Can Quality Improvement Programs Improve Outcomes for CVD Patients? The International Experience

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No Relationships with Industry or Conflicts of Interest for this Presentation

Institute of Medicine Report: Quality Chasm

"In its **current form**, habits, and environment, American health care is **incapable** of providing the public with the **quality** health care it expects and deserves."

Design Rule 5: ***Current:*** ***Decision making is based on training and experience.*** ***New: Decision making is based on evidence.*** **Patients should receive care based on the best available scientific knowledge. Care should not vary illogically form clinician to clinician or from place to place.**

Institute of Medicine, *Crossing the Quality Chasm*
A New Health System for the Twenty-first Century
Washington: National Academy Press, 2001

The New York Times

THURSDAY, NOVEMBER 26, 2002

THE DOCTOR'S WORLD

'Standard' Heart Treatment Is Hit and Miss

By LAWRENCE K. ALTMAN, M.D.

CHICAGO — Important drugs, devices, procedures and operations to treat heart disease are widely available, and American specialty groups have issued guidelines that generally agree on their best use. So, ideally, heart patients should receive the same optimal therapy wherever they are treated. In reality, they do not.

Findings from a small number of studies reported at a meeting of the American Heart Association here last week highlighted a gap between what guidelines call for in preventing and treating particular heart conditions and what doctors actually prescribe for them. Differences in how often doctors apply guidelines for heart disease, which is the nation's leading cause of death, have exposed serious flaws in health care.

Cumulative Impact of Simple Cardiovascular Protective Medications

	Relative-risk	5yr CV event rate
None	- -	20%
Aspirin	25%	15%
Beta blocker	25%	11.3%
ACE inhibitor	25%	8.4%
Statin Rx	30%	5.9%
Intensive Statin	22%	4.6%

Fonarow Am J Cardiology 2001;85:10A-17A and Yusuf Lancet 2002;360:2-3

Heart and Stroke Treatment

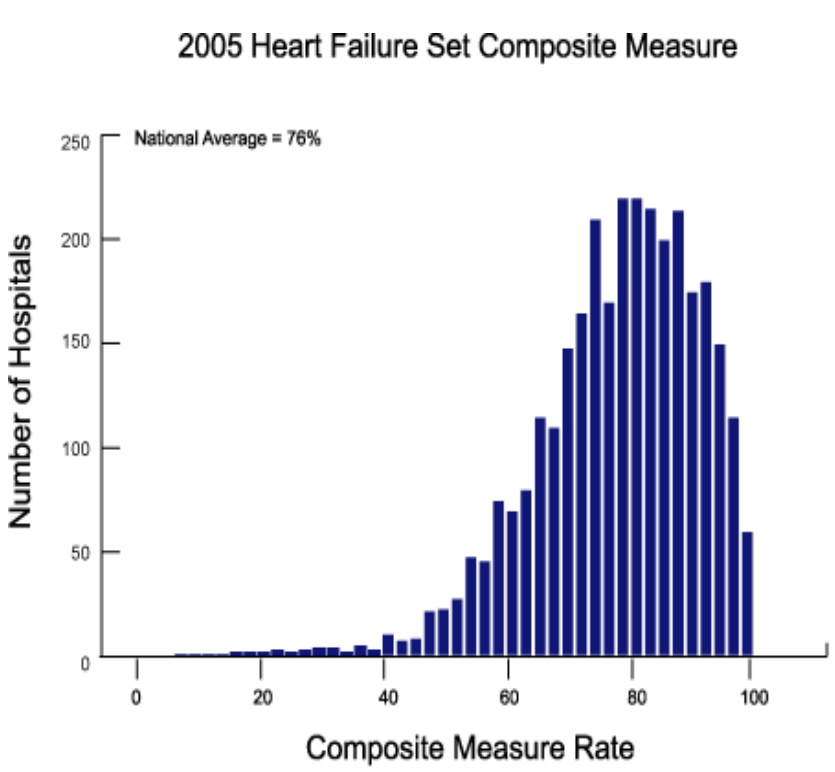
50%

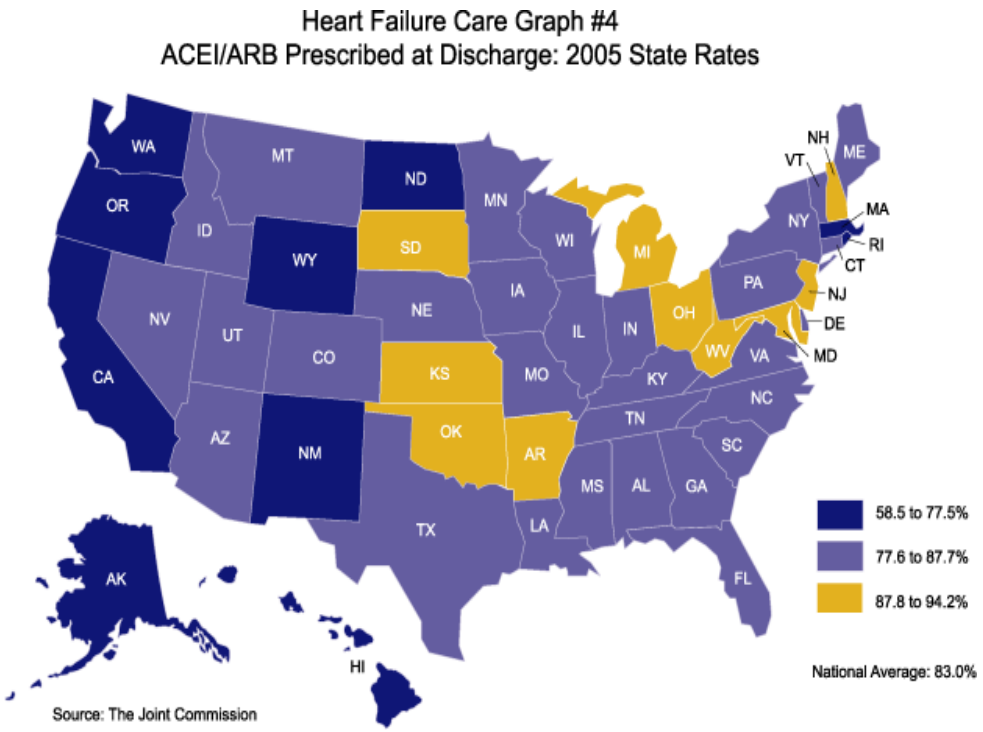
More than half of all heart disease and stroke patients do not receive consistent preventive therapy upon discharge from the hospital…

While evidence-based guidelines for AMI, HF, and Stroke care have been developed along with improved diagnostic and treatment modalities, there are gaps, variations, and disparities in how these are applied.

Furthermore many hospitals may not have the systems, organization, staff to provide highly reliable care at all times

Variability in Care Quality





American Heart Association | American Stroke Association

Focus on Quality

heart.org/quality

GET WITH THE GUIDELINES® STROKE

GET WITH THE GUIDELINES® HEART FAILURE

GET WITH THE GUIDELINES® RESUSCITATION

GET WITH THE GUIDELINES® AFIB

ACTION Registry®-GWTG™

THE GUIDELINE ADVANTAGE™

American Cancer Society® | American Diabetes Association® | American Heart Association | American Stroke Association®

MISSION: LIFELINE™

HOSPITAL Accreditation & Certification

TARGET: STROKE™

TARGET: HF™

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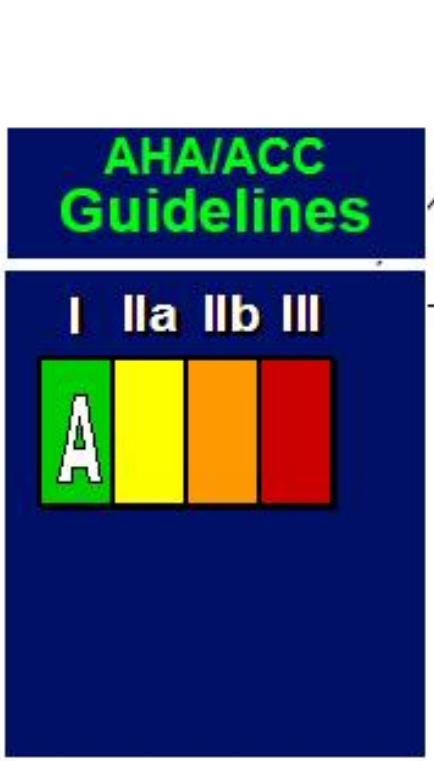
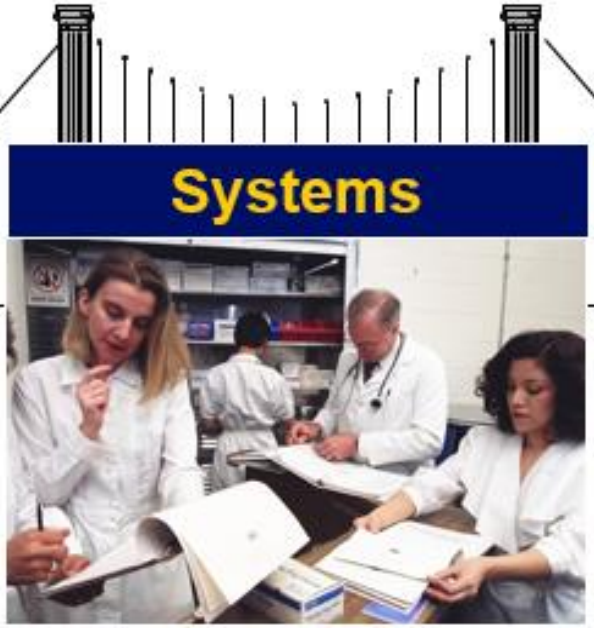
Bridging the Gap Between Knowledge and Practice



