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Testimony of

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HEALTH SUBCOMMITTEE

Hearing on

Programs that Reward Physicians Who Deliver High Quality and Efficient Care

February 7, 2012

Chairman Herger, Ranking Member Stark and members of the Subcommittee, thank you for holding this hearing today and for the opportunity to discuss initiatives that reward physicians who deliver high quality and efficient care.

I am the CEO of the American College of Cardiology (ACC), a professional medical society and teaching institution made up of 40,000 cardiovascular professionals from around the world – including over 90 percent of practicing cardiologists in the United States and a growing number of cardiovascular-focused registered nurses, clinical nurse specialists, nurse practitioners, physician assistants and clinical pharmacists.

Introduction

The United States (US) has benefited from stunning technological and therapeutic advances in health care in the past two decades, while at the same time Medicare and Medicaid costs are rising at an alarming rate. This is especially true for heart disease which has experienced a growth in health care costs and at the same time brought about a 30 percent reduction in mortality related to cardiovascular disease during the past decade. According to the CDC's Million Hearts Campaign, cardiovascular disease is the leading cause of death in the United States and cost more than $444 billion in health care expenditures and lost productivity in 2010 alone—and these costs are expected to rise given the aging of the population.

Cardiovascular medicine is responsible for managing the biggest source of morbidity, mortality, and cost in the current environment. The ACC possesses the best worldwide source of clinical data and scientifically validated clinical tools for care improvement. The College strongly believes we have an opportunity in cardiovascular disease to demonstrate a systematic, evidence and data driven approach to improving care that can simultaneously reduce unnecessary admissions, readmissions, complications, testing, and ineffective spending.

The Power of Data

The College has learned through years of experience that efforts to improve quality and efficiency must be grounded in the use of the best scientific evidence available, the collection of robust clinical data, measurement, and feedback on performance. Physicians must believe the data and trust it in order to act on it. The more confidence physicians can have in the underlying data, the more they will respond appropriately to the incentives. Rewarding physicians for providing the right care and using an appropriate amount of resources is essential to solving the long-term Medicare spending crisis. Clinical data registries should play a central role in this. Physicians and hospitals need to see how their own clinical outcomes data compares with their peers to systematically improve performance.

The National Cardiovascular Data Registry

Clinical data registries capture clinical information that is evidence based, derived from clinical guidelines, performance measures and appropriate use criteria in order to accurately measure patient outcomes and clinical practice. The ACC began development of the National Cardiovascular Data Registry (NCDR®) partnering with other medical specialty organizations in 1998 with a fervent determination to monitor and improve existing and new cardiovascular care technologies. Today, NCDR® is the most comprehensive, outcomes-based quality improvement program in the US encompassing six hospital-based registries and one outpatient physician office-based registry representing over 20 million patient records, 216 clinical abstracts and 70 published manuscripts. NCDR® is operational in over 2500 US hospitals, and the NCDR® PINNACLE Registry® is in over 1000 physician offices across the US. The College has for nearly three decades translated ever-evolving science into guidelines, performance measures, and recently appropriate use criteria. The NCDR registries measure the extent to which those scientific tools are actually applied across the nation, as well as measuring actual outcomes in cardiovascular care.

The NCDR® is uniquely positioned to help medical professionals – including cardiovascular and primary care professionals - and participating facilities identify and close gaps in quality of care; reduce wasteful and inefficient care variations; and implement effective, continuous quality improvement processes. The attached slides provide more information on the registries.

The ACC NCDR collaborates with numerous payers. WellPoint, Inc, United Healthcare Services, and Blue Cross Blue Shield of Michigan (by virtue of BMC2) formally require participation in NCDR as part of reimbursement or recognition programs. In addition, the Blue Cross Blue Shield Association includes NCDR participation as part of their national Blue Distinction Centers for Cardiac Care Program. Many states, including California, Florida, Maryland, Michigan, Missouri, Washington, West Virginia, are aligning regional monitoring efforts with NCDR. Health systems such as Hospital Corporation of America (HCA) and Kaiser Foundation Hospitals (of Kaiser Permanente) leverage NCDR to support QI efforts within their networks, as does the Veterans Administration. And, NCDR contains more NQF-endorsed performance measures than any other registry model---and NCDR data actually speeds the ability of the College and NQF to propose and formulate new measures as science progresses.

Two regional programs that have been receiving national recognition in publishing results for their use of data and "moving the dial" in improving care rely on the NCDR CathPCI Registry as their measurement tool for interventional procedures. These programs are the Northern New England Cardiovascular Disease Study Group and the Blue Cross Blue Shield of Michigan Cardiovascular Consortium (BMC2). Recently, The Leapfrog Group identified the NCDR CathPCI Registry as their preferred data source for PCI outcome reporting in their voluntary Hospital Survey aimed at encouraging health providers to publicly report their quality and outcomes so that consumers and purchasing organizations can make informed health care choices. This testimony also provides other examples of ACC collaborations on registry use to benefit the health care system.

While ACC is further along in the use of registries, other medical specialties have since developed clinical data registries or are now in the process of doing so. The ACC stands ready to assist other medical specialties with registry development.

Decision Support Tools

The ACC has developed appropriate use criteria (AUC) that define when and how often physicians should perform a given procedure or test in the context of scientific evidence, the health care environment, the patient's profile and the physician's judgment. The College has created point of order tools through which physicians can access the AUCs during a patient encounter with minimal workflow disruption.

Blue Cross Blue Shield of Delaware (BCBSD) is supporting use of the ACC's FOCUS: Cardiovascular Imaging Strategies tool by Delaware cardiologists to make more informed decisions about the appropriate use of certain diagnostic imaging tests this year. BCBSD will pay for cardiologists in the state to use the online tool, which allows for consistent application of AUCs to determine when and which cardiovascular imaging tests are needed. Other payers are also interested in the program. The program provides feedback reports on the patterns of appropriate use to physician practices and health plans. FOCUS participants then use the reports to complete action plans and share best practices.

A voluntary community of 50 sites using FOCUS saw a 50 percent decrease in inappropriate use of medical imaging over a 12 month time period. FOCUS not only improves patient care---it will greatly reduce unnecessary spending.

The Cardiology Practice Improvement Pathway (CPIP)

Payers approached the ACC to ask how to identify high quality cardiologists, leading to the College establish a program to recognize practices- the Cardiology Practice Improvement Pathway (CPIP). The College created a health plan advisory group and included them in program development to identify must-haves, nice to haves and deal breakers. The ACC sought their reaction and guidance at regular intervals.

CPIP provides an unbiased, transparent, comprehensive, self-reported, all-payer assessment of a practice's performance against national benchmarks to better and more consistently understand how we practice as a profession allowing us to demonstrate and quantify value while implementing practice improvements that

facilitate efficient workflows and drive effective patient care. CPIP is approved through the American Board of Internal Medicine's (ABIM) Approved Quality Improvement (AQI) Pathway and eligible for points towards the Self-Evaluation of Practice Performance requirement of Maintenance of Certification (MOC).

Practices can choose to have their baseline performance data sent to Bridges to Excellence (BTE) to apply for the Cardiology Practice Recognition (CPR), recognition awarded to practices that achieve quality thresholds established jointly by BTE and ACC. Numerous health plans are starting to provide incentives to practices that meet BTE CPR. For example, in 2012, practices in the BCBS Texas network who achieve CPR are eligible for financial rewards. In addition, in 2011, practices taking care of patients in the Pennsylvania Employee Benefit Trust Fund who achieved CPR were eligible for financial rewards. Also, recognized practices were eligible for Quality Designation in Aetna Aexcel, Anthem Blue Precision, and United Premium Designation programs in 2011. This standardized approach to assessing and recognizing quality in CV practice could go beyond incentives for achieving recognition; it could serve to facilitate performance-based contracting and proof of quality for integrated systems and bundled payments.

Putting the Data to Work

The Door to Balloon Initiative

D2B: An Alliance for Quality™ is a great example of how data collection and feedback can improve quality and outcomes. The Door to Balloon, or D2B, initiative challenged cardiovascular specialists to meet the national guidelines developed by the ACC and the American Heart Association (AHA) that state that hospitals treating heart attack patients with emergency percutaneous coronary intervention (PCI) should reliably achieve a door-to-balloon time of 90 minutes or less. "Door-to-balloon time" means the time it takes to diagnose a heart attack and restore blood flow to the heart by placing a stent in a blood vessel. Studies demonstrate strong associations between time to primary PCI and in-hospital mortality risk; however, accomplishing this level of performance was an organizational challenge. In 2006, the ACC partnered with many other organizations to address the challenge by sharing the key evidence-based strategies and supporting tools needed to reduce D2B times nationally. The program was incredibly successful, with widely published studies showing that D2B times dropped to under 90 minutes in over 90 percent of US hospitals, with many now having D2B times under one hour. This has reduced the average US length of stay for heart attack from five to three days, reducing average costs by 30 percent! This initiative significantly improved patient outcomes and lowered costs nationwide. The attached August 2011 *Circulation* article provides more detail on the success of D2B.

