Building an AI-Ready America:
How AI Is Creating Opportunities Across America's Healthcare Workforce

Prepared for the U.S. House Committee on Education and Workforce

Jeffery Talbert, PhD
Professor and Department Chair
Georgia Research Alliance Eminent Scholar
Department of AI and Health
Medical College of Georgia at Augusta University

Executive Summary

Artificial intelligence (AI) is rapidly reshaping discussions about the future of work. Public debate often focuses on automation, job displacement, and the possibility that machines will replace human workers. The healthcare industry offers a different and increasingly evidence-based perspective. Rather than replacing clinicians, many of the most successful AI applications are helping healthcare professionals perform their jobs more effectively by reducing administrative workload, improving efficiency, increasing positive patient outcomes, and expanding workforce capacity.

Recent studies involving ambient AI scribes, digital documentation systems, and generative AI workflow tools demonstrate measurable improvements in clinician experience, reductions in burnout, decreases in documentation burden, and gains in workforce productivity. Collectively, these findings provide some of the strongest currently available real-world evidence that AI can create workforce opportunity through augmentation rather than replacement. At the same time, AI is likely to transform some administrative occupations, creating a need for workforce adaptation, reskilling, and lifelong learning as job responsibilities evolve. AI is also beginning to demonstrate measurable improvements in patient outcomes, including earlier detection of breast cancer, reductions in sepsis mortality, faster stroke treatment, expanded diabetic retinopathy screening, and accelerated drug discovery.

The central finding of this testimony is that the healthcare industry can now provide direct evidence that AI can strengthen workforce performance, improve worker experience, preserve expertise, expand workforce capacity, and create new career opportunities when implemented as a workforce-support technology. In a healthcare system facing projected shortages of tens of thousands of physicians and more than 100,000 nurses, this distinction has important implications for workforce policy and positions AI not as a threat to the industry but as a force multiplier for it**.** Georgia is already investing in this future through Augusta University's Department of Artificial Intelligence and Health, one of the first academic departments in the nation dedicated to integrating AI, healthcare delivery, workforce development, education, and responsible implementation. Leadership in healthcare AI is increasingly becoming a matter of economic competitiveness. Nations that develop the workforce capable of building, deploying, and governing AI-enabled healthcare systems will be better positioned to lead in biomedical innovation, healthcare delivery, and life sciences research. (Dai et al., 2026; Lukac et al., 2025; Olson et al., 2025)

Key Findings

A survey of current research provides several key points for policy makers' consideration:

1. Healthcare workforce research demonstrates that AI can strengthen workforce performance through augmentation rather than replacement.

2. Ambient AI and digital documentation systems significantly reduce documentation burden, cognitive workload, and burnout.

3. Reducing administrative burden increases effective workforce capacity without increasing workforce size.

4. Early healthcare AI implementation suggests that AI is creating new workforce opportunities in governance, implementation, informatics, workforce training, quality assurance, AI operations, and digital transformation while simultaneously reshaping some administrative occupations.

5. AI knowledge, working with AI tools, and accountability structures are becoming essential workforce skills.

6. Successful adoption depends on governance, workforce engagement, workflow redesign, and ongoing workforce development.

7. AI is transforming job responsibilities rather than eliminating occupations in healthcare.(Atabeygi & Mitchell, 2026; Davidson et al., 2025; Lukac et al., 2025; Olson et al., 2025)

The healthcare workforce's experience suggests that the most significant workforce impact of AI may not be workforce reduction, but workforce redesign, reducing routine administrative work while increasing demand for human judgment, oversight, communication, and education.

1. The Healthcare Workforce Challenge

The American healthcare system faces substantial workforce pressures that extend far beyond shortages of physicians and nurses. Increasingly, workforce researchers describe the problem as one of workforce sustainability. Healthcare organizations are confronting burnout, retention challenges, administrative burden, and the loss of experienced personnel whose expertise is difficult to replace.

National physician workforce data illustrate the seriousness of these challenges. Approximately 41.9 percent of physicians report symptoms of burnout, 42.9 percent report substantial job-related stress, and nearly one-third indicate some likelihood of leaving their organization within two years. Physicians report average workweeks exceeding 58 hours. These findings suggest that retaining experienced professionals has become an urgent workforce priority. Clinicians consistently identify administrative and operational burdens, not patient care itself, as major contributors to dissatisfaction. Documentation requirements, electronic health record workflows, inbox management, insurance-related tasks, staffing shortages, and bureaucratic processes are frequently cited as major workplace stressors. These observations suggest that many workforce challenges arise from how work is organized rather than from the providers' core mission. (American Medical Association, 2025; Graunke et al., 2026)

These workforce pressures are expected to intensify substantially over the coming decade. The Association of American Medical Colleges projects a national physician shortage of up to 86,000 physicians by 2036, driven by population aging, increasing healthcare utilization, and physician retirements. Nursing shortages present similar challenges. Federal workforce projections indicate the United States could face a shortage of more than 100,000 registered nurses by 2038. The challenge is particularly acute in rural and underserved communities, where provider shortages already limit access to care and where workforce deficits may be felt most severely. These shortages are particularly concerning because demand for healthcare services continues to grow

while large segments of the clinical workforce approach retirement age. AI is not a substitute for addressing workforce supply, but it may help organizations use scarce professional expertise more effectively and expand workforce effectiveness in the face of growing demand.

