Expecting Success: Excellence in Cardiac Care

Results from Robert Wood Johnson Foundation Quality Improvement Collaborative

November 2008



Hospitals Show That Quality of Heart Care Can Be Improved – And Disparities Reduced – In Relatively Short Timeframe

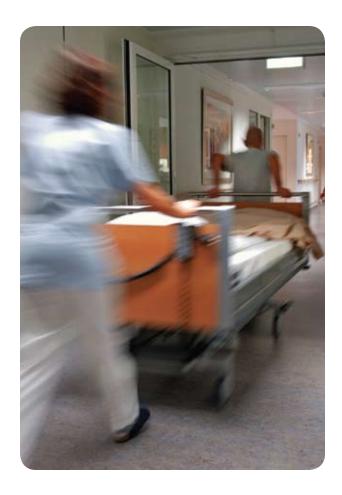
Percentage of patients receiving all recommended care for heart failure improves 37 percent over two years

The United States spends twice as much money per person on health care than anywhere on earth, but the U.S. ranks 18th worldwide in average life expectancy – behind Australia, Canada, France, Japan and others. Given that America spends so much more money on health care, one would hope that Americans have better health outcomes than anyone else, so why the gap?

Most experts say that the answer lies in the quality of care Americans receive. Unfortunately, **more** care doesn't always mean **better** care or the **right** care. Americans receive a lot of health care treatments, but far too often, they are not the treatments that are proven to be most effective for the most people when applied at the right time, without mistakes.

Although the quality of health care is poor for many Americans, certain racial and ethnic groups continually experience worse quality care than white patients. While quality sometimes differs depending on the patient's geographic location, education level or health insurance status, repeated research has shown that African Americans and Hispanics consistently receive a lower quality of care than their white counterparts, even when all demographic and socioeconomic factors are equal.

It's also proven that disparities in care don't stop once patients leave the hospital. Data suggest that gaps in health status emerge after patients of different racial and ethnic groups are discharged. Clearly, there is much to be done to improve the quality of care that minorities receive in and out of the hospital.



What's Next?

Lessons learned from the pilot phase of *Expecting Success: Excellence in Cardiac Care* will be spread to hospitals in communities nationwide as part of the Robert Wood Johnson Foundation's groundbreaking *Aligning Forces for Quality* program. This \$300 million initiative seeks to lift the quality of health and health care in select communities by teaming up with those who get care, give care and pay for care. The program is applying a wealth of resources, expertise and training to effect real improvements in health care quality.

Hospitals in *Aligning Forces* communities will soon have the opportunity to participate in a collaborative, based on the work of *Expecting Success*, to increase equity in their cardiac care. Other hospital collaboratives will be offered to further engage frontline nurses in quality of care; improve the quality of language services for diverse patients; improve care for the most vulnerable patients; and others.

Learn more: www.rwjf.org/qualityequality/af4q



Analyzing care by patient race and ethnicity revealed whether disparities in hospital care exist.

Identifying and reducing disparities in the quality of U.S. health care is a matter of some urgency – and survival for many hospital systems. The U.S. Census Bureau recently reported that minority populations in the U.S. will collectively outnumber whites in less than 35 years. Experts say that if hospitals are going to remain cuttingedge and competitive in the future, they will need to be able to document that all patients receive the same care, regardless of skin color or background.

Cardiac Care – An Excellent Starting Point

In 2002, the well-respected Institute of Medicine's groundbreaking report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, provided evidence that racial and ethnic disparities in care were especially likely to occur in the treatment of cancer and heart disease. It's well documented, for example, that African Americans and Hispanics are less likely than whites to receive life-saving cardiac diagnostic procedures, revascularization and thrombolytic therapy.

While a growing body of evidence documents potential underlying causes of disparities in care, little has been done to date to implement and test possible interventions to reduce or eliminate these gaps. Many experts believe that cardiac care is an excellent starting point. Whether experiencing a heart attack, heart failure or other conditions, the recommended standard of care for cardiac patients is clear and accepted among medical professionals nationwide, meaning that "the right thing to do" for most cardiac patients is widely understood. Additionally, the measurement tools to determine whether cardiac patients received the recommended standard of care have been developed and thoroughly tested, so it's possible to tell if patients received the right care at the right time.