The Hospital to Home Initiative

Preventable hospital readmissions have been identified as a major source of avoidable health care spending as well as evidence of shortcomings in quality of care. The Hospital to Home (H2H) initiative, led by the ACC and the Institute for Healthcare Improvement, is a national quality improvement campaign to reduce cardiovascular-related hospital readmissions and improve the transition from inpatient to outpatient status for individuals hospitalized with cardiovascular disease. H2H is challenging practitioners to better understand and tackle readmission problems by trying specific tools and improvement strategies through the H2H Challenge Projects. In 2011 and 2012, H2H is offering tool kits, instructional webinars, and surveys to capture and share experiences with others.

Shared Decision Making

We know that health care decisions are not black and white. ACC believes engaging patients in decision making is crucial to achieving the best outcome for a patient, as determined by the clinical situation and the patient's preferences and values. More emphasis must be placed on shared decision making, the process by which a health care provider communicates to the patient personalized information about the options, outcomes, probabilities, and scientific uncertainties of available treatment options and the patient communicates his or her

values and the relative importance he or she places on benefits and harms. Through CardioSmart.org, ACC is providing content and tools to achieve this goal.

Moving Forward

The ACC has recently engaged on a project to combine all of these tools into a focused project to address documented clinical quality, resource use and cost variation in the treatment of stable ischemic heart disease (SIHD) called SMARTCare. In Wisconsin, the project has been driven by the American College of Cardiology Foundation (ACCF) State Chapter in collaboration with integrated health care systems, statewide, multi-stakeholder collaborative groups, including business coalitions, measurement and data collaborative groups, and a payment reform partnership. The parallel effort in Florida has been led by the ACCF State Chapter in collaboration with 6 provider organizations across the state.

SMARTCare will reduce complications, procedures not meeting current appropriate use standards, and episode cost; achieve high levels of patient engagement; improve quality of life; and increase the number of patients at risk reduction goals. The project will accomplish these changes by impacting three key decision points:

1) appropriateness of noninvasive cardiac imaging; 2) treatment decision between medical therapy, stenting, and bypass surgery; and 3) optimizing medication and lifestyle interventions. Combining these tools will provide customized patient benefit and risk information based on evidence and registry data in real time. Information provided in these tools and registries will then be used to assess patterns of care. Feedback about impact on overall clinical care and cost will be made available through an interactive dashboard and analysis tool. Ongoing tracking using NCDR and PINNACLE registries will allow sites to modify use of their tools over time to enhance impact. The information also will be used to support an episode of care shared savings/bundled payment model and quality incentive payments.

The ACC has seen the incredible excitement that has arisen from the participation of so many healthcare stakeholders in this project and we believe such efforts can be expanded throughout the nation. In addition to the aforementioned initiatives, ACC is developing plans to launch a national demonstration project with Medicare and private insurers in 2013 to systematically reduce projected cardiovascular spending over the next 10 years by at least 10 percent. If fully deployed with proposed new payment reform incentives for hospitals and physicians, this ambitious project could save over $300 billion in the next decade in Medicare alone, while further reducing morbidity and mortality.

Conclusion

Providing physicians and other healthcare providers with data on their performance and tools to improve their performance will result in improved quality and efficiency and lower costs. To establish the infrastructure and data necessary, Medicare and private payers should encourage, through incentives, the development and widespread use of clinical data registries that allow the tracking and improvement of healthcare quality in concert with payment programs that encourage higher quality. The pathway to reducing the rate of growth of US health care spending and its alarming contribution to the national deficit will require that we align payment incentives with improved data-driven outcomes---the task requires *improving* care rather than *cutting* care. Physician leadership, working together with other clinicians, hospitals, insurers, and Medicare, will be necessary to effect these needed improvements in our health care system. Thank you for the opportunity to speak today about several of the exciting quality improvement collaborations underway in cardiology and what lessons can be applied to improve quality and lower cost across the health care system.

What is National Cardiovascular Data Registry?

- Most comprehensive, outcomes-based quality improvement program in the U.S.
- The premiere source of clinical outcomes data
- Encompasses both hospital-based registries and a practice-based program.
- Trusted, patient-centered resource
- Helps participating facilities:
  - Identify and close gaps in quality of care
  - Reduce wasteful and inefficient care variations
  - Implement effective, continuous quality improvement processes

How many hospitals participate in NCDR?

Nearly all EP Labs and 70% of Cath Labs submit data to NCDR

Name	Disease or Device	Facility Services	Sites	Patient Records
CathPCI	Percutaneous coronary interventions	Cath Lab	1500	13,000,000
ICD	Implantable cardioverter defibrillators	EP Lab	1600	600,000
ACTION-GWTG	Acute coronary syndrome	Emergency	700	300,000
CARE	Carotid artery revascularization	Cath Lab Surgical	170	15,000
IMPACT	Congenital heart disease	Cath Labs w/ Congenital Service	50	7000
PINNACLE	Coronary artery disease, heart failure, atrial fibrillation, hypertension	Outpatient	800 physicians	3,000,000

Total 2,500 Hospitals and Nearly 20 Million Patient Records!

NCDR – a generation of quality care

PINNACLE Registry™

ACTION Registry®-GWTG™

CathPCI Registry®

IMPACT Registry™

CARE Registry®

ICD Registry™

STS/ACC TVT Registry™

Helping Cardiovascular Professionals
Learn. Advance. Heal.

NCDR registries bring together medical experts

Helping Cardiovascular Professionals
Learn. Advance. Heal.

NCDR®

National Cardiovascular Data Registry

That was then...

Launched 1997

1 registry

Focused on quality patient care

This is now...

More than 2,500 hospitals and 1,000 practices

Health plans and government regulator adoption

Industry uses for market research, clinical research, and to support best practice treatments

FDA uses NCDR data for post market assessment

This is our future…

Patient centric

International collaboration

Platform for clinical trials and CER

More post market assessment studies

Implement physician reports to support MOC and MOL

EHR Integration

Helping Cardiovascular Professionals
Learn. Advance. Heal.

