



Healthcare's New Tipping Point: Sustained Operational Excellence and Retention Without Bias

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The Healthcare Industry is at a Crossroads

As we navigate our way out of unforeseen circumstances that pushed every healthcare system to its brink, a new and exciting future lies ahead. Modern technology has completely revolutionized patient care. Now, it's time for visionary healthcare leaders to bring that same innovation to talent acquisition and retention.

When true alignment is achieved, Operational and HR leaders will successfully cut turnover, decrease expenses and dependence on staff agencies, and reduce bias in the hiring and promotion process. As a result, the health system experiences a measurable lift in satisfaction and engagement—for staff, patients, families, and communities.

This whitepaper explores the immediate and long-lasting impact that predictive hiring data has had on the modern healthcare organization, and unearths:

- How an unstable workforce threatens the healthcare industry
- What happens when high turnover and low retention remains unaddressed
- How new technologies can help attract better talent; improve staff, operational performance, and culture; and boost the bottom line
- The technologies that are transforming how you hire, retain, and promote people predicted to thrive in your workplace

With access to the right data and analytics, leaders in operations and human resources can forecast fit to find the right person for every role. They can collaborate to develop teams optimized for retention, excellence in care, and increased revenue.

Healthcare's Workforce Woes

Coming on the heels of a pandemic that upended traditional models of care and pushed frontline healthcare workers to their limits, the healthcare industry is in crisis. COVID-19 accelerated certain factors that were already threatening healthcare—particularly, its workforce.

Although hospitals recognize the problem—95% view retention as a “key strategic initiative”—only half have tied it to an actual measurable goal.

To compound matters, hospitals are struggling to retain the staff they have. Since 2016, the average hospital has turned over a staggering 91% of its workforce, with the average annual turnover currently sitting at 19.5%.

The industry is facing a real labor shortage. An aging population that is living longer due to medical advances will continue to struggle to manage chronic conditions as they age, and the healthcare system will face new levels of strain. **Organizations need to be ready now—to build a stable workforce that is resilient and agile to weather and sustain any future crises.**



What is the Fallout?

The inability to find and retain the right employees touches every corner of a hospital and health system. This turnover also affects the remaining staff. Having to pick up the slack, these frontline workers are feeling overworked and underappreciated. And turnover (and its downstream effects) also leads to higher labor costs that can have a devastating impact on a hospital's bottom line.

Here, we examine the fallouts in more depth.

A study of 23 ICUs...

showed that patients in intensive care units with high nurse manager turnover were **three times more likely to develop pressure ulcers** compared to patients in units with lower levels of nurse manager turnover.

Declining Quality of Care

A significant body of research attests to the connection between a dissatisfied or disengaged caregiver and the quality of care. Researchers have reviewed a range of data—from medical errors to falls to patient satisfaction surveys—and consistently found correlations to overworked or disengaged staff. Nurse manager turnover is also shown to be directly tied to poorer quality of care and more adverse outcomes.

Conversely, it's also been proven that hospital staff generally provide a higher level of patient care when not experiencing high turnover. In fact, [data collected from 268 nursing units across more than 100 hospitals](#) showed that lower levels of turnover were associated with fewer patient falls and fewer medical errors.

Quality of care becomes compromised with high rates of turnover, leaving patients and families dissatisfied or worse, feeling ignored or mistreated.

Patient and Staff Dissatisfaction

The link between retention and patient satisfaction is undeniable. According to survey results from [over 95,000 registered nurses](#), higher levels of burnout and job dissatisfaction were associated with lower patient satisfaction.

Furthermore, a study of 110 Army treatment facilities across 35 healthcare systems found that nurse satisfaction was the [most consistent predictor](#) of not only adverse events, but patient satisfaction. According to a study from [311 California hospitals](#), the use of contract nurses, often tapped by healthcare organizations to temporarily backfill vacant positions, has a statistically significant negative impact on patient satisfaction.

On the flip side, a satisfied staff has been proven to provide a higher level of care. [A 2019 study from Penn Nursing](#) revealed that nurse satisfaction and working conditions can impact patient care quality. Sixteen years' worth of data from over 2,600 hospitals, 165,000 nurses, and 1.3 million patients revealed that poor working conditions had a direct and negative impact on nurse job outcomes, nurse assessments of quality and safety, patient health outcomes, and patient satisfaction. And, [research using the American Nurses Association's National Database of Nursing Quality Indicators](#) discovered that a 25 percent increase in nurse job enjoyment over two years can be linked to an increase in overall quality of care between 5 and 20 percent.