- Clinical trial evidence
- National guidelines



- Implement evidence-based care
- Improve communications
- Ensure compliance

- Improve quality of care
- Improve outcomes

Adapted from the American Heart Association. *Get With The Guidelines*; 2001

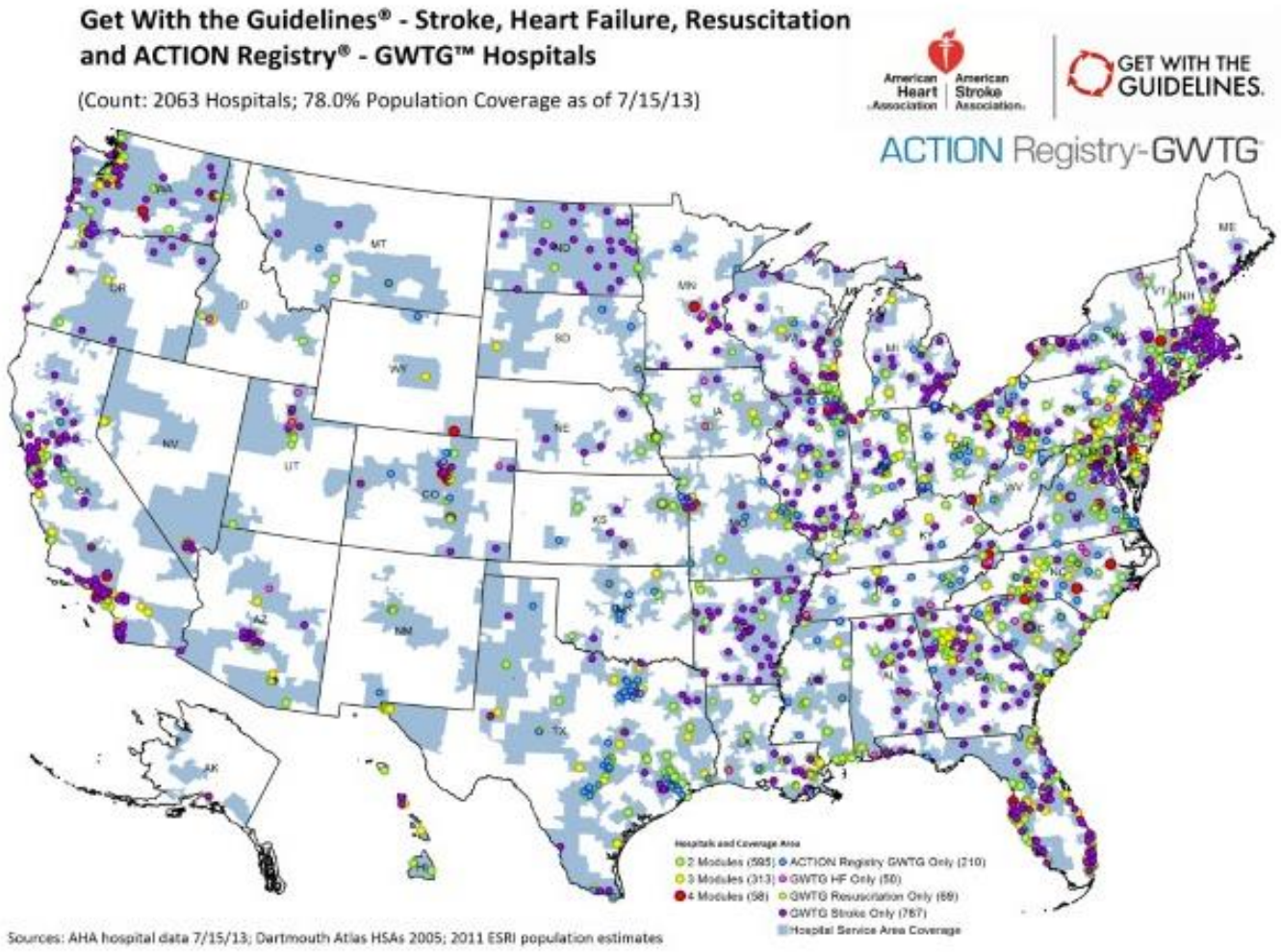
Since 2000: Get With The Guidelines

- **Over 2100 US Hospitals Nationwide**
- **Over 6.1 Million Patient Records**
- **Over 1300 Hospitals Receiving Recognition**
- **350+ Peer Reviewed Publications**

As of September 2016

Reach of GWTG within the United States

Nearly **80%** of the US population is within 30 minutes of a GWTG hospital!



The AHA GWTG Program

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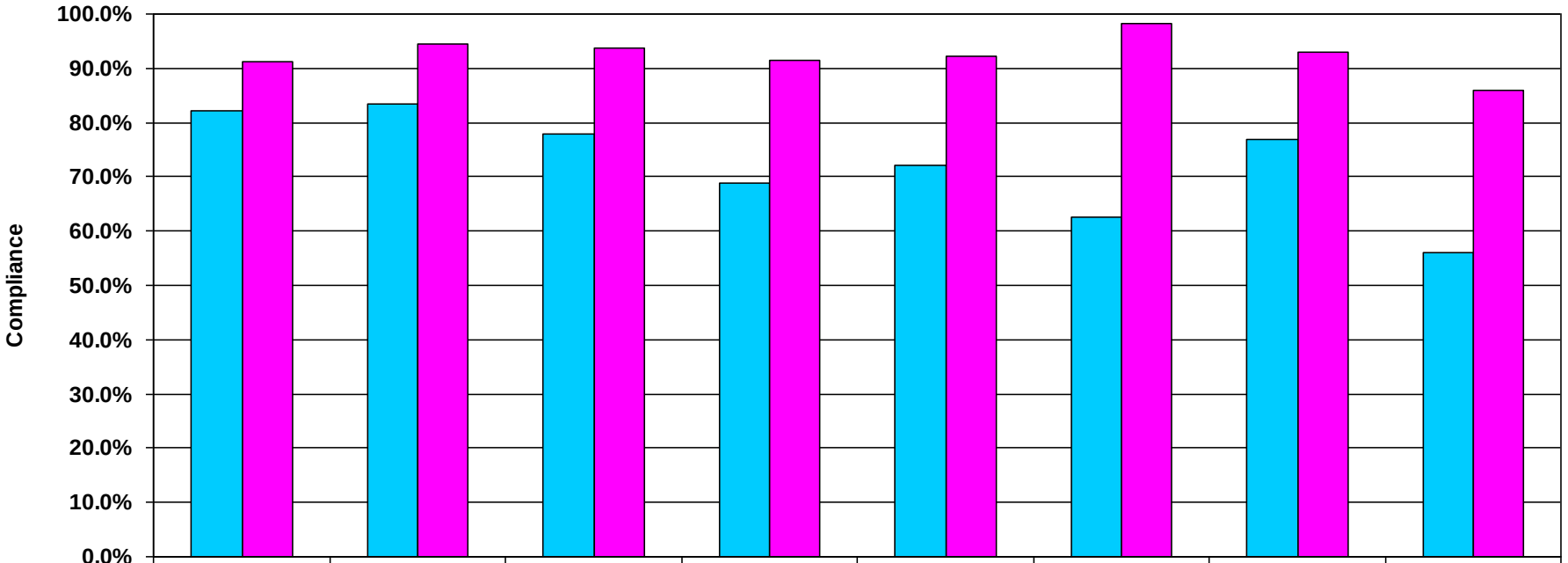
- GWTG is a **national initiative** of the AHA to improve care quality and guidelines adherence in patients hospitalized with cardiovascular disease.
- GWTG uses **collaborative** learning sessions, conference calls, e-mail and staff support to assist **hospital teams** improve acute and secondary prevention care systems.
- A web-based **data collection tool** is used for point of care data collection and decision support, on-demand reporting, communication and patient education