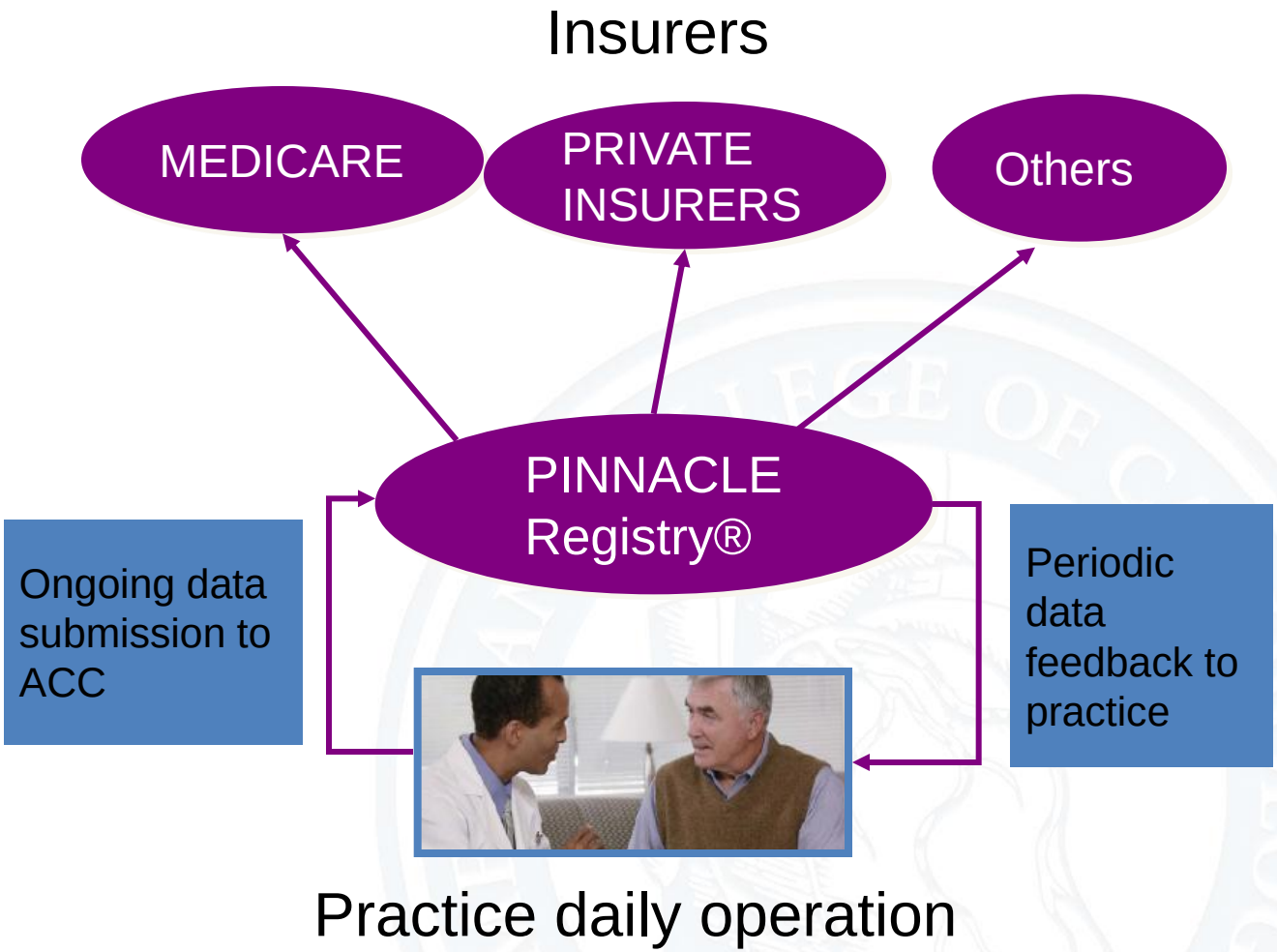
The PINNACLE Registry

- First office-based QI program in U.S.
- Data collection system
- Assessments and continuous feedback
- Clinical decision support tools
- Opportunity for recognition as ‘high quality’
- EHR interoperable module or web-based
- Data extraction by “system integrator”
- Is being used in India!

PINNACLE and Data Collection

Data collection example: CAD performance

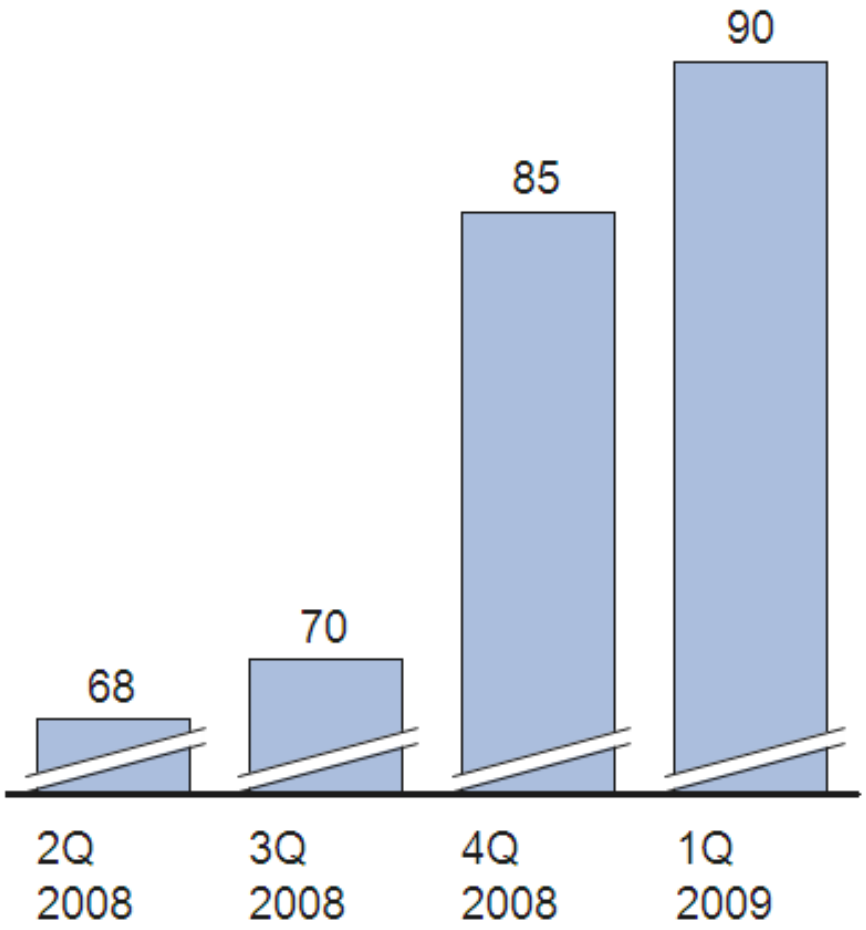
- BP measurement
- Symptom and activity assessment
- Smoking assessment
- Anti-platelet therapy
- Lipid profile
- Use of lipid therapy
- β-blocker post-MI
- ACE/ARB in EF[4] and DM[4]
- Screening for diabetes



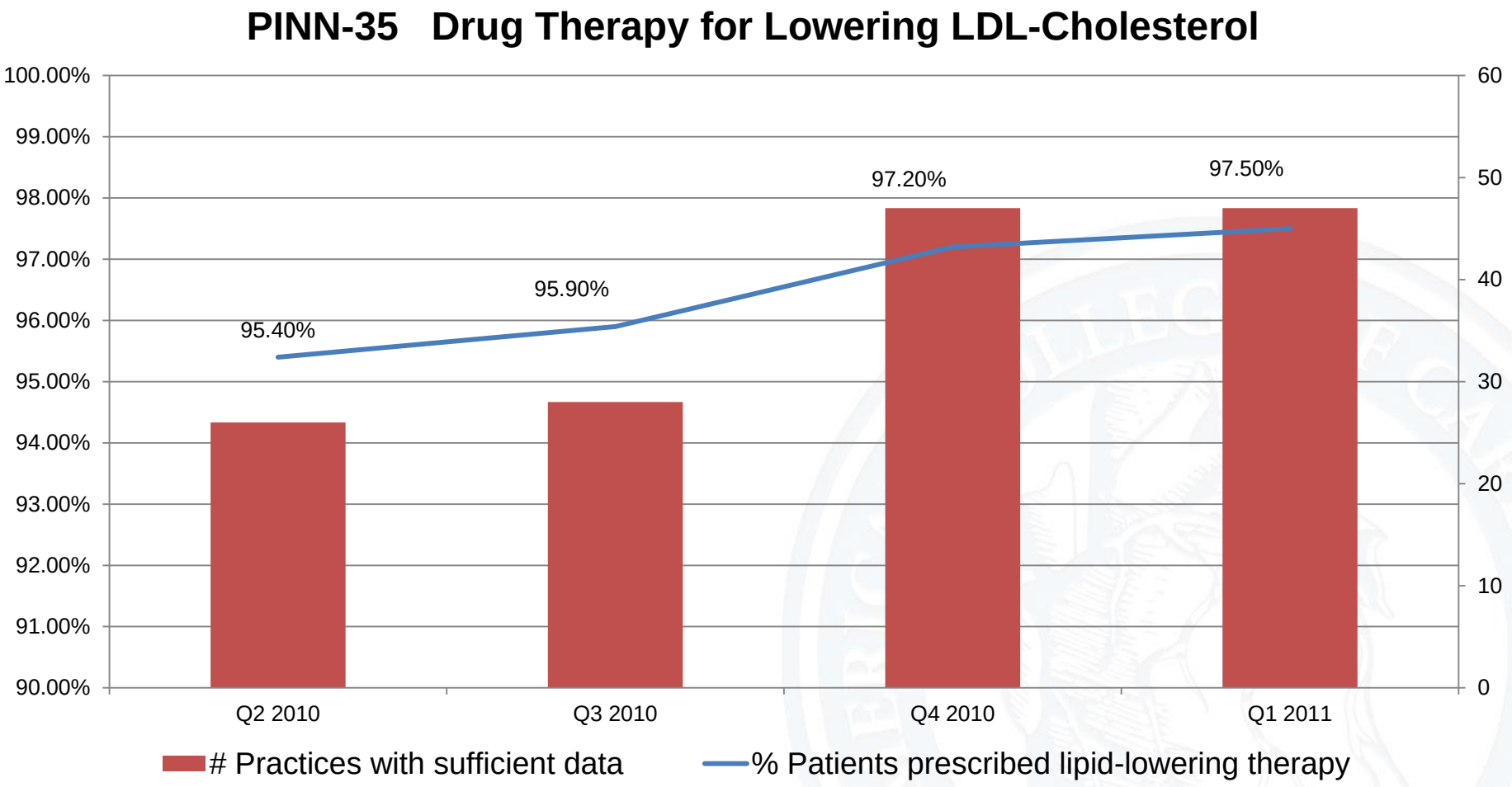
Helping Cardiovascular Professionals Learn. Advance. Heal.