2. Administrative Burden and the 1.2-FTE Problem

The National Academy of Medicine's concept of the "1.2-FTE problem" provides a useful framework for understanding workforce strain. Clinicians are employed as 1.0 full-time equivalent (FTE) workers but perform the work of 1.2 FTEs because of documentation requirements, inbox management, prior authorizations, insurance communications, and compliance activities. This hidden workload often extends beyond scheduled clinical hours into evenings and weekends. Over time, these obligations contribute directly to burnout, dissatisfaction, and workforce attrition. Administrative burden also reduces effective organizational capacity. Every hour spent documenting, managing messages, or completing administrative requirements is an hour unavailable for patient care, teaching, leadership, mentoring, research, or quality improvement. In the healthcare industry, AI experience is particularly important because many of the most successful AI applications directly target these burdens. (Atabeygi & Mitchell, 2026)

3. Evidence from Ambient AI and Digital Scribes

Among all healthcare AI applications currently available, ambient AI scribes and digital documentation systems have generated the strongest evidence regarding workforce outcomes.
A multisystem study involving 263 physicians and advanced practice clinicians across six health systems demonstrated substantial improvements in workforce measures. Burnout declined from 51.9 percent to 38.8 percent. Clinicians reported reductions in cognitive workload, decreased after-hours documentation, improved professional well-being, and greater ability to focus on patients. Similar findings emerged from Stanford Health Care's evaluation of ambient AI documentation systems, where researchers documented reductions in physician task load and burnout along with improvements in workflow efficiency and user satisfaction.

Evidence from pediatric healthcare settings further strengthens the case. A six-month implementation involving eighty-four pediatric providers demonstrated significant reductions in documentation burden and cognitive workload. Burnout rates fell from 54.9 percent to 33.3 percent, while providers collectively saved more than 2,100 hours of documentation time.
The consistency of these findings across multiple specialties and organizational settings suggests that workforce benefits are neither isolated nor specialty specific.

Several years before the widespread deployment of ambient AI systems, cardiologist and digital-health researcher Dr. Eric Topol argued that one of healthcare AI's greatest opportunities would be to "give clinicians back the gift of time." In his book *Deep Medicine*, Topol envisioned AI not primarily as a replacement for physicians, but as a means of reducing clerical burden and restoring the human relationship at the center of care. The emerging evidence from ambient AI documentation systems suggests that this vision is beginning to materialize in practice. (Olson et al., 2025; Pelletier et al., 2025; Shah et al., 2025; Topol, 2019)

4. Moving from Promise to Proof

Healthcare AI research has increasingly progressed beyond pilot projects and implementation studies to include randomized evaluations. A randomized trial involving 238 physicians across fourteen specialties evaluated ambient AI scribes against traditional documentation workflows. Researchers found meaningful reductions in documentation burden, task load, and work exhaustion, along with improvements in physician experience. These findings reinforce a broader workforce principle: reducing administrative work can improve workforce well-being, organizational performance, and professional satisfaction. Rather than treating burnout primarily as an individual problem, the evidence suggests that improving how work is organized can

address important systemic contributors to workforce strain. Collectively, implementation studies and randomized evidence indicate that AI's workforce benefits are measurable, reproducible, and increasingly supported by rigorous research. (Lukac et al., 2025; Olson et al., 2025)

5. Workforce Opportunity Through Augmentation

Perhaps the most important finding emerging from the healthcare literature is that AI's workforce value lies primarily in augmentation rather than replacement. Across virtually every major study, clinicians remain responsible for reviewing documentation, exercising professional judgment, making decisions, communicating with patients, and maintaining accountability. AI supports these activities by reducing clerical effort and simplifying routine administrative tasks.

This distinction is critical because it shifts the conversation away from labor substitution and toward expertise amplification. Rather than asking whether AI can replace workers, healthcare organizations are increasingly asking how AI can help professionals spend more time practicing at the top of their training. Activities such as communication, diagnosis, leadership, teaching, mentoring, and relationship-building continue to depend upon human capabilities. AI creates value by helping workers devote more time to these higher-value activities.