The Project: Expecting Success

In response to the lack of potential disparities solutions, the Robert Wood Johnson Foundation introduced a 29-month-long pilot program in late 2005, aimed at analyzing racial and ethnic disparities in cardiac care at select hospitals across the country.

Called Expecting Success: Excellence in Cardiac Care, the program selected 10 pilot hospitals (from a competitive applicant pool of more than 120) to develop and share tools for improving cardiac care for African-American and Hispanic patients with acute myocardial infarction (AMI) or congestive heart failure (HF).

The 10 general, acute-care facilities were intentionally diverse in terms of size, geographic location and hospital type – so as to ensure that their learnings would be adaptable and adoptable by hospitals nationwide. What they held in common was: a large base of African-American and/or Hispanic patients, a willingness to discover where and how disparities may be occurring, a proven track record in quality improvement initiatives, a readiness to serve as "learning laboratories" for other institutions nationwide and leadership committed to improving cardiovascular care for all patients, particularly minorities.

The *Expecting Success* participating hospitals focused on the continuum of cardiovascular care with four goals:

- To improve cardiovascular care for African Americans and Latinos;
- 2. To develop effective, replicable quality-improvement strategies, models and resources;
- 3. To encourage the spread of those strategies and models to clinical areas outside of cardiac care; and
- 4. To share relevant lessons with health care providers and policy makers.

PARTICIPATING HOSPITAL	ACCOMPLISHMENTS		
Del Sol Medical Center, El Paso, Texas • 336-bed community hospital	Heart attack patients who received all the indicated care they were eligible to receive (Measure of Ideal Care) increased from 17 percent to 89 percent over two years		
Member of the HCA Hospital Corporation Patient population is 75 percent Hispanic	HF patients who received all indicated care they were eligible to receive (Measure of Ideal Care) increased from 15 percent to 94 percent over two years		
Delta Regional Medical Center, Greenville, Mississippi • 398-bed, county-owned hospital serving five counties within the Mississippi Delta	 Maintained 100 percent compliance throughout the project for providing patients with the appropriate medicines used to treat HF 		
Population served has a high prevalence of heart diseaseOver two-thirds of the area's residents are African American	Established a health ministry network among local minority churches to provide cardiac education and support for chronically ill patients through trained local parishioners		
Duke University Hospital, Durham, North Carolina • 811-bed, not-for-profit hospital and the flagship hospital for the Duke University Health System,	Maintained AMI and HF core measures at or above state and national averages throughout the project Created a HF consultative clinic to improve access to outpatient specialty care for disadvantaged patients		
an academic medical center Serves Durham County, where almost half of the residents are either African American (40 percent) or Latino (8 percent)	through a partnership with a community federally qualified health center		
Memorial Healthcare System, Hollywood, Florida • Memorial Regional Hospital is the flagship, 690-bed hospital of a public, not-for-profit, healthcare	 Increased the HF Measure of Ideal Care from 72 percent to 97 percent between the fourth quarter of 2005 and December of 2007 		
 system and home to the system's Cardiac and Vascular Institute Serves south Broward County, where half of the area's population of 618,000 is either black or Hispanic 	 Increased time to Percutaneous Coronary Intervention from 67 percent to 95 percent between the fourth quarter of 2005 and December of 2007 		
	Designed and implemented a cardiac care disease management transition program for the medical management of uninsured/underinsured patients with AMI and HF		
Montefiore Medical Center, Bronx, New York Not-for-profit, academic medical center and a fully integrated healthcare delivery system with 1,491 beds	Smoking cessation counseling rates for HF patients increased from 71 percent to 100 percent in the first year and were maintained at 100 percent compliance throughout the second year of the project		
 Located in the Bronx, where 80 percent of residents are Hispanic (48 percent) or black (31 percent) 	 AMI and HF rates remained steady at 100 percent from the first quarter of 2007 through the second quarter of 2008 Heart attack patients receiving an angioplasty balloon within 90 minutes increased from 17 percent to 100 percent by the end of the program 		
Mount Sinai Hospital Medical Center, Chicago, Illinois • 291-bed, not-for-profit, teaching hospital	Increased the AMI Measure of Ideal Care by 27 percentage points over the course of the program Achieved a 46 percentage point increase in the HF Measure of Ideal Care from the beginning of the		
Almost all hospital visits are by African-American (56 percent) or Hispanic patients (38 percent)	program to the end		
Sinai-Grace Hospital, Detroit, Michigan • 404-bed, not-for-profit, community-based teaching hospital	Consistently provided evidence-based care to greater than 92 percent of heart attack patients during the last three quarters of 2007		
Patient population is 90 percent African American	 Created a post-hospital discharge HF education program focused on providing patients with a basic understanding of HF and key aspects of lifestyle self-management techniques 		
University Health System, San Antonio, Texas • 498-bed, publicly owned, academic medical center	• Achieved targets of 85 percent compliance with the Measures of Ideal Care for AMI and HF by December 2007		
More than half of patients are Hispanic (61 percent)	 AMI and HF patients receiving smoking cessation counseling increased from 20 percent (2005 baseline) to 100 percent for both the third and fourth quarters of 2007 		
University of Mississippi Health Care, Jackson, Mississippi • 598-bed, teaching hospital, which serves as Mississippi's principal diagnostic and referral center	Implemented a protocol-driven, nurse practitioner-led HF disease management program for uninsured/underinsured patients		
Two-thirds of the Medical Center's patients are African American	Improved overall evidence-based care to heart attack patients from 74 percent to 82 percent over two years		
Washington Hospital Center, Washington, DC • 926-bed, not-for-profit, major teaching hospital operating one of the largest cardiovascular	 Achieved a 43 percentage-point increase in providing HF patients with complete written discharge instructions (from 29 percent to 72 percent) 		
programs in the nation • Cares for a large African-American and Hispanic population	Created a Heart Failure Case Manager position to assist patients with disease management activities post-discharge		

