

*Kaiser Permanente 18th Annual Cardiovascular  
Medicine & Surgery COAST Conference*

# Controversy 3: Public Reporting of Outcomes Data: Lessons Learned and Future Directions

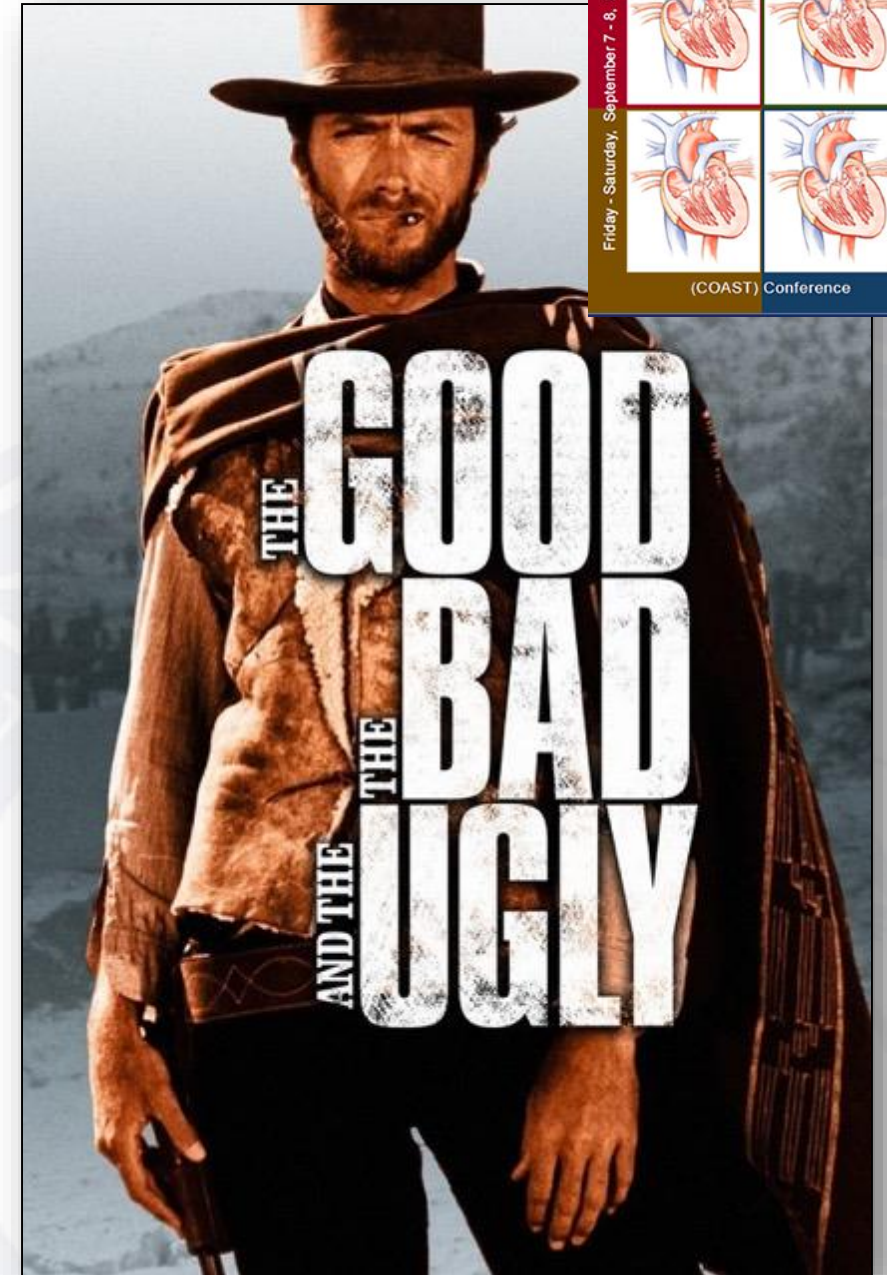
Ralph Brindis, MD, MPH, MACC, FSCAI, FAHA

