

# Nationwide Healthcare Provider Shortages:

**Ways to Return Staff to Patient Care**



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# Introduction

The increased demands placed on healthcare providers (HCPs) during the COVID-19 pandemic highlighted a healthcare workforce crisis that's been building for decades.<sup>1</sup> Reasons for staff attrition over the years have included an aging workforce and increasingly unsustainable workloads. Strategies to retain skilled, experienced HCPs are urgently needed. As described in this white paper, introducing automation for tasks that do not require clinical expertise could reduce the burden on HCPs and allow them to focus on improving patient care.

## Healthcare staff shortages are accelerating.

Staffing shortages, particularly of nurses, are being felt across the nation,<sup>2,3</sup> with fewer than one-quarter of recently surveyed practices being fully staffed.<sup>4</sup> Rural areas, where 99% of hospitals report insufficient staff, are particularly affected.<sup>2</sup>

Large numbers of staff are being lost month over month,<sup>5</sup> and resignations in the healthcare sector were 50% higher in August 2021 than in February 2020.<sup>6</sup> This has resulted in higher-than-normal levels of turnover. For example, in 2020, overall hospital turnover increased by 1.7%, while turnover for staff RNs increased by 2.8%, reaching its highest level in recent history.<sup>7</sup>

This rate of HCPs leaving or reducing their roles does not look likely to slow in the near future. In a large-scale survey of healthcare workers across 124 institutions in the United States, nurses (33.7%) were the most likely to want a reduction in their hours, followed closely by physicians (31.4%).<sup>8</sup> The Coping With COVID study, funded by the American Medical Association, found that 23.8% of physicians and 40% of nurses planned to leave their positions within the next 2 years.<sup>9</sup> For some, this means moving to a different patient population, healthcare organization, or different practice. For others, this means leaving direct patient care and finding other healthcare roles—the proportion of registered nurses (RNs) in the United States who planned to leave direct patient care more than doubled over eight months in 2021<sup>10</sup>—or leaving the profession altogether.<sup>11</sup>

Backfilling these roles is not happening at the same rate as they are emptying. As a result, healthcare job openings hit historic levels in 2021.<sup>6</sup> Nearly half of hospitals have positions they are unable to fill.<sup>4</sup> For RN roles specifically, two-thirds of hospitals have more than 7.5% of RN positions unfilled, and more than one-third have >10% of the positions open.<sup>7</sup>



**1.1 million nurses**  
need to be hired by 2026  
to meet the demand<sup>3</sup>

## Understaffing compromises patient care and threatens the bottom line.

In the midst of a shrinking workforce, the population is growing and getting older, increasing the demand for healthcare. This growing demand for healthcare plus fewer HCPs mean higher patient load, less time per patient, longer hours for HCPs, and greater costs for healthcare organizations.

Hospitals are reducing their services and bed capacity,<sup>2,12,13</sup> impacting the ability to care for new patients and negatively affecting patient safety

and outcomes.<sup>14,15</sup> At the same time, hospital closures due to reduced revenue during the COVID-19 pandemic are flooding other healthcare organizations with new patients they are unable to support.<sup>4</sup>

Worker shortages place stress on the remaining clinician teams, by increasing their workload and reducing efficiencies.<sup>9</sup> Some HCPs are particularly burdened by the inability to provide what they consider to be appropriate patient care.

To meet the demand for nurses, more than 1.1 million nurses will need to be hired by 2026.<sup>3</sup> Travel nursing firms have been helping to fill the gap,

even before the COVID-19 pandemic, offering higher salaries and more generous benefits to nurses who are willing to relocate where needed. However, the lure of greater pay is also contributing to attrition from permanent positions,<sup>2</sup> higher costs for hospitals, and challenges with integrating contract team members into the larger permanent team.<sup>7,11</sup>

Yet, for many hospitals, the use of temporary nurses is alluring to meet the short-term need—it takes, on average, 3 months to recruit an experienced RN. For long-term cost savings, healthcare organizations would benefit from retaining their staff, not only to limit the costs of outsourcing but also to reduce turnover-related expenses. The average turnover cost for a bedside RN is \$40,038, resulting in the average hospital losing between \$3.6M and \$6.5M a year at the current rates of attrition. Each percent reduction in RN turnover could save the average hospital an additional \$270,800 a year.<sup>7</sup>

## **HCP turnover is driven by an aging workforce, increasing workload, and lack of job fulfillment.**

Reasons for leaving healthcare roles are multifactorial, many of which have been present for many years and were recently exacerbated by added COVID-19–related stressors.

