CitiusTech

Shaping Healthcare Possibilities

Insights to create an impact

Redefining care efficiency and scalability: Healthcare Provider trends to prepare for

The Healthcare Provider ecosystem is in the midst of transformations that were not encountered since the 1920s when radiology, antibiotic research, and Provider specialization emerged as the drivers of medical advancement. In the evolving Healthcare landscape, care management is integrating AI and automation to enhance the existing EMR database infrastructure. Care Providers are also prioritizing the delivery of high-quality care while maintaining safety and credibility, as well as seeking ways to cut down the soaring costs of Healthcare.

Moreover, Healthcare facilities need more skilled personnel: WHO predicts a potential deficit of 10 million health workers by 2030, especially in low and lower-middle-income countries [1]. The Association of American Medical Colleges [2] projects a shortfall of up to 124,000 physicians in the United States by 2034 as demand surpasses supply.

In the face of such adverse challenges, Healthcare Providers need to take a moment and ask themselves–what does the future hold?

While technology seems like the clear-cut solution to these hurdles, it needs to be more bereft of the human factor and a change in mindset. The key is to now focus on delivering digital-first, high-quality care, considering the trends ahead to determine the silver lining.

The road ahead: Trends shaping the Healthcare Provider landscape

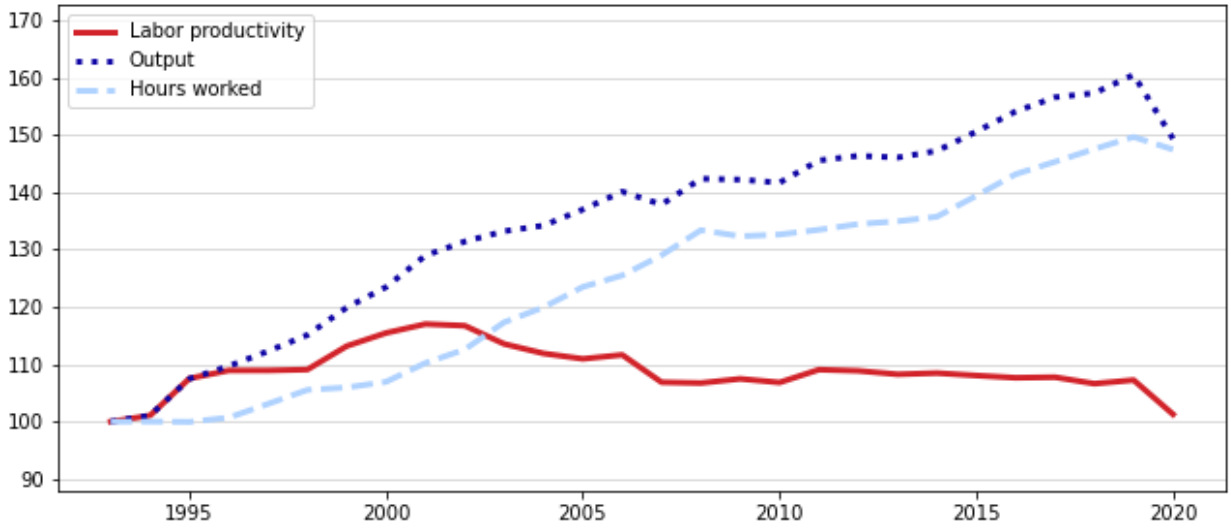
1. Healthcare has a highly labor-intensive operating model

The Healthcare industry took a transformative hit during the pandemic, leading to a massive shortage and consequent burnout of Healthcare professionals across the globe. In 2023, the National Institutes of Health (NIH) reported [3] that 91.1% of nurses encountered significant burnout. The increasing volume of data to be put into EHRs, coupled with the heightened demands of care for more severely ill patients, has placed additional stress on Healthcare professionals.

NIH studies also indicate that Healthcare workers, particularly nurses and clinical staff, perceive the current expectations for productivity and efficiency as unrealistic. This situation has notable repercussions on their well-being and future work intentions.

Figure 1. Index of labor productivity, output, and hours worked for private community hospitals

Index (1993=100)



Source: U.S. Bureau of Labor Statistics, Office of Productivity and Technology

In 2020, community hospitals experienced a 5.6 percent decrease in labor productivity, attributed to reductions in output (down by 6.9 percent) and hours worked (down by 1.5 percent). Thus, despite the rapid *infusion of technology* [4], 2020 saw a steep decline in productivity. This emphasizes the need for tactful technology adoption in 2024 to address productivity concerns among caregivers. At the same time, there must be a shift toward redesigning care models from the caregivers' perspective to ensure optimum outputs, productivity, and balanced work hours.

2. Insufficient pipeline of new replacements to backfill retiring Healthcare professionals

Our Healthcare system is already burdened, mainly due to an increasing geriatric(5) global population, Healthcare professionals' strikes, staffing shortages, and more. A recent McKinsey report suggested a deficit of 200,000 to 450,000 nurses [6] in the United States alone. This gets coupled with an intense workload, rigid and demanding work schedules, and a lack of faculty to train them—resulting in a gap in addressing the current healthcare demands.

While care Providers can combat some of these with education and proper training, 2024 will be about integrating AI to tackle the labor force replacement bottleneck. AI offers a multifaceted solution to the Healthcare labor shortage, mitigating stress on workers, improving patient care, and expanding access.

