

**jvion**



THE 2020 GUIDE

# Life-Changing and Risk-Bending Patient Harm Prevention



# Transform your EHR into the most powerful intervention engine

Now is the time to move beyond EHRs to bend the patient harm and hospital cost curve.

Preventable harm is a pervasive, costly, and often deadly problem afflicting America's providers and the patients they serve. Every year, as many as 400,000 patients die as a result of preventable harm, making it the third leading cause of death in America. [1] Furthermore, it's estimated that preventable harm contributes to \$244B in wasteful spending each year. [2]

Electronic Health Record (EHR) systems, the cornerstone of efforts to improve care quality since the HITECH Act of 2009, have been a linchpin in changing the game in care improvement —

digitizing the data our industry needs to make the next leap and leveraging data to get ahead of the curve in both patient harm and cost.

But EHRs alone cannot bridge the gap to achieving the true promise of accountable and patient-centric care; in fact, what digital data and clinical tools have created is pervasive clinical burnout, with **92% of clinicians surveyed in a 2019 calling burnout a "public health crisis."** Of those surveyed, 90% say they consider ineffective technology to be the main cause of this widespread problem [3].



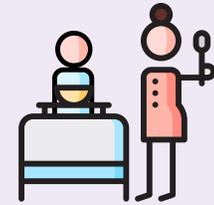
# The 2020 accountable care game-changer

To bend the avoidable patient harm and hospital cost curve in 2020, today's clinicians need to be empowered to intervene while the patient's outcome can still be changed.

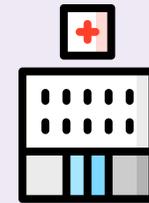
This empowerment goes beyond patient risk scores, clinical decision system alerts, and "traffic light-like" digital screen warnings. Clinicians need to intercept and course-correct harmful patient trajectories by focusing efforts on modifiable (but often not immediately apparent) patients and buried utilization or length-of-stay (LOS) drivers with targeted, personalized interventions that address each patient's unique care needs.

This new way needs to enable hospitals to prevent patient harm and improve quality scores—a way that goes beyond what EHR systems or their added risk modules were built for or can do today. This new way needs to leverage all data—clinical data buried in your EHR systems, augment it with comprehensive socioeconomic, behavioral, and environmental data, marry that data to clinically vetted best practices—to empower, not burn out, clinical and care teams and bend the harm and cost curves.

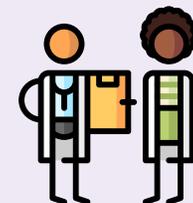
This new approach features purpose-built Artificial Intelligence (AI) that:



Aims to prevent patient harm



Improves quality scores



Reduces hospital risk

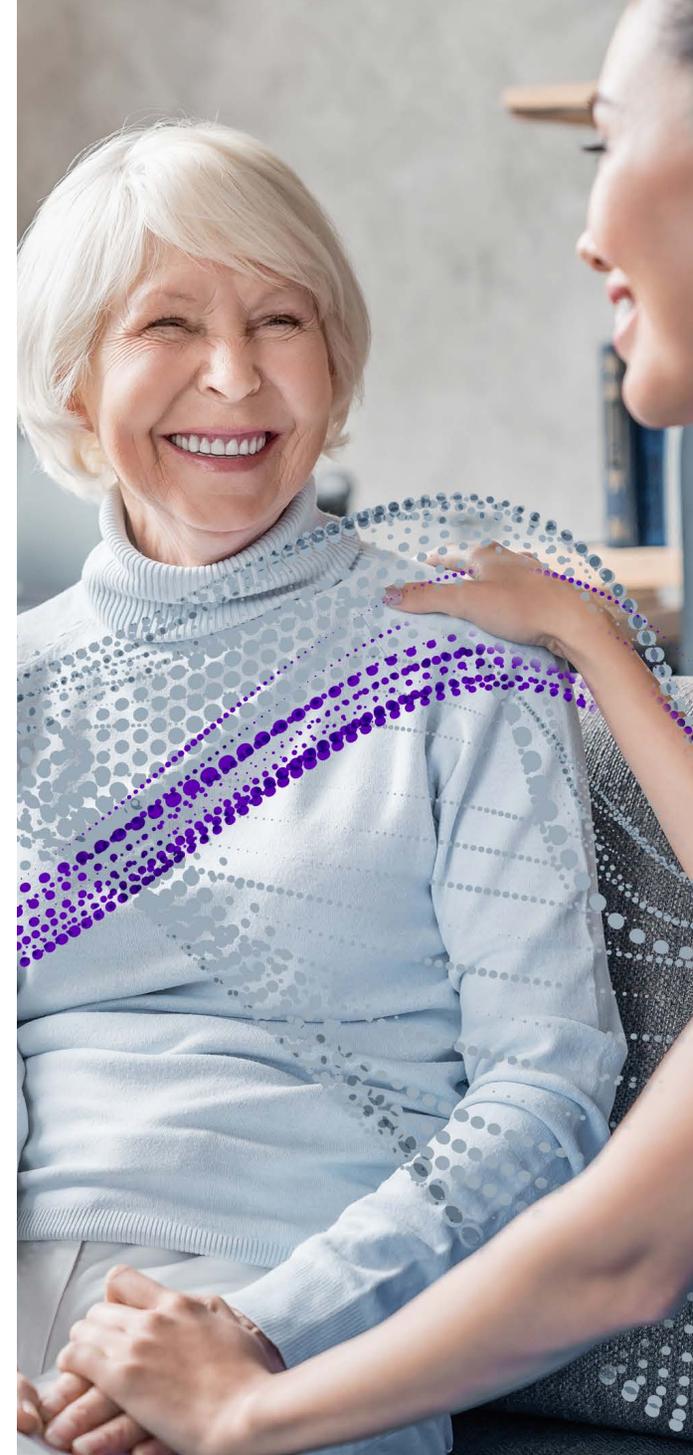
# Changing harm and risk trajectories with purpose-built AI