The implications for workforce policy are substantial. The operational capacity can be expanded without increasing the size of the staff if clerical responsibilities are reduced. Retention may improve when workplace conditions improve. Expertise may be preserved when experienced professionals remain engaged in practice longer. In this sense AI functions as a workforce multiplier that strengthens the productivity and sustainability of existing personnel rather than replacing them. This opportunity is especially important as projected physician and nursing shortages continue to grow nationally. In an environment where healthcare organizations may be unable to fully meet workforce demand through hiring alone, technologies that allow clinicians to devote more time to patient care can effectively increase capacity without requiring equivalent increases in staffing.

The workforce implications of AI extend beyond improving existing jobs. As healthcare organizations adopt AI-enabled documentation, workflow, governance, and decision-support systems, they are increasingly creating demand for new roles focused on implementation, oversight, quality assurance, workforce training, and organizational transformation. These emerging occupations suggest that AI may expand workforce opportunities not only by improving productivity but also by creating entirely new career pathways that combine domain expertise with AI-related competencies. (Atabeygi & Mitchell, 2026; Dai et al., 2026; Topol, 2019)

6. AI Is Delivering Measurable Improvements in Health Outcomes

While workforce benefits are important, AI is also producing measurable improvements in patient outcomes, disease detection, and biomedical innovation. AI is also particularly valuable in rural and underserved communities where specialist shortages are most severe. Technologies that support screening, triage, documentation, and clinical decision-making may help extend the reach of limited healthcare workforces and improve access to expertise that is otherwise unavailable.

In breast cancer screening, the landmark Mammography Screening with Artificial Intelligence (MASAI) randomized trial demonstrated that AI-assisted screening increased breast cancer detection by approximately 29 percent while reducing radiologist workload. Researchers also observed improved detection of small, node-negative invasive cancers that are more likely to be treated successfully when identified early. (Hernstrom et al., 2025; Topol, 2026)

AI is also improving outcomes for patients with sepsis, one of the leading causes of hospital mortality in the United States. The Targeted Real-Time Early Warning System (TREWS), deployed across dozens of hospitals, has been associated with approximately an 18 percent reduction in sepsis mortality, earlier recognition of deteriorating patients, reduced intensive care utilization, and shorter hospital stays. (Adams et al., 2022)

Stroke care provides another example of AI-enabled improvements. Because neurological injury progresses rapidly during acute stroke, every minute saved can help preserve brain function. A randomized clinical trial found that AI-enabled large-vessel occlusion detection and automated team notification reduced time to thrombectomy initiation by approximately 11 minutes, a clinically meaningful improvement in a condition where outcomes are highly time dependent. (Martinez-Gutierrez et al., 2023)

AI has also become one of the first successful examples of autonomous disease screening in routine clinical practice. FDA-cleared AI systems for diabetic retinopathy can identify patients at risk of preventable blindness in primary care settings without requiring immediate specialist review. Studies have demonstrated sensitivities exceeding 87 percent and have shown that AI-based screening can expand access to eye care, particularly in underserved populations where specialist availability is limited. (Gulshan et al., 2016; Leong et al., 2026)

Cardiovascular medicine is beginning to show similar promise. Researchers at Mayo Clinic and collaborators developed FDA-cleared AI tools capable of identifying heart failure with preserved ejection fraction from standard echocardiographic images. In independent validation studies, these systems demonstrated strong diagnostic performance and may help identify patients whose condition is frequently underdiagnosed using conventional approaches. (Akerman et al., 2025)

AI is also demonstrating potential to predict serious complications before they occur. Deep learning models developed using large-scale electronic health record data have been shown to predict acute kidney injury up to 48 hours before traditional clinical recognition and identified approximately 90 percent of the most severe cases requiring dialysis. Earlier identification provides clinicians with an opportunity to intervene before irreversible damage occurs. (Tomasev et al., 2019)

Finally, AI is beginning to reshape biomedical innovation as well. Rentosertib (INS018_055), an investigational treatment for idiopathic pulmonary fibrosis discovered and designed using artificial intelligence, advanced from target identification to human clinical testing in approximately 30 months—about half the time commonly required for traditional drug discovery programs. Early Phase II results have demonstrated encouraging improvements in lung function, providing one of the first clinical demonstrations that AI-assisted drug discovery can successfully generate novel therapeutic candidates. (Xu et al., 2025)

Collectively, these examples demonstrate that AI is not merely improving efficiency; it is improving patient outcomes, accelerating medical discovery, and creating demand for a workforce capable of deploying these tools safely and effectively. As these technologies continue to mature, healthcare organizations will require a growing workforce capable of implementing, evaluating, governing, and safely deploying AI-enabled systems.