Nurse satisfaction has been shown to be the most consistent predictor of adverse events and patient satisfaction.

Employee Mental Health

Healthcare staff on a whole are frustrated, exhausted, and approaching burnout. The job on its own is hard enough, with long hours and tough cases. Add to it a pandemic and labor shortage, and many caregivers have been worked to the point of pure exhaustion. It takes a toll on their emotional state and many are at risk of burnout, or worse.

In what can already be a stressful working environment, staffing shortages and resulting overtime work can add fuel to the fire. [In a study of clinicians](#) at community mental health centers in Indiana and Missouri, it was found that participants who reported working overtime experienced significantly higher levels of burnout. Even small amounts of overtime can carry negative downstream impacts. Just a few hours of overtime a week may be a risk factor for burnout and negatively impact work-life balance, job satisfaction, and quality of care.



Clinicians working significant amounts of overtime reported greater emotional exhaustion, depersonalization, and significantly lower personal accomplishment.

According to a study from [the Yale School of Public Health](#) conducted during the pandemic:

14%

of healthcare workers have probable major depression

15%

of healthcare workers have a generalized anxiety disorder

23%

of healthcare workers have a post-traumatic stress disorder

40%

of healthcare workers suffer from alcohol use disorder



Turnover and its fallout can have a devastating effect on already diminishing margins.

Rising Labor Costs

Labor is the greatest driver of operating expenses for hospitals across the country, constituting about 60% of costs. Turnover and its fallout can have a devastating effect on already diminishing margins. With 60-65% of all worker turnover occurring in the first year of employment, unchecked ongoing churn creates a snowball effect that not only leads to increased labor-related costs but degrades top-line revenue as an overwhelmed workforce struggles to deliver quality care and services.

The cost of RN turnover in large acute-care hospitals is estimated to be as high as \$6.4 million and the cost to replace a single RN can be more than 1.3 times their salary. Overtime and utilization of temporary workers and travel nurses further eat into revenues. For every 20 travel RNs eliminated, a hospital stands to save an average of \$3,084,000.

Until hospitals can hire and retain enough qualified RNs to properly staff their units, they are at risk of having to close these patient care centers, either temporary or otherwise, which will further reduce revenue streams and decrease the level of patient care.

What Comes Next: Building Resilient and Agile Healthcare Organizations

So what can a healthcare organization do to improve turnover, patient care, staff satisfaction, and operational costs? How can it stabilize its workforce? The answer comes through a joint imperative between Operations and HR to weather the fallout from the pandemic and the difficult road ahead. To do so, they need to make these key objectives a priority:



**Expand the
Hiring Pool**



**Predict Staff and
Operational Performance
With Confidence**



Retain Key Talent



**Provide Development
Opportunity to Aid
Mobility**



Actively Eliminate Bias

The right technologies and services can aid healthcare organizations on their journey to make better hiring decisions and achieve these goals.

Hiring: An Ongoing Struggle

According to a 2021 report from Aptitude Research, [Redefining Success: Talent Analytics for the Future](#), “Companies still struggle with one of the most fundamental recruitment areas - hiring the best talent. However, companies will not improve their quality of hire until they change the way they make decisions.”



Expand the Hiring Pool

There's a world of candidates out there who may never think to apply to your organization. There are many others who have applied, but perhaps went for the wrong role and now lay ignored in your database. It's time for healthcare organizations to mine talent from under their own roof and from external candidates that otherwise wouldn't have been discovered.



Provide Development Opportunity to Aid Mobility

In seeking to fill vacancies, most organizations look at internal and external applicant pools—candidates or current employees who have actively applied to fill an opening. Through data analytics, however, hospitals can go beyond the pool of new applicants and tap into a wider network. They can evaluate existing employees for better fits elsewhere within the organization. Every single employee of the hospital should be considered for the role that best fits each individual—not just the role each currently holds.



Predict Staff and Operational Performance With Confidence

What if you could predict whether a candidate will be employed, thriving, and contributing to company goals in one year? Data-backed solutions can make this a reality—letting you identify with confidence the candidates who will deliver and perform before you hire.