**It's no longer a secret that relieving burnout doesn't mean reducing the amount of technology clinicians need to interact with.**

But actually reducing clinician burnout calls for a technological leap of faith — one that goes beyond the known and obvious, enabling care teams to get ahead of the harm game.

Getting ahead means care teams need to be able to course-correct before it's too late, zeroing in on modifiable patients and changing the course of their harm trajectories before patients even know they're about to be affected.

The only way this can be done is by leveraging purpose-built AI in a way that clinical data meets socioeconomic, behavioral, and environmental insights — as well as clinically-vetted best practices and protocols — to provide personalized, holistic interventions that reduce both harm and risk velocity for patients and hospitals.





 **Grady** CASE STUDY

# Leveraging AI to identify Atlanta's most vulnerable patients

Grady Health System is Georgia's largest hospital network and one of the largest safety-net health systems in the United States, serving metro Atlanta's most vulnerable patients since 1892. Grady had a Mobile Integrated Health (MIH) program that visited recently discharged patients at their homes to ensure they had everything they needed to stay healthy. But, as Atlanta's primary EMS service, the MIH team was busy and needed more resolution on how to prioritize care.

The EHR integration Grady was using at the time failed to provide the patient-specific accuracy needed to target the most vulnerable patients, in part because it could not fully account for the socioeconomic risk factors relevant to Grady's patient population.

To better prioritize the MIH program's care and reduce readmissions, Grady decided to integrate AI technology from Jvion into their EHR workflows. The MIH group now uses the Jvion Machine to identify patients on an impactable risk trajectory, the clinical, behavioral, and socioeconomic factors contributing to that risk, and the personalized interventions that best reduce risk while ensuring patient engagement. Within two years of integrating the Jvion Machine into their EHR system, Grady realized a 10% reduction in readmissions and a 500% return on their investment. With Jvion's AI, Grady was better able to identify at-risk individuals and intervene to prevent harm.

# AI for preventable harm paves new care and quality pathways

**When it comes to preventing patient harm, EHR systems alone are not enough.**

EHR systems may have been instrumental for improving documentation and clinical workflows, but they were not designed to be capable of preventive clinical decision support.

This is where Jvion comes into the picture, spearheading a new enterprise category of AI for preventable harm that offers the most powerful intervention solution on the market, looking beyond risk scores, predictive models, and traditional clinical decision support to equip hospital teams while bending both the harm and cost curves.



Jvion uses a vast combination of clinical and non-clinical (including behavioral, socioeconomic, and environmental) data— over 4,500 clinical, behavioral, environmental, and socioeconomic factors, building and optimizing holistic, personalized patient risk and intervention models. The Jvion Machine uses this holistic data set to predict risk and design personalized intervention plans for each patient.

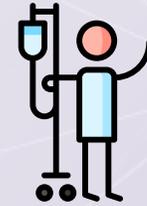
**Jvion's clinically validated, evidence-based intelligence is actively saving lives and reducing healthcare costs:**

#### **TAMING AVOIDABLE UTILIZATION**

Mercy Medical Center (Mercy), part of the Sisters of Charity Health System, lowered rates of all-cause readmissions by 20+% and avoided \$4M+ in costs with Jvion, sustaining a 20% drop in readmission rates over 18 months.

#### **PREVENTING PATIENT HARM**

Cardinal Health saw a 30% overall reduction in deterioration of ADL levels within six months and a 33% reduction in moderate or severe pain within 30 days; a 400-bed hospital avoided 330 sepsis cases and \$2.5M in cost; over 231 pressure injuries were prevented over 12 months, saving \$9.9M in costs.



