samek, W., & Krois, J. Artificial Intelligence in Dentistry: Chances and Challenges. *Journal of Dental Research*, 2020; 99(7): 769–774. <https://doi.org/10.1177/0022034520915714>

² Gianfrancesco MA, Tamang S, Yazdany J, Schmajuk G. 2018. Potential biases in machine learning algorithms using electronic health record data. *JAMA Intern Med*. 178(11):1544–1547.

requirements, increasing operational complexity. Further, inconsistent data governance policies lead to misunderstanding of responsibility for clinician and patient consent, transparency and privacy protections, further blurring liability and malpractice accountability. These all compound as operational barriers to adoption of AI tools in clinical practice such as:

- high costs associated with building and maintaining the infrastructure needed for system implementation
- extensive training, and workforce development—challenges that are amplified by the ongoing workforce shortage.
- unclear accountability increases legal and operational risk, much of which may fall upon dental practices, particularly those that qualify as covered entities under laws such as HIPAA, the False Claims Act, or Section 1157 of the Affordable Care Act.

2. What regulatory, payment policy, or programmatic design changes should HHS prioritize to incentivize the effective use of AI in clinical care and why? What HHS regulations, policies, or programs could be revisited to augment your ability to develop or use AI in clinical care? Please provide specific changes and applicable Code of Federal Regulations citations.

The American Dental Association recommends consideration of the following to incentivize the effective use of AI in clinical care.

Strengthen dental data capture and reporting in federally funded programs: The ADA is encouraged by continued engagement by the ASTP/ONC, CMS, and other federal agencies in the recognition of dental-specific data, notably the inclusion of the Code on Dental Procedures and Nomenclatures (CDT) in the Corrected Applicable Standard Reference for Procedures within USCDI v5. The ADA appreciates the ASTP/ONC's efforts to ensure that CDT maintains parity with other standard terminologies in the procedures data element.

The ADA continues to pursue the inclusion of dental-specific data elements in those standards that support administrative transactions and clinical care. The ADA supports ongoing efforts to improve the recording of disease and diagnosis data within federally funded programs. To support these efforts, we encourage HHS to consider incentivizing clinical documentation improvement activities and technology-assisted disease management pilots for dental providers.

Incentivize modern technology infrastructure: Dentistry has not benefited from appropriations to support electronic health record infrastructure development, a prerequisite for AI integration. We encourage HHS to provide funding to support data exchange. Incentives are increasingly important to support rural and small practices in adopting emerging AI technology meaningfully.

Establish external, independent validation of dental AI algorithms using synthetic data and informatics standards: Small differences between training data and real-world conditions can produce harmful errors. External, independent validation using industry-specific and trusted standards is critical. The ADA is committed to developing foundational standards for validating interoperability and AI tools, including the publication of terminology standards that define the vocabulary used in dentistry, data structure and exchange standards that define data models to enable interoperable communication, and content standards that define the data required to support administrative needs and clinical care. These standards are critical to creating consistent, structured, high-quality datasets needed to build reliable AI test data. Interoperability standards and gold-standard synthetic datasets are foundational to improving trust in AI tools. The ADA supports public-private partnerships in ensuring the right standards and synthetic gold standard datasets remain in place to support AI use.

3. For non-medical devices, we understand that use of AI in clinical care may raise novel legal and implementation issues that challenge existing governance and accountability structures (e.g., relating to liability, indemnification, privacy, and security). What novel legal and implementation issues exist and what role, if any, should HHS play to help address them?

Standardize definition of “Non-Medical Devices”: A standardized definition of “Non-Medical Devices” across agencies, organizations, and industry would provide the necessary foundation to define the need for disclaimers, consent, privacy, and security oversight, as well as implications of telehealth requirements based on the type of information exchanged and stored. This lack of consistency in definition widens the gap in AI adoption, driven by liability concerns and implications for malpractice coverage.

