

# The Journey to Transforming Organizational Culture: Implementing Best Practices for the AMI/CHF Population

Washington Hospital Center

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# Program Objectives

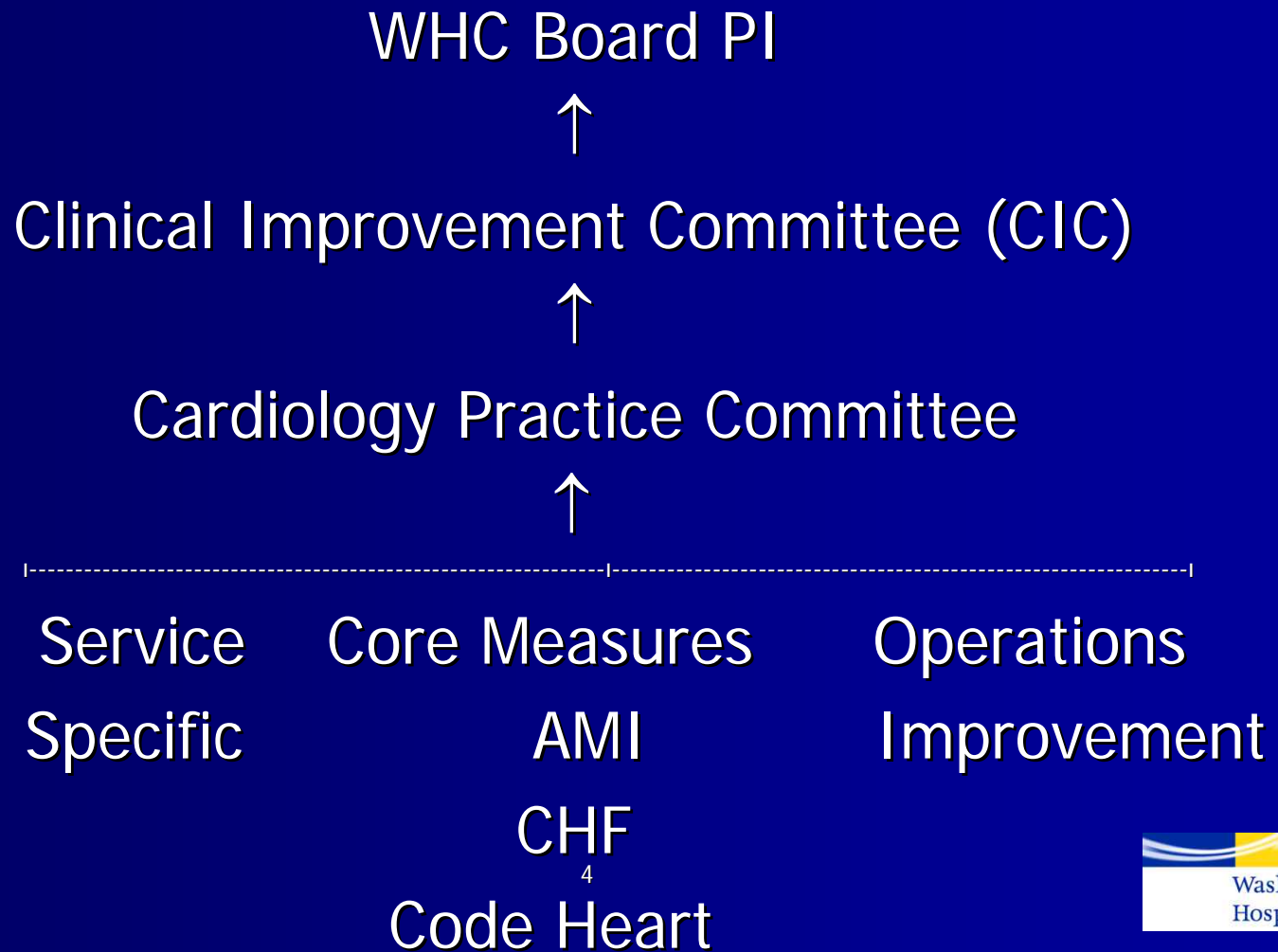
1. State a project orientation approach that results in organizational and cultural transformation.
2. State strategies that can be implemented to exceed JCAHO Core measure outcomes for the AMI/CHF population.
3. State effective use of data/data reporting that will achieve adherence to JCAHO Core measure outcomes for the AMI/CHF population.

# Washington Hospital Center

## First, Most and Only

- 907 bed hospital – part of MedStar System
- Centers of Excellence including: Comprehensive Interdisciplinary Cancer Program, Transplant (Kidney/Pancreas/Heart), Burn Center, Heart and Vascular
- Minimally invasive stereotactic radiosurgery (Gamma Knife®)
- Resident/Fellowship Programs
- Medstar Research Institute

# Performance Improvement (PI) Organizational Structure



# Core Measure PI Teams

## Goals:

- To build upon the efforts and initiatives that have taken place to improve the outcomes of patients.
- To ensure that our clinical practice is in compliance with the National Hospital Quality Measures.
- To exceed national benchmark standards by continuing to provide the best clinical outcomes for our patients.