Building the GWTG Hospital Team

- Physician Champion(s)
- Nurses
- Pharmacists
- Hospital Administrators
- Directors of Cardiac Services, Quality Improvement and Case Management
- Cardiac Rehab Team
- Patient Education
- Staff Education

GWTG-CAD Measure Performance

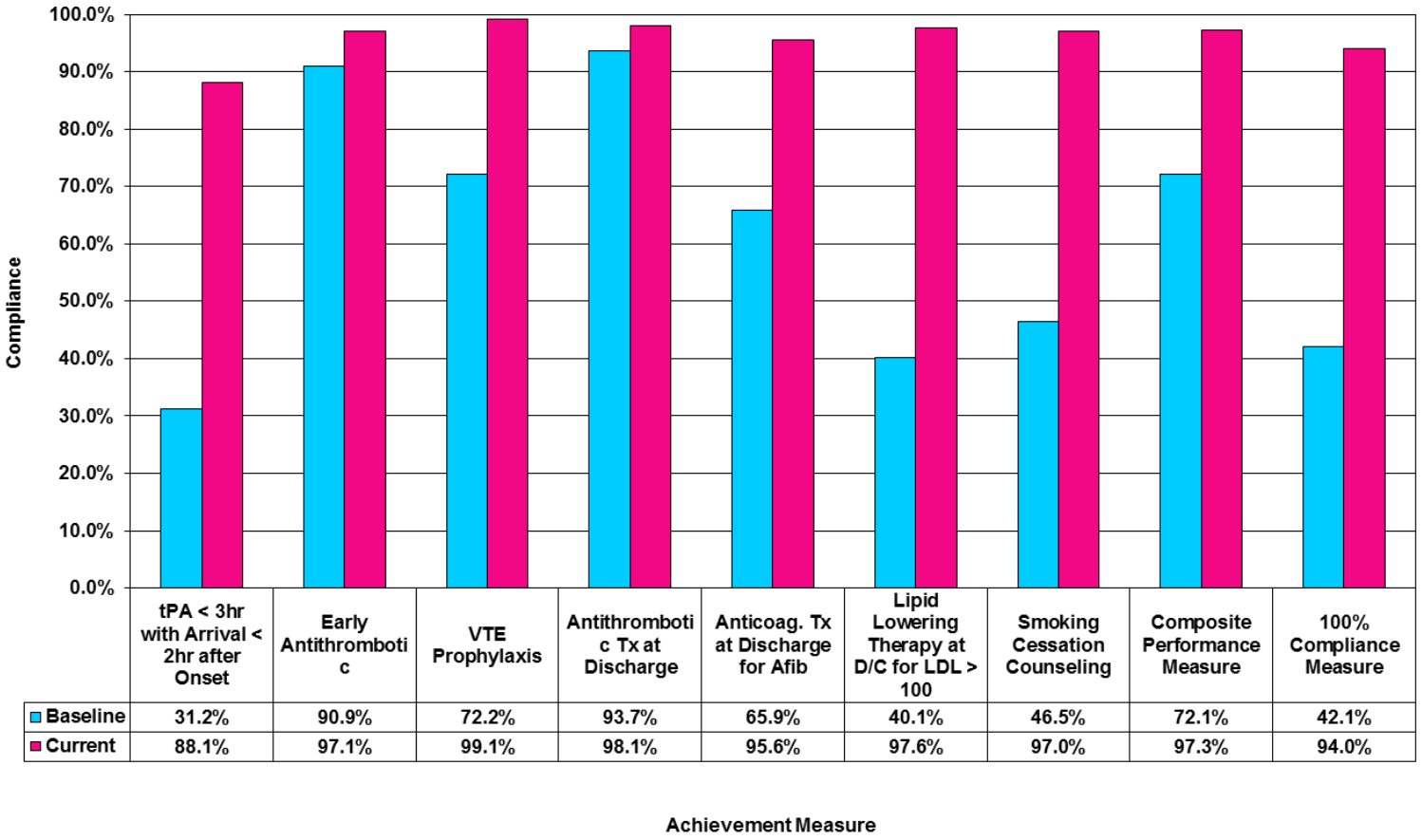


	ASA within 24 Hours	ASA at Discharge	Beta Blockers at Discharge	ACEI or ARB at D/C for LVSD	Lipid Lowering Therapy at D/C for LDL > 100	Smoking Cessation Counseling	Composite Performance Measure	100% Compliance Measure
Baseline	82.1%	83.3%	77.9%	68.8%	72.1%	62.6%	76.9%	56.1%
Current	91.3%	94.4%	93.8%	91.5%	92.1%	98.2%	93.0%	85.9%

Performance Measure

Baseline = Admissions Jan2002 – Dec2002
Current = Admissions Jan – Dec 2008

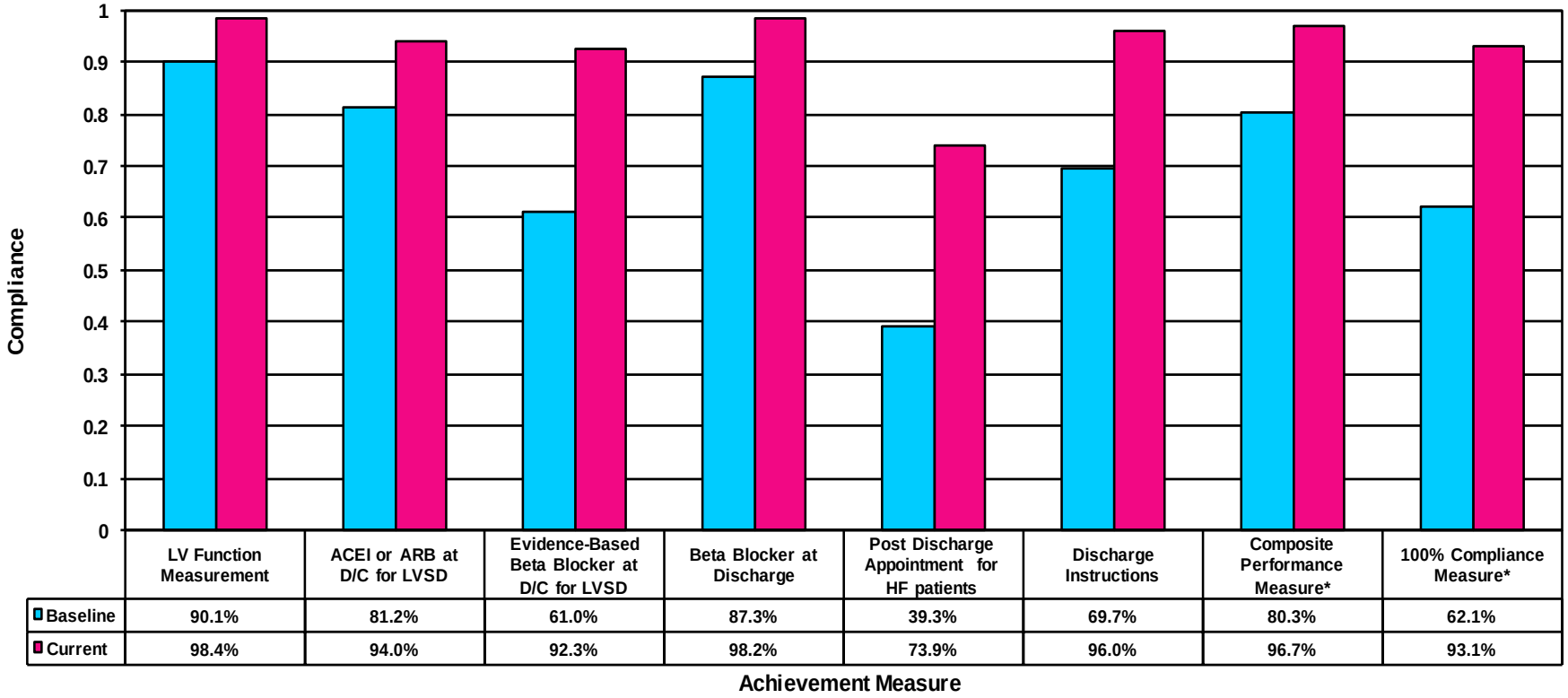
GWTG- Stroke Measure Performance



	tPA < 3hr with Arrival < 2hr after Onset	Early Antithrombotic	VTE Prophylaxis	Antithrombotic Tx at Discharge	Anticoag. Tx at Discharge for Afib	Lipid Lowering Therapy at D/C for LDL > 100	Smoking Cessation Counseling	Composite Performance Measure	100% Compliance Measure
Baseline	31.2%	90.9%	72.2%	93.7%	65.9%	40.1%	46.5%	72.1%	42.1%
Current	88.1%	97.1%	99.1%	98.1%	95.6%	97.6%	97.0%	97.3%	94.0%