Clinical Professor of Medicine, UCSF

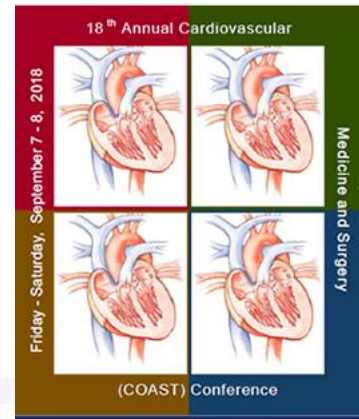
Dept. of Medicine & the Philip R. Lee Institute for Health Policy  
Studies

Senior Medical Officer, External Affairs,  
ACC National Cardiovascular Data Registry

September 8, 2018



# Disclosures



**I have no financial relationships to report**

Senior Medical Officer, National Cardiovascular Data Registry

Chair, Cardiac Advisory Panel, CCORP CABG Public reporting Program



**NCDR**<sup>®</sup>  
NATIONAL CARDIOVASCULAR DATA REGISTRY

# Why Should Anyone Care About Public Reporting?

Are choices about your healthcare equal in importance to . . . ?



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NATIONAL CARDIOVASCULAR DATA REGISTRY

# Airline Safety?

CNN U.S. | World | Politics | Money | Opinion | Health | Entertainment | Style | Travel | Sports | Video Live TV U.S. Edition + menu

ON Business Traveller

## What are the world's safest airlines for 2016?

By Barry Neild, CNN  
Updated 9:36 AM ET, Tue January 5, 2016

January 5, 2016

## American Airlines

Average passenger rating : 2/10 [Rating criteria](#)

★★☆☆☆☆☆☆☆☆

From 179 passenger reviews

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20 photos: What are the world's safest airlines for 2016?

**American Airlines** – One of the world's largest airlines, AA is one of three U.S. carriers to earn AirlineRatings.com's full seven-star safety record.



AirlineRatings.com

Home Airline & Safety Ratings EDITOR REVIEWS: Airline Airport Passenger Reviews News Have Your Say Award Winners Make Booking

Start your search...

## Airline & Safety Ratings

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

### American Airlines

Safety rating : 7/7 [Rating Criteria](#) | [Safety Rating Breakdown](#)

★★★★★★★★

Product rating : 4.5/7 [Rating Criteria](#)

★★★★★☆☆☆☆☆

Airlineratings.com presents our independent American Airlines safety ratings and reviews.

