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ONE HUNDRED NINETEENTH CONGRESS

Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-3641
Minority (202) 225-2927

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MEMORANDUM

To: Subcommittee on Health Members and Staff
From: Committee on Energy and Commerce Majority Staff
Re: Subcommittee on Health Hearing on September 3, 2025

I. INTRODUCTION

The Subcommittee on Health will hold a hearing on Wednesday, September 3, 2025, at 10:15 a.m. (ET) in 2123 Rayburn House Office Building. The hearing is entitled "Examining Opportunities to Advance American Health Care through the Use of Artificial Intelligence Technologies."

II. WITNESSES

- **TJ Parker**, Lead Investor, General Medicine
- **Andrew Toy**, Chief Executive Officer, Clover Health
- **Dr. Andrew Ibrahim, MD, MSc**, Chief Clinical Officer, Viz.ai
- **Dr. Michelle Mello, JD, PhD, MPhil**, Professor of Law, Stanford Law School, and Professor of Health Policy, Stanford University School of Medicine
- **Dr. C. Vaile Wright, PhD**, Senior Director, Health Care Innovation, American Psychological Association

III. BACKGROUND

Artificial intelligence (AI) is having a profound impact on the American health care system today. AI is being used to improve patient outcomes by transforming how care is delivered, supercharge biomedical research, support provider decision-making, help Americans become more informed and educated regarding their own care decisions, and reduce administrative burdens impacting the current system.

Consistent with other industries, current AI applications in health care can be categorized and differentiated by various techniques and processes, including, but not limited to, machine learning (ML), deep learning, neural networks, natural language processing, rule-based expert

systems, robotics, agentic AI, and generative AI. Innovators in the health AI space often leverage multiple AI processes in concert to address problems pertaining to diagnosis and treatment, patient engagement and treatment adherence, and administrative functions.

The growth in AI applications in the health care industry has been especially pronounced over the past several years. A recent Government Accountability Office (GAO) report noted that the Department of Health and Human Services (HHS) reported 116 cases of generative AI use in 2024, compared to just seven reported use cases in 2023.[1] The total AI use cases within HHS increased from 157 in 2023 to 271 in 2024.[2]

The Food and Drug Administration (FDA) set a record in 2023 by approving 223 AI-enabled medical devices—an increase from 160 AI-enabled device approvals in 2022 and only six AI-enabled device approvals in 2015.[3]

The Committee on Energy and Commerce has been the leading congressional committee examining the current impact of AI technologies across all commercial marketplaces, exploring the promise of future AI development, and analyzing the risks and considerations associated with AI becoming more ingrained in the daily lives of all Americans. During the initial months of the 119th Congress, the Committee on Energy and Commerce has explored the impact of AI technologies across industries and on consumers. The Committee has considered the impact of AI data centers on electricity demand through multiple hearings, which included advancing grid modernization legislation and examining the impact of federal regulation on site development.[4] Further, the Committee has held four hearings specifically focused on America's global leadership in AI and competition with China.[5]

