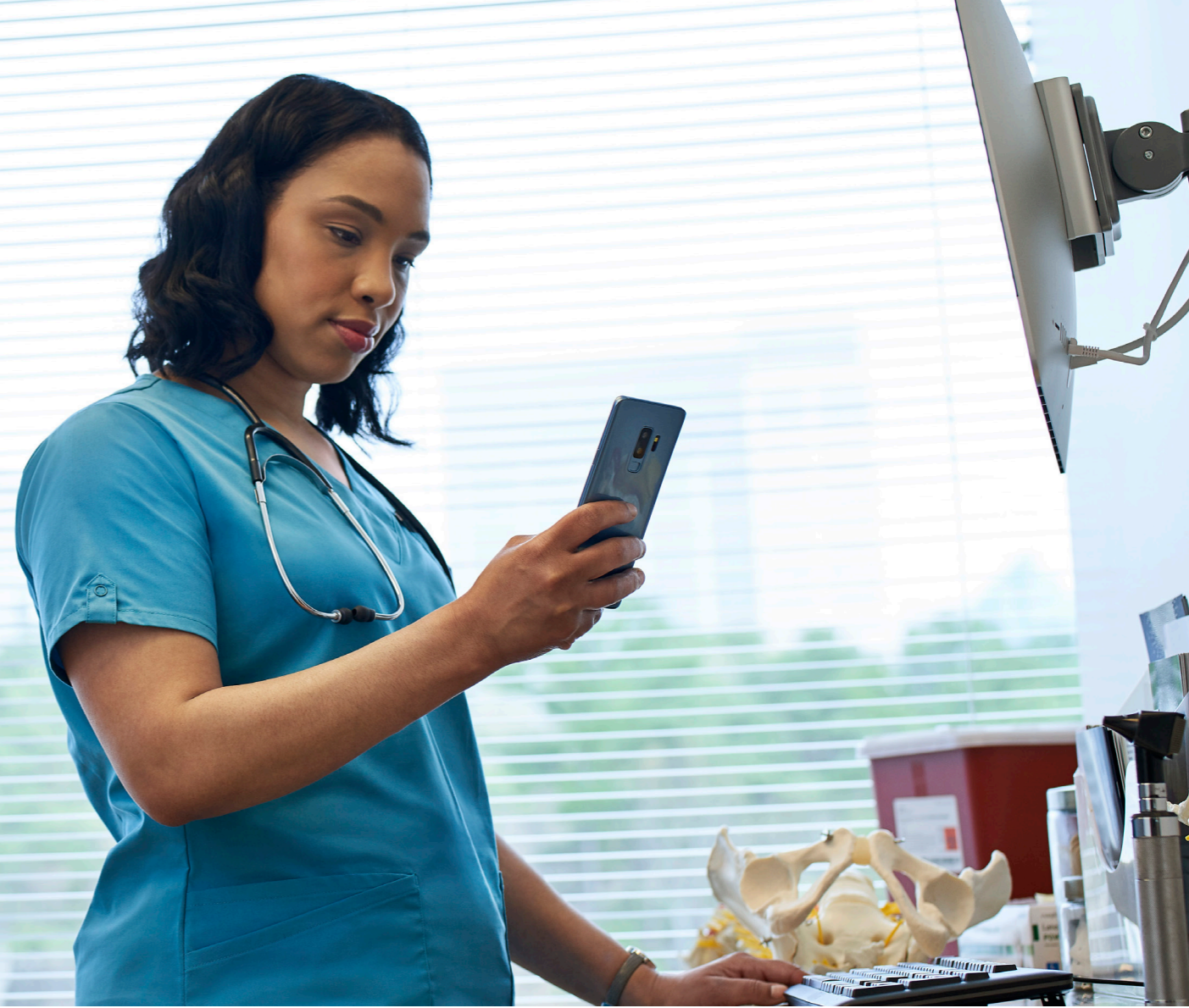


# Enterprise Intelligence: The role of healthcare data in the patient experience



Healthcare data is an important component to creating an outstanding patient experience. Modern healthcare organizations have access to massive volumes of data, and can achieve Enterprise Intelligence when they are capable not just of extracting value from all available data, but also applying insights across distributed assets.

