

# Informed Glycemic Control Program Improves Community Health

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## Contents

Introduction	2
Challenges	3
Results	4
Looking Forward	5
Contact Us	5

# Introduction

West Tennessee Healthcare, a public, not-for-profit healthcare system whose primary facility is located in Jackson, TN, midway between the cities of Memphis and Nashville, is one of the top ten systems of its size as designated by Modern Healthcare Magazine. The system contains locations throughout 17 counties in Western Tennessee that provide a full range of care services and is one of the region's top employers.

In 2013, its mission to “improve the health and well-being of the communities” it serves was challenged by internal findings showing that 35 percent of their inpatient population was living with diabetes; the disease significantly impacted their outpatient population as well. Although West Tennessee had opened a community clinic to support diabetes management, clinicians sought



to improve and benchmark care results through participation in an 11-hospital Glycemic Control and Inpatient Care Coordination program with the Society of Hospital Medicine. This initiative presented an opportunity for West Tennessee to combine EHR-maintained data, such as A1C, blood glucose, C-peptide and body mass index results, with patient accounting data to create clinical dashboards and a scorecard registry. The initiative also involved collecting external data to help benchmark success.



**West Tennessee Healthcare™**

## Glycemic Control Challenges

- 35% of inpatient population living with diabetes
- 6.20 day average length of stay (ALOS) for diabetic patients
- Frequent diabetic readmissions, many of which were generated through expensive ED visits
- Above average mean patient-day glucose of 160

# West Tennessee Healthcare

Jackson, TN

- Four-hospital system provides comprehensive care services to a 17-county area in Western Tennessee
- Recognized as the 10th largest public not-for-profit healthcare system in the nation by Modern Healthcare Magazine
- Healthgrades® 2013 Patient Safety Excellence Award™ winner

## Critical Issues

Participated in a glycemic control program to improve patient safety, care quality and patient health, while reducing the cost of care, average length of stay (ALOS) and hyperglycemic and diabetic patient readmissions.

## Solution Spotlight

McKesson Performance Analytics™

## Results

As a result of a targeted glycemic control program, West Tennessee experienced:

- 23.5% decrease in uncontrolled glycemic rates
- 55% increase in normal glycemic range for all patients
- 9% reduction in the 30-day diabetic readmission rate



# Challenges

In addition to the overarching goals of improving patient safety and the health and quality of care of diabetic patients in the community, West Tennessee hoped to reduce cost, ALOS and avoid readmissions for diabetic and hyperglycemic patients. Specific metrics were selected to define success:

- **Reduce the percentage of inpatients** with severe hyperglycemic events (blood glucose level greater than 300) to less than 10% of patient days
- **Reduce the percentage of inpatients** with severe hypoglycemic events (blood glucose less than 40) to less than .85% of patient days in both ICU and non-ICU environments
- **Increase in-range blood glucose levels** (70–180) to 65% of patient days in ICU and non-ICU patients
- **Reduce 30 day readmissions** for all diabetic patients by 24%



To realize these goals, West Tennessee created a diabetic registry and scorecards based on Society of Hospital Medicine standards that can be sorted in various ways. Daily uploaded metrics track progress against the goals.

The registry contains information defined by the chief medical officer and the chief quality officer. It displays clinical data such as primary diagnosis, BMI and A1C results and case counts with co-morbidity indicators such as heart disease, COPD, hip and knee replacements and ED visit counts. Another scorecard presents data from the Society of Hospital Medicine that illustrates the volume of monthly diabetic patients with daily patient-day glucometric updates. A disease management dashboard combines clinic volume metrics (visit, foot and eye exam, normal and high nephrology screen counts) with data from other sources, including patient results (average A1C, LDC-C, and blood pressure values), hospital ALOS and a tally of healthy living consults.



# Results



Through these and other diabetes-related scorecards, West Tennessee was able to achieve the following results during the program:

- Inpatients with severe hyperglycemic events (blood glucose level greater than 300) declined 23%
- Patients with normal, in-range blood glucose levels increased 55%
- 30 day readmissions declined by 9%
- The flagship Jackson hospital earned a Healthgrades® 2013 Patient Safety Excellence Award™ rating it among the

top 10% of hospitals in the nation and the top five hospitals in Tennessee for patient safety

- The number of users who access enterprise intelligence dashboards and reports on a daily basis has increased from approximately 25 to more than 200

*“West Tennessee had not collected data like this before, and didn’t know where we were in regards to glycemic control in the hospital. The team had a feeling we could vastly improve, but we had to measure it first. With McKesson Performance Analytics, we have been able to collect the data and act upon it. Over the past two years, our glycemic control team has made tremendous improvements in the safety and care of our patients.”*

— Anthony Williams, MD,  
chief quality officer,  
West Tennessee Healthcare



## Looking Forward

Anthony Myers, Process Analyst at West Tennessee, plans additional automation and expansion of the glycemic control program. While McKesson Performance Analytics was initially used as a costing feature and reporting mechanism, the ability to aggregate and analyze reliable, actionable information from disparate enterprise systems has enabled comprehensive analyses that yield substantial organization value. As an example, quality improvement teams

examine areas such as congestive heart failure readmission and the use of social services and timing of orders during discharge and departure processes.

Myers also understands the value of connecting with external partners to achieve clinical and financial goals, and West Tennessee's relationship with McKesson has evolved to a true partnership and a personal connection. Myers helps plan monthly community

calls in which he both shares and receives helpful information from other McKesson Performance Analytics clients. "McKesson treats me like family and has enhanced my relationship with the product", he notes. "Given networking opportunities and community events, I don't have to reinvent the wheel. The wheel is already done, and they share it with me. I can take immediate action on our analytic priorities that help move West Tennessee forward."



## Contact Us

[Contact us](#) to learn how your organization can succeed with [McKesson Performance Analytics](#).



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