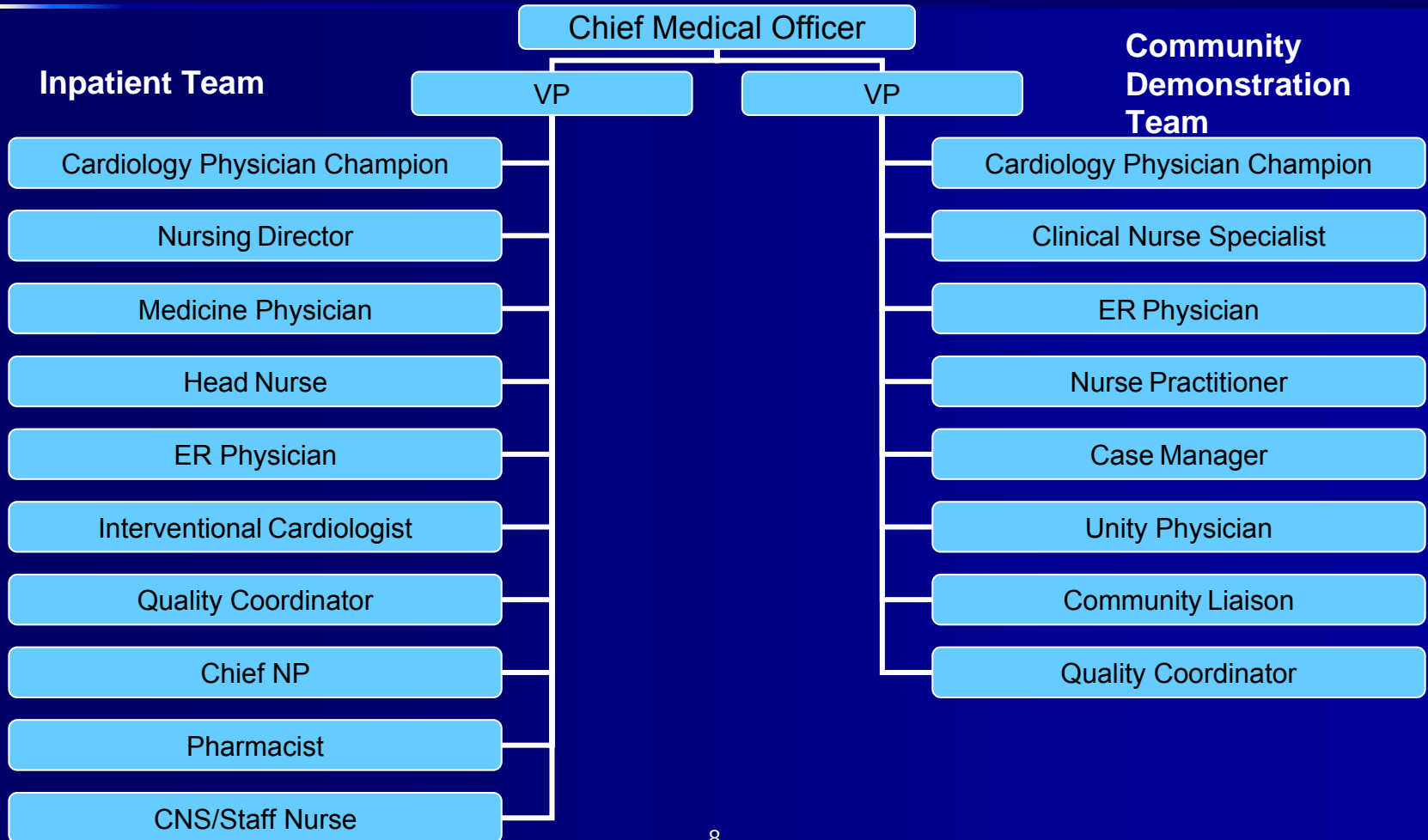
# Expecting Success Program Overview

- Designed to improve the quality of health care provided to minority populations with cardiovascular disease
- Initiate innovations and/or improvements in community care that will improve the quality of care provided to minority patients with cardiovascular disease outside of the hospital
- A 20-month collaborative process involving a 10-hospital Learning Network designed to foster shared innovation
- Managed by GWU's School of Public Health and Health Services

# Expecting Success Program Goals

- Improve cardiovascular care (AMI, CHF) for African Americans & Latinos
- Develop effective, replicable quality-improvement strategies & models for inpatient/outpatient settings
- Encourage adoption of quality-improvement strategies & models in other clinical areas
- Share relevant lessons with health care providers and policymakers nationwide

# PROJECT TEAM



# Cardiovascular & Community Demonstration Plans

Aim Statement

Project Team Members

Sampling Method

Goals: Quantifiable

Target Population

Baseline Measure Data

Barriers: Internal/external systems

Strategies

Target date

Responsible Person(s)

# Cardiovascular Improvement Plan - AIM Statement

The Washington Hospital Center In-patient project will optimize the health, management, outcomes and quality of life of all patients with diagnoses of Heart Failure or Acute Coronary Syndrome by exceeding established JCAHO benchmarks for evidenced base care by January 2008.

# Community Demonstration Work Plan – Aim Statement

The Washington Hospital Center Community Demonstration Project will optimize the management of heart failure in vulnerable patients who have historically had frequent emergency department visits and/or readmissions to the hospital for exacerbation of congestive heart failure. By identifying and removing barriers (both real and perceived) to continuity based outpatient care, we hope to link each patient with a primary care provider who is both culturally competent and able to apply evidence based congestive heart failure guidelines in the ambulatory setting. Within a 24-month period the patient population will experience a decrease in the utilization of the emergency room to receive medical care, a decrease in readmission to the hospital for exacerbation of heart failure, and an improved quality of life as measured through a validated quality of life survey tool.