Baseline = Admissions Apr2003 – Mar2004
Current= Overall April 2016

GWTG-HF Measure Performance



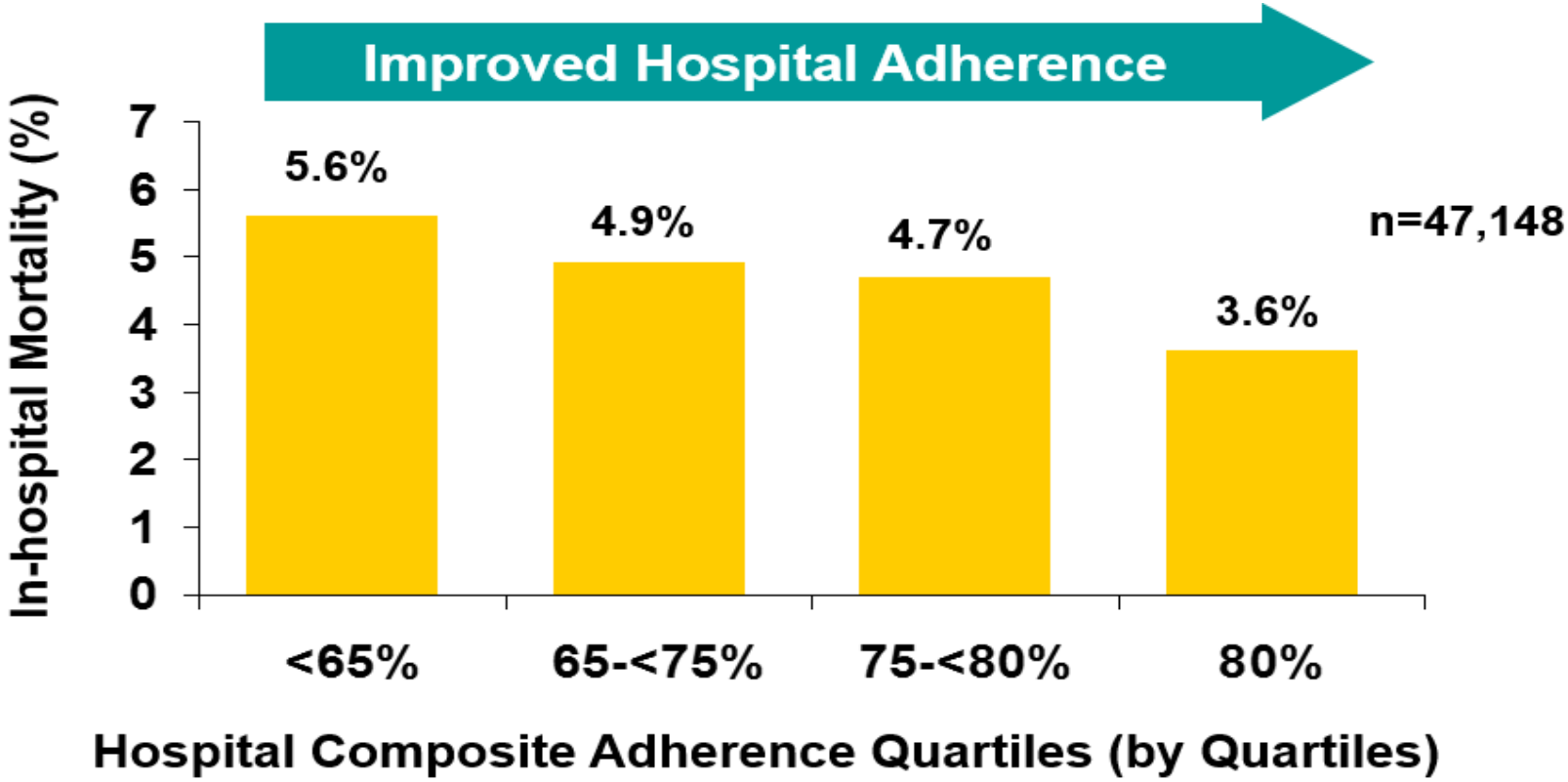
	LV Function Measurement	ACEI or ARB at D/C for LVSD	Evidence-Based Beta Blocker at D/C for LVSD	Beta Blocker at Discharge	Post Discharge Appointment for HF patients	Discharge Instructions	Composite Performance Measure*	100% Compliance Measure*
Baseline	90.1%	81.2%	61.0%	87.3%	39.3%	69.7%	80.3%	62.1%
Current	98.4%	94.0%	92.3%	98.2%	73.9%	96.0%	96.7%	93.1%

Baseline = Admissions Jan 2005 through Dec 2005
Current= Overall April 2016

Get With The Guidelines Works!

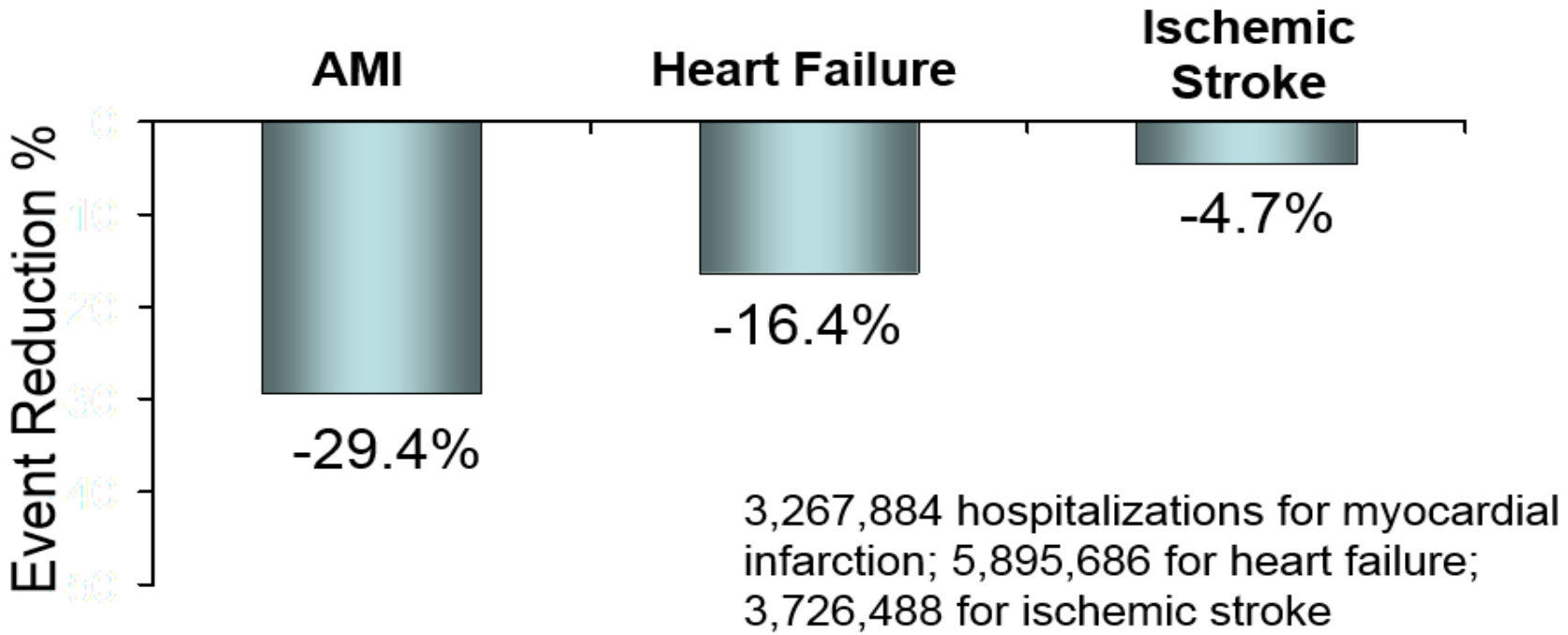
Hospitals Participating in GWTG Provide Higher Quality Care with Better Clinical Outcomes than Other Hospitals

In-Hospital Mortality and Guidelines Adherance



National Report. Available at: http://www.crusadeqi.com.
Data collected from Nov, 2001– March, 2003.
Adapted with permission from CRUSADE Web site, available at:http://www.crusadeqi.com.
Accessed February 18, 2004.