Antiplatelet prescription after MI

Percent of eligible patients seen at member practices

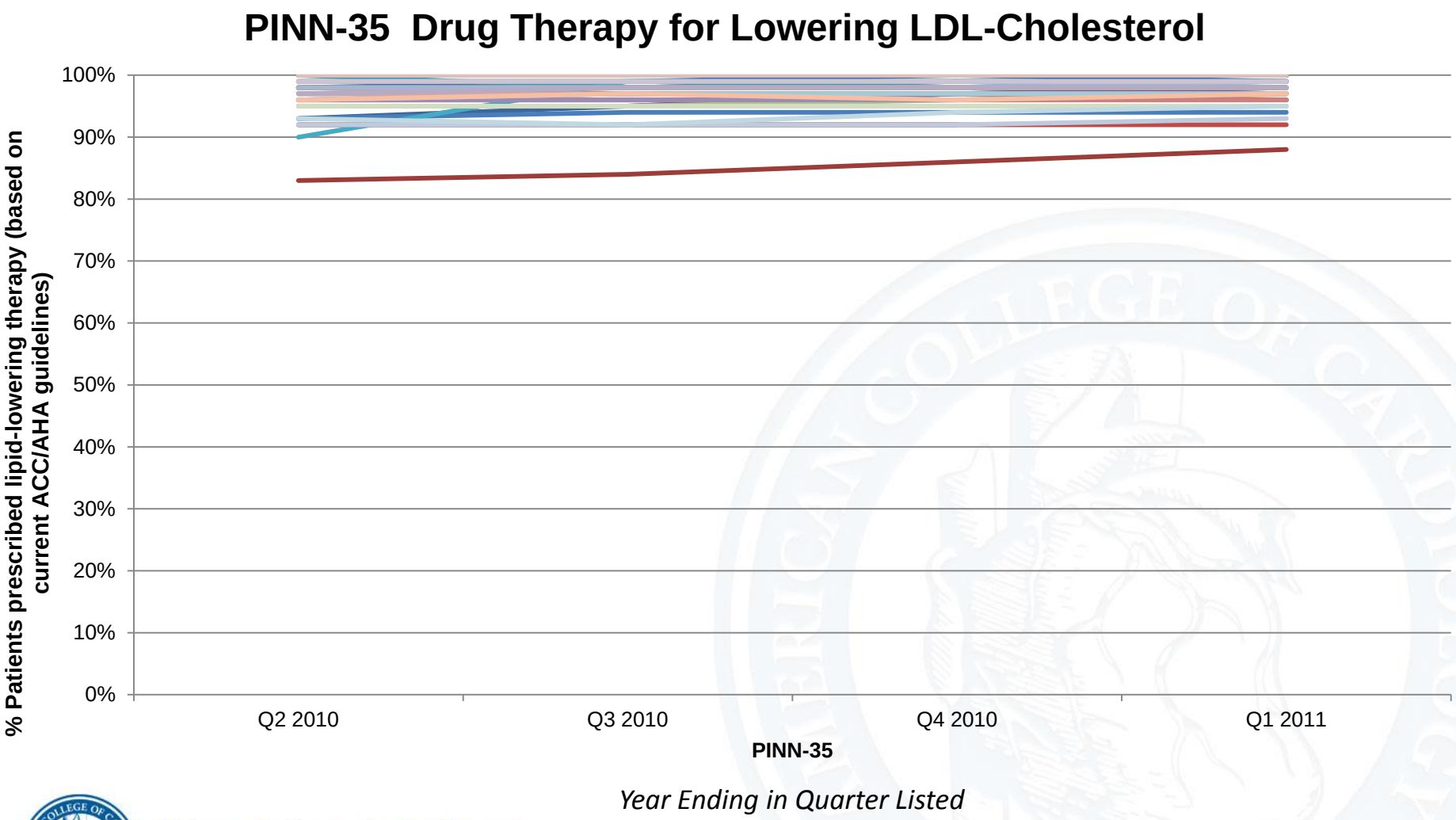


LDL Rx performance keeps climbing, even as new practices come online



Helping Cardiovascular Professionals
Learn. Advance. Heal.

A job well done across all practices



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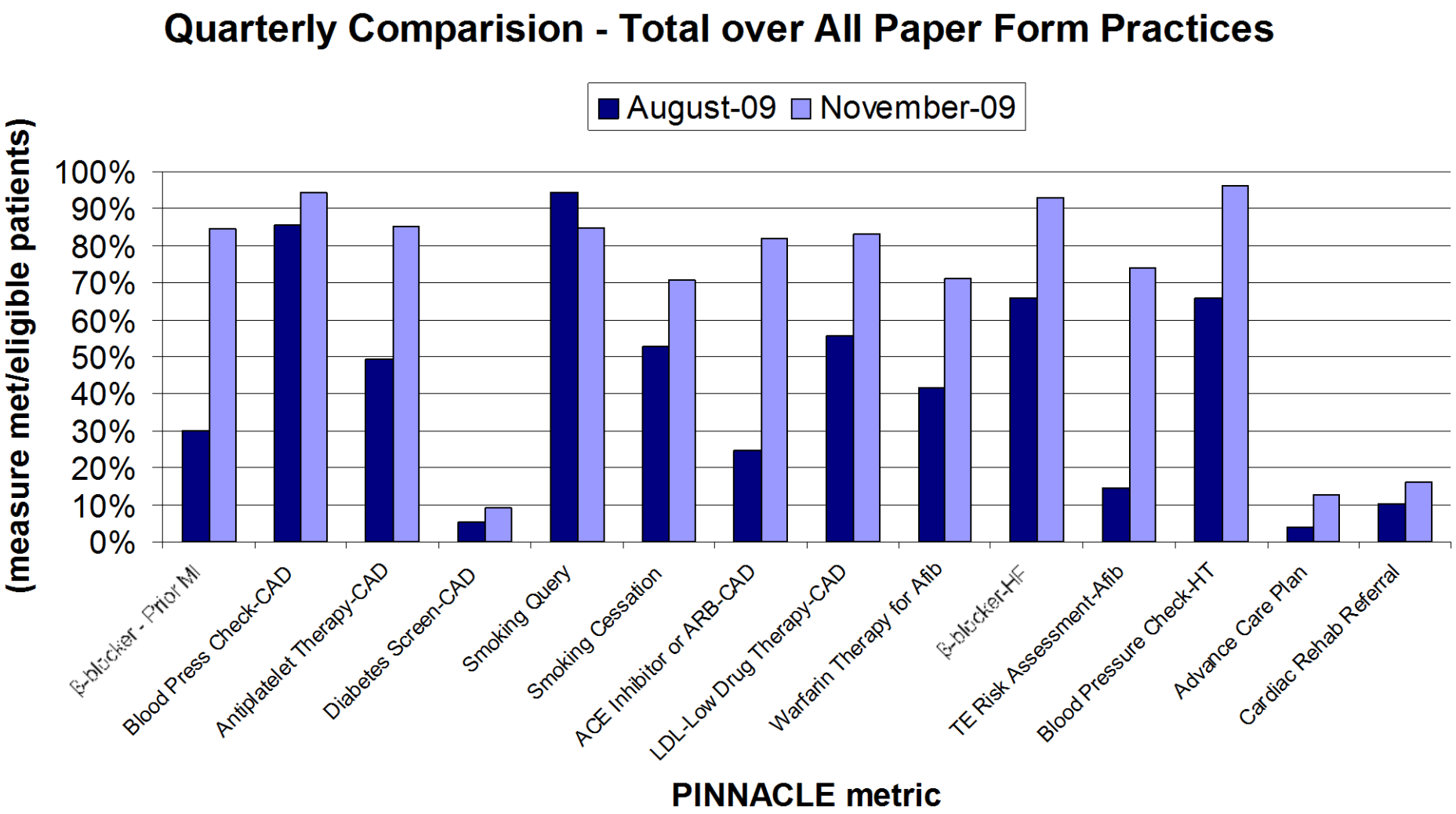
Learn. Advance. Heal.

Encouraging Early Indicators



Variation Opportunities in Cardiology: *Imaging*

Imaging in FOCUS: CV Imaging Strategies:

New ACC product for health plans focuses on appropriate patient selection through:

- physician-developed Appropriate Use Criteria
- point of order clinical decision support
- benchmarking to target education and quality improvement

IMAGING IN FOCUS
Cardiovascular Imaging Strategies

FOCUS: *Innovation Community*

Method

- Collaborative learning model
- Rolling admissions
- Grassroots centered and open across medical specialty
- Performance Improvement Modules (PIMs)/Online Data Collection to track AUC

Benefits of participating in FOCUS

- Contribute lessons learned
- Preparing for laboratory accreditation
- MOC Part IV

FOCUS: *Community Lessons*

- Implement tool at point of order
- Provide feedback on patterns to ordering physicians
- Focus on common inappropriate; provide education and reminder cards
- Local peer to peer discussions

- ***Reduction*** in inappropriate ordering by practices equals ***55 percent*** within one year

August 30, 2011

Embargoed for 4 PM ET/3 PM CT, Monday, Aug. 22, 2011

Improvements in Door-to-Balloon Time in the United States, 2005 to 2010

AQ:1

Harlan M. Krumholz, MD, SM; Jeph Herrin, PhD; Lauren E. Miller, MS; Elizabeth E. Drye, MD, SM; Shari M. Ling, MD; Lein F. Han, PhD; Michael T. Rapp, MD, JD; Elizabeth H. Bradley, PhD; Brahmajee K. Nallamothu, MD, MPH; Wato Nsa, MD, PhD; Dale W. Bratzler, DO, MPH; Jeptha P. Curtis, MD

AQ:2

P1-foo

Background—Registry studies have suggested improvements in door-to-balloon times, but a national assessment of the trends in door-to-balloon times is lacking. Moreover, we do not know whether improvements in door-to-balloon times were shared equally among patient and hospital groups.