7. Workforce Transformation and Job Displacement Risks

The healthcare sector's experience with AI suggests that workforce impacts will not be distributed evenly across occupations. While most clinical professionals are experiencing augmentation rather than replacement, some administrative functions are likely to undergo significant transformation as AI systems assume a growing share of routine information-processing tasks.

Emerging AI applications already support documentation, scheduling, records management, patient communication, revenue-cycle activities, coding assistance, prior-authorization workflows, claims processing, and other administrative functions. As these capabilities mature, organizations may require fewer workers in some highly structured clerical functions while increasing demand for workers who can manage, supervise, implement, and improve AI-enabled systems. Healthcare leaders and workforce experts have identified administrative operations as an area particularly susceptible to AI-driven workflow transformation. Occupations potentially affected include medical scribes, scheduling personnel, administrative assistants, coding and billing personnel, and prior-authorization support teams. Workforce impacts are likely to occur through gradual role redesign, attrition, and changing hiring patterns rather than sudden large-scale replacement. Most healthcare administrative functions involve exception handling, coordination, communication, compliance oversight, and patient interaction that continue to benefit from human involvement. This now-proven pattern of administrative work reduction **shows that AI is likely reducing tasks faster than it is eliminating jobs.**

Unlike many industries, healthcare also faces persistent workforce shortages, increasing demand associated with population aging, and growing complexity of care delivery. As a result, productivity gains generated by AI may often be used to absorb unmet demand and expand capacity rather than solely reduce staffing levels. Nevertheless, policymakers should anticipate workforce transitions for some administrative occupations and support retraining pathways that help affected workers move into emerging AI-enabled roles. Longitudinal evidence on healthcare workforce displacement remains limited, and many workforce effects will likely emerge over several years as adoption expands across care settings. The healthcare industry's experience therefore provides a nuanced lesson regarding AI and employment. AI is likely to reduce demand for some routine administrative activities while simultaneously increasing demand for workers who can implement, evaluate, govern, supervise, and improve AI-enabled systems. The policy challenge is not solely preserving existing jobs but supporting successful transitions into higher-value roles that leverage uniquely human capabilities.

Although evidence regarding documentation burden, burnout reduction, and workforce productivity is now substantial, evidence regarding long-term workforce displacement remains limited. Continued monitoring will be necessary as AI adoption expands and organizations evaluate how productivity gains affect staffing patterns, workforce composition, and career pathways. (Atabeygi & Mitchell, 2026; Dai et al., 2026; Teo et al., 2025)

8. Emerging Workforce Opportunities in an AI-Enabled Healthcare System

While much of the public discussion surrounding artificial intelligence focuses on automation, evidence suggests that AI is also creating demand for new categories of workers. As health systems expand their use of ambient documentation, workflow-support tools, predictive analytics, and generative AI, organizations increasingly require professionals capable of implementing, governing, evaluating, training, and monitoring these technologies. Rather than reducing demand for skilled workers, AI is creating new opportunities for professionals who can combine healthcare expertise with digital and analytical competencies.

Augusta University's Department of Artificial Intelligence and Health was established as a response to a challenge facing health systems across the nation: the need for a workforce that understands both healthcare and artificial intelligence. By integrating education, workforce development, implementation science, governance, research, and health system partnerships within a single academic unit, the department offers one model for how universities can help prepare the AI-ready workforce required for the future of healthcare delivery. Health systems

need AI implementation specialists, AI governance leaders, clinical AI evaluators, and data scientists trained to ensure that AI is safe, effective, and trustworthy.

The skills associated with these new opportunities differ from those traditionally associated with healthcare technology. The Journal of the American Medical Association (JAMA) Summit on Artificial Intelligence concluded that healthcare professionals need more than training on specific AI tools. AI literacy is becoming a foundational workforce competency. Clinicians, administrators, and operational leaders must understand how AI systems function, their limitations, how outputs should be validated, and how responsibility should be shared between humans and AI-enabled systems. In addition to AI literacy, workers increasingly need competencies in human-AI collaboration, governance, privacy, cybersecurity, compliance, quality monitoring, risk management, and workflow redesign. Successful AI adoption depends as much on organizational integration as it does on technological capability.

Importantly, many of these emerging opportunities can be filled through targeted upskilling rather than wholesale career changes. Physicians, nurses, pharmacists, therapists, informaticians, administrators, quality-improvement professionals, and information technology specialists already possess expertise that remains highly valuable in AI-enabled environments. Additional preparation in AI competency, governance, analytics, implementation science, and human-AI collaboration can position these workers for expanding roles in AI deployment and oversight.

