



**fvion**

 **Grady**

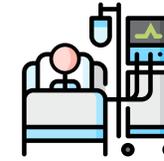
# Reducing Readmissions and Improving Quality of Care with Jvion

## OVERVIEW

# Client Profile: Grady Health

**Grady Health System is one of the largest safety net health systems in the United States, serving the most vulnerable and in-need patients in metro-Atlanta since 1892.**

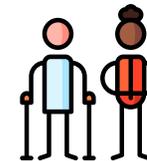
Grady Health System consists of the 953-bed Grady Memorial Hospital, six neighborhood health centers, Crestview Health & Rehabilitation Center, and Children's Healthcare of Atlanta at Hughes Spalding, which is operated as a Children's affiliate. As of last year, Grady treated almost 41,000 adult and newborn patients admitted to the main hospital and conducted close to 500,000 outpatient visits. Grady also has the premier level I trauma center in the Metro Atlanta region and serves as the 911 ambulance provider for the city of Atlanta.



**953**  
hospital beds



**41,000**  
adult and newborn  
patients admitted  
last year



**500,000**  
outpatient visits conducted

“ With the information delivered by the Jvion tool, our practitioners are better able to zero in on high-risk patients...And in the complex social and economic environment in which we deliver care, we require the kind of power delivered through a patient-centered machine like Jvion's to reduce suffering and help us do more for our patients. ”

**-Glenn Hilburn, VP of Clinical Systems at Grady Health System**

# Challenges

**Safety net hospitals face a dual challenge of caring for the complex needs of a large and vulnerable population and doing so with limited resources.**

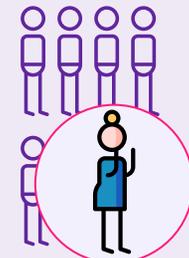
The patients served are often low-income, homeless, uninsured, or underinsured, and face socioeconomic barriers that limit their ability to stay healthy. They may live in a food desert that denies them access to a healthy diet, transportation to care facilities may be out of reach, medications may be unaffordable, and for patients who live paycheck to paycheck, taking time off to seek care can be a difficult choice. As a result, these patients are at high-risk for readmissions.

Avoidable readmissions unnecessarily expose the patient to hospital acquired infections, render the provider less available for other patients, and cost

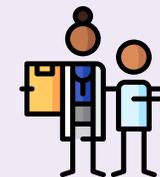
patients and providers thousands. With a shift to value-based care and CMS penalties for high 30-day readmission rates, preventing readmissions is more of a cost-saving imperative than ever. This is especially true for safety net hospitals like Grady, where resources are already spread thin. Of particular concern are readmissions for Congestive Heart Failure (CHF) patients. According to a study published by the American Heart Association, close to a quarter of CHF patients discharged from an acute care facility are readmitted within 30 days. Low socioeconomic status is also associated with poor cardiovascular outcomes, putting Grady's patient population at particularly high risk.

## Key Challenges

**Lower rates of readmissions for CHF Patients**



Accurate identification of at-risk patients



Personalized interventions that address clinical and socioeconomic risk factors

## Lower rates of readmissions for CHF Patients

Lowering rates of avoidable readmissions for CHF patients requires the accurate identification of at-risk patients, the clinical and socioeconomic factors driving that risk, and the personalized interventions that address these factors to reduce a patient's risk. By avoiding an adverse event and the associated impact to a patient's health, Grady would be able to both improve the quality and the cost of care.

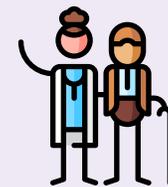
## Prioritize care under Mobile Integrated Health Program

Grady had a Mobile Integrated Health (MIH) program that went directly to the homes of patients recently discharged from the hospital to ensure that they have the care and access to resources that they need to heal and stay healthy. This could be as simple as making a follow up appointment to providing on-site medication and treatment. However, as Atlanta's primary EMS service, the MIH team was busy, and needed more resolution on how to prioritize their care. The EPIC integration Grady was using at the time could not provide the patient-specific accuracy needed to target the most vulnerable patients, in part because it could not account for the socioeconomic risk factors particularly relevant to Grady's patient population.

## Prioritize care under Mobile Integrated Health Program



Providing on-site medication and treatment



Prioritize vulnerable patients



# Solution

**Grady selected the Jvion Machine™ as the system's enterprise Artificial Intelligence (AI) enabled prescriptive analytic solution.**

Grady knew they needed an advanced solution that could account for the thousands of variables impacting a patient's risk of readmission, and they needed something affordable and effective that could be used by practitioners at the point of care.

Using a unique approach that leverages sophisticated mapping techniques, clinical data from 16 million patients, and socioeconomic-level data from government and private sources, the Jvion Machine determines a patient's risk, the clinical and non-clinical factors driving that risk, if the patient's risk trajectory can be changed, and—if so—the actions that will most effectively drive to an avoided event. The output is highly personalized patient-specific recommendations with the highest likelihood of improving health.

The Jvion Machine was able to quickly apply AI technology to Grady's readmission challenges. The MIH group uses the Jvion Machine to identify the clinical, behavioral, and socioeconomic factors contributing to the risk of a re-hospitalization; and to identify the actions that best reduce risk while ensuring patient engagement. The risk scores assigned by the machine enabled Grady's MIH team to prioritize the patients that need an intervention most.

In addition to prioritizing the care of the MIH program and reducing CHF readmissions, Grady Health is now using the Jvion Machine to lower rates of all-cause readmissions and patient complications across the care continuum.

# Results

**With the Jvion Machine AI, Grady is empowered with a solution that can adapt to new demands and patient needs now and into the future.**

After 2 years, Grady saw a 10% decrease in readmissions for the population targeted by MIH and the Jvion Machine, keeping 382 people out of the hospital. Not only was the immediate risk of hospitalization decreased, the actions taken resulted in a lasting impact that decreased the risk of future hospital admissions. The program also helped to lower the cost of care, realizing a greater than 500% return on the program in the first year and saving \$700,000 in total.

Using Jvion's AI-enabled prescriptive analytics, Grady was able to better identify at-risk individuals and take the clinical actions that would keep them healthy and out of the hospital. By avoiding adverse events and their associated impact to a patient's health, Grady successfully improved the quality of its care while simultaneously lowering the cost of care. As a result, Grady is better able to care for its vulnerable patient population.

Within 2 years, Grady Health saw real results:

10%

Decrease in readmissions

382

People kept out of the hospital

500%

return on the program in the first year

\$700,000

saved in total

# About Jvion

**Jvion helps healthcare systems and providers prevent harm and lower costs through AI-enabled prescriptive analytics.**

An industry-first, the Jvion Machine™ goes beyond simple predictive analytics and machine learning to identify patients on a trajectory to becoming high risk and provides clinically-validated interventions, which can be applied to 50 preventable harm conditions including sepsis, readmissions, falls, avoidable ER visits, and pressure injuries, among others. Jvion's AI-enabled prescriptive analytics have been preventing harm across more than 70 hospitals, including Cleveland Clinic, Intermountain, Grady, Sentara Healthcare, and more. For more information, visit [www.jvion.com](http://www.jvion.com).



Learn more: [jvion.com](http://jvion.com)

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