Population Level Impact: Declines in AMI, HF, and Ischemic Stroke Mortality



Krumholz H et al Circulation 2014 DOI: 10.1161/CIRCULATIONAHA.113.007787

Recognizing Hospitals

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For their Committment and Performance

In the US hospitals are motivated to achieve high levels of performance for key measures associated with different clinical conditions

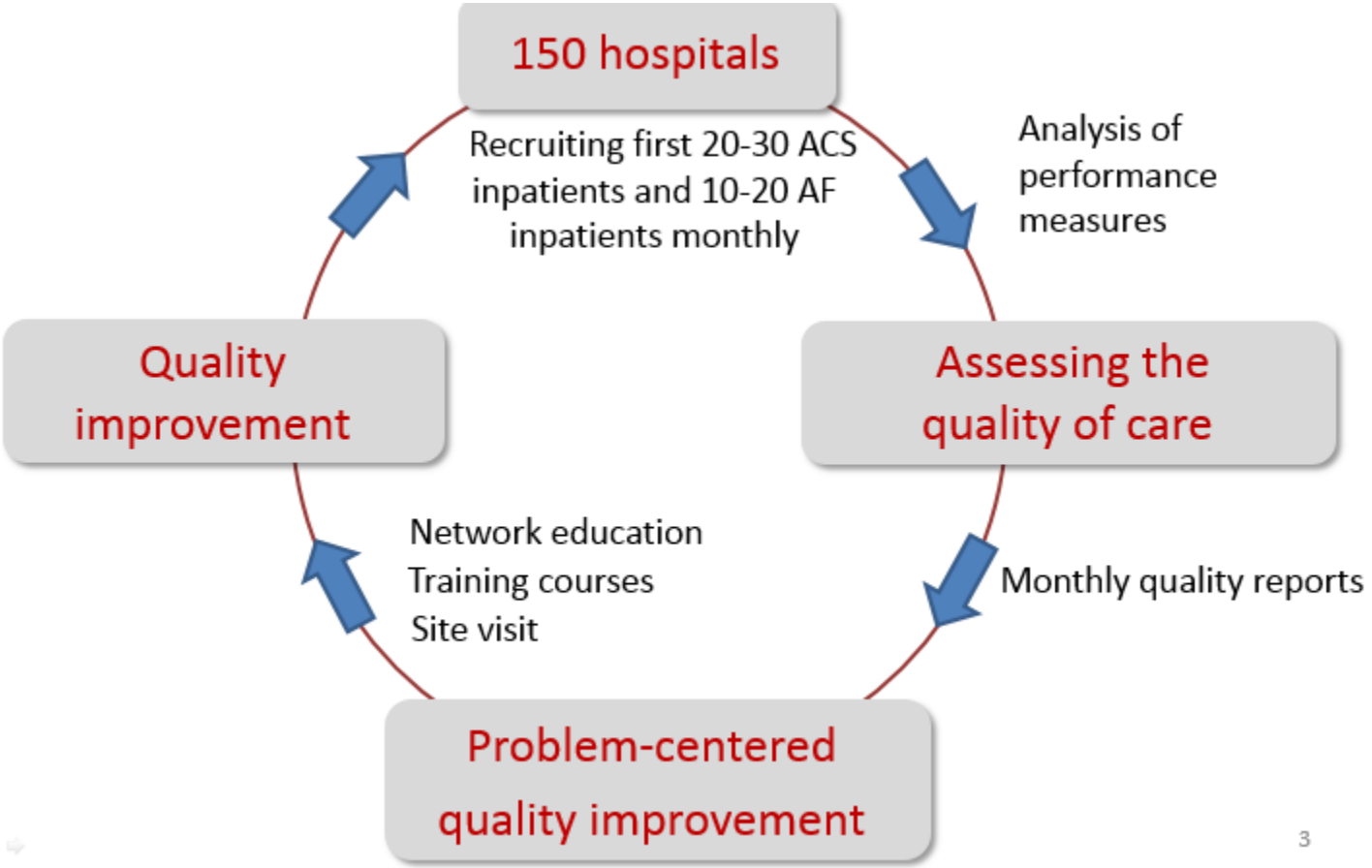
CCC: AHA QI Experience beyond the US

Improving Care for Cardiovascular Disease in China:
A collaborative project of the AHA and CSC
(Triple CCC Project)

- Multiyear project within 150 hospitals representing all Provinces within mainland China
- Focus on ACS and AFIB
- Launched October 2014 resulting in:

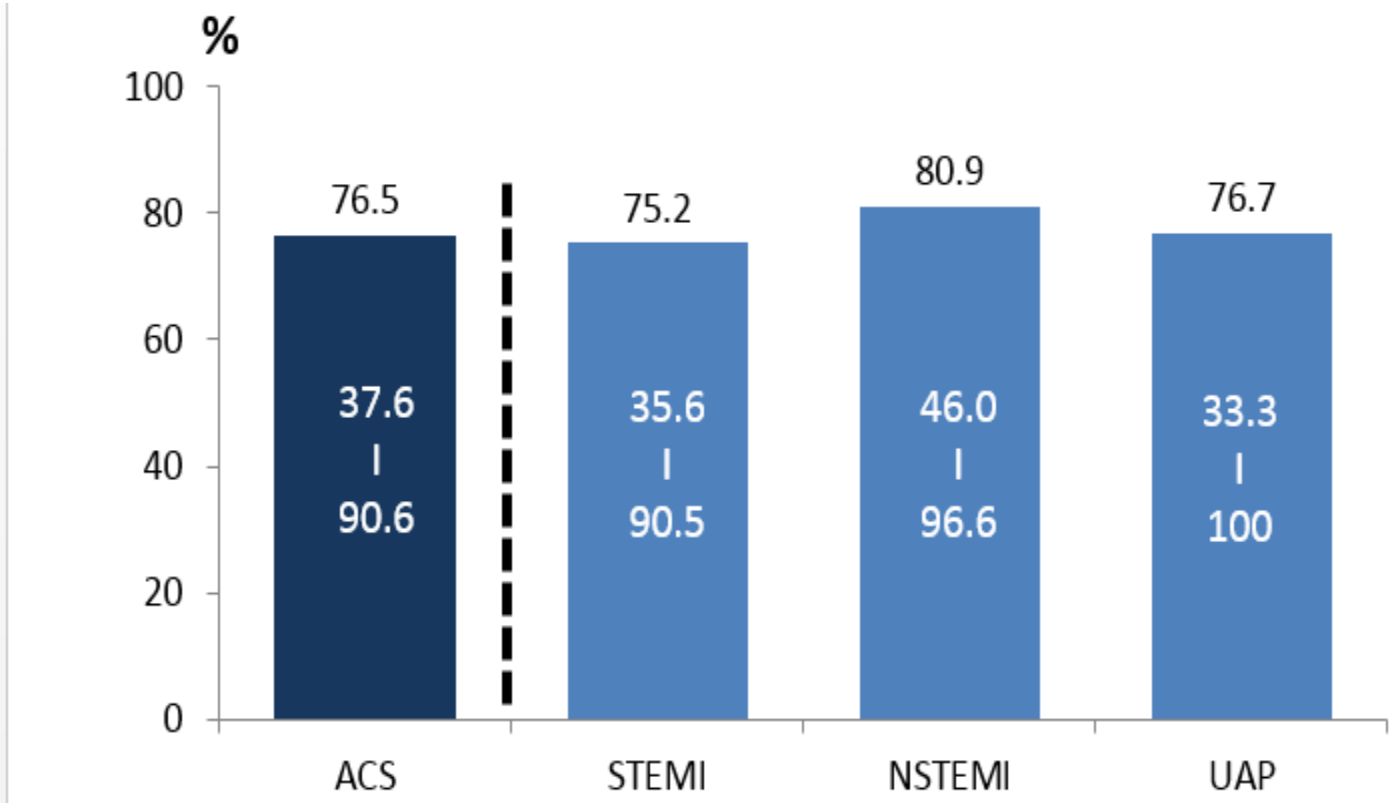
  ACS patient records entered = 45,390
- AFIB patient records entered = 21,045
- Nearly 50% of the participating hospitals achieving either Bronze, Silver or Gold Awards for Performance Achievement

