Industry Specialty Team | May 2024

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Artificial Intelligence to Increase Efficiency and Decrease Costs in Healthcare

American Medical Association Augmented Intelligence Research

54% of physicians ranked AI to help reduce documentation as their top interest

56% of physicians indicated that AI can best help automating administrative tasks

72% of physicians indicated leveraging AI to support diagnoses as having the greatest potential for success

The US healthcare system is the most expensive in the developed world—spending roughly twice as much per capita as comparable nations—yet Americans have poorer health outcomes including shorter life expectancy and higher incidences of chronic diseases. Can the use of artificial intelligence help make headway towards addressing this problem?

A recent paper by the Commonwealth Fund reported that an estimated 30% of total "excess"[1] healthcare spending is spent on administrative costs. Another ~15% of costs are associated with salaries & wage expenses for clinicians. With nearly half of all excess healthcare expenses coming from these two areas, there are ample opportunities to decrease costs by utilizing Artificial Intelligence ("AI") some of which are mentioned below.
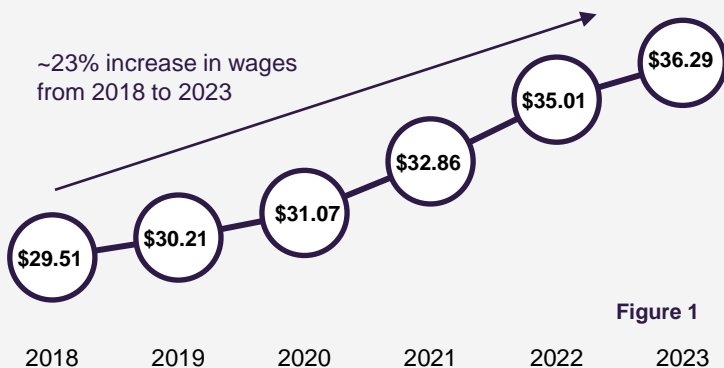
Over half of the 1,081 physicians recently surveyed by the AMA responded that AI can best help by automating administrative burdens. For example, AI would enable clinicians to spend more time providing care (thus increasing patient volumes and further increasing revenue) and less time on administrative tasks, such as inputting information into Electronic Health Record systems and creating case discharge instructions, care plans or progress notes.

A large health system based in South Florida recently experimented with a medical scribe AI service. This application recorded patient-clinician interactions and delivered the recordings to a transcription service which then were fed into a language model. The results of the test were especially noteworthy in two areas:
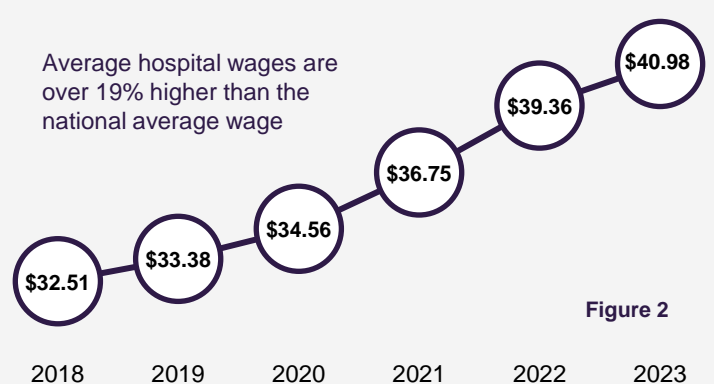
1 **Time Savings:** The sample group saw a reduction in average clinical documentation time per patient interaction

2 **Enhanced Clinical Productivity:** The AI-assisted summaries were available to physicians in minutes versus having to wait hours

As wages for healthcare workers have continued to increase and many systems have struggled to fill key roles, AI shows promise in "extending" existing workers (both clinical & support) to help reduce both costs as well as the need for incremental hiring.

Average Hourly Wages All Healthcare Employees

~23% increase in wages from 2018 to 2023

2018	2019	2020	2021	2022	2023
$29.51	$30.21	$31.07	$32.86	$35.01	$36.29

Figure 1

Average Hourly Wages Hospital Employees

Average hospital wages are over 19% higher than the national average wage

2018	2019	2020	2021	2022	2023
$32.51	$33.38	$34.56	$36.75	$39.36	$40.98

Figure 2