Improve AI vendor accountability: Dental practices increasingly rely on third-party vendors for critical systems, including electronic dental records (EDRs), imaging software, and appointment management tools. The rapid expansion and availability of AI tools place significant responsibility on providers to not only judge the validation and performance of these products but also to implement and maintain privacy and cybersecurity measures, maintain oversight, and assess vendor reliability. Currently, there are gaps in the federal regulatory space to assist providers when making such complex technology decisions. The ADA recommends HHS consider establishing standardized requirements for labeling AI-based products and tools designed to assist in improving trust and adoption, while strengthening shared decision-making between clinicians and their patients.

Further, the ADA recommends that HHS strengthen HIPAA requirements and enforcement to make vendors of electronic dental technology accountable for providing secure, compliant systems. Vendors should be required to certify that their solutions meet HIPAA and industry security standards and include features such as encryption and multi-factor authentication (MFA) as default configurations. By clarifying the division of responsibilities between health care providers and software vendors, HHS can ensure that practices have the tools and support necessary to meet compliance obligations without shouldering disproportionate burdens. Furthermore, the ADA would support efforts to create simplified, standardized templates for risk analysis and asset management, easing the burden on practices and ensuring consistent compliance with privacy laws governing AI technology. Administrative tasks not supported by practice management or health record systems are often performed through workaround applications that may not require a business associate agreement, shifting compliance accountability to clinicians. Strengthening guidance related to accountability for software systems and their role in privacy and data protection issues will allow clinicians to consider AI adoption to improve efficiency in administrative tasks, as well as to support clinical decision-making to improve care.

4. For non-medical devices, what are the most promising AI evaluation methods (pre- and post-deployment), metrics, robustness testing, and other workflow and human-centered evaluation methods for clinical care? Should HHS further support these processes? If so, which mechanisms would be most impactful (e.g., contracts, grants, cooperative agreements, and/or prize competitions)?

Facilitate establishment of gold-standard synthetic data sets: To our knowledge, AI models are only as good as the data used in their development. The ADA believes that establishing “gold-standard” synthetic data sets based on real-world clinical and administrative data is key to evaluating new AI models before they are applied to patient care. The evaluation framework should include criteria for consistent performance and metrics to monitor bias while reinforcing transparency. For example, pre-deployment evaluation should include external validation on multi-center datasets, calibration assessment, bias analyses, and prospective studies to measure real-world performance without affecting care. Post-deployment monitoring should include drift detection, version/change-control governance, ongoing performance reporting, and structured recording and analysis of AI tool errors. The strongest dental AI solutions ultimately function as clinical copilots, delivering measurable business impact while reinforcing transparency, reliability, and clinician confidence.

Standards provide roadmaps for evaluating and integrating AI systems into dental practice by establishing criteria for safety, efficacy, transparency and fairness. [ADA Technical Report No. 1109, Dentistry – Evaluation of Dental Image Analysis Systems Using Augmented/Artificial Intelligence](#) defines consistent performance and bias metrics enabling pre and post deployment evaluations and reporting.

5. How can HHS best support private sector activities (e.g., accreditation, certification, industry-driven testing, and credentialing) to promote innovative and effective AI use in clinical care?

Support public private partnerships to solve real world administrative burdens: Credentialing remains one of the most administratively burdensome aspects of clinical operations, and AI tools offer a meaningful path to improving the speed, consistency, and reliability of credentialing decisions. Streamlining primary source verification and onboarding improves access to care and removes a barrier for a clinician to seek timely employment opportunities. By supporting the development and responsible adoption of such tools, HHS can reduce administrative burden, encourage innovation, and strengthen the overall credentialing ecosystem. In fact, the ADA is actively collaborating with CAQH (supporting standardized provider data collection) and with a new AI-based tool from LightSpun.ai (supporting automated primary source verification across all 50 states) to offer an end-to-end AI based credentialing solution for the dental industry. The ADA urges HHS to support public-private partnerships such as these for effective AI use.

7. Which role(s), decision maker(s), or governing bodies within health care organizations have the most influence on the adoption of AI for clinical care? What are the primary administrative hurdles to the adoption of AI in clinical care?