CCC: Program Framework: The PDSA Cycle



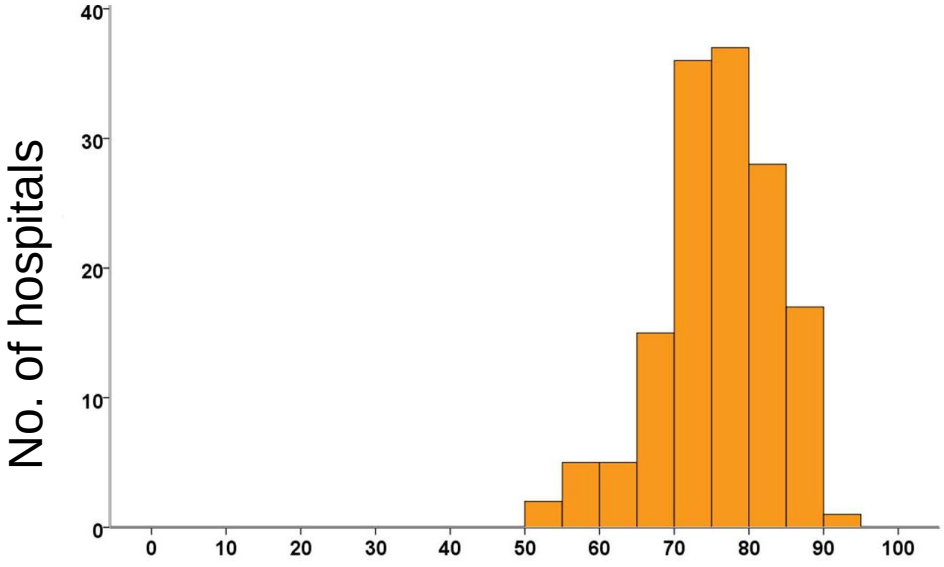
Plan-Do-Study-Act

CCC: Composite scores of ACS primary performance measures

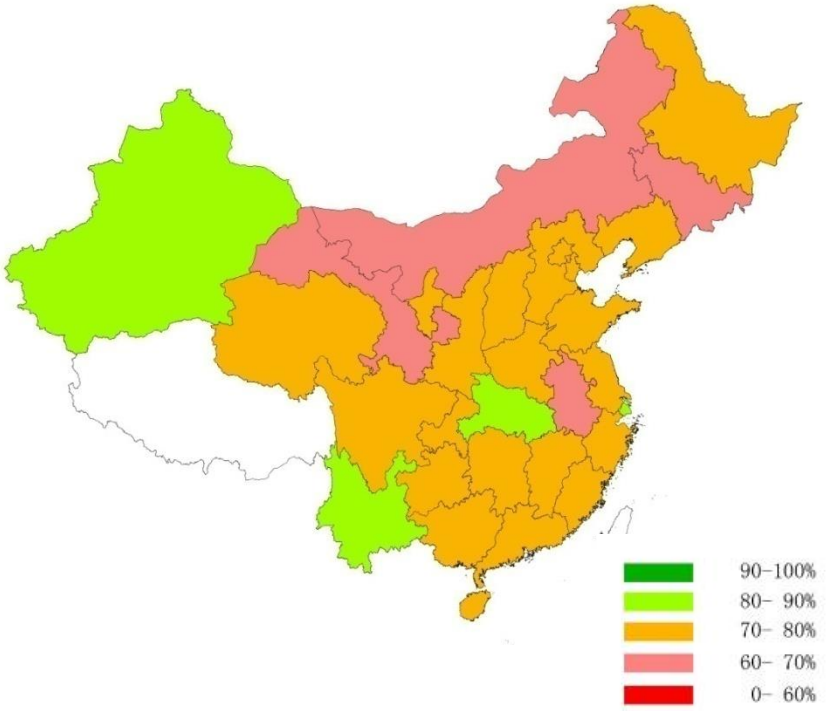


Notes: numbers above the bars refer to composite scores of performance measures for all hospitals; number in the bars refer to minimum and maximum values

National distribution of composite scores of ACS primary performance measures



Composite scores of ACS primary performance measures



CCC: More than a registry.....

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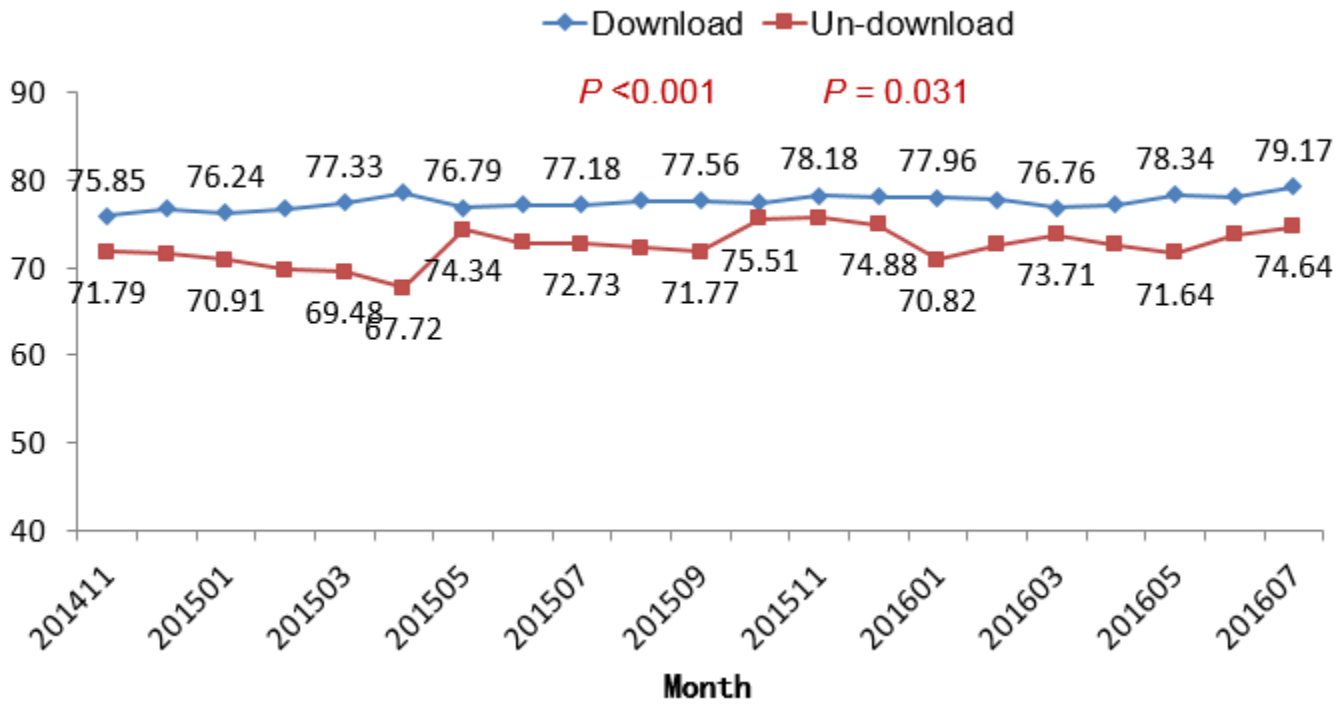
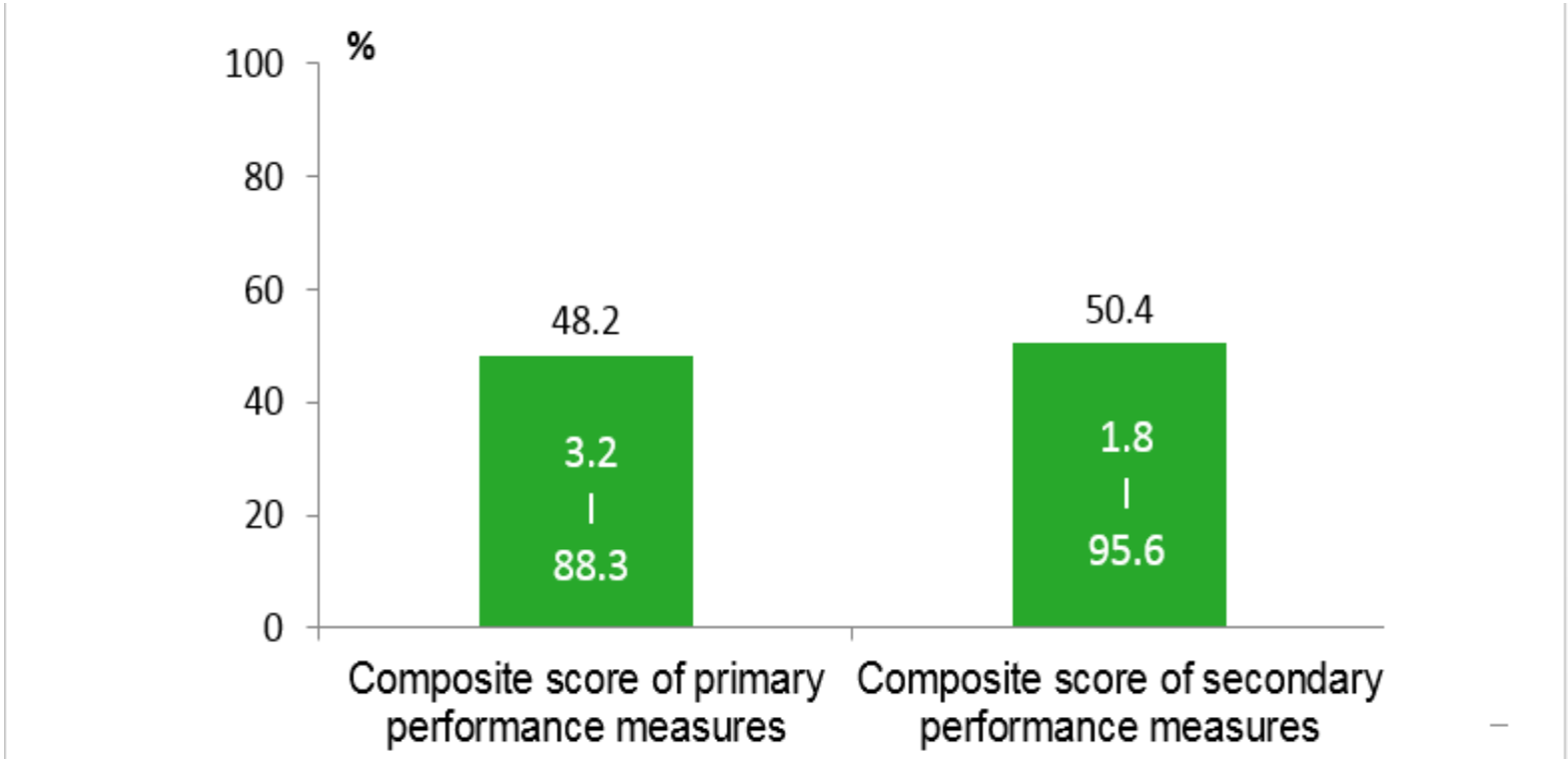
Composite scores of ACS primary performance measures improved significantly in hospitals which downloaded reports