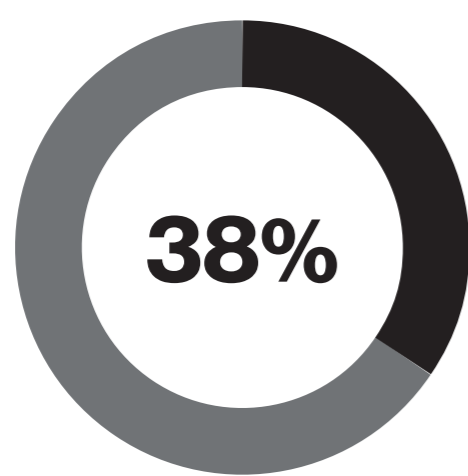
To operate seamlessly with near real-time, data-driven capabilities requires embracing digital transformation so your organization may evolve with the changing landscape

of healthcare. The result is a connected health system that utilizes data intelligently and operates efficiently. Enterprise Intelligence is built on 5G, Network as a Service (NaaS) technologies and mobile edge computing (MEC) that can deploy artificial intelligence (AI), digital health tools, augmented reality and more. It's a better infrastructure that can enable faster, more accurate data collection to improve patient experience and meet patient needs in revolutionary ways.

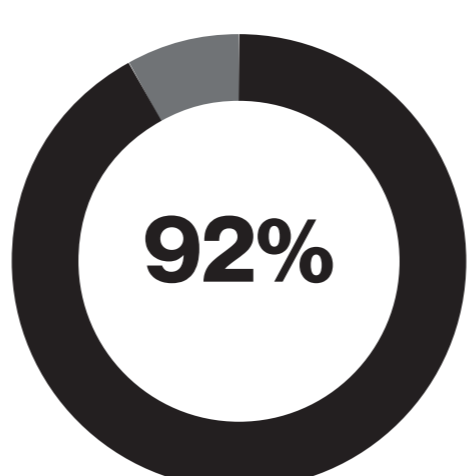
Here are some of the ways healthcare data and Enterprise Intelligence can help improve patient experience:

## Healthcare analytics

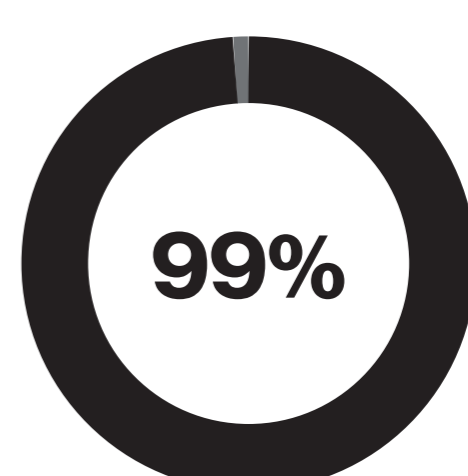
Healthcare data analytics can be used to improve patient experience through predicting patient outcomes, including identifying high risk patients and reducing the need for unnecessary medical tests. Examples from npj Digital Medicine include<sup>1</sup> the following models:



Safely ruling out deep venous thrombosis without ultrasonography in 38% of patients with a false-negative rate of only 0.2%<sup>2</sup>



Predicting post-operative bleeding risk in pulmonary bypass surgery patients with 92% accuracy<sup>3</sup>



Triaging patients presenting to an emergency department with more than 99% accuracy – 13% higher than traditional methods<sup>4</sup>

Software-Defined Wide-Area Networking (SD WAN, a critical component of NaaS) can help make it easier for providers to customize application traffic flow and help provide optimal network performance so valuable patient data can be quickly and securely shared for better clinical and operational decision-making.

## Reducing burnout

Continuity of care between patients and their primary care physician is linked to better patient outcomes and experience.<sup>5</sup> Burnout negatively impacts this continuity of care and is estimated to cost the industry almost \$5 billion annually.<sup>6</sup>

AI powered by healthcare data can help reduce burnout by:



Automating routine, repeatable tasks allowing staff to spend more time with patients



Capturing documentation at the point of care automatically via voice command



Providing personalized access to health-related information through chatbots

The low latency and high speed of 5G can support AI's requirement for near real-time decision-making. Nearly 60% of respondents to a HIMSS Market Insights survey believe 5G will have a positive impact on AI.<sup>7</sup>

## Asset Tracking and Wearables

Electronic Health Records-connected digital ID bracelets can streamline registration, track patients through clinics and contribute to contact tracing. Embedded radio-frequency identification (RFID) or real-time location services (RTLS) could save up to roughly 200 hours annually of search time for patients, hospital equipment and medical supplies.<sup>8</sup> RTLS technology can also alert staff about available beds and rooms approximately 2 hours and 40 minutes faster, better facilitating patient turnover.<sup>9</sup>

By bringing compute power closer to the edge, MEC can help hospitals make the most of RFID, IoT sensors and other asset tracking technology.