flights hotels car hire

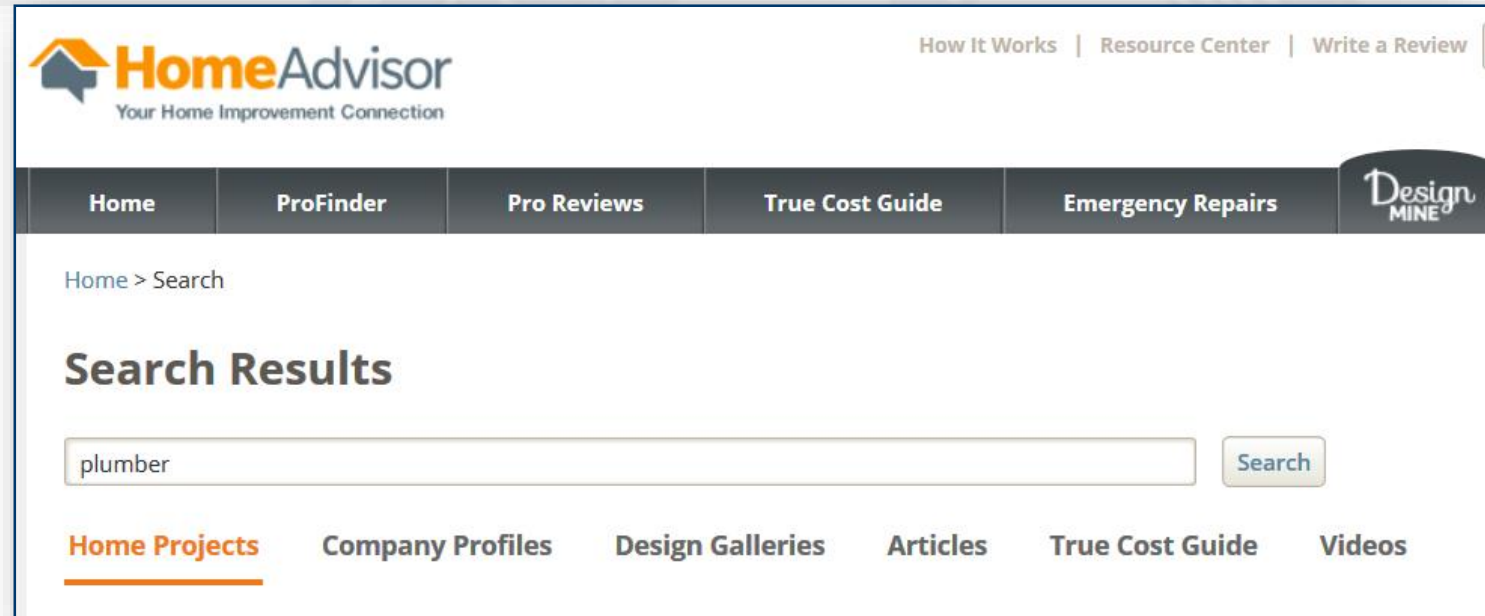
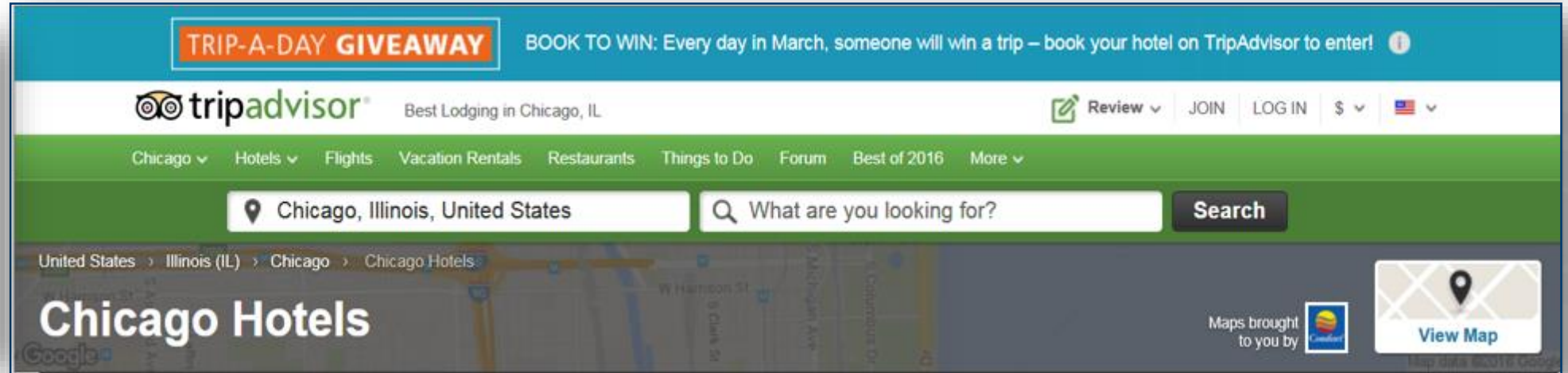
# Quality of the School Your Child Attends?