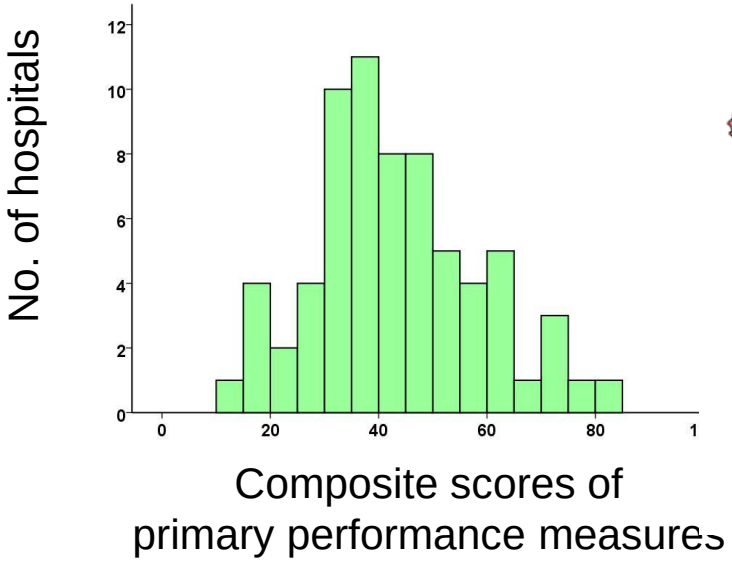


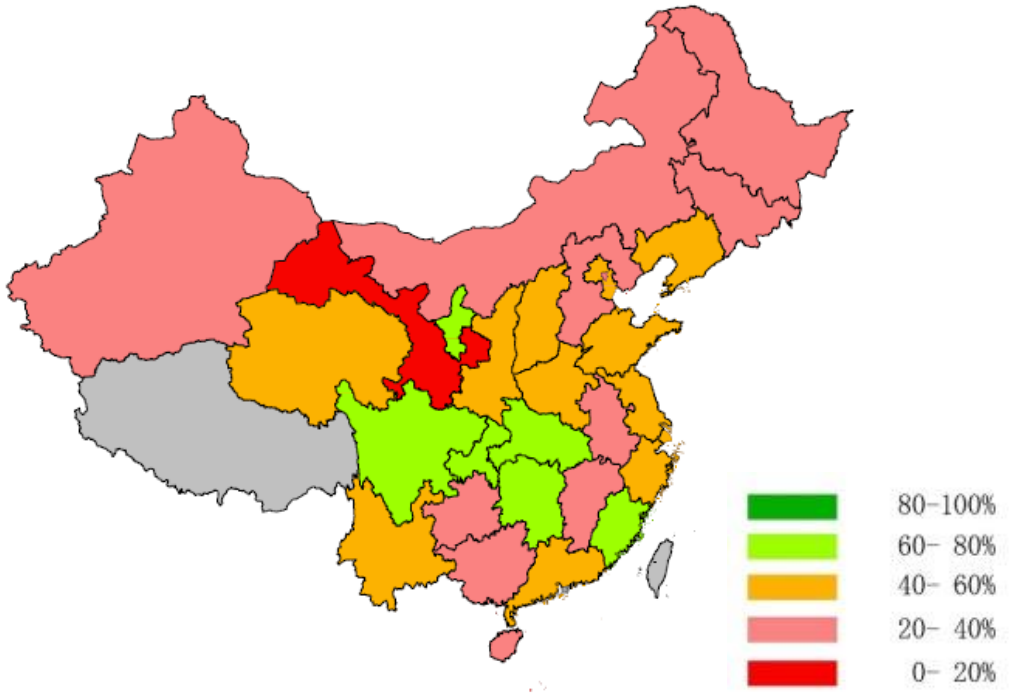
CCC: Composite score for AFIB performance measures



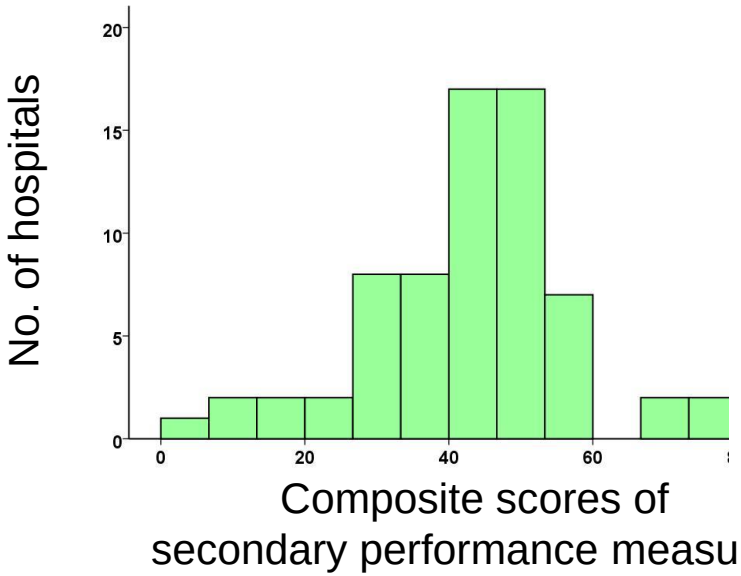
Notes: numbers above the bars refer to composite scores of performance measures for all hospitals; numbers in the bars refer to the maximum and minimum values

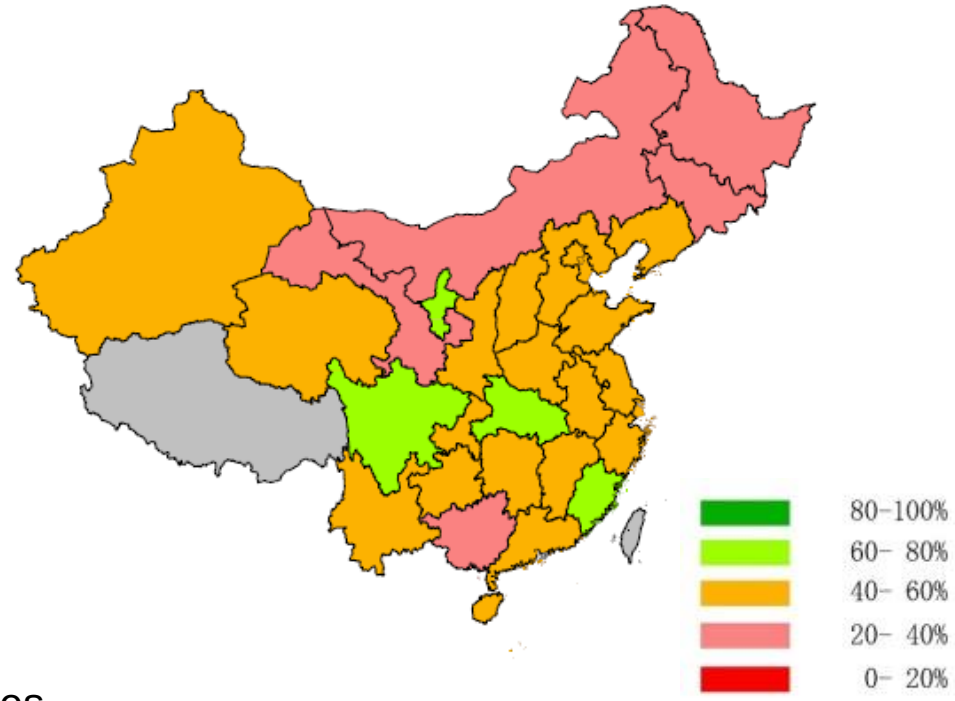
National distribution of composite scores of AF primary performance measures