# AMI National Hospital Quality Measures

<b>AMI-1</b>	<b>Aspirin at Arrival</b>
<b>AMI-2</b>	<b>Aspirin Prescribed at Discharge</b>
<b>AMI-3</b>	<b>ACEI or ARB for LVSD</b>
<b>AMI-4</b>	<b>Adult Smoking Cessation Advice / Counseling</b>
<b>AMI-5</b>	<b>Beta Blocker Prescribed at Discharge</b>
<b>AMI-6</b>	<b>Beta Blocker at Arrival</b>
<b>AMI-7</b>	<b>Mean Time to Fibrinolysis</b>
<b>AMI-7a</b>	<b>Fybrinolytic Agent Received within 30 minutes of Arrival</b>
<b>AMI-8a</b>	<b>PCI within 90 Minutes of Arrival</b>
<b>AMI-9**</b>	<b>Inpatient Mortality</b>
<b>AMI-T1a*</b>	<b>LDL Assessment</b>
<b>AMI-T2*</b>	<b>Lipid Lowering Therapy at Discharge</b>

\*CMS Only

\*\*Joint Commission Only

# Heart Failure National Hospital Quality Measures

HF-1	Discharge Instructions
HF-2	LVF Assessment
HF-3	ACEI or ARB for LVSD
HF-4	Adult Smoking Cessation Advice / Counseling

# Rapid Cycle Testing (RCT) Log

RCT #	Start date	Change Tested	Responsible Person	Data Collection Process	Summary Results	Performance measure Affected

# CHF Rapid Cycle Testing: Discharge Instructions in Chart



# Implemented Interventions

- Clinical alert paging system to prompt Emergency Department (ED) physicians to order aspirin/beta blocker for patients with positive troponin.
- Comprehensive Discharge Instructions used by both Cardiac Surgery and Cardiology and Medicine (CHF). Available on-line and in hard copy.
- Met with Cardiology Private Practice offices to review Core measures and adherence with guidelines.

# Implemented Interventions

- Revised & Standardized Patient Education materials (available in Spanish)
- Developed standardized methodology of LVSD assessment and numerical determination.
- Standardized Order Sets
- Clinical criteria developed & used to identify CHF patients in the ED.
- Core measures incorporated into NP Peer Review process.
- Code Heart

# Documentation Tools

- Physician Order Set (AMI/CHF)
  - ♥ heart symbol for Core Measures (Pharmacy support/Unit Clerk)
  - contraindication (ACE-I/ARB) language across all order sets
  - smoking cessation advice

# CHF Physician Order Set

## Congestive Heart Failure Admission Orders

*All orders will be carried out unless there is a . Orders with a  must be checked and completed if necessary. ♥ denotes JCAHO Core Measures. Any contraindication to Core Measure medications must be identified. Medication doses will be given as indicated unless another dose is written in the available space and the typed dose is crossed out. ACC/AHA CHF Guidelines noted in bold italics on appropriate orders.*

### ♥ **ACE-INHIBITOR (Class I LOE: A)**

ACE Inhibitors contraindicated because (check one)  baseline hypotension  renal insufficiency  
 angioedema  allergy/intolerance; then use Angiotensin Receptor Blocker (ARB).

If ordered, hold for SBP < 110 mmHg unless the following parameter is completed: \_\_\_\_\_ mmHg. Call MD to increase dose every 24 hours.

31.  Lisinopril (Zestril) \_\_\_\_\_ mg PO every day.
32.  Ramipril (Altace) \_\_\_\_\_ mg PO every day.
33.  Other ACE-inhibitor \_\_\_\_\_

### ♥ **ANGIOTENSIN RECEPTOR BLOCKER (ARB)**

ARB contraindicated because (check one)  baseline hypotension  renal insufficiency  
 known hypersensitivity

# PIC Map/Standardized Discharge Instruction



Washington  
Hospital Center

Admission Date: 02/28/2006

Discharge Date: 03/02/2006

## **SPECIAL INSTRUCTIONS, DIET, ACTIVITY**

Take pain medication as prescribed. If pain not controlled, contact MD.

If you are a current smoker or have quit in the last year, you need to refrain from smoking permanently.

Avoid heavy lifting -- no more than 10 lbs for 1 week

Call for signs of infection, including fever, chills, cloudy drainage or swelling of incisionsite

Call if chest pain or shortness of breath.

Call if swelling or bleeding occurs

Do not return to work until cleared by your cardiologist

Do not stop Plavix or Aspirin for any reason without approval of your cardiologist.

Enroll in a Cardiac Rehabilitation Program

Keep site clean. No tub baths x 3 days.

Lipid Profile: Chol/HDL/LDL/Trig - 268/46/213/200

Low Cholesterol Diet

No driving for 48 hours

Refrain from sexual activity until cleared by your cardiologist.

Repeat Echocardiogram in 6 weeks to see if you need a defibrillator

Until cleared by your cardiologist, no strenuous exercise. You may walk at a relaxed pace several times daily.

# Standardized Patient Education Materials

- Comprehensive CAD Information (Red Book)
  - Translated into Spanish
- Heart Failure Books (available in Spanish)
  - Low Literacy
  - Higher Literacy

# Code Heart

- *A comprehensive* Clinical Pathway with interconnected critical care algorithms to standardize and expedite the care of acute coronary syndrome (ACS)
  - Local (our ED)
  - Regional (MedSTAR Transport)
  - One Call Methodology

# Code Heart

- Implemented monthly Code Heart meeting:
  - Team Members include:
    - ED Physician
    - Interventional Cardiology
    - Cath Lab/ED Leadership/Staff/Educators
    - Quality Resources representative
    - Cardiovascular Research representative
    - Project Manager
- 24 hour “huddle” with associated time line
- Simulation exercises and training
- Examples of improvements include:
  - JIT room set-up
  - In-hospital staff
  - Elevator Key
  - Ready stretcher/equipment

