Seven Reasons Why Prescriptive Analytics for Preventable Harm

Jvion helps healthcare systems prevent harm and lower costs, using *prescriptive analytics for preventable harm* that identifies specific patients on a risk trajectory, determines if that trajectory can be changed, and if so, recommends patient-specific interventions.
Preventable harm is preventable

Preventable harm contributes to as many as 400,000 deaths per year. **Reducing preventable harm saves lives.** But, healthcare demands and the need to drive quality outcomes lead to clinician/staff burnout and dissatisfaction. Because they don’t have the right information, medical staff is likely unknowingly overserving patients who don’t actually need preventative interventions while undeserving patients who do.

**Preventable harm also contributes to avoidable cost.** According to PricewaterhouseCoopers’ Health Research Institute, $312B is wasted in clinical treatment that is either ineffective or not implemented. This includes unnecessary treatments, preventable hospital readmissions, poorly managed chronic conditions, avoidable ER visits, hospital-acquired infections, treatment variation, and medical errors.

Cost of annual clinical treatment that is either ineffective or not implemented

$3,120,000,000

REFERENCES:
The Price of Excess — Identifying Waste in Healthcare Spending (PDF)
When you can reduce preventable harm by 30% and avoidable costs by $6.3M, how can this not be a top priority among technology expenditures?

The return on investment and return on effort is minimal. The costs avoided are real. The cost of not addressing this is high.

“Over the last 18 months, we have seen a sustained 20% drop in readmission rates.”
Paul Hiltz, CEO
Mercy Medical Center

Here are a few highlights from clients using Jvion to reduce rates of preventable harm:

280 BED HOSPITAL
- 663 readmissions avoided
- $7.4m cost avoided over 1 yr.

387 BED HOSPITAL
- 330 sepsis cases avoided
- $2.5m cost avoided over 2 yrs.

387 BED HOSPITAL
- 231 pressure injuries avoided
- $9.9m cost avoided over 1 yr.
Adoption of analytics to improve clinical outcomes is taking place across healthcare. This is no longer science fiction; it is happening now. Analytics are being adopted by health systems big and small. In fact, 54% of Healthcare professionals expect widespread adoption of AI enabled technology within the next five years. Estimates are that the health AI market will grow 10X in the next five years.

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Value-based care adoption requires a focus on preventing harm and avoiding costs

Pure fee-for-service is fading faster than predicted now accounting for only 37.2% of reimbursement. Rates are projected to dip below 26% by 2021. With CMS linking payments to hospital performance, including Hospital-Acquired Condition (HAC) Reduction Program, Hospital Readmissions Reduction Program, and other value-based programs, critical reimbursements are affected by reducing preventable harm. Their actions demonstrate that they believe preventable harm should be prevented.

REFERENCES:
The State of Value-based Care in 2018: 10 Key Trends to Know
Identify individualized actions for “impactable” patients—those patients whose risk trajectories can be changed.

We deliver a better approach to reducing preventable harm

Traditional AI and predictive solutions are designed to identify only the highest risk patients. These patients are typically already known to clinicians. Focusing on this patient segment adds to alarm fatigue, minimizes the usefulness of the solution, and misses “impactable” patients—those patients whose risk trajectories can be changed. In addition, these tend to be “black box” solutions that don’t tell clinicians the factors driving an individual’s risk. They can’t identify the individualized actions that will change a patient’s trajectory and lead to a better outcome. This is why many of these AI and predictive solutions have failed to gain clinical staff acceptance and confidence, and they have failed to have an impact.
The Jvion Machine™ can be applied to any of 50+ preventable harm vectors in months rather than years

Traditional analytics solutions require models to be built, tested, validated and adjusted for each problem they are trying to solve. This typically requires 12+ months, significant resources, and it creates risk since the models are unproven until used over time. It also requires clean data, which most healthcare providers lack.

The Jvion Machine takes a different approach: it can be applied to a new preventable harm vector in 2-3 months, requires no new models, limits testing requirements and can work on data that is not perfect or “clean.” Using an advanced mathematical approach called Eigenspace, dataset of more than 16 million patients, and software, the Jvion Machine can be applied to 50+ preventable harm vectors across your enterprise. This results in faster deployments with less risk and more value from your investment.

More than 16,000,000 patients in the patient dataset

More than 50 preventable harm vectors
As the leader in prescriptive analytics for avoidable harm, Jvion has proven effective in clinical settings for nearly a decade. More than 40 health systems have documented results with hospitals reporting average reductions of 30% in avoidable harm incidents and avoidable cost savings of $6.3 million a year.

This is not an untested concept for the brave few early adopters. Jvion is proven in everything from community hospitals, major academic urban hospitals, leading for-profits, and two of the biggest healthcare providers in the US. We've been there before, we've seen just about everything, and we pass this experience along to you.