Actively Eliminate Bias

Humans are hardwired to hire people like themselves. They are often guided by bias, albeit unconsciously. Recruitment platform algorithms and machine learning, if left unchecked, can replicate and scale those human and systemic biases, perpetuating unintentional discrimination. There are, however, models specifically built to reduce or eliminate bias. Adversarial Fairness, for example, actively identifies and eliminates bias, rather than perpetuating it by looking for patterns of bias in the existing model and eliminating it.



Retain Key Talent

Just as turnover can snowball, so can retention. Start to increase satisfaction and retention with competitive compensation and benefits, flexible scheduling, and listening to the voice of the employee. Beyond that, optimizing the workforce through data-informed, bias-free hiring processes will result in teams that are more cohesive, employees who are more satisfied, and reduced team churn. Offer an attractive employee experience to retain key talent.

“Companies that focus on quality of hire were five times more likely to see an improvement in first-year retention and four times more likely to see an improvement in first-year performance.”¹

The Link to the Future: The Power of Predictive Data

To stabilize the workforce, reduce turnover, increase retention, and find the right people for the right positions, leading organizations are leveraging data and insights to increase performance at the employee and organizational levels.

This insight is changing the game when it comes to attracting and retaining talent. By continually collecting and analyzing data from diverse and current sources – including recent hires, applicants, organizations, and local and regional market factors – predictive models can confidently identify applicants who will thrive at a specific job, unit, and shift, under a specific manager. This level of specificity and analysis is far more precise—and reliable—than traditional screening processes. And, machine learning models continually analyze data, recognize patterns, and optimize algorithms, compounding ROI over time.

As healthcare organizations embrace clinical AI, they are looking for the same depth and breadth of solutions to stabilize their workforce. Although they may be tempted to build a solution in-house from the ground up, healthcare organizations, like all businesses, are drawing in data and often struggle to turn it into insights. In fact, **only 32% of organizations** report being able to realize tangible and measurable value from data, while only 27% say analytics projects insights and recommendations that are actually actionable.

Leveraging data-science-based solutions that are already built on years of field-tested experience and rich data sources will produce better hiring and retention results, enable the alignment of HR and Operations, and yield a higher ROI than trying to develop an internal solution.

Meet Arena Analytics: Transforming the Healthcare Labor Market

Start realizing the power of data and improve turnover in as little as six months with Arena Analytics, the new standard for predicting staff performance and improving retention for healthcare organizations.

Arena empowers Operations and HR leaders to make smarter hiring decisions faster—ones that will have long-standing impacts on retention, patient care, finances, and more.

Arena was specifically developed to empower healthcare organizations to:

Increase Retention

Predict with confidence who will thrive in what role.

Reduce Turnover Costs

Labor is the biggest operating cost driver for acute and post-acute care. Disrupt churn and cut wasteful costs in the process.

Improve Care and Satisfaction

Satisfied staff provide better care, and enhance patient satisfaction.

Arena's simple integration and top-tier support team make implementations seamless, with zero impact on current systems and IT networks. Arena adds exceptional insights around operational performance directly into your workflow.

A true partner in operational excellence, Arena has deep experience and expertise in the healthcare trenches. Our experts not only understand best practices and workflows, but enable staff performance end-to-end. Arena helps you hire the right people for the right roles, but it doesn't stop there. Arena's data scientists and client consultants meet regularly with stakeholders across the organization to bring Clinical, HR, and Operational leadership together, enabling complete alignment around the strategies that help them achieve the outcomes that matter.



By providing objective, unbiased retention predictions through AI that's been field-tested for more than a decade, Arena fills the gaps left by assessment tools.