The participating hospitals' multidisciplinary teams worked together via a collaborative "Learning Network" managed by a National Program Office that operated from The George Washington University Medical Center's School of Public Health and Health Services. Each hospital's efforts were led by a core team representing a wide variety of backgrounds – from chiefs of cardiology to frontline nurses to directors of quality improvement.

The hospitals received modest grants for their participation and ongoing technical assistance. Over time, while simultaneously working to improve the quality of care for **all** of their heart patients, the hospitals were able to identify if there were racial and ethnic disparities in the care they were providing.

Hospitals Tracked Care Quality with Performance Measures

Throughout the *Expecting Success* project, the hospital teams provided monthly reports on 23 different care performance measures – all stratified by patient race, ethnicity and primary language. These included the eight core measures of care for heart attacks or acute myocardial

infarction (AMI), and four core measures for heart failure (HF) that the U.S. Centers for Medicare and Medicaid Services collects and publicly reports.

In addition, the hospitals reported on key composite measures – known as Measures of Ideal Care – showing whether a given patient receives all of the core components of care they are eligible to receive as prescribed by the American College of Cardiology and the American Heart Association as evidence-based guidelines for the treatment of heart failure or heart attack.

Most of the measures reflected the quality of inpatient care, but because *Expecting Success* was simultaneously focused on improving outpatient cardiac care, participating hospitals also reported their 30-day readmission rates as an additional performance measure.

Hospitals Measured Care by Patient Race, Ethnicity and Language

All hospital leaders like to believe that their institutions provide equal care regardless of a patient's race, ethnicity or primary language, but few know for certain. Without uniform standards for collecting this information (most registration staff simply "eyeball" patients and make a determination) and without tracking patient race and ethnicity data against quality measurements, there is no way of knowing if all patients receive the same level of care.

The Expecting Success hospitals each utilized the Health Research and Educational Trust toolkit to establish standardized collection of race, ethnicity and language patient data. Some of the hospitals made select modifications to tailor the tools for their staff. The cornerstone of each involved directly asking patients to self-report their race, ethnicity and language so that all

Core AMI and HF Measures

Condition	Measures	
Acute Myocardial Infarction	Aspirin at arrival	
(AMI)/Heart Attack	Aspirin at discharge	
	 Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) for Left Ventricular Systolic Dysfunction* 	
	Beta Blocker at arrival	
	Beta Blocker at discharge	
	 Fibrinolytic agent received within 30 minutes of hospital arrival 	
	 Percutaneous Coronary Intervention (PCI) received within 90 minutes of hospital arrival (previously PCI received within 120 minutes of hospital arrival, as well as, Percutaneous Transluminal Coronary Angioplasty (PTCA) received within 90 minute of hospital arrival) 	
	Smoking cessation advice/counseling	
Heart Failure	Evaluation of Left Ventricular Systolic (LVS) Function** ACE Inhibitor or ARR for Left Ventricular Systolic Reptails Reptails 7.	
	ACE Inhibitor or ARB for Left Ventricular Systolic Dysfunction* Discharge instructions	
	Discharge instructions	
	 Smoking cessation advice/counseling 	

*Modified, effective 1Q2005 discharges. For more information, see The Hospital Quality Alliance (HQA) Ten Measure Starter Set.