Support needs of small and rural practices when considering barriers and administrative hurdles for AI adoption: Despite the potential benefits of AI, adoption across dental practices remains uneven, particularly among small and mid-sized practices. Adoption decisions are most influenced by practice owners/clinical leadership, in coordination with IT/informatics, compliance/privacy, and legal/risk management—especially when regulatory status is unclear. The need for such coordination places undue burden on small and rural practices. The primary administrative barriers to implementation are lack of and the cost of current infrastructure to support implementation, high implementation costs, workforce readiness limitations, inadequate interoperability with existing systems, regulatory uncertainty and approval timelines, privacy concerns, unclear liability frameworks, malpractice implications and a lack of standardized accountability in industry and performance benchmarks. For AI tools that fall within FDA’s regulatory framework (e.g., certain diagnostic or decision-support functions), the regulatory clearance/approval process can further add substantial time, cost, and uncertainty—affecting vendor readiness, procurement timelines, and practices’ confidence in performance claims.

Upfront financial investment including expenses related to software, hardware upgrades, customization, and ongoing maintenance poses a significant obstacle, especially when short term return on investment (ROI) is uncertain. Workforce related challenges, such as limited training opportunities and the need for workflow adaptation, further complicate adoption and may temporarily affect productivity.

Additionally, many AI technologies do not integrate seamlessly with existing electronic health records (EHRs), imaging systems, or practice management platforms. Data security, privacy, and HIPAA compliance concerns remain paramount. Unresolved questions regarding liability and accountability when AI generated recommendations are used in clinical decision making further contribute to hesitancy among dentists. Finally, inconsistent data standards and the absence of clear regulatory guidance limit dentists’ ability to objectively assess AI tools.

8. Where would enhanced interoperability widen market opportunities, fuel research, and accelerate the development of AI for clinical care? Please consider specific data types, data standards, and benchmarking tools.

Oral health is fundamental to improving the health and well-being of all Americans. HHS can accelerate integration of AI in care delivery and create durable market opportunities by establishing a practice network that provides a federated, multi-site R&D and implementation platform to enable rigorous evaluation and deployment of AI tools in real-work clinical workflows. The ADA’s leadership in standards, data analytics and clinical guidance combined with the ADA Forsyth Institute’s deep scientific expertise and translational research capacity along with participating clinical sites could provide scalable operational environments to test implementation and workflow integration across clinical care sites under

consistent processes. To promote generalizable evidence generation, HHS could encourage alignment with major health IT infrastructure and create opportunities for multi-site analyses and longitudinal outcome assessments of de-identified, aggregated health data. ADA can facilitate collaborations to operationalize the practice network to efficiently gather annotated training data and credible evidence. This structure reduces redundant, one-off evaluations, improves data confidence, and creates a scalable pathway from research validation to deployment in a cost-efficient manner.

Enhanced interoperability could unlock AI opportunities by creating large, diverse datasets, driving new AI applications for personalized healthcare, diagnostics, and operational efficiency. Outstanding data quality issues, due to non-conformance to standard data models and terminology, failures to adopt broader healthcare informatics standards (e.g. DICOM®), and the proliferation of proprietary APIs in dental technology, force the industry to rely on extensive mapping to standards-based APIs by costly third-party data brokers. The ADA noted several areas for improvement in interoperability in comments to the FDA [re: Docket No. FDA-2025-N-0287: Exploration of Health Level Seven Fast Healthcare Interoperability Resources for Use in Study Data Created From Real-World Data Sources for Submission to the Food and Drug Administration; Establishment of a Public Docket; Request for Comments](#). We reiterate that the ADA collaborates with HL7® by developing dental content and value sets for FHIR standards. Contributors to these efforts include the Centers for Medicare and Medicaid Services (CMS), Department of Defense (DOD), Indian Health Service (IHS), as well as private sector companies, to ensure that implementation guide development aligns with priority information exchange guides such as CARIN, DaVinci, and other federally mandated and recommended standards but remain dental centric. This synergy works to embed dental-specific needs in the FHIR® data model, and ultimately makes dental data more readily available for AI modeling.

The ADA is ready and willing to assist ASTP/ONC in developing a USCDI+ dental domain to further support interoperability and facilitate AI development. We believe establishing a dental domain could support agency-wide initiatives.