Methods and Results—This analysis includes all patients reported by hospitals to the Centers for Medicare & Medicaid Services for inclusion in the time to percutaneous coronary intervention acute myocardial infarction-8 inpatient measure from January 1, 2005, through September 30, 2010. For each calendar year, we summarized the characteristics of patients reported for the measure, including the number and percentage in each group, the median time to primary percutaneous coronary intervention, and the percentage with time to primary percutaneous coronary intervention within 75 minutes and within 90 minutes. Door-to-balloon time declined from a median of 96 minutes in the year ending December 31, 2005, to a median of 64 minutes in the 3 quarters ending September 30, 2010. There were corresponding increases in the percentage of patients who had times <90 minutes (44.2% to 91.4%) and <75 minutes (27.3% to 70.4%). The declines in median times were greatest among groups that had the highest median times during the first period: patients >75 years of age (median decline, 38 minutes), women (35 minutes), and blacks (42 minutes).

Conclusion—National progress has been achieved in the treatment of patients with ST-segment–elevation myocardial infarction who undergo primary percutaneous coronary intervention. **(*Circulation*. 2011;124:00-00.)**

AQ:3

Key Words: balloon dilation ■ myocardial infarction ■ percutaneous coronary intervention ■ reperfusion

The effectiveness of primary percutaneous coronary intervention (PCI) is highly dependent on its timeliness.[1–4] Clinical practice guidelines and practice guidelines recommend that the time from hospital arrival to mechanical reperfusion, the door-to-balloon (D2B) time, should be as short as possible and should not exceed 90 minutes.[5,6] In 2002, only a third of patients received primary PCI within 90 minutes, and a third underwent the procedure >2 hours after arriving at the hospital.[7] These lackluster times led to a national response; in September 2005, the Centers for Medicare & Medicaid Services (CMS) began to report publicly the percent of patients treated within recommended times. At the same time, federally funded research identified strategies and organizational factors that were strongly associated with shorter D2B times.[8–11] In November 2006, the American College of Cardiology (ACC), with national partners, launched the D2B Alliance, a national campaign to improve D2B times by advocating the adoption of key strategies that had been shown to reduce delays based on a study funded by the National Heart, Lung, and Blood Institute.[12] In May 2007, the American Heart Association (AHA) launched Mission: Lifeline, another national initiative to improve systems of care for patients with ST-segment–elevation myocardial infarction.[13]

Clinical Perspective on p ●●●

Although studies have reported improvements in D2B times during this period of national focus on improving the

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AQ:7

Guest editor for this article was William S. Weintraub, MD.

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timeliness of primary PCI,[14,15] these reports, which assessed performance through the first quarter of 2008, were derived from hospitals participating in registries that represent a selected sample of the nation's hospitals. There has been no national assessment of the trends in D2B times, nor do we know whether improvements in D2B times were shared equally among patient and hospital groups.

Accordingly, we evaluated data submitted to CMS as part of its initiative to report indicators of quality for patients with an acute myocardial infarction. The latest published report from the CMS data included data up until the second quarter of 2004.[16] We sought to determine how performance on this measure had changed from 2005 through 2010, with a focus on D2B times and the percent of patients who were treated in <90 minutes and in <75 minutes. We also evaluated the trends among hospitals defined by their bed size, geographic region, ownership, urban or rural location, and volume of patients with PCI that they reported for this measure. This study represents the most contemporary, comprehensive, nationally representative investigation of the changes in D2B times in the United States.

Methods

Patient Population

This analysis includes all patients reported by hospitals to CMS for inclusion in the time to PCI (acute myocardial infarction-8) inpatient measure from January 1, 2005, through September 30, 2010. Hospitals with at least 5 acute myocardial infarction inpatient admissions during a quarter must report to CMS or face a financial penalty. Hospitals may exclude patients through sampling, depending on the number of patients eligible, and the minimum number required to be reported has changed over time. Sampling is mandated by CMS to be either simple random or sequential random, and hospitals that sample for at least 1 quarter must report that they sampled for that year; this is enforced through an additional mandate to use a measurement system certified by The Joint Commission.[17] The percentage of hospitals that sampled was generally stable over the study period, with the largest number (percentage) being 252 of 4085 (6.2%) in 2005 and the smallest number being 173 of 3780 (4.6%) in 2010. The inclusion and exclusion criteria for this measure and the sampling and reporting criteria are publicly available.[17] During the period of the study, there were some changes in the measure regarding exclusion criteria; the major change occurred in 2006 when patients were allowed to be excluded if there was a nonclinical reason for the delay (acute myocardial infarction-8 exclusions; see the online-only Data Supplement). To increase the likelihood that we were assessing patients receiving primary PCI, we excluded patients with times >6 hours.

Patient Variables

For each patient included in the measure, there is information about age, sex, and racial/ethnic group (white, black, other, unknown).

Hospital Variables

We classified each hospital that reported at least 25 patients during any year for the measure according to size (number of beds), Census region, ownership (government, for profit, and nonprofit), location (rural or urban), and number of patients treated with PCI, as submitted by the hospital. For 2010, we repeated the analysis with hospitals that reported at least 20 patients because we only had 3 quarters of data. Information about hospitals was taken from the Program Resource System, a national provider database maintained by CMS and the Quality Improvement Organizations.

Analysis

For each year, we summarized the characteristics of patients, including the number and percentage in each group, the median time to primary PCI, and the percentage with time to primary PCI within 75 minutes and within 90 minutes for each group.

For each year, we summarized hospital characteristics, number of patients reported, and percentage of hospitals in each group. For each year, we also calculated the median and range of hospital median time to PCI, average of hospital percentage of patients treated within 90 minutes and within 75 minutes, and the interquartile range for each of these. We graphed the summary measure of percent <90 minutes and <75 minutes over the 6-year period for all patients included in the study.

We conducted the analyses with SAS version 9.1.3 (2004; SAS Institute Inc, Cary, NC) and Stata version 11.1 (2010; Stata Corp, College Station, TX). The Human Investigation Committee at the Yale University School of Medicine approved an exemption for the authors to use CMS claims and enrollment data for research analyses and publication; informed consent was not required.

Results

During the 6-year period, the number of patients was fairly constant, ranging between 48 977 and 53 682 (Table 1), with 42 150 reported during the 3 quarters of 2010. The number of hospitals that reported at least 25 patients increased slightly from 896 to 973, with 764 reporting 25 patients for the first 3 quarters of 2010 (Table 2). T1,AQ:4 T2

Patient Door-to-Balloon Times

Median D2B times declined 32 minutes over the 6-year period from a median of 96 minutes in the year ending December 31, 2005, to a median of 64 minutes in the year ending September 30, 2010 (Table 1). The declines in median times were greatest among groups that had the highest median times during the first period: patients >75 years of age (median decline, 38 minutes), women (35 minutes), and blacks (42 minutes). There were corresponding increases in the percentage of patients who had D2B times of <90 minutes (44.2% to 91.4%) and <75 minutes (27.3% to 70.4%; Figures 1 and 2). F1–2

Hospital Median Door-to-Balloon Times

Hospital median D2B times declined over the 6-year period from a median of 97 minutes in 2005 to a median of 64 minutes in 2010 (Table 2). The declines were greatest among groups of hospitals that had the longest times in the first year: hospitals with ≥500 beds (median hospital time declined 34 minutes), for-profit hospitals (declined 38 minutes), and hospitals in the East South Central and Mid Atlantic Census regions (40- and 35-minute declines, respectively). There was a corresponding increase in the hospital average percent of patient D2B times <90 minutes (from 44% to 92%) and <75 minutes (from 27% to 71%). The results from 2010 were similar if we restricted the required number of cases to 20.