U.S. Department of Health & Human Services, Medicare Hospital Compare Database. Glossary of Definitions. Available at: http://www.hospitalcompare.hhs.gov/Hospital/static/SupportingInformation_tabset.asp?activeTab=2&language=English

^{**}Modified, effective 1Q2006 discharges.

of the patient's care could ultimately be compared with these demographics. At first, staff registration management and even senior hospital leadership expressed anxiety about whether collecting such data was legal, whether their computer registration systems would need to be completely overhauled and how patients would react to such questions about their race and ethnicity.

The process went considerably more smoothly than anticipated. The hospitals soon found that such data collection is legal; information technology departments were engaged early; and people are relatively accustomed to being asked demographic questions in many aspects of their everyday lives.

Tracking Data by Patient Race and Ethnicity Can Lead to Questions about Quality

For hospitals participating in *Expecting Success*, tracking care by every patient's race, ethnicity and primary language produced data that raised critical questions for the hospitals, including:

- Why are some black patients not getting aspirin when they arrive at the hospital with symptoms of a heart attack?
- Why are some Hispanic patients consistently not receiving all discharge instructions?
- Why are readmission rates so much higher for minority patients?

By reviewing the data, the hospitals were able to design specific interventions to help improve the overall quality of care provided by the hospitals and, in time, reduce disparities in care.

For the first time ever, the hospitals analyzed 23 cardiac care quality indicators by patient race, ethnicity and language. They faced the tough reality that **disparities in care might exist in their institutions,** but armed with this information, have made tremendous progress toward reducing these gaps in care.

Hospitals Designed Interventions to Improve Quality of Care

For the first year of the program – while a significant amount of data on race, ethnicity and language preferences of patients was being generated – the hospitals focused on developing interventions and putting systems in place to ensure that their heart patients would consistently receive all of the recommended care for their condition.

Comparing data on the core measures before and after interventions were applied helped hospitals gauge how effective their interventions were and gave them the momentum to continue their work as planned, or adapt the intervention to be more effective.

Transitions in Care

Transitions in care for minority patients were closely tied to many of the disparities encountered during *Expecting Success*. As part of the program, hospitals realized the great benefits of inpatient and outpatient centers coming together to learn form each other. Moving between the hospital and ambulatory care settings, minority patients were more likely to experience serious lapses in their path to recovery. *Expecting Success* promoted a disintegration of silos between the care settings and challenged them to work together.



Toolkit Helps Hospitals Tackle Data Collection

The Health Research & Educational Trust, a division of the American Hospital Association, developed a toolkit to guide hospitals through the process of collecting data on patients' race, ethnicity and primary language.

The kit includes information on the nuts and bolts of collecting the data, including resources for training staff, such as sample scripts.

Access the toolkit at www.hretdisparities.org.

Sample Interventions Identified and Implemented by Expecting Success Hospitals

INTERVENTION	GOAL/KEY MEASURE	INNOVATION	RESULTS
Reducing Door-to-Balloon Time	 Reduce time from heart attack patient's arrival at the emergency department (ED) to receiving percutaneous coronary intervention to 90 minutes or less 	"Code Heart" program, a process that immediately and simultaneously alerts the ED staff and cardiac team when a heart attack patient arrives at the hospital	 Door-to-balloon time improved by 60 percent in the first year Hospital routinely hits the 90-minute target for 100 percent of heart attack patients
Universal Patient Discharge Instructions	Ensure adult cardiac patients receive all necessary discharge instructions to meet core cardiac-specific measures mandated by the Joint Commission and Centers for Medicare & Medicaid Services (CMS)	System-wide universal discharge instruction form developed by physicians, nurse practitioners, hospital and community pharmacists, merging general discharge instructions with cardiac-specific discharge instructions for patients with acute myocardial infarction (AMI) or heart failure (HF)	Adherence to AMI- and HF-specific discharge instructions increased by 21 percent and 29 percent, respectively in the first nine months of use More than 91 percent of the time, hospital consistently meeting discharge guidelines for adult cardiac patients
Establishing a Nurse Practitioner- Run Clinic for Heart Failure Patients	 Reduce readmissions and return visits to hospital EDs among HF patients 	Off-site, nurse-led HF clinic that helps HF patients better control and self-manage their disease post-hospitalization	 Approximately 50 percent of its HF patients had not had a repeat ED visit one year after the clinic opened its doors Prior to the clinic, many patients visited the ED regularly
Improving Success of Smoking Cessation Counseling for Heart Patients	Increase the effectiveness of smoking cessation counseling for patients with HF and AMI while also demonstrating measured success in CMS performance metrics	Modified inpatient smoking cessation counseling programs to identify patients willing to change behavior and provided them with targeted resources to quit	Hospital quality performance for smoking cessation counseling improved dramatically, from 44 percent in Q4 2005 to 100 percent in Q3 2007 for AMI patients, and from 32 percent to 100 percent during the same period for HF patients