**Referral STEMI identified**

**Emergency  
Department  
STEMI identified**

**MEDSTAR  
Communications  
Center**

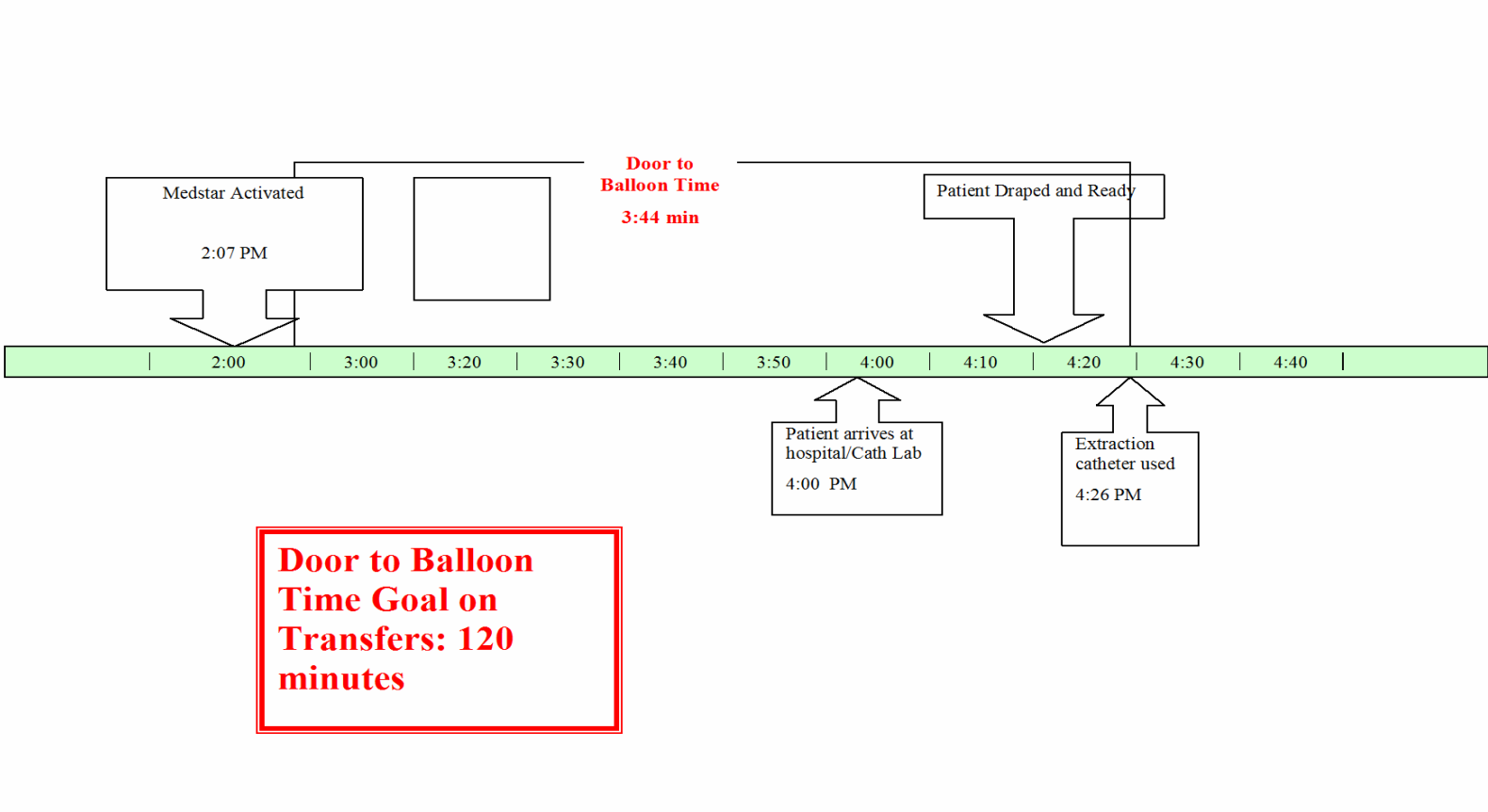
**“Code Heart” Pathway  
Activated**

**Code Heart Cell Phone  
Cath Lab Tech/Nurse  
pager**