## Chicago Schools

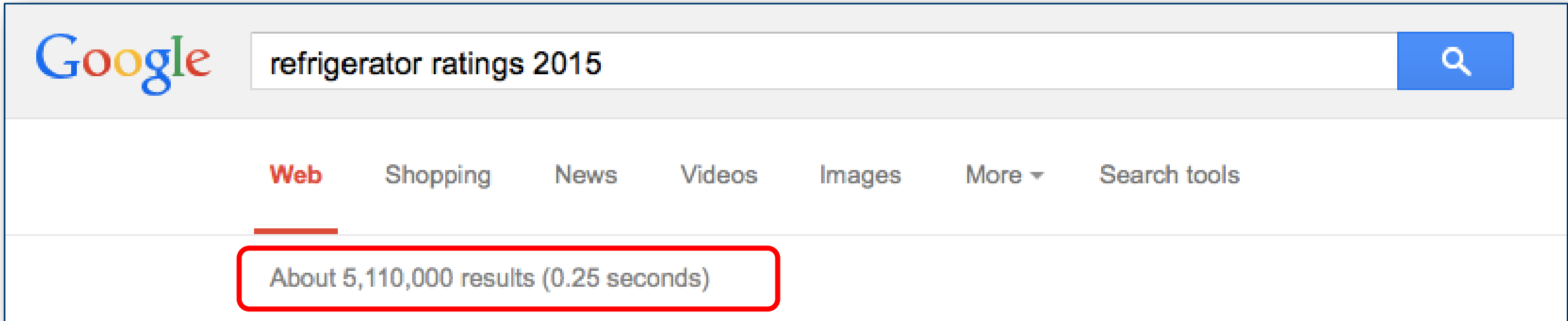
Sort by location, type, ranking

The screenshot shows the SchoolDigger website interface. At the top left is the SchoolDigger logo, a stylized figure digging. To its right is the website URL: [www.schooldigger.com](http://www.schooldigger.com). Below the logo is a navigation menu with options: Home, Find a School, Near an Address, Compare Schools, City Rankings, District Rankings, School Rankings, Best 10 Schools, Worst 10 Schools, and Most Improved. The main content area shows the path: Home > Illinois > Chicago. The title is "Chicago Schools". Under "City Profile", it lists: Elementary Schools: 439, Middle Schools: 14, High Schools: 125, Private Schools: 264. Below this is a ranking: "SchoolDigger Chicago City Ranking: ★★★★★ 592nd (of 792 cities)". A banner states "Over 50 million people have visited SchoolDigger.com!". A section titled "Top states visiting SchoolDigger right now:" lists: New York: 7%, Texas: 5%, Maryland: 5%, Virginia: 4%, Illinois: 4%, New Jersey: 4%, Michigan: 4%, New Hampshire: 3%. On the right, a "Location" dropdown is set to "Illinois" with a "Go to zip..." link. Below it is a "School Selector" with checkboxes for "Elementary only", "Middle only", "High only" (checked), "Private only", and "Alt/Other only". A "Filter..." link is at the bottom. The main map area shows a map of Chicago with numerous green location markers, each with a number. A red text overlay says "923 schools found. Click on the markers below to view information about a school, or scroll down to see a school list." On the far right edge, there are social media icons for Facebook, Twitter, and Email.

# Need Advice on Hotels or a Plumber?



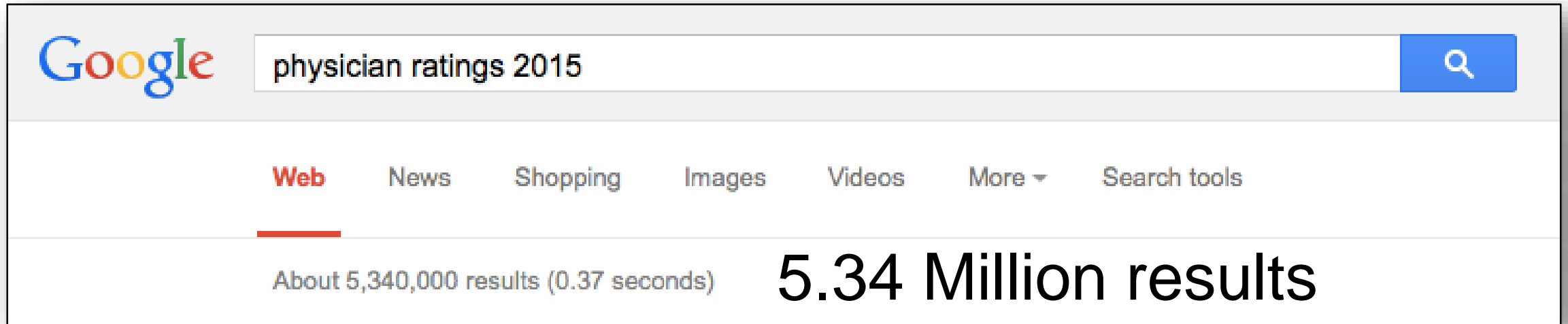
# Want to Buy a Refrigerator?