Emerging evidence suggests that AI may also transform workforce education itself. Scholars have begun describing the development of "AI-enabled precision education" systems that use digital data, performance metrics, simulation platforms, and AI-driven coaching tools to identify individual competency gaps and personalize learning pathways. Such systems may improve workforce readiness by helping workers acquire new competencies more efficiently and supporting continuous professional development throughout their careers. In an AI-enabled economy, lifelong learning may become increasingly important as workers regularly adapt to evolving technologies and changing job responsibilities. AI education itself is becoming an important workforce priority. National workforce discussions increasingly emphasize that healthcare workers require not only knowledge of specific tools but broader competencies in use of AI systems, data literacy, digital literacy, human-AI collaboration, and critical evaluation of AI outputs. These competencies are increasingly relevant across clinical, operational, administrative, and leadership roles.

These changes have important implications for workforce development. Community colleges, universities, health professions programs, and workforce-development organizations should increasingly incorporate practical understanding of AI, ethical AI, implementation science, governance, and working effectively with AI tools into existing curricula. Employers will similarly need to invest in continuing education and lifelong learning programs that help incumbent workers acquire new competencies throughout their careers. The emerging challenge is not a shortage of technology, but a shortage of workers prepared to effectively implement, govern, and leverage that technology.

Healthcare provides an important lesson for policymakers. AI is not only altering how work is performed; it is creating demand for a new generation of professionals responsible for managing AI-enabled systems, ensuring their safety and effectiveness, training the workforce, and helping organizations realize the benefits of technological innovation. The most durable workforce opportunities created by AI may ultimately arise not from automation itself, but from the growing need for human expertise that guides, governs, and improves AI-enabled work. (Atabeygi & Mitchell, 2026; Dai et al., 2026; Davidson et al., 2025; Desai et al., 2026)

9. Lessons from Early Implementations

Evidence from early adopters provides several important lessons. Successful implementations begin with clearly defined workforce problems such as burnout, documentation burden, workflow inefficiencies, or retention concerns. Documentation support remains the most mature and consistently successful use case. Across organizations and specialties, documentation-focused AI applications repeatedly demonstrate workforce benefits. Implementation studies also emphasize the importance of workflow integration. Technology alone does not improve work. Benefits depend on how effectively new tools fit into clinical workflows, align with organizational processes, and meet user needs. Frontline engagement, leadership support, usability, and training all play important roles in implementation success. The strongest outcomes occur when technology is combined with thoughtful workflow redesign.

These findings are consistent with lessons learned during earlier waves of healthcare digitization. Dr. Robert Wachter, one of the nation's leading scholars of healthcare innovation, observed that transformative technologies succeed not because of the technology itself but because organizations redesign workflows, train staff, adapt culture, and rethink how work is performed. In his books *The Digital Doctor* and later in *A Giant Leap*, Wachter argued that successful technology adoption is fundamentally an organizational and workforce challenge. Healthcare's early AI experience strongly reinforces that observation. Effective implementation depends as much on leadership, governance, and workforce engagement as it does on technical performance.

10. Governance, Trust, and Responsible AI

The workforce benefits associated with AI do not eliminate the need for governance and oversight. The healthcare industry's experience demonstrates that trust is essential to adoption. Clinicians are more likely to embrace AI systems when they remain actively involved in reviewing outputs and maintaining accountability for decisions. Human oversight therefore remains a foundational principle of responsible AI implementation. Generative AI introduces additional governance requirements involving validation, transparency, quality monitoring, privacy protection, and accountability. Strong governance frameworks help ensure that technology serves workforce goals rather than creating new burdens. Building an AI-ready workforce therefore requires investments in governance and education alongside investments in technology.

Organizations should also monitor for unintended workforce consequences associated with AI adoption, including automation bias, overreliance on AI-generated outputs, and potential erosion of professional skills. Evidence suggests that effective human-AI collaboration requires maintaining core professional competencies while using AI as a support tool. Workforce development programs should therefore emphasize critical thinking, independent professional judgment, and appropriate oversight alongside foundational AI knowledge and technical skills. (Maddox et al., 2025; Teo et al., 2025; US Department of Health and Human Services, 2025)

11. Georgia's Leadership in Building the AI Healthcare Workforce

The need for workforce innovation is particularly acute in Georgia, but the challenge is national in scope. Health systems across the country increasingly require professionals who can implement, evaluate, govern, and improve AI-enabled technologies. Augusta University's Department of Artificial Intelligence and Health could be used as a model for how universities can address one of the most important workforce challenges of the next decade: preparing professionals to safely and effectively work alongside AI-enabled technologies. Rather than treating AI as a purely technical discipline, the department integrates workforce development, implementation science, healthcare delivery, governance, education, and translational research. This interdisciplinary approach reflects the reality that successful AI adoption depends not only on technology, but on

people who understand how to implement, evaluate, govern, and improve these systems in real-world settings. Augusta University is helping build this workforce through education, research, and partnerships. These efforts reflect a broader national need for professionals who understand both healthcare and artificial intelligence. Building an AI-ready America will require not only technological innovation but also investments in the educational infrastructure needed to develop the workforce that can responsibly govern and deploy these tools. America does not simply have an AI opportunity. It has a workforce necessity. AI matters because healthcare demand is growing faster than the available workforce, especially in states like Georgia, and healthcare needs tools that help clinicians spend more time caring for patients and less time on administrative work. (GlobalData Plc, 2024; HRSA, 2025; Olson et al., 2025; Shah et al., 2025; Wachter, 2026)