A large portion of the HCP workforce is close to retirement age: 40% of physicians will be at least 65 years old within the next 10 years,<sup>16</sup> and the average age for a registered nurse is 50 years.<sup>17</sup> Retirement was already within the top three reasons for HCPs leaving the profession,<sup>7</sup> and COVID-19 accelerated that timeline for many.<sup>6</sup>

Workload also ranked in the top ten reasons to leave healthcare<sup>7,18-20</sup> or to at least reduce the number of hours worked.<sup>8</sup> On top of existing responsibilities, HCPs have been asked to learn and provide new services such

## Meaningful work

has emerged as the most important aspect of a job—more important than income, job security, and hours worked.<sup>26</sup>



as telehealth and home-based patient monitoring, all with limited resources. This increase in duties, compounded by understaffing, contributes to burnout, which has been associated with higher rates of HCPs intending to reduce their hours, leave their current job, or leave healthcare altogether.<sup>6,21</sup>

Moreover, HCPs are being asked to spend time on work not directly related to patient care, such as administrative tasks and care documentation, contributing to burnout and job dissatisfaction.<sup>22,23</sup> Although electronic health records (EHRs) have improved patient-provider communication, allowed patients to easily view test results and order prescriptions, and enabled the pooling of data across health systems, HCPs are spending a large proportion of their time, up to 5 hours for every 8 hours of scheduled clinical time, using EHR systems.<sup>24</sup>

## Improve job satisfaction by reallocating HCPs to meaningful work.

Many HCPs entered the profession to make a difference in patients' lives, and an increase in administrative work can pull time away from the “meaningful work” of patient care. Further, they may feel as if they are not utilizing their training or operating at the top of their license.

Employees who can find purpose in their day-to-day work are more likely to find their work meaningful and are less likely to leave their position.<sup>25-27</sup> In fact, meaningful work has emerged as the most important aspect of a job—more important than income, job security, and hours worked.<sup>26</sup> Nurses have explicitly stated that being able to do meaningful work and feeling engaged by their responsibilities are top reasons for staying in their current role.<sup>28</sup> Therefore, providing opportunities for HCPs to incorporate more purpose and self-fulfillment into their roles may help with workforce retention.<sup>8</sup>

There is an opportunity to redesign roles and processes using digitization and automation, where appropriate, to reduce time spent on repetitive tasks, increase flexibility, and incorporate support to enable top-of-license practice.<sup>28</sup> The American College of Physicians (ACP) recognizes the need to reduce administrative tasks in healthcare, providing seven recommendations in a recent position paper,<sup>29</sup> including:

“To facilitate the elimination, reduction, alignment, and streamlining of administrative tasks, all key stakeholders should collaborate in making better use of existing health information technologies, as well as developing more innovative approaches.”

“As the U.S. healthcare system evolves to focus on value, stakeholders should review and consider streamlining or eliminating duplicative administrative requirements.”

Data abstraction, or extracting clinical data from EHRs and other systems, is one such task that benefits from automation. Although necessary to support initiatives around quality of patient care and operational improvements, data abstraction is a tedious task that can consume from nine to more than 30 FTEs.<sup>10</sup> It’s time to consider freeing up those health professionals to bedside care, allowing them to use their clinical training and expertise in a way that enhances job satisfaction.

Abstracting data from EHR systems is resource-intensive and time-consuming—they were primarily designed to capture clinical notes and facilitate reimbursement, not to easily extract data. This is where artificial intelligence (AI) technology can step in and help shift HCP time back toward

patient care and research. Making medical data usable often requires retrieving information from multiple, disparate systems and centralizing it in a format that can be easily understood by external tools (e.g., registries, analytics and business intelligence software, reporting platforms).

With AI, this is possible in a fraction of the time it would take a human to find and format the data.<sup>30</sup> Natural language processing (NLP) is a branch of AI that gives computers the ability to “understand” data fields and text. It can automatically find information that is standardized, or structured, in EHRs, such as gender, date of birth, and diagnostic codes. It can also assist with finding information from “unstructured” information stored in clinician notes, lab reports, imaging, and other sources. Although processing unstructured information can be a little more complicated than structured information, because of misspellings, different use of terms and phrases, acronyms and abbreviations, NLP can use related information in other parts of the patient records to interpret the information. Then, it can provide recommendations that can be reviewed and confirmed by a clinician. As part of this process, the AI can link the information back to its source so it can be viewed within context to make sure it is the correct value. Finally, AI can convert all the data it abstracts from across the clinical data systems into a common, standardized format that can be used across hospital systems.

This combination of humans and computers is key to obtaining high-quality, accurate information because clinical expertise is needed to confirm 40-70% of the information that is abstracted.<sup>31</sup>

## Take advantage of technology to restore purpose to HCPs' work.

In a highly competitive hiring environment such as healthcare, finding ways to improve job satisfaction, add meaning to daily tasks, and retain the workforce is imperative. Reducing the burden of administrative tasks can help. When used to extract clinical data from hospital systems, AI frees clinicians from the time-consuming, tedious task of searching for relevant information. It is virtually impossible for humans to search across all the systems in which data are stored. Instead, HCPs contribute their clinical expertise to verify information that NLP cannot verify on its own. This has a myriad of benefits, including reallocating time to direct patient care and allowing HCPs to contribute to quality initiatives through high-quality data abstraction.

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