A. Biomedical Research and Development

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[1] GOVERNMENT ACCOUNTABILITY OFFICE (GAO), *Artificial Intelligence: Generative AI Use and Management at Federal Agencies,* GAO-25-107653 at 12 (Jul. 2025), https://www.gao.gov/assets/gao-25-107653.pdf.
[2] *Id.*
[3] Stanford University Human-Centered Artificial Intelligence, *The 2025 AI Index Report*, *Chapter 5: Science and Medicine,* (Apr. 2025), https://hai.stanford.edu/ai-index/2025-ai-index-report/science-and-medicine.
[4] *See* the following hearings; *see also* markup. *Scaling for Growth: Meeting the Demand for Reliable, Affordable Electricity: Hearing before the Subcomm. on Energy of the H. Comm. on Energy and Commerce,* 119th Cong. (Mar. 5, 2025); *Keeping the Lights On: Examining the State of Regional Grid Reliability: Hearing before the Subcomm. on Energy of the H. Comm. on Energy and Commerce,* 119th Cong. (Mar. 25, 2025); *Converting Energy into Intelligence: The Future of AI Technology, Human Discovery, and American Global Competitiveness: Hearing before the H. Comm. on Energy and Commerce,* 119th Cong. (Apr. 9, 2025); *Assuring Abundant, Reliable American Energy to Power Innovation: Hearing before the Subcomm. on Energy of the H. Comm. on Energy and Commerce,* 119th Cong. (Apr. 30, 2025); *Markup of 13 Bills before the H. Comm. on Energy and Commerce,* 119th Cong. (Jun. 25, 2025); *Maximizing Opportunities for Redeveloping Brownfields Sites: Assessing the Potential for New American Innovation: Hearing before the Subcomm. on Energy of the H. Comm. on Energy and Commerce*, 119th Cong. (Mar. 11, 2025).
[5] *See the following hearings*: *AI in Manufacturing: Securing American Leadership in Manufacturing and the Next Generation of Technologies: Hearing before the Subcomm. on Commerce, Manufacturing, and Trade of the H. Comm. on Energy and Commerce,* 119th Cong. (Feb. 12, 2025); *Converting Energy into Intelligence: The Future of AI Technology, Human Discovery, and American Global Competitiveness: Hearing before the H. Comm. on Energy and Commerce,* 119th Cong. (Apr. 9, 2025); *AI Regulation and the Future of US Leadership: Hearing before the Subcomm. on Commerce, Manufacturing, and Trade of the H. Comm. on Energy and Commerce,* 119th Cong. (May 21, 2025); *AI in the Everyday: Current Applications and Future Frontiers in Communications and Technology: Hearing before the Subcomm. on Communications and Technology of the H. Comm. on Energy and Commerce,* 119th Cong. (May 28, 2025).

Artificial Intelligence shows promise in reducing the administrative burden associated with biomedical research, allowing for a more efficient allocation of resources and time. A prime example of this is the TrialGPT AI algorithm developed by researchers at the National Institutes of Health (NIH).[6] TrialGPT helps match potential volunteers to relevant clinical trials and streamlines the process for assessing a patient's eligibility for participation.[7] Researchers found that when clinicians utilized this AI tool, they spent 40 percent less time on administrative tasks associated with screening patients, while maintaining the same level of accuracy, allowing them to focus more attention on discussing potential trial opportunities with patients.[8]

AI and ML integration within the drug development process can help boost productivity by accelerating the discovery of new treatments and cures. AI can be used to assist with rapidly analyzing large sets of chemical, genomic, and proteomic data to help identify promising drug candidates. ML is capable of predicting molecular behavior and target-binding affinities with greater speed and, in some instances, greater accuracy compared to traditional methods.[9] Optimization of generative AI is estimated to have the potential to expedite drug discovery timelines while reducing costs associated research and development.[10]

Additionally, the success rate of the 21 AI-developed drugs that have completed Phase I trials as of December 2023 is 80 to 90 percent, compared to 40 percent for traditional methods.[11] FDA is also utilizing "Elsa," a generative AI tool designed to aid FDA staff and enhance their ability to conduct important FDA functions, such as clinical protocol reviews, scientific evaluations, and identification of targets for high-priority inspections.[12] "Elsa" is supporting FDA scientists and subject-matter experts by reducing the amount of time spent on tedious, repetitive tasks that often slow down the review process—in some instances, tasks that took days can now be completed in minutes.[13] This ultimately allows staff to focus more time on advanced analysis and other functions requiring human expertise.

AI Clinical Decision Support Systems (AI-CDSS) refer to broad AI applications leveraging machine learning, natural language processing, and deep learning to analyze patient