12. Policy Considerations

The healthcare industry's AI experience to date suggests several priorities for policymakers:

- **Administrative burden reduction should be recognized as both a workforce-development and workforce-retention strategy.** Simplifying documentation requirements, improving interoperability, reducing redundant reporting, and responsibly deploying AI-enabled workflow tools can expand workforce capacity, improve professional satisfaction, preserve expertise, and strengthen workforce sustainability.

- **Invest in AI workforce development, AI literacy, and lifelong learning.** Educational pathways, stackable credentials, employer-based training programs, continuing education opportunities, and community-college partnerships can help current workers adapt to changing responsibilities while preparing future workers for emerging AI-enabled occupations.

- **Support university initiatives focused on workforce innovation.** Institutions such as Augusta University are developing interdisciplinary models that combine healthcare, data science, implementation science, and AI governance to prepare workers for emerging occupations created by AI-enabled healthcare delivery.

- **Support workers whose occupations may experience substantial task automation.** Retraining and upskilling programs should create pathways into AI operations, healthcare informatics, digital workflow management, implementation support, quality assurance, patient navigation, and AI governance roles.

- **Invest in digital infrastructure and rural workforce capacity.** AI-enabled tools can help expand access to care in underserved communities, but their benefits depend on interoperable systems, workforce training, and reliable digital infrastructure**.**

- **Measure workforce outcomes directly.** Success should be evaluated not only through technology adoption but also through changes in burnout, documentation burden, workforce satisfaction, retention, productivity, patient access, improved patient outcomes, and organizational capacity. (Atabeygi & Mitchell, 2026; Dai et al., 2026; Davidson et al., 2025; Graunke et al., 2026)

Conclusion

The healthcare sector provides one of the clearest examples of how artificial intelligence can create workforce opportunity. Across multisystem studies, academic medical centers, and randomized clinical trials, AI-enabled documentation and workflow-support tools have demonstrated measurable reductions in administrative burden, cognitive workload, after-hours

work, and burnout. These improvements strengthen productivity, support retention, preserve expertise, and expand effective workforce capacity.

The evidence also suggests that AI's workforce impact will involve transformation as well as opportunity. While some routine administrative activities may become increasingly automated, the healthcare experience shows that AI is reducing tasks**.** Administrative processing, documentation, scheduling, and information-management tasks are increasingly supported by AI, while demand grows for oversight, implementation, governance, patient engagement, workforce education, and human-centered services. As seen in the healthcare experience, organizations that successfully combine AI-enabled productivity with workforce development are likely to achieve the greatest long-term benefits. AI is not removing the need for human professionals. Instead, it is helping workers spend less time on clerical activity and more time applying expertise, judgment, and human relationships.

The healthcare industry also demonstrates that AI is creating demand for new categories of workers focused on implementation, education, oversight, quality monitoring, and organizational transformation. The emergence of these occupations underscores the importance of workforce development, lifelong learning, and AI competency as national priorities. These lessons extend beyond healthcare. As AI adoption expands across the U.S. economy, organizations that successfully combine human expertise with AI-enabled productivity gains will be better positioned to strengthen workforce resilience, improve competitiveness, and support long-term economic growth.

The greatest workforce opportunity created by AI is not automation for its own sake. It is the creation of work environments in which professionals can focus more fully on the activities that generate the greatest value for organizations, communities, and the citizens they serve. This objective becomes increasingly important as healthcare grows more complex. As surgeon and public health researcher Dr. Atul Gawande observed, “The volume and complexity of what we know has exceeded our individual ability to deliver its benefits correctly, safely, or reliably.” In many respects, early experience with healthcare AI demonstrates the value of technologies that help professionals manage complexity while preserving the uniquely human skills of judgment, communication, empathy, and trust that remain central to high-quality care.

When implemented responsibly, AI can become a powerful tool for workforce sustainability, expertise amplification, and long-term economic competitiveness. Emerging evidence suggests that the most promising future for AI is not healthcare workforce replacement, but workforce enhancement—helping people spend more time doing the work that only people can do. The workforce challenge posed by AI is not primarily one of replacement, but one of preparation. The question is no longer whether AI will become part of the healthcare workforce. The question is whether the United States will invest now in the people, education, and oversight needed to ensure that workforce is prepared to lead rather than follow.
(Adams et al., 2022; Gawande, 2010; Lukac et al., 2025; Olson et al., 2025; Topol, 2019; Wachter, 2026; Xu et al., 2025)

References

I acknowledge use of Copilot for assistance with editing this document. Following the use of this tool, I reviewed and edited the content to ensure accuracy and tone.