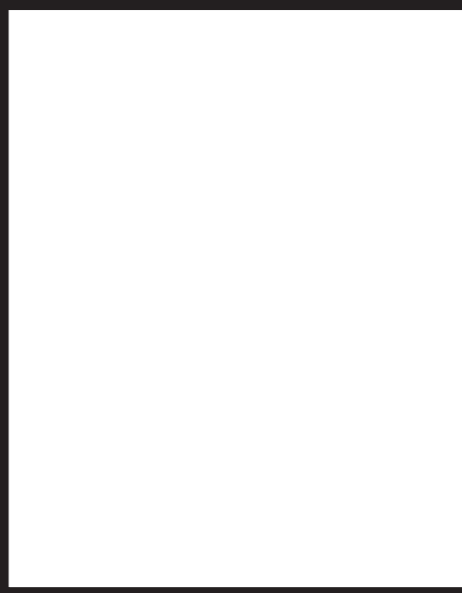


## Patient experience related to health system ratings

The use of data to enhance patient experiences and build a connected, intelligent organization is recognized by government and healthcare providers as the key to a successful health system. The Centers for Medicare & Medicaid Services (CMS) recently doubled the weight of patient experience via the Consumer Assessment of Healthcare Providers and Systems (CAHPS) metrics.<sup>10</sup> The CAHPS Health Plan Survey is “a tool for collecting standardized information on enrollees’ experiences with health plans and their services. Since its launch in 1997, this survey has become the national standard for measuring and reporting on the experiences of consumers with their health plans.” These survey results report patient experience measures and help identify industry best practices which can in turn help guide healthcare systems to take the right steps to modernize.

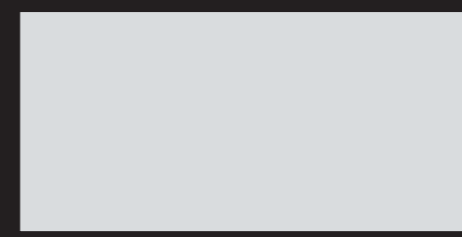
According to a study by Deloitte, hospitals with higher patient experience scores are more likely to have better profitability and better scores for some clinical outcomes.<sup>11</sup> For example, hospitals with “excellent” HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) patient ratings had a net margin of 4.7%, on average, compared with just 1.8% for hospitals with “low” ratings.<sup>12</sup>

4.7%



“excellent”  
HCAHPS rating

1.8%



“low”  
HCAHPS rating

By implementing networks with 5G, Mobile Edge Computing (MEC) and Network as a Service (NaaS), hospitals and healthcare providers can achieve greater operational efficiency and deliver better patient experiences and outcomes.

Learn more about how Verizon can help to build the network foundation for the connected hospital of the future to adapt to change in real time. That's Enterprise Intelligence.



The author of this content is a paid contributor for Verizon.

<sup>1</sup> Bates, DW, Levine, D, Syrowatka, A, et al. The potential of artificial intelligence to improve patient safety: a scoping review. npj Digit. Med. 4, 54 (2021).  
<sup>2</sup> Bates, DW, Levine, D, Syrowatka, A, et al. The potential of artificial intelligence to improve patient safety: a scoping review. npj Digit. Med. 4, 54 (2021).  
<sup>3</sup> Bates, DW, Levine, D, Syrowatka, A, et al. The potential of artificial intelligence to improve patient safety: a scoping review. npj Digit. Med. 4, 54 (2021).  
<sup>4</sup> Bates, DW, Levine, D, Syrowatka, A, et al. The potential of artificial intelligence to improve patient safety: a scoping review. npj Digit. Med. 4, 54 (2021).  
<sup>5</sup> Christine A. Sinsky, Tait D. Shanafelt, Liseotte N. Dyrbye, Adrienne H. Sabely, Lindsey E. Carlasare, Colin P. West, Health Care Expenditures Attributable to Primary Care Physicians: Overall and Burnout-Related Turnover: A Cross-sectional Analysis. Mayo Clinic Proceedings, Volume 97, Issue 4, 2022, Pages 693-702.  
<sup>6</sup> AMA, Nearly \$1 billion in excess patient costs tied to physician turnover, May 2022  
<sup>7</sup> HIMSS, Setting Realistic Expectations for 5G in Healthcare, January 2022  
<sup>8</sup> Modern Healthcare, Supporting staff with cloud-based asset tracking, July 2021  
<sup>9</sup> Healthcare IT News, RTLS helps Texas hospital save big time – and money – on patient discharge, July 2020  
<sup>10</sup> CMS, 2023 Medicare Advantage and Part D Star Ratings, October 2022  
<sup>11</sup> Deloitte, The value of patient experience, accessed March 2023  
<sup>12</sup> Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), HCAHPS Survey of Patient Ratings