Discussion

The study demonstrates the national progress in the treatment of patients with ST-segment–elevation myocardial infarction who undergo primary PCI. Median patient D2B times decreased substantially from 96 to 64 minutes, a drop of 32 minutes, over the 6 years ending in mid-2010,

Table 1. Median Time to Percutaneous Coronary Intervention and Percent Treated Within 90 and 75 Minutes for Patients Reported to Centers for Medicare & Medicaid Services From January 1, 2005, to September 30, 2010, by Patient Characteristics

	2005				2006			
	n (%)	Median (IQR)	<90 min, %	<75 min, %	n (%)	Median (IQR)	<90 min, %	<75 min, %
Total	48 977 (100)	96 (73–126)	44.2	27.3	52 028 (100)	86 (67–113)	55.2	35.7
Age, y								
18–35	684 (1.4)	99 (77–131)	40.9	23.5	763 (1.5)	92 (73–125)	48.6	29.0
36–45	5133 (10.5)	93 (72–121)	47.0	28.5	5346 (10.3)	85 (66–110)	56.6	36.5
46–55	12 686 (25.9)	93 (71–120)	47.3	29.5	13 864 (26.6)	84 (65–108)	58.8	38.5
56–65	13 576 (27.7)	94 (72–122)	46.2	28.8	14 803 (28.5)	85 (65–110)	57.2	37.3
66–75	9205 (18.8)	98 (74–130)	42.3	26.2	9372 (18.0)	88 (67–116)	53.2	34.8
≥76	7693 (15.7)	105 (79–139)	36.0	21.8	7880 (15.1)	93 (72–123)	47.2	28.8
Sex								
Female	14 039 (28.7)	102 (77–135)	38.6	23.3	14 611 (28.1)	91 (71–120)	49.5	30.3
Male	34 935 (71.3)	94 (72–122)	46.4	28.9	37 410 (71.9)	85 (65–110)	57.4	37.8
Unknown	3 (0.0)	63 (24–94)	66.7	66.7	7 (0.0)	70 (55–102)	71.4	57.1
Race								
Black	3543 (7.2)	111 (83–148)	31.4	18.2	3819 (7.3)	97 (75–130)	44.3	25.9
Other	2430 (5.0)	103 (77–136)	38.5	23.4	1184 (2.3)	90 (67–121)	50.8	35.3
Unknown	3292 (6.7)	91 (67–121)	49.4	33.0	3133 (6.0)	84 (63–111)	58.4	39.7
White	39 712 (81.1)	95 (73–124)	45.2	27.9	43 892 (84.4)	86 (66–111)	56.1	36.2
	2007				2008			
	n (%)	Median (IQR)	<90 min, %	<75 min, %	n (%)	Median (IQR)	<90 min, %	<75 min, %
Total	51 298 (100)	76 (59–93)	72.6	49.8	53 032 (100)	71 (55–86)	82.0	58.7
Age, y								
18–35	690 (1.3)	81 (64–107)	64.6	40.0	737 (1.4)	73 (57–89)	76.8	53.9
36–45	5197 (10.1)	75 (58–92)	73.5	51.0	5292 (10.0)	70 (56–85)	82.8	59.4
46–55	13 965 (27.2)	74 (58–90)	75.6	52.4	14 140 (26.7)	69 (54–84)	84.1	61.3
56–65	14 762 (28.8)	75 (58–91)	74.4	51.6	15 517 (29.3)	69 (54–85)	83.4	60.4
66–75	9179 (17.9)	77 (60–96)	70.5	47.7	9490 (17.9)	71 (55–87)	80.2	57.3
≥76	7505 (14.6)	80 (62–101)	66.3	43.9	7856 (14.8)	74 (58–89)	77.5	52.5
Sex								
Female	14 099 (27.5)	79 (62–99)	68.1	44.8	14 456 (27.3)	73 (58–88)	78.4	54.1
Male	37 196 (72.5)	74 (58–91)	74.3	51.7	38 574 (72.7)	70 (54–85)	83.3	60.4
Unknown	3 (0.0)	84 (36–87)	100.0	33.3	2 (0.0)	52 (45–58)	100.0	100.0
Race								
Black	3875 (7.6)	82 (65–106)	63.5	39.8	4137 (7.8)	76 (61–90)	75.5	49.1
Other	1257 (2.5)	78 (60–97)	69.3	48.1	1338 (2.5)	72 (57–86)	80.6	56.4
Unknown	3089 (6.0)	74 (57–91)	74.8	52.2	3166 (6.0)	69 (53–84)	83.3	61.2
White	43 077 (84.0)	75 (58–93)	73.4	50.6	44 391 (83.7)	70 (55–85)	82.5	59.5
	2009				2010*			
	n (%)	Median (IQR)	<90 min, %	<75 min, %	n (%)	Median (IQR)	<90 min, %	<75 min, %
Total	53 682 (100)	67 (52–81)	87.9	65.8	42 150 (100)	64 (50–78)	91.4	70.4
Age, y								
18–35	717 (1.3)	70 (56–87)	79.9	57.7	592 (1.4)	69 (53–84)	85.5	63.2
36–45	5103 (9.5)	67 (52–81)	89.3	66.5	3821 (9.1)	64 (51–78)	91.1	71.1
46–55	14 546 (27.1)	66 (51–80)	89.6	68.2	10 991 (26.1)	63 (49–77)	92.5	72.5
56–65	15 648 (29.1)	66 (51–80)	88.9	68.1	12 639 (30.0)	63 (49–77)	92.1	72.0
66–75	9727 (18.1)	68 (52–82)	86.6	63.9	7794 (18.5)	65 (50–79)	91.2	69.7
≥76	7941 (14.8)	70 (55–85)	84.1	59.1	6313 (15.0)	67 (53–82)	88.8	64.7

(*Continued*)

Table 1. Continued

	2005				2006			
	n (%)	Median (IQR)	<90 min, %	<75 min, %	n (%)	Median (IQR)	<90 min, %	<75 min, %
Sex								
Female	14 586 (27.2)	69 (55–84)	84.8	61.3	11 531 (27.4)	67 (52–81)	89.1	66.3
Male	39 094 (72.8)	66 (51–80)	89.0	67.4	30 618 (72.6)	63 (49–77)	92.2	71.9
Unknown	2 (0.0)	75 (58–91)	50.0	50.0	1 (0.0)	55 (55–55)	100.0	100.0
Race								
Black	4153 (7.7)	71 (56–86)	82.4	57.5	3203 (7.6)	69 (55–83)	86.6	61.7
Other	1440 (2.7)	68 (53–82)	87.4	63.6	1169 (2.8)	65 (52–79)	91.4	69.9
Unknown	3209 (6.0)	66 (51–81)	88.0	67.0	2530 (6.0)	65 (51–79)	90.9	70.8
White	44 880 (83.6)	66 (52–81)	88.4	66.5	35 248 (83.6)	64 (50–78)	91.8	71.2

IQR indicates interquartile range

*For 2010, only the first 3 quarters (discharges from January through September) were available at the time of analysis.

representing a >30% relative decline. This improvement, experienced across the country and across different types of hospitals, represents a remarkable elevation in practice that was achieved over a relatively short period of time and in the absence of financial incentive. The accomplishment is truly a tribute to interventional cardiologists, emergency medicine physicians, nurses, technologists, and other team members nationwide who were dedicated to improving D2B times.

The perspective on D2B times changed dramatically over this period. The 2004 ST-segment–elevation myocardial infarction guidelines recommended that patients be treated with primary PCI within 90±30 minutes.[18] The caveat of the additional 30 minutes was included as a compromise in response to controversy about whether it was possible for hospitals to routinely treat patients with ST-segment–elevation myocardial infarction within 90 minutes. The publication of the 2004 guidelines was followed by a shift toward the 90-minute standard. Nallamothu and colleagues[1] published a study based on trials of the relationship between D2B time and the advantage of primary PCI over fibrinolytic therapy. They found that if primary PCI was delayed >1 hour beyond the time that fibrinolytic therapy could be provided, the advantage was lost. Thus, if fibrinolytic therapy was recommended to be given within 30 minutes, then the provision of primary PCI within 90 minutes was supported by evidence from the trials. In the guideline update published in 2007, the additional 30 minutes was removed, altering the recommendation for D2B time to <90 minutes.[6] The CMS measure, which initially reported the percent of patients treated within 120 minutes, was subsequently reduced to 90 minutes in 2006 to align the performance measure with the new guideline recommendation.[17]

The improvement in D2B times that we observed cannot be definitively attributed to any single action; many activities likely contributed. During this period, multiple national efforts focused attention on timeliness of D2B and supported quality improvement. Published articles that revealed gaps in care and indicated strategies that were associated with faster times contributed to clinical changes in performance. A study sponsored by the National Institutes of Health used a mixed-methods approach to examine exceptional performers and then test hypotheses that derived from their experience.[7–10,19] The CMS developed contracts with Quality Improvement Organizations that contributed to the increasing focus on improving various aspects of acute myocardial infarction care, including D2B times. Hospital groups and consortia focused on improving D2B times. The performance of the nation's hospitals in treating patients with ST-segment–elevation myocardial infarction was further highlighted by the release of the publicly reported D2B time measures by CMS, and the D2B Alliance and Mission: Lifeline, national campaigns by the ACC and the AHA, enlisted clinicians and hospitals in a broad-based effort to reduce delays.[12,13]

Improvement in D2B times demonstrates how emerging science on improving care can be rapidly integrated into practice. The ACC campaign was launched simultaneously with the publication of an article in the *New England Journal of Medicine* that described strategies associated with faster times.[9] The ACC campaign promoted the adoption of such strategies, which were shown to be underused nationally. Recent reports demonstrated the marked integration of these strategies into practice that occurred during the period of the campaign.[14] Moreover, a recent qualitative study showed that the credibility of the campaign was related to the strength of the science and the clarity of the recommendations.[20]

Despite the recent gains, additional opportunities for improvement in D2B times remain. The most outstanding institutions are now regularly achieving exceptional times of ≈60 minutes through strategies including coordination with Emergency Medical Services and the collection and dissemination of a prehospital ECG.[21–23] This level of performance may become the new standard.