**Invasive cardiologist**

**Rapid Routing to Cath Lab for emergency cath/PCI**

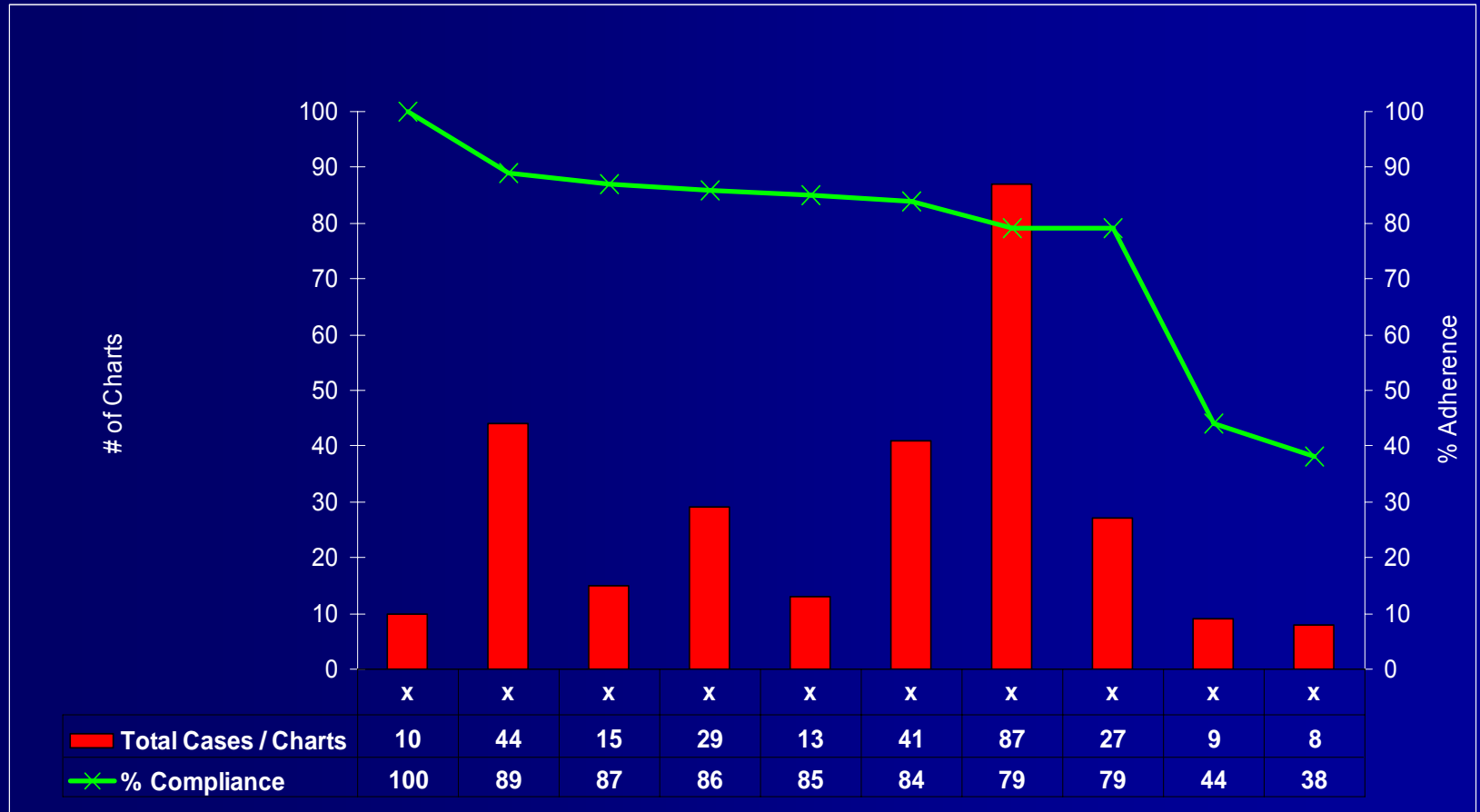
# Code Heart Timeline



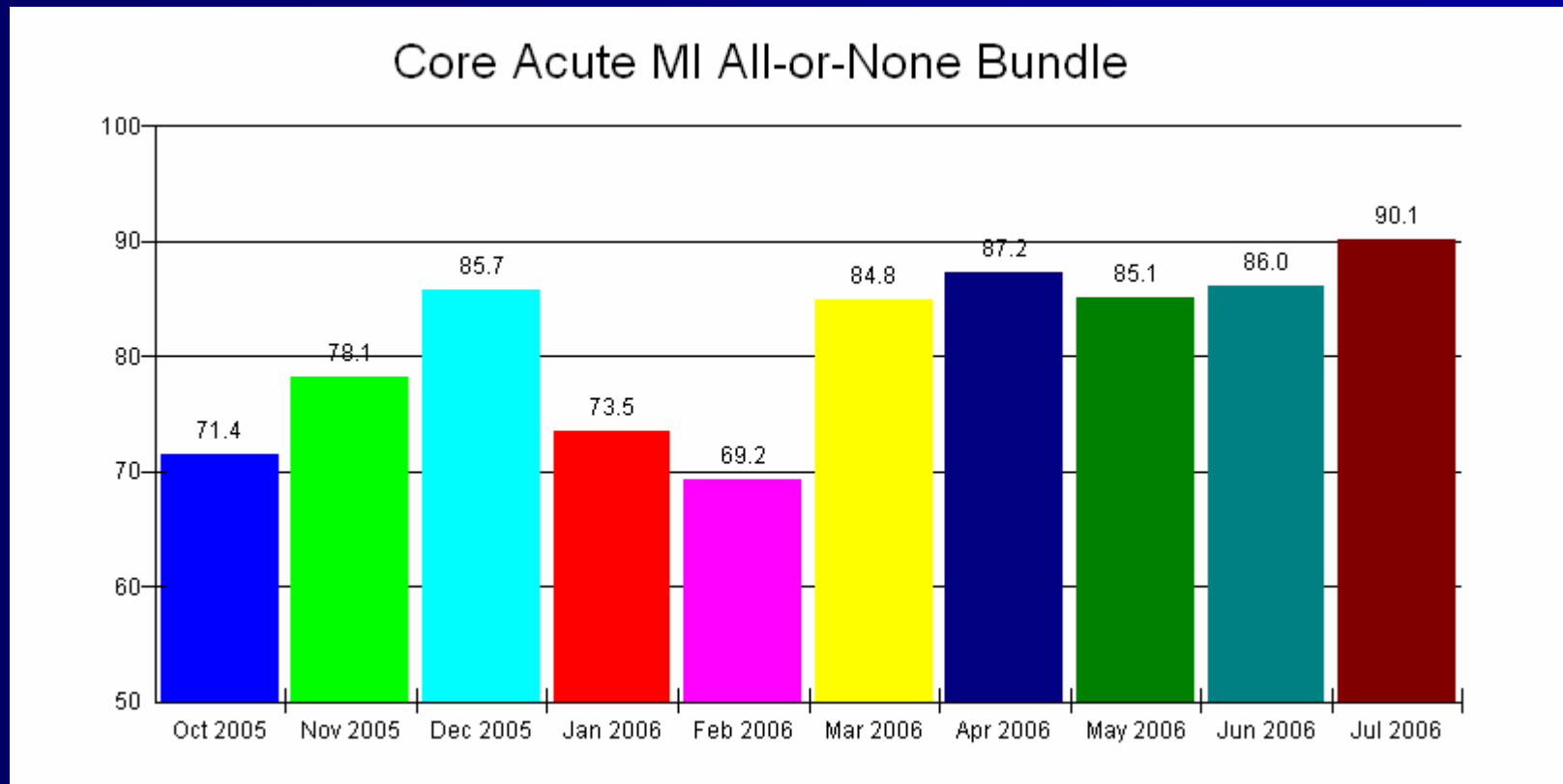
# Physician Communication Strategies for Core Measures Outcomes Data