Lower rates of all-cause readmissions



Prevent patient harm such as sepsis and pressure injuries

**Jvion uses a combination of clinical and non-clinical data including behavioral, socioeconomic and environmental data. This holistic data set predicts risk and designs personalized intervention plans for each patient.**

# Not all AI analytics are built the same

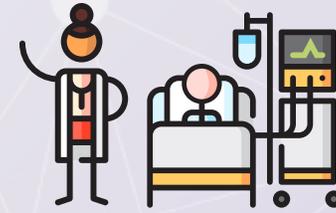
**“Jvion has by far the largest client base in the healthcare AI market”, according to the latest KLAS report.**

If you are skeptical about clinical AI solutions from EHR or leading technology vendors, you have reason to be. But the latest KLAS report, “Healthcare AI 2019 — Actualizing the Potential of AI,” which provides a tip-of-the-spear analysis of the healthcare AI market, identified Jvion as the only healthcare-focused AI company with enough clients to complete a full KLAS analysis, having “by far the largest client base in the healthcare AI market,” and “the largest offering of pre-built healthcare content for machine learning models/vectors.” [6]



## AI that actually prevents harm is not easy to find and can be confused with the many promises bombarding care teams today.

A discerning clinician, population health, or hospital analytics leader would tell you that not all AI is built the same. They will point you to these important differences:



### MODEL SOPHISTICATION

Impactful AI that actually enables clinical teams to prevent harm, uses a sophisticated approach similar to those used to understand complex, multi-dimensional concepts such as quantum physics, consumer behavior, and internet search intent. It is not the same as simple, linear-regression risk models that stratify patients into high, medium, and low-risk groups.

### HOLISTIC DATA SET

AI that aims to bend the harm and cost curve uses clinical EHR data, medical literature, and socioeconomic data derived from the census and other government sources, as well as behavioral, environmental, and licensed commercial data to provide a holistic view into individual patient risk.

### ABILITY TO SEE THE UNFORESEEN

Jvion features AI that identifies patients on a risk trajectory before any symptoms are present, recommending patient-specific, clinically-validated interventions to prevent harm across the care continuum. It goes beyond those patients already in high-risk bands and does not contribute to alarm fatigue or clinician burnout.

### IMMEDIATE AVAILABILITY

AI analytics that can be live within a few months, giving providers the power to address avoidable utilization, adverse inpatient events, and health regression faster and more effectively; AI that integrates into existing EHR workflows with a vendor that trains staff, minimizing disruption and accelerating speed-to-value.

# The Jvion difference

**Not all clinical AI solutions are created equal — if you are considering one, consider Jvion.**

Jvion was designed to integrate with EHR workflows and help clinicians go beyond high-risk patient populations identified by predictive EHR models, identifying those less obvious individuals on track to become higher risk before they present with symptoms. Perhaps more importantly, Jvion is the only AI provider that determines whether a patient's risk can be changed and recommends clinically validated interventions personalized to each patient. By providing actionable insights to reduce risk, Jvion prevents harm, drives better patient outcomes, and helps providers avoid unnecessary costs.

Unlike many clinical AI tools, Jvion is a proven solution. Since its founding in 2011, Jvion has been preventing harm at more than 40 American hospital systems including Intermountain Healthcare, Duke Health, Grady Health System, Sentara Healthcare, and more. Hospitals report average reductions of 30% for preventable harm incidents and annual cost savings of \$6.3 million. With more clients than any other clinical AI vendor, Jvion is the market leader in preventing harm with the power of AI.

**Let's talk AI for Life-Changing and Risk-Bending Patient Harm Prevention:**

» [Request a consultation](#)

**PREVENTING HARM SUCCESS STORIES:**

**Learn from the trailblazers:** See how Southeast Health lowered pressure injuries by 16% and decreased sepsis by 25%.

» [Get success story](#)

**Get inspired by Northwest Medical Specialities:** Learn how they increased care management evaluations by 80% and depression screenings by 68%.

» [Get success story](#)



[1] James, John T. "A New, Evidence-Based Estimate of Patient Harms Associated with Hospital Care." *Journal of Patient Safety* 9, no. 3 (2013): 122–28. <https://doi.org/10.1097/pts.0b013e3182948a69>.

[2] Shrank, William H., Teresa L. Rogstad, and Natasha Parekh. "Waste in the US Health Care System." *Jama* 322, no. 15 (2019): 1501. <https://doi.org/10.1001/jama.2019.13978>.

[3] SPOK, "Clinician Burnout in Healthcare: A Report for Healthcare Leaders" June 2019 [Online]. Available: <http://cloud.spok.com/EB-AMER-Clinician-Burnout-Report.pdf>

[4] HBR, Roger Kuan "Adopting AI in Healthcare Will Be Slow and Difficult," October 18, 2019 [Online]. Available: <https://hbr.org/2019/10/adopting-ai-in-health-care-will-be-slow-and-difficult>

[5] Healthcare Tech Outlook "AI's Impact on Healthcare Industry," January 17, 2019 [Online]. Available: <https://www.healthcaretechoutlook.com/news/ai-s-impact-on-healthcare-industry-nid-925.html>

[6] KLAS, "Healthcare AI 2019 - Actualizing the Potential of AI" 4 November 2019. [Online]. Available: <https://klasresearch.com/report/healthcare-ai-2019/1657>