How Arena Analytics Enables Leading Healthcare Organizations to Thrive



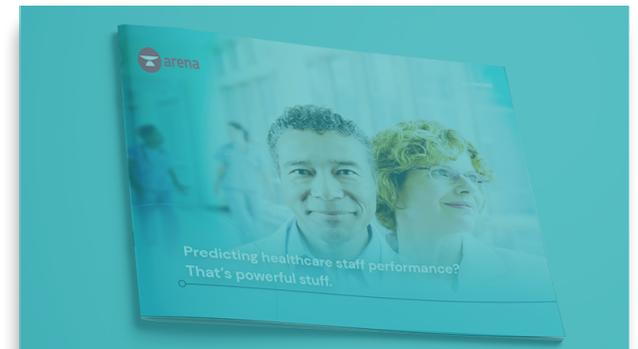
At a southern general hospital serving both urban and rural populations, including the region's sickest patients, hospital leaders managed a transformation that reduced 90-day turnover by 39% in the first six months. After a full year, turnover was down 22%. The hospital was able to completely eliminate agency usage, saving over \$5 million annually.

[Read More](#)



The flagship medical center of a statewide university medical system, in the top 10% of hospitals nationwide, struggled with one-year turnover rates topping out at over 40%. By partnering with Arena Analytics, the health system was able to drive one-year turnover rates down by 12%, netting \$1.27 million in annual savings.

[Learn More](#)



Even though this acute care hospital was operating with below-average turnover, leaders recognized that more could be done to enhance retention and improve the quality of its hires. After implementing Arena Analytics' solutions, the hospital was able to cut 60-day turnover nearly in half, bringing it from 22.2% to 11.8%. The total savings? More than \$1.5 million annually.

[Read More](#)



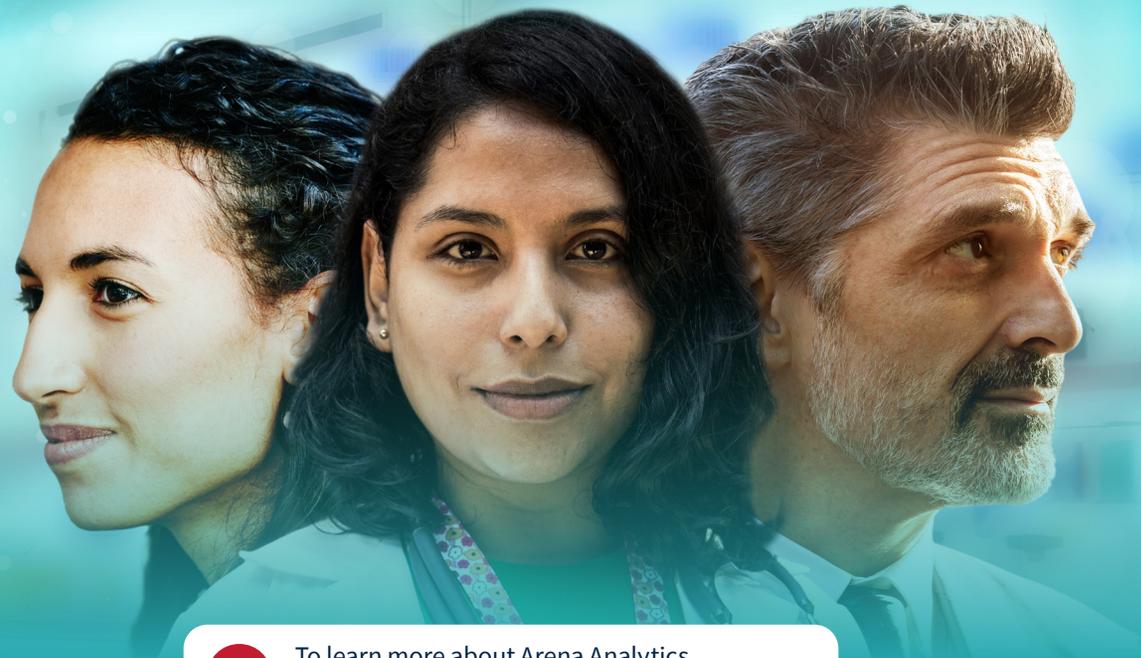
Predict Fit and Increase Retention. With Confidence.

Arena Analytics arms you with the data needed to find the right person for every position. The only intelligent, science-based solution on the market that matches qualified candidates to jobs where they realize their true talents and potential, Arena Analytics is the key to making sure your staff, organization, and patients can thrive.

Explore how we can enable your Operational and HR teams to improve retention, enhance performance, reduce bias, drive better patient care, and increase revenue.

Connect with our healthcare experts for a one-on-one consultation.

Let's Get Started



To learn more about Arena Analytics,
[request a consultation](#) or call +1 (800) 734-3630