- General e-mail to all physicians with Core measure information (definitions, tools)
- Information and blinded physician data reviewed at Cath Conference/Department of Medicine meetings.
- Letters to top providers with physician specific data (peer group comparison)
- Physician Champions met one-on-one with high volume physicians
- Core Measure Outcomes and Physician Adherence data reviewed with physician extenders (Cardiology/EP/Cardiac Surgery/Medicine)

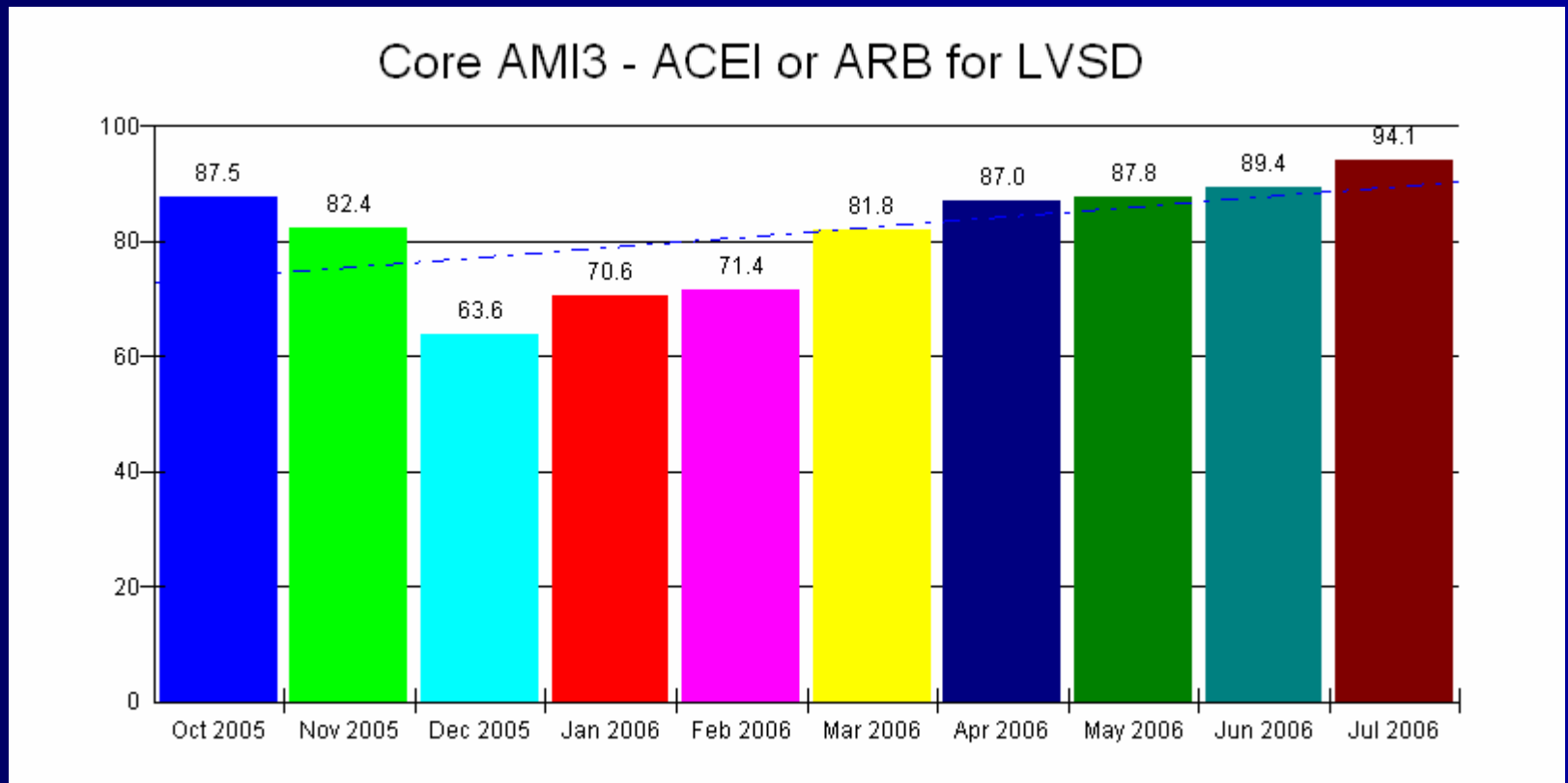
# Blinded Physician Data AMI All-or-None Bundle Jan-June 2006