5.1 Million results



# What About a Doctor or Hospital?

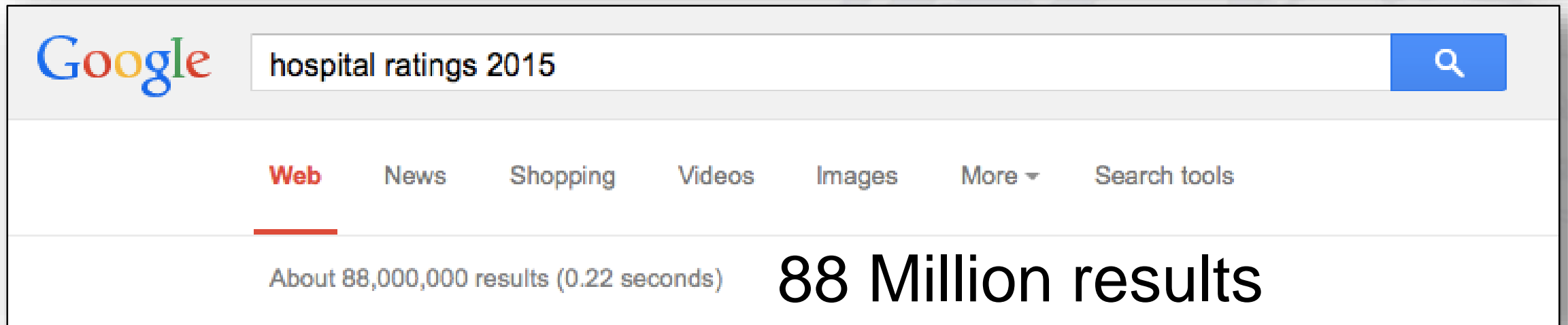


A screenshot of a Google search interface. The search bar contains the text "physician ratings 2015". Below the search bar, the "Web" tab is selected and underlined. Other tabs include "News", "Shopping", "Images", "Videos", "More", and "Search tools". The search results are displayed as "About 5,340,000 results (0.37 seconds)" in a smaller font, and "5.34 Million results" in a large, bold font.

Google physician ratings 2015

Web News Shopping Images Videos More Search tools

About 5,340,000 results (0.37 seconds) **5.34 Million results**



A screenshot of a Google search interface. The search bar contains the text "hospital ratings 2015". Below the search bar, the "Web" tab is selected and underlined. Other tabs include "News", "Shopping", "Videos", "Images", "More", and "Search tools". The search results are displayed as "About 88,000,000 results (0.22 seconds)" in a smaller font, and "88 Million results" in a large, bold font.

Google hospital ratings 2015

Web News Shopping Videos Images More Search tools

About 88,000,000 results (0.22 seconds) **88 Million results**





# Why Should You Care About Public Reporting?

Are choices about your healthcare equal in importance to your choice of airlines, schools, hotels, refrigerators and plumbers?



Should the consumer, have access to information about the quality of healthcare facilities and providers?