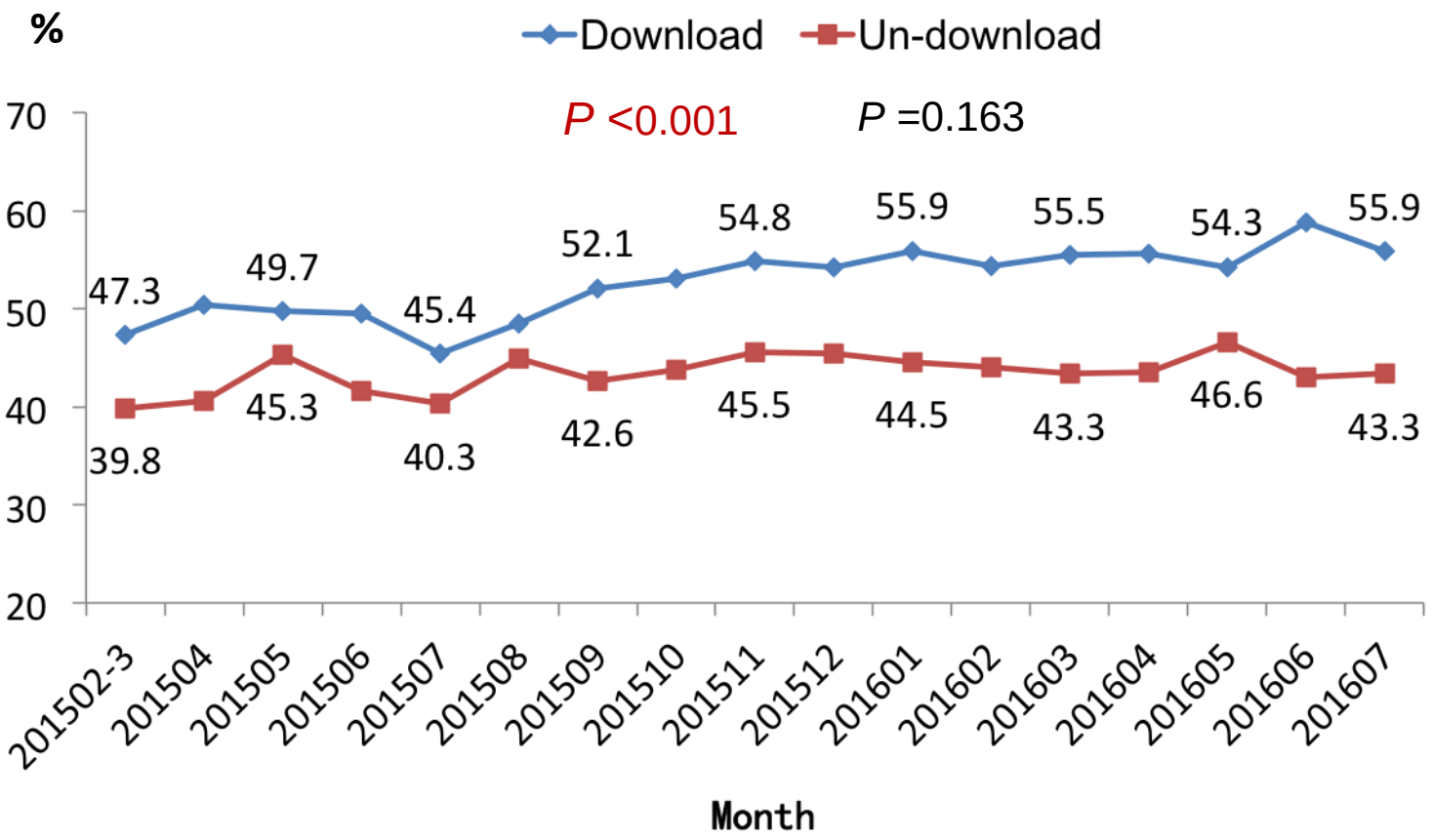


National distribution of composite scores of AF secondary performance measures





Composite scores of AF primary performance measures improved significantly in hospitals which downloaded reports



* Trend Chi-square test

Insights gained through experience!
Elements of Success

1. **Access to current and accurate data on treatment and outcomes**
2. **Physician champion, support among clinicians**
3. **Have stated goals**
4. **Administrative support**
5. **Use of pre-printed orders, care maps**
6. **Use of data to provide feedback**

Conclusion

- A large treatment gap between guidelines and practice exists for cardiovascular disease and as a result large number of patients are having recurrent fatal and non-fatal events that could have been prevented
- Performance improvement programs like GWTG can significantly increase the utilization of evidence-based, guideline recommended therapies and as a result reduce death and disability due to cardiovascular disease
- The BPC- Best Clinical Practices in Cardiology- Brazil program will help improve the quality of care and clinical outcomes for patients with cardiovascular disease in Brazil

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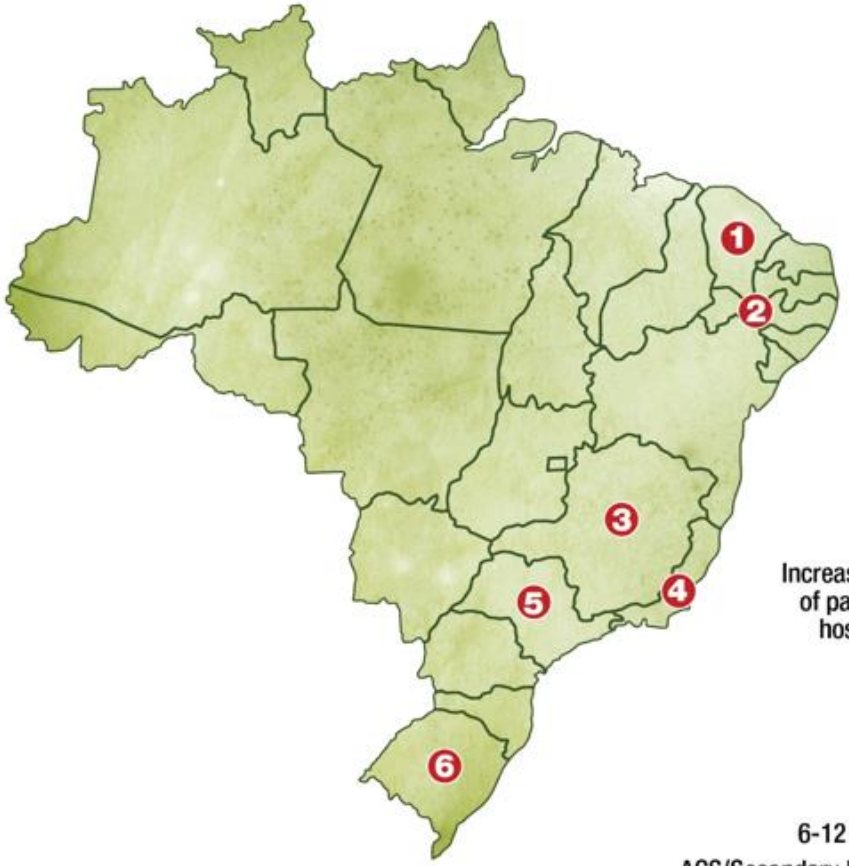
n projeto em colaboração da SBC, HCor e American Heart Association®



Increase number of participating hospital sites

2017
2016
2015

6-12 Pilot Sites
ACS/Secondary Prevention (Emergency Room)
HF/Secondary Prevention
AFib/Secondary Prevention (inpatient and outpatient)

DESIRED OUTCOME

Improve ACS, AFib, and HF guidelines-based care, as represented through performance measurement.

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Sociedade Brasileira de Cardiologia
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