Information and videos on Expecting Success innovations that work can be found at www.rwjf.org/goto/expectingsuccesstoolkit.

Since many factors inhibit patients from following and managing their care once discharged, leaders at *Expecting Success* hospitals are now taking more time to talk with cardiac patients about their transition care plan long before discharge, so potential problems are identified prior to discharge and to prevent readmission. Hospitals often found that their ambulatory care centers had very successful programs in place that could be leveraged and used with patients in the hospital prior to discharge. Successful improvements to transitions in care include:

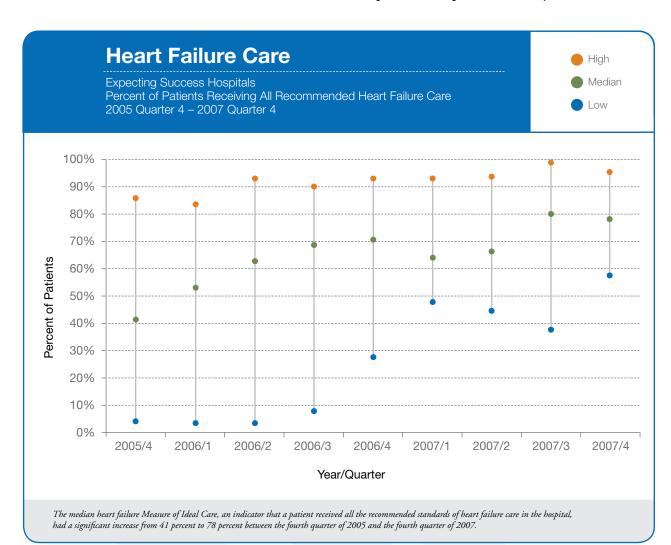
- Assess the transition points in the hospital.
- Ensure that existing transition procedures are being consistently followed.
- Assess if other procedures or resources exist to improve transitions.
- Coordinate the transition with all relevant inpatient staff.
- Discuss the transition and care plan with patients before discharge.
- Develop patient-centered, take-home resources to provide support during transitions.
- Proactively check on the status of patients after discharge and during transition.

Interpreting the Results

Final data from *Expecting Success* awaits peer-reviewed publication, but preliminary results show that the program had a remarkable effect in a short period of time.

Key results show:

• The all-hospital median heart failure Measure of Ideal Care, an indicator that a patient received all the recommended standards of heart failure care eligible to receive in the hospital, had a **significant increase from 41 percent to 78 percent** over two years.



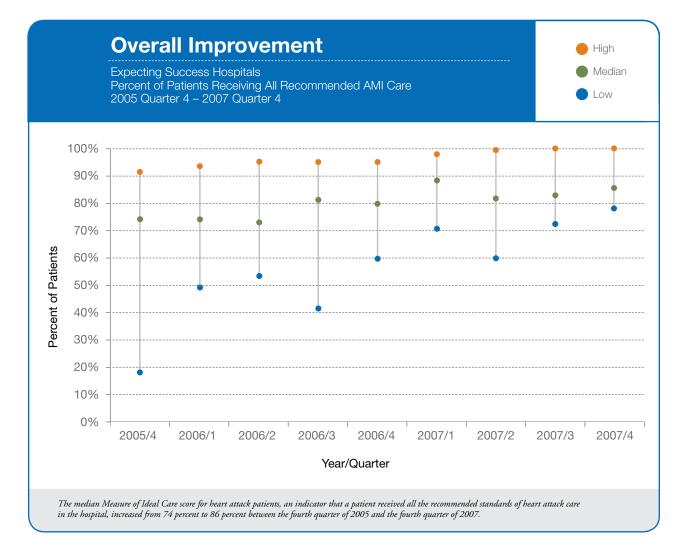
 The all-hospital median Measure of Ideal Care score for heart attack patients, an indicator that a patient received all the recommended standards of heart attack care eligible to receive in the hospital, increased from 74 percent to 86 percent over two years.