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# Public Reporting in Medicine is Not New

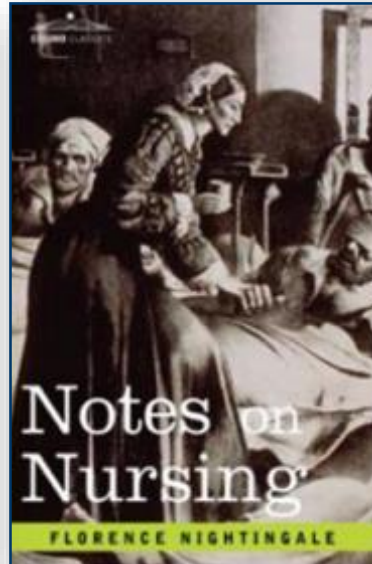


The train has left the station, and it ain't coming back

*And . . . The public has increasing expectations*

# The History Of Public Reporting in Medicine

Around 1854 - Florence Nightingale published mortality rates at British military hospitals caring for Crimean war casualties.



1859: “The very first requirement in a hospital is that it should do the sick no harm”

About 50 years later, Dr. Ernest Codman, an advocate of hospital reform, endured the criticism of his colleagues after calling for the public release of surgical outcomes.

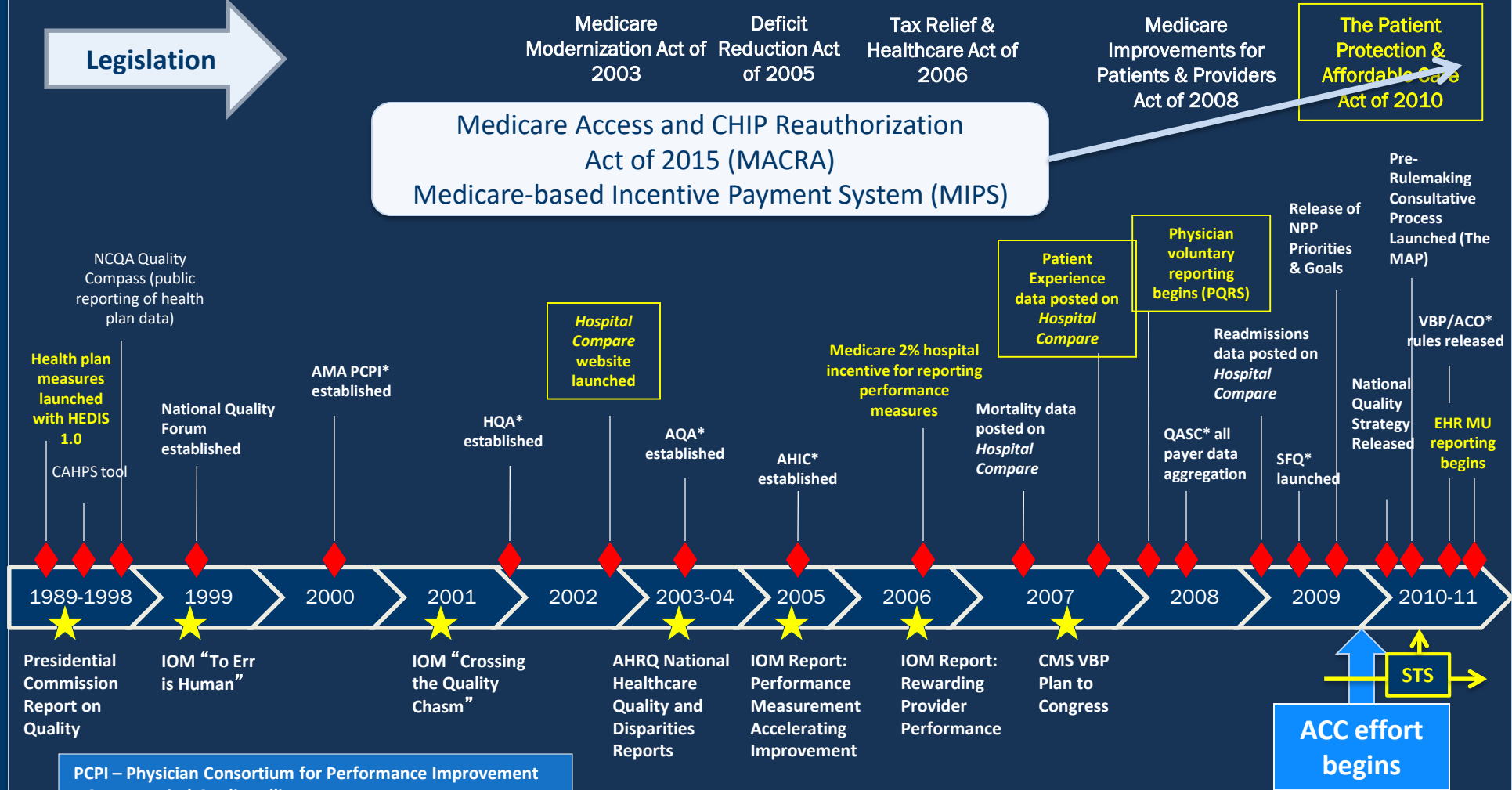


Although his peers rejected Codman’s vision, his efforts were central to the founding of the American College of Surgeons and later The Joint Commission



**NCDR**<sup>®</sup>  
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# The Advance of Quality Measurement & Reporting



PCPI – Physician Consortium for Performance Improvement  
 HQA – Hospital Quality Alliance  
 AQA – Ambulatory Quality Alliance  
 AHIC – America’s Health Information Community  
 QASC – Quality Alliance Steering Committee  
 VBP – Value-Based Purchasing  
 SFQ – Stand for Quality  
 ACO – Accountable Care Organization

**PUBLIC REPORTING IS NOT NEW**

# Public Reporting: What is it?

- Public reporting:
  - A strategy to address quality and cost in the health care system
  - Provides consumers, payers, and providers information on performance and outcomes
- Background
  - Some public reporting on mortality since the 1980s
  - Gained attention with CABG reporting in NY and PA in 1990s
  - Nationally currently falls under two agencies of the Department of Health and Human Services (HHS)
    - Agency for Healthcare Research and Quality (AHRQ)
    - Centers for Medicare and Medicaid Services (CMS)
  - Increased requirements under the Affordable Care Act (ACA)
  - Increased public interest in reporting
- Public reporting takes many forms:
  - Hospital reporting, such as HCAHPS surveys
  - Individual or Group performance outcomes
  - Registry data such as NCDR or STS/TVT
  - Independent and consumer sources



# Public & Patient Perspective of Public Reporting

*The Internet Has Changed Everything!*



Source: Pew Research Center 2012 (Survey of 2065 Internet users)

## Percentage of Internet users that have ever used the Internet to:

Send or read e-mail	91%
Get driving directions	82
<b>Look for health info</b>	<b>80</b>
Get news	72
Social network	62