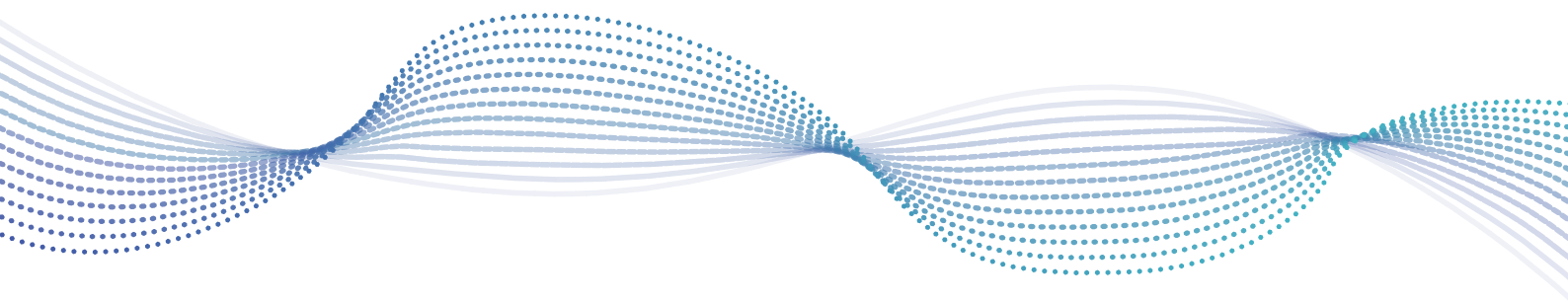
For instance, a Florida-based hospital recently started using an AI-powered program that transcribes comments from both doctors and patients and subsequently generates a formatted clinical physician summary suitable for electronic health records (EHRs).
AI algorithms can also help with triage, allowing patients to answer questions evaluated against predefined algorithms. This enables Healthcare staff to quickly identify and prioritize patients who require immediate attention, especially during high patient volumes.

In regions facing shortages of ultrasound technicians and radiologists, healthcare providers can employ AI imaging tools to analyze chest X-rays for indications of diseases like tuberculosis and pneumonia—thereby improving the availability and accessibility of critical healthcare procedures in areas lacking an adequate Healthcare workforce.

3. Lower availability of professionals

As discussed earlier, the number of Healthcare professionals is dwindling. A new study forecasts that approximately 6.5 million healthcare sector employees will resign from their positions by the year 2026[7]. This can lead to a significant gap or pose an opportunity to understand the healthcare workforce and implement technological solutions that augment healthcare entirely.

However, how care Providers approach technology has to evolve—into a two-way strategy. First, the focus is on reducing the workload – through telehealth services, remote delivery, automated workflows, diagnostic support, and others. Telemedicine, for instance, can become a force multiplier if it enables asynchronous interactions with providers through digital healthcare experience innovations that enable personalized and seamless digital consumer journeys.



4. The Silver Tsunami phenomena

The Silver Tsunami phenomenon has begun to take it's full effect whereby senior citizens, will significantly impact the newer generations and will begin to dominate resource allocation, through retiree service delivery, The "gen X" generation had a lower birth rate than the "baby boomers" which has resulted in a population of fewer caregivers per retiree.

As lifespans increase, demand for prolonged care also rises, thus increasing medical costs in the global economy. This gives rise to the need for virtual hospitals. Why? Hospital spaces are limited and will be inaccessible to many of this aging population.

With virtual hospitals, Healthcare Providers can roll out preventative care and specialized services remotely, catering to the patient's needs without constraints of physical space. Moreover, virtual hospitals can leverage telemedicine, remote monitoring, and digital health technologies to deliver personalized care, manage chronic conditions, and provide timely interventions.

5. Power cost-effectiveness with AI, process automation, and robotics

Going digital-first [8] is necessary to address the higher costs of delivering healthcare services. The focus has to be on reducing the labor intensity of the care and operating models by introducing EHRs, intuitive chatbots for quick real-time support, healthcare assistants for accessible patient care, and technological wearable devices that enable rapid detection of emergencies, among others.

Healthcare organizations are also embracing Generative AI for app development and system integration—to optimize data management and digital product development in a cost sustainable way. McKinsey says, *"Gen AI represents a meaningful new tool that can help unlock a piece of the unrealized $1 trillion of improvement potential in the industry* [9]*."*

6. Value-based care

Value-based care (VBC) is enabled by interoperability and analytics. This refers to data exchange and integration, including EHRs and HIE, data aggregation, population health management, patient engagement and remote monitoring, predictive analysis, claim processing, and billing. This, powered by generative AI, can automatically and immediately summarize the data, generate insights, and free up time for people to move beyond data collection and address the complex needs of the healthcare system.

7. Complex and additional reporting requirements

Advanced reporting platforms offer data-driven insights into Payer-Member population variations, unraveling the complexities of patient demographics and enabling customized strategies. These enable streamlined operations, more accurate measures, achievement of maximum quality bonuses, and enhanced overall operational efficiency and safety.

Advanced clinical and operational analytics optimize resource allocation and address the above-mentioned concerns, further improving patient outcomes. In a dynamic Healthcare environment, embracing sophisticated analytics proves instrumental in delivering high-quality care while addressing the diverse needs of patient populations.

Building a scalable, efficient Healthcare network

The evolving landscape of healthcare provider market trends is set to profoundly impact patient care, ushering in transformative changes driven by technology, data analytics, and a focus on redefining how technology and Healthcare professionals interact in the new world.

For instance, CitiusTech recently collaborated with Sentara Healthcare to create a comprehensive data management solution. This solution is designed to intake, curate, transform, and reconcile data from five distinct sources, ultimately forming a 360-degree view of the patient record. Sentara ensured the EDP utilizes Azure's HIPAA-compliant Platform as a Service (PaaS) offerings. This Cloud implementation allows for the scaling of substantial data volumes, leading to an annual cost savings of nearly ***$1.5 million*** compared to the on-premise model.

The above instances highlight the impending need to address individual patient care while revamping an entire system to drive better patient outcomes.

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