The hospitals participating in the pilot phase of *Expecting Success* achieved core goals of the program, and many are actively applying the program's principles to areas of care for other conditions. Among their accomplishments:

- Recognized disparity in disease treatment

 Through the *Expecting Success* program, hospital management and clinicians became increasingly aware that the potential for racial and ethnic disparities existed at their institution and became more firmly committed to identifying whether disparities existed and addressing them promptly. Recognizing that black and Hispanic patients appear to face a greater burden in consistently receiving high-quality care in their institutions was a huge eye opener for some participants.
- Improved quality; reduced disparities
 Within one year, every hospital that participated in the program was increasing its percentage of patients receiving all core measures of care recommended for heart attacks and heart failure. The successes continued throughout the program.
- Hardwired uniform collection of patient race, ethnicity and language data

For the first time, participating hospitals tracked data on core measures of care for patients with heart failure or who had a heart attack by race, ethnicity and primary language. While simultaneously working to improve the quality of care for all their heart patients, the hospitals were able to identify if there were racial and ethnic disparities in their care.



Implemented targeted quality improvements based on data

The hospitals identified and implemented ways to ensure that patients consistently received the right care –

developing standard order sets, creating documentation systems, etc. At each hospital, this required a team approach to identify where proven quality standards were being missed, and to redesign systems accordingly.



• Became more engaged in discharge and outpatient care to reduce readmissions

Quality of care after hospital discharge proved to be dramatically different for patients of different races/ ethnicities. *Expecting Success* hospitals all recognized that they have considerable work to do with providers and clinics in their communities to better manage their cardiac patients after they leave the hospital, in order to prevent unnecessary readmissions and emergency department visits.

Spreading the Success to Other Institutions

Working together, the *Expecting Success* collaborative helped participating hospitals improve the overall quality of their cardiac care, explore whether disparities in their care exist and summon the courage and tools to address the findings. Success was contingent upon the hospitals knowing exactly who their patients were and identifying whether these patients received the same care regardless of race, ethnicity or language.

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Hospitals that participated in the pilot program, along with staff from the National Program Office, believe key factors to implementing the program include:

Recognize the importance of talking about disparities. No one wants to consider that their institution may have disparities, but acknowledgement that inequities may exist

disparities, but acknowledgement that inequities may exi is the first step to gathering and following the data.

• Garner executive buy-in for improving quality.

Develop a compelling case for management's support by showing that the hospital does not always meet evidence-based care metrics.

• Engage all stakeholders.

Include senior leadership, information technology, quality improvement staff, all levels of clinical staff, frontline registration staff and others in planning the program.

• Build community awareness.

Tell the community what you're undertaking to showcase efforts and increase support.

• Data collection is essential.

A consistent process for collecting patient data by race, ethnicity and primary language with everyone is instrumental to the success of the effort.

• Creativity counts when improving quality.

All hospitals tried out a wide range of interventions in their effort to improve their progress on meeting core measures.

NEW Online Resource Offers Insights to Hospitals on Improving Quality

A comprehensive online *Expecting Success* toolkit helps hospitals improve the quality of care in their own community. The toolkit provides tips for hospitals on improving the quality of care and reducing disparities including:

- Advice from hospital CEOs and frontline staff on why and how to get started
- Expansive library of interventions tested and applied at hospitals of all sizes
- Videos showing successful tools from participating hospitals in practice
- Additional resources to help hospitals collect data and create tools to increase quality of heart care while reducing disparities

Visit http://www.rwjf.org/goto/expectingsuccesstoolkit

Expecting Success: National Program Office Staff

The Center for Health Care Quality in the Department of Health Policy of The George Washington University School of Public Health and Health Services served as the National Program Office for Expecting Success.

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