Adams, R., Henry, K. E., Sridharan, A., Soleimani, H., Zhan, A., Rawat, N., Johnson, L., Hager, D. N., Cosgrove, S. E., Markowski, A., Klein, E. Y., Chen, E. S., Saheed, M. O., Henley, M., Miranda, S., Houston, K., Linton, R. C., Ahluwalia, A. R., Wu, A. W., & Saria, S. (2022). Prospective, multi-site study of patient outcomes after implementation of the TREWS machine learning-based early warning system for sepsis. *Nat Med*, *28*(7), 1455–1460. https://doi.org/10.1038/s41591-022-01894-0

Akerman, A. P., Al-Roub, N., Angell-James, C., Cassidy, M. A., Thompson, R., Bosque, L., Rainer, K., Hawkes, W., Piotrowska, H., Leeson, P., Woodward, G., Pellikka, P. A., Upton, R., & Strom, J. B. (2025). External validation of artificial intelligence for detection of heart failure with preserved ejection fraction. *Nat Commun*, *16*(1), 2915. https://doi.org/10.1038/s41467-025-58283-7

American Medical Association. (2025). 2025 National Physician Comparison Report.

Atabeygi, A., & Mitchell, C. (2026). The Real Driver of Burnout: The 1.2-FTE Problem. *NAM Perspectives*, *2026*. https://doi.org/10.31478/202601a

Dai, T., McDonald, K. M., & Baumgart, D. C. (2026). Global advances in health artificial intelligence: a workforce imperative. *Lancet*, *Jun 9:S0140-6736(26)00693-8*. https://doi.org/10.1016/S0140-6736(26)00693-8

Davidson, A. E., Jose, A., Shickel, B., Smith, K. E., Rashidi, P., Levites Strekalova, Y., & Bihorac, A. (2025). Building AI competence in the healthcare workforce with the AI for clinical care workshop: A Bridge2AI for clinical CHoRUS project. *J Clin Transl Sci*, *9*(1), e243. https://doi.org/10.1017/cts.2025.10156

Desai, S. V., Khan, S., & Lomis, K. (2026). AI-Enabled Precision-Education Systems - Transforming Lifelong Learning in Medicine. *N Engl J Med*, *394*(9), 838–841. https://doi.org/10.1056/NEJMp2512935

Gawande, A. (2010). *The checklist manifesto : how to get things right* (1st ed.). Metropolitan Books.

GlobalData Plc. (2024). The Complexities of Physician Supply and Demand: Projections from 2021 to 2036. *AAMC*.

Graunke, H., Saunders, R., McBride, T., Golden, J., Kuipers, E. J., McClellan, M., Zimlichman, E., & Kahn, C. H., 3rd. (2026). Strategies to Ensure a Resilient Health Care Workforce: International Models on Health Professions. *NEJM Catal Innov Care Deliv*, *7*(4), CAT250263. https://doi.org/10.1056/CAT.25.0263

Gulshan, V., Peng, L., Coram, M., Stumpe, M. C., Wu, D., Narayanaswamy, A., Venugopalan, S., Widner, K., Madams, T., Cuadros, J., Kim, R., Raman, R., Nelson, P. C., Mega, J. L., & Webster, D. R. (2016). Development and Validation of a Deep Learning Algorithm for Detection of Diabetic Retinopathy in Retinal Fundus Photographs. *JAMA*, *316*(22), 2402–2410. https://doi.org/10.1001/jama.2016.17216

Hernstrom, V., Josefsson, V., Sartor, H., Schmidt, D., Larsson, A. M., Hofvind, S., Andersson, I., Rosso, A., Hagberg, O., & Lang, K. (2025). Screening performance and characteristics of breast cancer detected in the Mammography Screening with Artificial Intelligence trial (MASAI): a randomised, controlled, parallel-group, non-inferiority, single-blinded, screening accuracy study. *Lancet Digit Health*, *7*(3), e175–e183. https://doi.org/10.1016/S2589-7500(24)00267-X

HRSA. (2025). National Center for Health Workforce Analysis Projections.