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[6] Press Release, NAT'L INSTS. OF HEALTH (NIH), *NIH-developed AI algorithm matches potential volunteers to clinical trials* (Nov. 18, 2025), https://www.nih.gov/news-events/news-releases/nih-developed-ai-algorithm-matches-potential-volunteers-clinical-trials.
[7] *Id.*
[8] *Id.*
[9] Feruz Madaminov, *Regulating the Use of AI in Drug Development: Legal Challenges and Compliance Strategies,* FOOD & DRUG LAW INST. (Jul. 16, 2025), https://www.fdli.org/2025/07/regulating-the-use-of-ai-in-drug-development-legal-challenges-and-compliance-strategies/.
[10] Amit Gangwal & Antonio Lavecchia, *Unleashing the power of generative AI in drug discovery,* DRUG DISCOVERY TODAY (Apr. 23, 2024), https://www.sciencedirect.com/science/article/pii/S135964462400117X#s0045.
[11] Anshul Kanakia et al., *AI In Action: Redefining Drug Discovery and Development*, CLINICAL AND TRANSLATIONAL SCIENCE (Feb. 6, 2025), https://pmc.ncbi.nlm.nih.gov/articles/PMC11800368/.
[12] Press Release, FEDERAL DRUG ADMIN. (FDA), *FDA Launches Agency-Wide AI Tool to Optimize Performance for the American People* (Jun. 2, 2025), https://www.fda.gov/news-events/press-announcements/fda-launches-agency-wide-ai-tool-optimize-performance-american-people.
[13] Press Release, FDA, *FDA Announces Completion of First AI-Assisted Scientific Review Pilot and Aggressive Agency-Wide AI Rollout Timeline* (May. 8, 2025), https://www fda.gov/news-events/press-announcements/fda-announces-completion-first-ai-assisted-scientific-review-pilot-and-aggressive-agency-wide-ai.

data, make predictions, aid in diagnosis and help plan treatment.[14] Studies have shown that AI-CDSS trained on clinical image datasets have proven to perform on par with human clinicians.[15] In September 2022, FDA issued new guidance tightening the criteria for CDSS exemptions, potentially impacting AI-CDSS review processes.[16]

B. Centers for Medicare and Medicaid Services

As the Committee continues its work to improve the Medicare and Medicaid programs, it is important to consider the potential of AI technologies to play a critical role in efforts to enhance access to care, improve health outcomes, and better steward taxpayer dollars, while ensuring appropriate guardrails are in place.

The Centers for Medicare and Medicaid Services (CMS) have taken several steps in recent months to bolster the U.S. digital health ecosystem, reduce Medicare spending on "low-value services," and root out waste, fraud, and abuse in these programs, along with providing necessary guidance.

On July 30, 2025, the Trump Administration announced CMS's Health Technology Ecosystem, an initiative aimed at "building a smarter, more secure, and more personalized healthcare experience."[17] As part of this announcement, CMS provided updates on its work to enhance the Medicare Plan Finder, build a National Provider Directory, and bring data to providers and patients at the point of care.[18] Sixty health care and information technology companies also made pledges to partner with the Administration to advance the Health Technology Ecosystem, including a commitment from several companies to build and utilize conversational AI assistants that provide patients with "personalized AI-driven support across [their] clinical record—including symptom checking, care planning, coordination, and chronic disease support."[19] AI Assistants would not replace clinical judgment but instead guide patients to seek out a health care professional when appropriate.[20]

On June 27, 2025, the Center for Medicare and Medicaid Innovation announced the Wasteful and Inappropriate Service Reduction (WISeR) Model.[21] The WISeR Model aims to leverage AI and ML technologies to "reduce clinically unsupported care by working with

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[14] Malek Elhaddad & Sara Hamam, *AI-Driven Clinical Decision Support Systems: An Ongoing Pursuit of Potential*, CUREUS (Apr. 6, 2024), https://pmc ncbi.nlm.nih.gov/articles/PMC11073764/.
[15] Andre Esteva et al., *Dermatologist–level classification of skin cancer with deep neural networks*, NATURE (Aug. 23, 2021), https://pmc.ncbi.nlm.nih.gov/articles/PMC8382232/.
[16] Scott Gottlieb, *New FDA Policies Could Limit the Full Value of AI in Medicine*, JAMA Health Forum (Feb. 6, 2025), https://jamanetwork.com/journals/jama-health-forum/fullarticle/2830189.
[17] Press Release, CTRS. FOR MEDICARE & MEDICAID SERVS. (CMS), *White House, Tech Leaders Commit to Create Patient-Centric Healthcare Ecosystem* (Jul. 30, 2025), https://www.cms.gov/newsroom/press-releases/white-house-tech-leaders-commit-create-patient-centric-healthcare-ecosystem.
[18] *Id.*
[19] CMS, *Health Tech Ecosystem Categories* (Jul. 30, 2025), https://www.cms.gov/health-technology-ecosystem/categories.
[20] *Id*.
[21] Press Release, CMS, *CMS Launches New Model to Target Wasteful, Inappropriate Services in Original Medicare* (Jun. 27, 2025), https://www.cms.gov/newsroom/press-releases/cms-launches-new-model-target-wasteful-inappropriate-services-original-medicare.