Another opportunity for improvement is related to the care of transfer patients. Prior studies have shown that many patients who are transferred from a hospital without PCI capability to a PCI-capable institution experience long delays in treatment.[24,25] To address this concern, CMS is collecting a measure, with potential to be publicly re-

Table 2. Acute Myocardial Infarction-8: Median Hospital Door-to-Balloon Time and Mean Hospital Percent <90 and <75 Minutes by Hospital Characteristics

	2005				2006			
			Mean (IQR)				Mean (IQR)	
	n (%)	Median (IQR)	<90 min, %	<75 min, %	n (%)	Median (IQR)	<90 min, %	<75 min, %
Total	896 (100.0)	97 (87–108)	44 (31–56)	27 (15–35)	934 (100.0)	87 (77–98)	55 (41–69)	35 (21–47)
Bed size, n								
<300	282 (31.5)	94 (84–105)	46 (33–58)	29 (17–38)	306 (32.8)	85 (76–97)	57 (42–72)	37 (22–50)
300–499	327 (36.5)	97 (88–108)	43 (30–53)	26 (15–32)	354 (37.9)	88 (79–99)	53 (41–67)	33 (21–45)
≥500	287 (32.0)	98 (87–111)	43 (29–56)	27 (14–35)	274 (29.3)	87 (77–99)	54 (39–68)	36 (22–48)
Census region								
East North Central	161 (18.0)	95 (85–106)	46 (33–58)	28 (17–35)	169 (18.1)	85 (76–95)	58 (43–72)	37 (24–49)
East South Central	66 (7.4)	104 (92–114)	40 (29–50)	25 (12–32)	66 (7.1)	89 (82–99)	51 (39–62)	33 (23–41)
Middle Atlantic	104 (11.6)	102 (88–112)	40 (27–53)	24 (14–33)	114 (12.2)	90 (81–100)	52 (39–66)	33 (21–42)
Mountain	76 (8.5)	93 (82–107)	45 (31–59)	29 (13–41)	81 (8.7)	86 (76–101)	54 (39–71)	35 (17–51)
New England	31 (3.5)	96 (82–101)	47 (36–58)	30 (19–40)	36 (3.9)	83 (77–93)	59 (47–71)	39 (27–49)
Pacific	121 (13.5)	95 (83–107)	45 (30–58)	29 (15–40)	119 (12.7)	85 (76–99)	55 (42–70)	35 (19–49)
South Atlantic	145 (16.2)	99 (91–109)	41 (31–49)	25 (15–32)	152 (16.3)	89 (79–100)	53 (40–66)	33 (21–44)
West North Central	78 (8.7)	90 (79–99)	53 (40–68)	34 (19–45)	79 (8.5)	79 (70–88)	65 (53–79)	44 (25–58)
West South Central	113 (12.6)	99 (92–112)	40 (27–49)	24 (14–31)	118 (12.6)	91 (81–104)	49 (33–65)	30 (16–43)
US territories	1 (0.1)	166 (166–166)	5 (5–5)	5 (5–5)	0 (0.0)	NA	NA	NA
Ownership								
Government	119 (13.3)	98 (86–109)	43 (32–57)	27 (16–37)	113 (12.1)	86 (76–96)	55 (44–71)	36 (22–49)
For profit	127 (14.2)	100 (91–113)	39 (27–50)	23 (13–31)	134 (14.3)	91 (80–102)	50 (36–65)	31 (17–43)
Nonprofit	650 (72.5)	96 (85–107)	45 (31–57)	28 (15–36)	687 (73.6)	86 (77–97)	56 (41–69)	36 (22–48)
Location								
Rural	61 (6.8)	93 (83–104)	47 (35–61)	30 (18–39)	64 (6.9)	83 (76–95)	58 (46–70)	40 (30–50)
Urban	834 (93.1)	97 (87–109)	43 (31–56)	27 (15–35)	869 (93.0)	87 (77–98)	54 (40–69)	35 (21–47)
Unknown	1 (0.1)	68 (68–68)	72 (72–72)	57 (57–57)	1 (0.1)	63 (63–63)	74 (74–74)	64 (64–64)
Reported cases, n								
25–35	266 (29.7)	101 (88–116)	40 (27–53)	25 (13–33)	285 (30.5)	91 (80–106)	50 (33–66)	31 (17–43)
36–50	276 (30.8)	95 (87–106)	44 (32–55)	28 (16–35)	306 (32.8)	88 (79–97)	54 (41–67)	34 (21–45)
>50	354 (39.5)	96 (84–106)	46 (33–58)	28 (16–39)	343 (36.7)	83 (76–93)	60 (47–73)	40 (27–50)

	2007				2008			
			Mean (IQR)				Mean (IQR)	
	n (%)	Median (IQR)	<90 min, %	<75 min, %	n (%)	Median (IQR)	<90 min, %	<75 min, %
Total	936 (100.0)	75 (69–83)	73 (63–85)	50 (36–63)	956 (100.0)	71 (64–77)	82 (75–92)	59 (48–71)
Bed size, n								
<300	310 (33.1)	75 (69–84)	73 (62–86)	49 (36–63)	329 (34.4)	71 (65–79)	81 (73–92)	57 (44–71)
300–499	358 (38.2)	76 (69–83)	73 (64–85)	49 (37–62)	357 (37.3)	71 (64–76)	83 (76–93)	59 (48–71)
≥500	268 (28.6)	75 (67–83)	73 (63–85)	50 (38–63)	270 (28.2)	70 (64–76)	82 (76–92)	60 (49–71)
Census region								
East North Central	164 (17.5)	75 (68–82)	73 (65–85)	51 (38–64)	175 (18.3)	71 (64–77)	82 (75–93)	59 (47–72)
East South Central	71 (7.6)	79 (72–84)	71 (64–81)	46 (33–57)	66 (6.9)	71 (66–76)	83 (78–93)	58 (49–69)
Middle Atlantic	112 (12.0)	77 (71–84)	71 (59–83)	47 (36–58)	121 (12.7)	72 (66–76)	81 (73–90)	57 (50–67)
Mountain	80 (8.5)	75 (68–86)	72 (59–87)	48 (33–62)	85 (8.9)	74 (66–80)	80 (71–90)	54 (43–67)
New England	41 (4.4)	71 (64–79)	78 (66–86)	56 (42–63)	39 (4.1)	66 (62–74)	84 (79–94)	63 (56–74)
Pacific	121 (12.9)	73 (67–80)	75 (68–85)	52 (40–66)	130 (13.6)	71 (64–75)	84 (78–92)	60 (51–73)
South Atlantic	159 (17.0)	76 (71–84)	73 (63–86)	49 (36–61)	166 (17.4)	71 (64–77)	83 (76–92)	59 (47–70)
West North Central	75 (8.0)	70 (62–76)	82 (75–92)	60 (48–72)	70 (7.3)	65 (59–71)	88 (84–94)	69 (60–81)
West South Central	113 (12.1)	78 (72–88)	68 (56–84)	44 (30–56)	104 (10.9)	73 (66–80)	79 (71–90)	55 (42–66)
US territories	0 (0.0)	NA	NA	NA	0 (0.0)	NA	NA	NA

(*Continued*)

Table 2. Continued

	2005				2006			
			Mean (IQR)				Mean (IQR)	
	n (%)	Median (IQR)	<90 min, %	<75 min, %	n (%)	Median (IQR)	<90 min, %	<75 min, %
Ownership								
Government	119 (12.7)	77 (69–86)	70 (61–84)	47 (33–61)	125 (13.1)	71 (64–77)	81 (73–93)	59 (45–73)
For profit	129 (13.8)	76 (70–86)	72 (58–85)	47 (32–61)	139 (14.5)	71 (65–79)	83 (77–93)	58 (44–70)
Nonprofit	688 (73.5)	75 (69–82)	74 (64–86)	51 (38–63)	692 (72.4)	70 (64–76)	82 (76–92)	59 (49–71)
Location								
Rural	74 (7.9)	75 (71–82)	73 (64–83)	49 (38–61)	75 (7.8)	69 (65–73)	82 (76–92)	61 (52–75)
Urban	862 (92.1)	75 (69–84)	73 (63–85)	50 (36–63)	881 (92.2)	71 (64–77)	82 (75–92)	59 (47–71)
Unknown	0 (0.0)	NA	NA	NA	0 (0.0)	NA	NA	NA
Reported cases, n								
25–35	295 (31.5)	77 (70–87)	70 (59–85)	46 (31–60)	299 (31.3)	73 (65–79)	80 (72–92)	55 (43–68)
36–50	331 (35.4)	77 (69–85)	72 (62–85)	49 (36–62)	323 (33.8)	71 (65–77)	82 (74–92)	58 (48–70)
>50	310 (33.1)	73 (67–79)	77 (68–86)	54 (43–65)	334 (34.9)	68 (63–74)	85 (80–93)	62 (52–73)