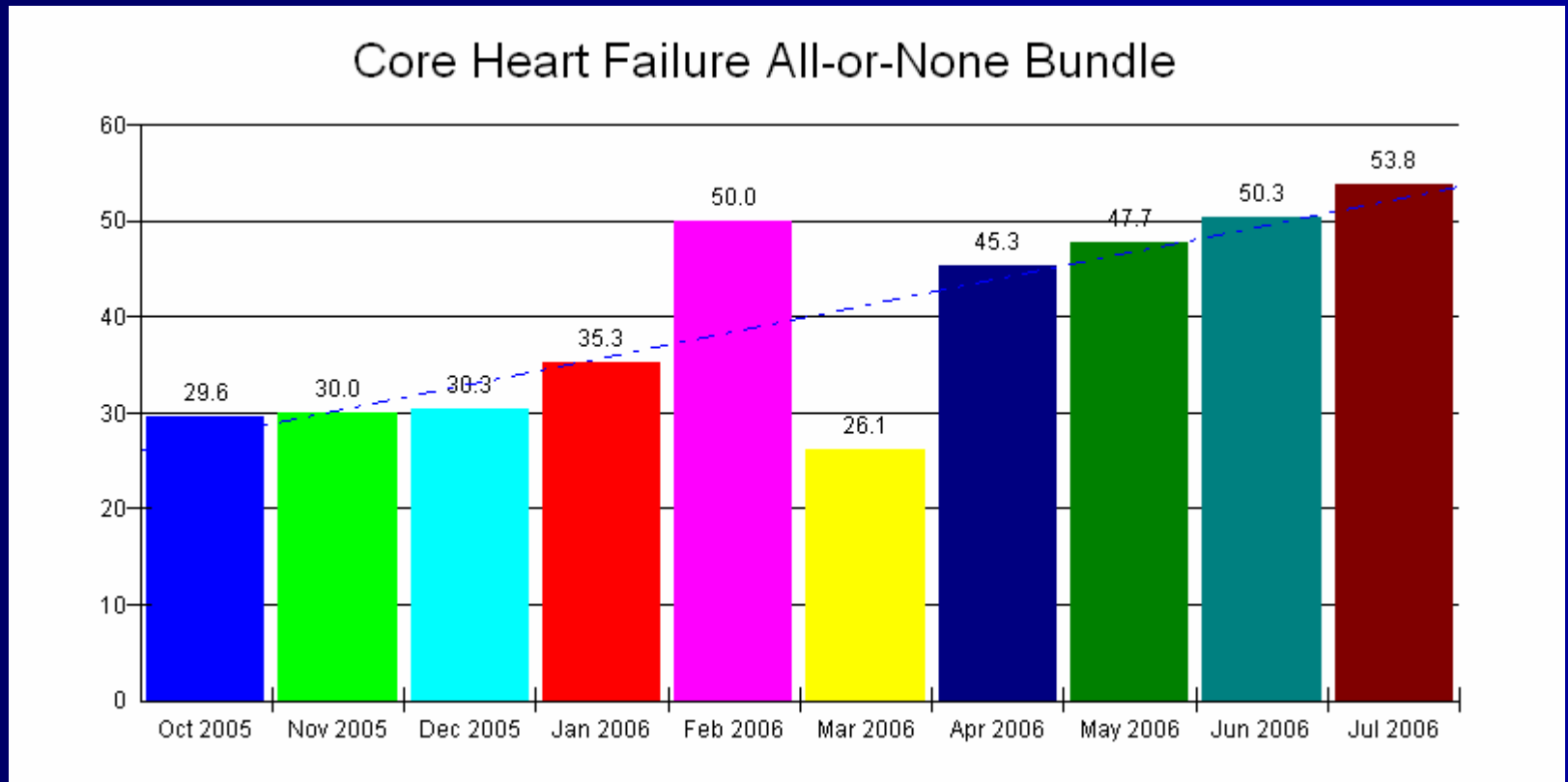
# AMI Core Measure Results



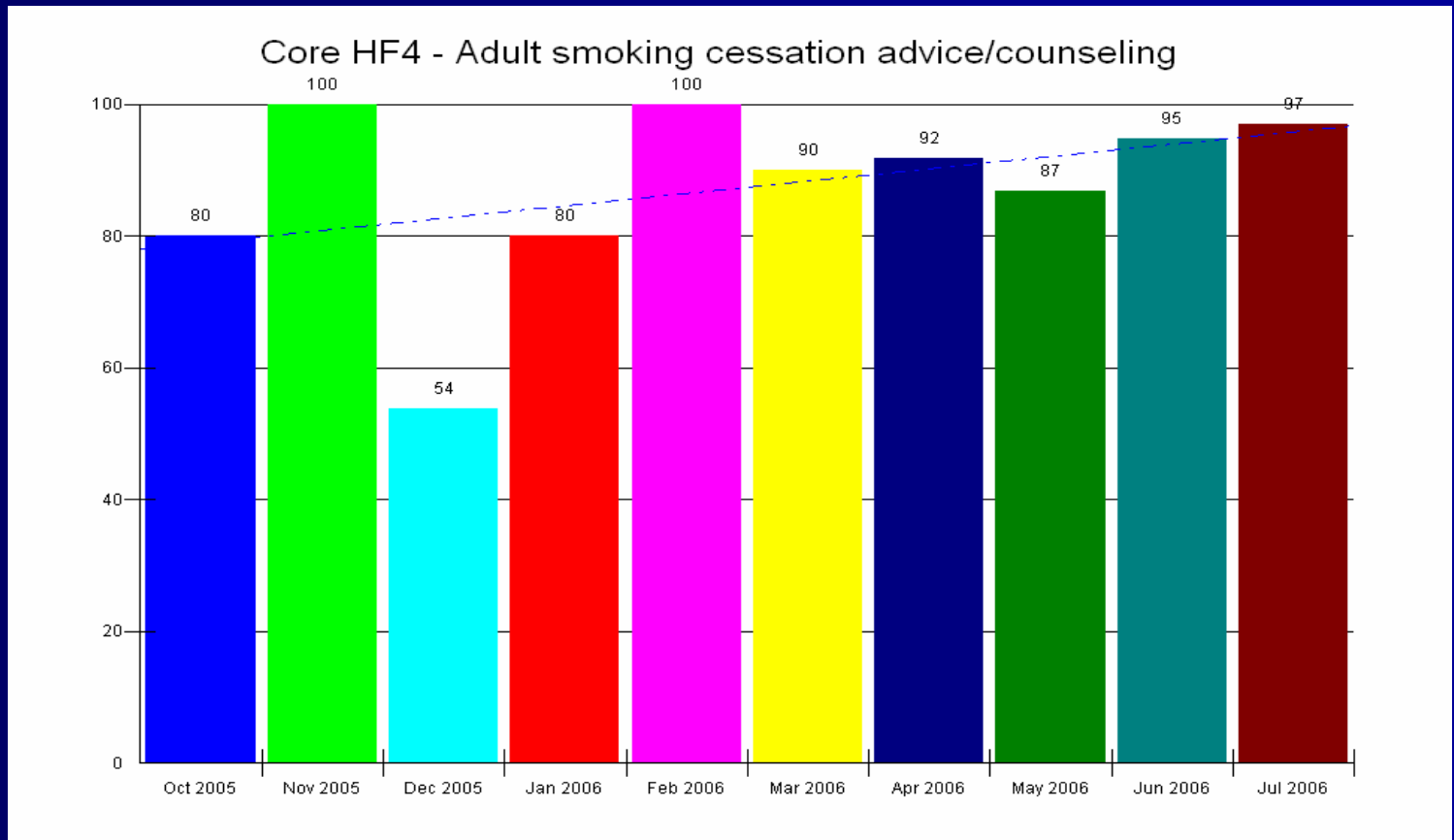
# AMI Core Measure Results



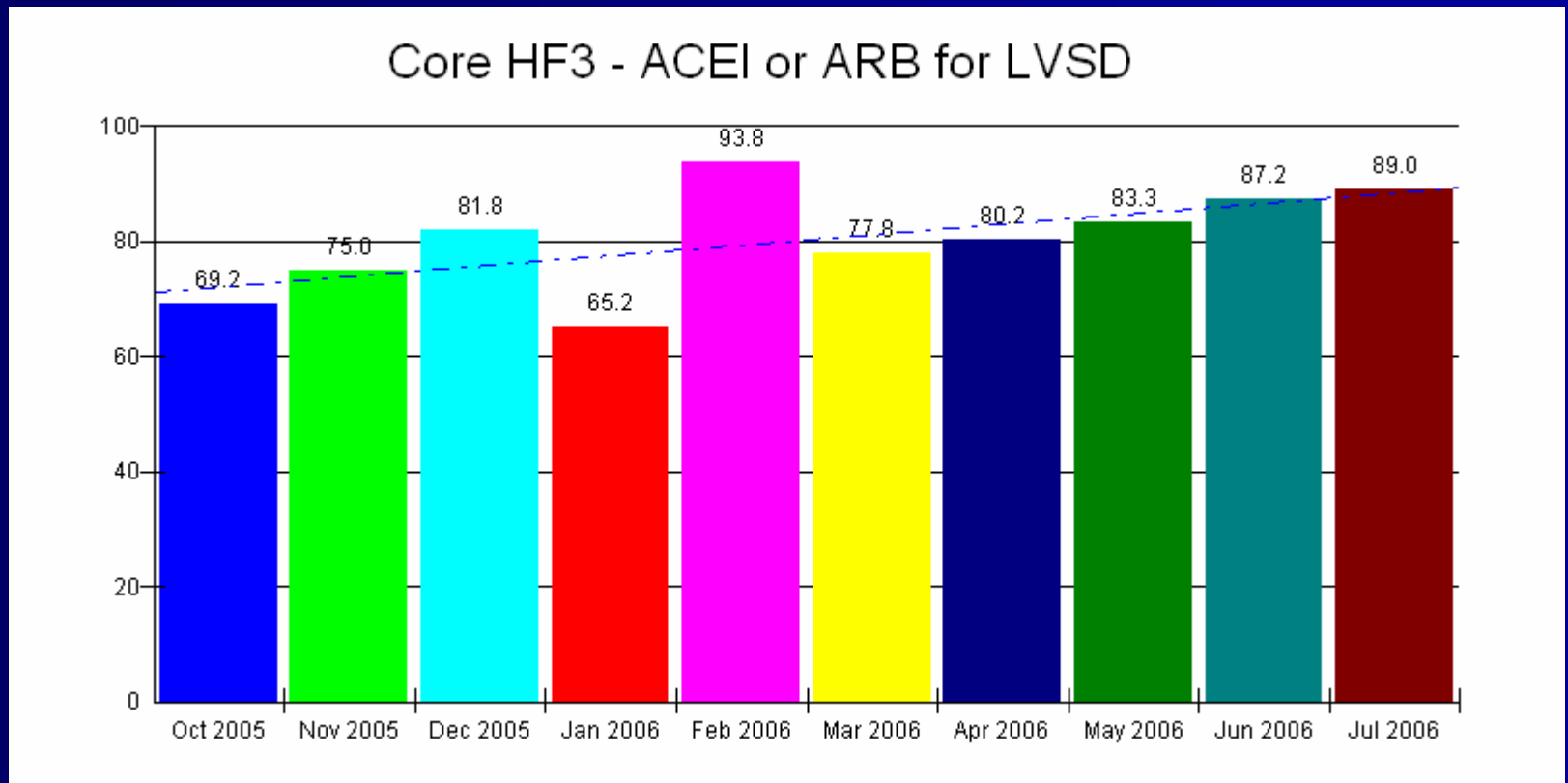
# CHF Core Measure Results



# CHF Core Measure Results



# CHF Core Measure Results



# Community Demonstration Project

- Identification of vulnerable patients (
- Refined the emergency department HF treatment protocol (removed Natrecor infusion as part of the protocol; added assessment by inpatient heart failure team)
- Implemented MIDAS as the case management documentation system: information system and linked to Azyxxi
- Technology link between WHC and Unity Healthcare established
- 2 case managers hired
- Enrolled 10 patients into the ES case management program

# Best Practices for Success

- Use of technology
  - Pager System in ER
  - Electronic PIC map
  - Real Time Abstraction Data
  - Data link to Unity
- Flexibility
  - Respecting Provider / Practitioner preferences
- Outreach
  - Key providers
  - Data Sharing
- Recognition of Physician Champions
- Case Management