companies experienced in using enhanced technologies to expedite and improve the review process for a pre-selected set of services that are vulnerable to fraud, waste and abuse."[22]

CMS also aims to harness AI/ML and other enhanced technologies to protect federal taxpayers from waste, fraud, and abuse in federal health care programs.[23] The agency recently announced the Crushing Fraud Chili Cook-Off Competition, a research challenge aimed at leveraging AI/ML models to identify anomalies in Medicare claims data that may signal fraud.[24] The goal is to improve recognition of potential fraud indicators through the use of ML to process large amounts of data more efficiently, while still ensuring that human review and investigation remain a key part of the process.[25] Moreover, several agencies across the federal government are cooperating to utilize "cloud computing, artificial intelligence, and advanced analytics to identify emerging health care fraud schemes."[26]

Medicare has also begun to cover software-based technologies, referred to as Software-as-a-Service (SaaS), that support clinical decision-making in the outpatient and physician office settings.[27] The Medicare Payment Advisory Commission (MedPAC) has described SaaS as "algorithm-driven software that is either cleared or approved by FDA to help practitioners make clinical assessments, including decision support intervention software, clinical risk modeling, and [computer-aided detection]."[28] Medicare covers SaaS products under Medicare Part A or Part B that meet the program's coverage criteria if it fits into a Medicare benefit category and is cleared by FDA, not otherwise statutorily excluded, and determined to be "reasonable and necessary" for the diagnosis or treatment of an illness or injury.[29] CMS has noted that the agency does not have a specific payment methodology for SaaS technologies and raised distinct issues in evaluating these technologies.[30] In both the calendar year 2026 proposed rules for the Medicare physician fee schedule and outpatient prospective payment system, CMS is soliciting feedback on how the Medicare program should consider paying for SaaS and AI devices.[31]

Medicare Advantage (MA) has been at the forefront of developing AI tools to streamline beneficiary enrollment, manage costs of care, and reduce administrative burdens. Private market

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[22] CMS, *WISeR (Wasteful and Inappropriate Service Reduction) Model* (Jul. 29, 2025), https://www.cms.gov/priorities/innovation/innovation-models/wiser.
[23] Amber Tran & Katie Adams, *Mapping the Rise of AI in Federal Health Agencies,* BIPARTISAN POLICY CENTER (Aug. 10, 2025), https://bipartisanpolicy.org/blog/mapping-the-rise-of-ai-in-federal-health-agencies/.
[24] CMS, *Crushing Fraud Chili Cook-Off Competition* (Aug. 19, 2025), https://www.cms.gov/priorities/crushing-fraud-waste-abuse/overview/crushing-fraud-chili-cook-competition.
[25] *Id.*
[26] Press Release, U.S. DEP'T OF JUSTICE, *National Health Care Fraud Takedown Results in 324 Defendants Charged in Connection with Over $14.6 Billion in Alleged Fraud* (Jun. 30, 2025), https://www.justice.gov/opa/pr/national-health-care-fraud-takedown-results-324-defendants-charged-connection-over-146.
[27] Medicare and Medicaid Programs; CY 2026 Payment Policies Under the Physician Fee Schedule and Other Changes to Part B Payment and Coverage Policies; Medicare Shared Savings Program Requirements; and Medicare Prescription Drug Inflation Rebate Program, 90 Fed. Reg. 32352 (proposed Jul. 16, 2025).
[28]Medicare Payment Advisory Commission, *June 2024 Report to the Congress: Medicare and the Health Care Delivery System, Chapter 4: Paying for software technologies in Medicare* (Jun. 13, 2024), https://www.medpac.gov/wp-content/uploads/2024/06/Jun24_Ch4_MedPAC_Report_To_Congress_SEC.pdf.
[29] *Id.*
[30] Medicare and Medicaid Programs: Hospital Outpatient Prospective Payment and Ambulatory Surgical Center Payment Systems; Quality Reporting Programs; Overall Hospital Quality Star Ratings; and Hospital Price Transparency, 90 Fed. Reg. 33476 (proposed Jul. 17, 2025); *see also* 90 Fed. Reg. 32352, *supra* note 20.
[31] *Id.*