Leong, A., Wolf, R. M., Channa, R., Wang, J., Lehmann, H., Abramoff, M. D., & Liu, T. Y. A. (2026). Autonomous AI-assisted diabetic retinopathy screening at primary care is associated with increased presentation to eye care by at risk patients. *NPJ Digit Med*, *9*(1). https://doi.org/10.1038/s41746-026-02460-5

Lukac, P. J., Turner, W., Vangala, S., Chin, A. T., Khalili, J., Shih, Y. T., Sarkisian, C., Cheng, E. M., & Mafi, J. N. (2025). Ambient AI Scribes in Clinical Practice: A Randomized Trial. *NEJM AI*, *2*(12). https://doi.org/10.1056/aioa2501000

Maddox, T. M., Embi, P., Gerhart, J., Goldsack, J., Parikh, R. B., & Sarich, T. C. (2025). Generative AI in Medicine - Evaluating Progress and Challenges. *N Engl J Med*, *392*(24), 2479–2483. https://doi.org/10.1056/NEJMsb2503956

Martinez-Gutierrez, J. C., Kim, Y., Salazar-Marioni, S., Tariq, M. B., Abdelkhaleq, R., Niktabe, A., Ballekere, A. N., Iyyangar, A. S., Le, M., Azeem, H., Miller, C. C., Tyson, J. E., Shaw, S., Smith, P., Cowan, M., Gonzales, I., McCullough, L. D., Barreto, A. D., Giancardo, L., & Sheth, S. A. (2023). Automated Large Vessel Occlusion Detection Software and Thrombectomy Treatment Times: A Cluster Randomized Clinical Trial. *JAMA Neurol*, *80*(11), 1182–1190. https://doi.org/10.1001/jamaneurol.2023.3206

Olson, K. D., Meeker, D., Troup, M., Barker, T. D., Nguyen, V. H., Manders, J. B., Stults, C. D., Jones, V. G., Shah, S. D., Shah, T., & Schwamm, L. H. (2025). Use of Ambient AI Scribes to Reduce Administrative Burden and Professional Burnout. *JAMA Netw Open*, *8*(10), e2534976. https://doi.org/10.1001/jamanetworkopen.2025.34976

Pelletier, J. H., Watson, K., Michel, J., McGregor, R., & Rush, S. Z. (2025). Effect of a generative artificial intelligence digital scribe on pediatric provider documentation time, cognitive burden, and burnout. *JAMIA Open*, *8*(4), ooaf068. https://doi.org/10.1093/jamiaopen/ooaf068

Shah, S. J., Devon-Sand, A., Ma, S. P., Jeong, Y., Crowell, T., Smith, M., Liang, A. S., Delahaie, C., Hsia, C., Shanafelt, T., Pfeffer, M. A., Sharp, C., Lin, S., & Garcia, P. (2025). Ambient artificial intelligence scribes: physician burnout and perspectives on usability and documentation burden. *J Am Med Inform Assoc*, *32*(2), 375–380. https://doi.org/10.1093/jamia/ocae295

Teo, Z. L., Thirunavukarasu, A. J., Elangovan, K., Cheng, H., Moova, P., Soetikno, B., Nielsen, C., Pollreisz, A., Ting, D. S. J., Morris, R. J. T., Shah, N. H., Langlotz, C. P., & Ting, D. S. W. (2025). Generative artificial intelligence in medicine. *Nat Med*, *31*(10), 3270–3282. https://doi.org/10.1038/s41591-025-03983-2

Tomasev, N., Glorot, X., Rae, J. W., Zielinski, M., Askham, H., Saraiva, A., Mottram, A., Meyer, C., Ravuri, S., Protsyuk, I., Connell, A., Hughes, C. O., Karthikesalingam, A., Cornebise, J., Montgomery, H., Rees, G., Laing, C., Baker, C. R., Peterson, K.,…Mohamed, S. (2019). A clinically applicable approach to continuous prediction of future acute kidney injury. *Nature*, *572*(7767), 116–119. https://doi.org/10.1038/s41586-019-1390-1

Topol, E. J. (2019). *Deep medicine : how artificial intelligence can make healthcare human again* (First edition. ed.). Basic Books.

Topol, E. J. (2026). Mammography should include artificial intelligence support. *Lancet*, *407*(10537), 1415. https://doi.org/10.1016/S0140-6736(26)00659-8

US Department of Health and Human Services. (2025). Artificial Intelligence Strategy.

Wachter, R. M. (2026). *A giant leap : how AI is transforming healthcare and what that means for our future*. Portfolio / Penguin.

Xu, Z., Ren, F., Wang, P., Cao, J., Tan, C., Ma, D., Zhao, L., Dai, J., Ding, Y., Fang, H., Li, H., Liu, H., Luo, F., Meng, Y., Pan, P., Xiang, P., Xiao, Z., Rao, S., Satler, C.,…Zhavoronkov, A. (2025). A generative AI-discovered TNIK inhibitor for idiopathic pulmonary fibrosis: a randomized phase 2a trial. *Nat Med*, *31*(8), 2602–2610. https://doi.org/10.1038/s41591-025-03743-2