	2009				2010*			
			Mean (IQR)				Mean (IQR)	
	n (%)	Median (IQR)	<90 min, %	<75 min, %	n (%)	Median (IQR)	<90 min, %	<75 min, %
Total	973 (100.0)	67 (61–73)	88 (84–96)	66 (56–76)	764 (100.0)	64 (58–70)	92 (89–98)	71 (63–82)
Bed size, n								
<300	347 (35.7)	67 (62–72)	88 (84–96)	65 (57–76)	250 (32.7)	64 (59–70)	92 (89–98)	71 (63–81)
300–499	357 (36.7)	67 (61–73)	88 (84–96)	66 (56–76)	289 (37.8)	65 (59–70)	92 (89–98)	71 (63–81)
≥500	269 (27.6)	66 (61–72)	88 (83–95)	66 (56–77)	225 (29.5)	64 (58–69)	92 (88–98)	72 (63–82)
Census region								
East North Central	169 (17.4)	68 (62–72)	89 (85–96)	67 (57–76)	137 (17.9)	65 (58–70)	92 (89–97)	72 (64–84)
East South Central	63 (6.5)	68 (62–72)	88 (84–96)	65 (54–77)	52 (6.8)	64 (58–68)	94 (91–98)	74 (68–81)
Middle Atlantic	127 (13.1)	69 (64–75)	86 (80–92)	61 (52–71)	96 (12.6)	67 (61–72)	90 (86–95)	67 (60–76)
Mountain	85 (8.7)	69 (64–74)	87 (83–95)	62 (55–71)	63 (8.2)	63 (57–70)	92 (89–97)	71 (62–82)
New England	37 (3.8)	62 (58–71)	90 (87–96)	71 (62–81)	27 (3.5)	62 (58–66)	93 (89–97)	72 (65–79)
Pacific	131 (13.5)	66 (62–72)	88 (83–95)	67 (58–76)	100 (13.1)	64 (59–69)	93 (89–99)	72 (64–81)
South Atlantic	175 (18.0)	66 (60–72)	88 (85–97)	67 (57–78)	152 (19.9)	63 (58–68)	92 (88–99)	73 (64–82)
West North Central	75 (7.7)	63 (58–69)	92 (88–97)	73 (63–84)	54 (7.1)	60 (55–65)	93 (89–100)	76 (68–84)
West South Central	110 (11.3)	68 (63–74)	87 (81–96)	63 (54–74)	83 (10.9)	66 (61–73)	92 (88–100)	68 (59–80)
US territories	1 (0.1)	102 (102–102)	38 (38–38)	17 (17–17)	0 (0.0)	NA	NA	NA
Ownership								
Government	136 (14.0)	68 (62–74)	86 (80–94)	64 (54–76)	101 (13.2)	65 (59–70)	91 (86–97)	71 (62–82)
For profit	138 (14.2)	65 (61–72)	91 (87–98)	67 (58–78)	109 (14.3)	62 (58–69)	95 (94–100)	75 (67–85)
Nonprofit	699 (71.8)	67 (61–73)	88 (84–95)	66 (56–76)	554 (72.5)	65 (58–70)	92 (88–98)	71 (63–81)
Location								
Rural	83 (8.5)	66 (60–70)	86 (81–96)	67 (60–78)	57 (7.5)	63 (58–69)	92 (88–97)	73 (64–84)
Urban	890 (91.5)	67 (61–73)	88 (84–96)	66 (56–76)	707 (92.5)	64 (58–70)	92 (89–98)	71 (63–81)
Unknown	0 (0.0)	NA	NA	NA	0 (0.0)	NA	NA	NA
Reported cases, n								
25–35	300 (30.8)	69 (64–75)	87 (81–96)	63 (52–73)	358 (46.9)	65 (59–72)	92 (88–100)	70 (60–81)
36–50	355 (36.5)	67 (62–73)	88 (84–96)	65 (55–76)	244 (31.9)	64 (59–69)	92 (88–98)	71 (64–80)
>50	318 (32.7)	65 (59–70)	89 (85–96)	69 (61–79)	162 (21.2)	61 (55–67)	94 (91–98)	76 (68–85)

IQR indicates interquartile range.

*For 2010, only the first 3 quarters (discharges from January through September) were available at the time of analysis.

ported, that assesses the time required to transfer such patients.[17] More important, current research shows that these times can be reduced through greater coordination between hospitals.[26,27]

A limitation of this assessment is the evolution of the measure over the study period, with modifications related primarily to the exclusion criteria. The most notable change occurred in 2006 and allowed hospitals to exclude

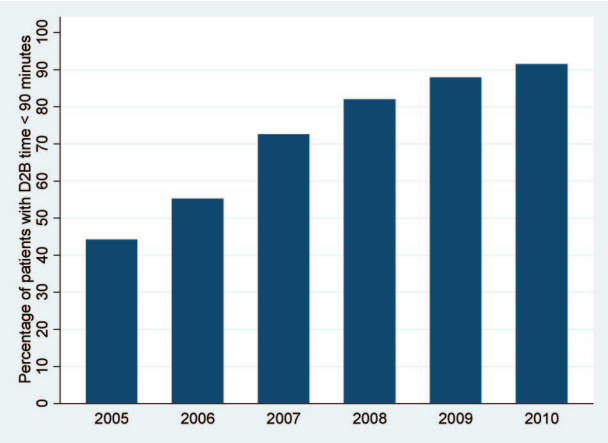

Figure 1. Trend in percentage of patients with door-to-balloon (D2B) time <90 minutes over 6 years.

AQ:6

patients on the basis of the judgment that a D2B time >90 minutes was the result of a delay incurred by patient preference or clinical condition. Subsequent changes included minor alterations in the codes or slight expansions in the exclusion criteria. However, the dramatic decline in D2B times that was observed over the study period is unlikely to have resulted from changes in the measure. Moreover, the greatest decline occurred between 2006 and 2007, a period corresponding to the initiation of national campaigns to improve D2B times. Finally, our results are aligned with those of registries that documented trends in D2B times and applied consistent criteria over time.

Conclusions

We document remarkable improvement in D2B times from 2005 through 2010. The improvement demonstrates the results that can be produced by collaboration among healthcare professionals, hospitals, federal research agencies, and national organizations interested in patient care toward the achievement of a shared goal. The focus on improving the way in which care is delivered—improving the systems—has yielded more timely care for patients and serves as a template for similar contemporary and future efforts in areas such as readmission.

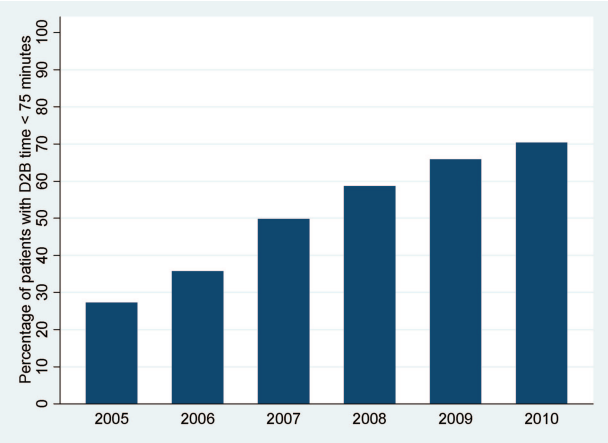

Figure 2. Trend in percentage of patients with door-to-balloon (D2B) time <75 minutes over 6 years.

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Disclosures

Dr Krumholz reports that he chairs a cardiac scientific advisory board for UnitedHealth. The other authors report no conflicts.

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CLINICAL PERSPECTIVE

In the United States, many groups, including the federal government, the American College of Cardiology, the American Heart Association, healthcare professionals, hospitals, emergency medical services, and the research community, have focused on improving door-to-balloon times for patients with ST-segment elevation myocardial infarction who are referred for an emergency percutaneous coronary intervention. We report the national experience in door-to-balloon times based on the Centers for Medicare & Medicaid Services' measure, which includes all patients of all ages. The door-to-balloon time declined from a median of 96 minutes in the year ending December 31, 2005, to a median of 64 minutes in the 3 quarters ending September 30, 2010. There were corresponding increases in the percentage of patients who had times <90 minutes (44.2% to 91.4%) and <75 minutes (27.3% to 70.4%). This improvement, experienced across the country and across different types of hospitals, represents a remarkable elevation in practice that was achieved over a relatively short period of time and in the absence of financial incentive. The improvement demonstrates the results that can be produced by collaboration among healthcare professionals, hospitals, and national organizations toward the achievement of a shared goal.