plans and digital health companies have developed and deployed tools, underpinned by AI, to streamline information sharing, reduce provider administrative burdens, and improve patient experiences and health care outcomes.

Recent reports have highlighted alleged cases of MA plans leveraging AI to deny patient prior authorization requests.[32] In February 2024, CMS released a frequently asked questions memorandum clarifying that MA plans may not use AI technologies to override standards related to medical necessity and other applicable rules for how coverage determinations by MA plans are made.[33]

AI tools are also being integrated into a new generation of electronic health records (EHR) to better enable the free flow of information among systems, provide ambient notational support to providers during patient encounters, summarize appointment notes and follow-ups, and support providers in developing and assessing individualized patient care plans.

C. Public Health

The public health field is using AI to facilitate more rapid and accurate responses to various diseases and conditions. For example, the Centers for Disease Control and Prevention (CDC) have leveraged AI to automatically detect tuberculosis from chest x-rays.[34] They have also worked to accelerate outbreak response by automating processes to flag potential threats more quickly and improve the efficacy of emergency response notifications and communications.

Additionally, AI tools are allowing CDC to effectively utilize nontraditional forms of information for the benefit of public health. For example, AI tools assist in examining public cooling tower sites to identify areas potentially at risk for spreading *Legionella* bacteria, a disease spread through contaminated water.[35]

Efforts are also underway to improve public health response in other ways, such as forecasting trends in opioid overdose mortality; helping to identify potential sources of foodborne outbreak through data analysis; and supporting local health officials with identifying and fixing failed sewage systems, which can be sources of soil and drinking water contamination.[36]

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[32] U.S. Senate Permanent Subcommittee on Investigations, *Refusal of Recovery: How Medicare Advantage Insurers Have Denied Patients Access to Post-Acute Care* (Oct. 17, 2024), https://www hsgac.senate.gov/wp-content/uploads/2024.10.17-PSI-Majority-Staff-Report-on-Medicare-Advantage.pdf.
[33] Memorandum from the CMS to All Medicare Advantage Organizations and Medicare-Medicaid Plans (Feb. 6, 2024), https://www.cms.gov/files/document/hpms-memo-faq-coverage-criteria-and-utilization-management-cms-4201-f-02-6-2024-pdf.pdf.
[34] CTRS. FOR DISEASE CONTROL AND PREVENTION (CDC), *Artificial Intelligence and Machine Learning: Applying Advanced Tools for Public Health* (Jul. 3, 2023), https://www.cdc.gov/surveillance/data-modernization/technologies/ai-ml.html.
[35] Karen Wong et al., *Automated cooling tower detection through deep learning for Legionnaires' disease outbreak investigations: a model development and validation study,* THE LANCET (Jul. 2025), https://www.thelancet.com/journals/landig/article/PIIS2589-7500(24)00094-3/fulltext.
[36] CDC, *supra* note 23; HHS Assistant Secretary for Technology Policy, *SewerScout: Automated on-site sewage facility detection from aerial imagery to identify failed systems,* HHS AI USE CASE INVENTORY 2024 (Dec. 13,

IV. KEY TOPICS AND ISSUES

The hearing is expected to focus on key topics of discussion, including:

- Real-world applications of AI in the health care marketplace today;
- How AI interventions are improving care delivery for patients, providers, and federal taxpayers; and
- How AI can be leveraged in the future to transform the American health care system and better serve patients across the country.

V. STAFF CONTACTS

If you have questions regarding this hearing, please contact Annabelle Huffman of the Committee staff at (202) 225-3641.

2024), https://www healthit.gov/hhs-ai-usecases/sewerscout-automated-site-sewage-facility-detection-aerial-imagery-identify-failed.