## Have you looked up reviews of a doctor online?

Yes  
16%



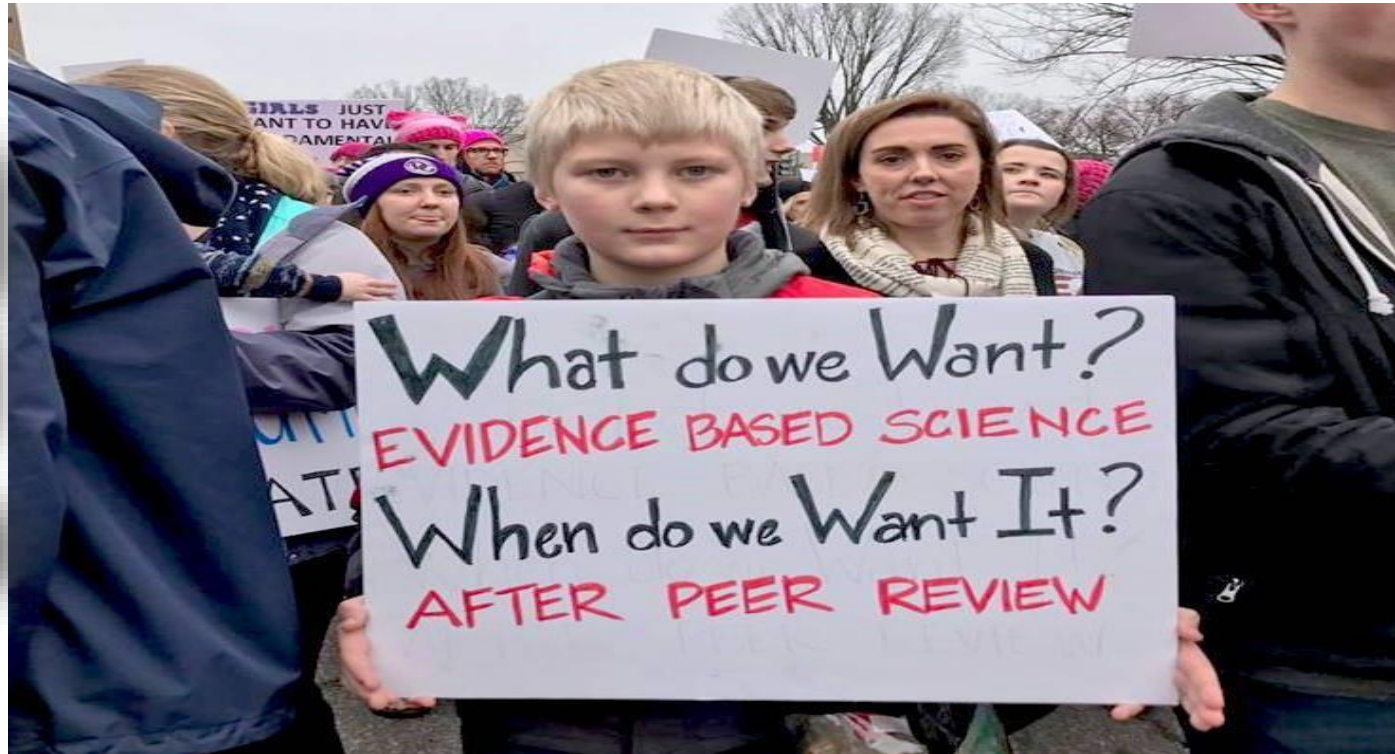
## Have you posted a review of a doctor online?

Yes  
4%



77% of online health seekers began their last session at a search engine such as Google, Bing, or Yahoo

# Outside Third Party Assessors Alternative Facts??? (Fake News?)



# What's out there??

## Federal Government

- Hospital Compare
- Physician Compare
- Payments to physicians

## State Government

- State Public Reporting Programs
  - MA, NY, PA, CA, TX, others

## Independent Groups

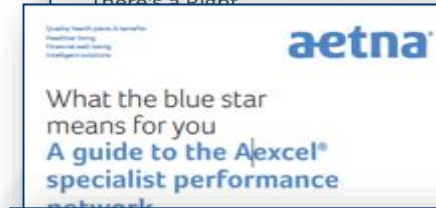
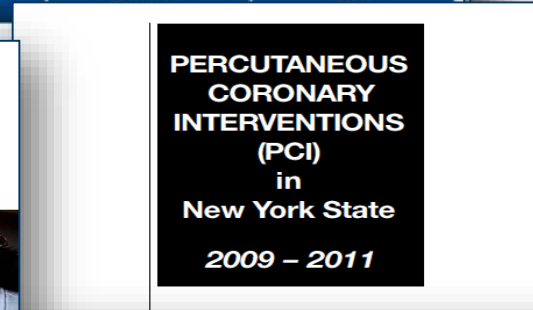
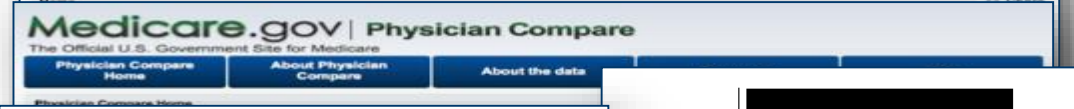
- HealthGrades, ProPublica
- USNWR, Truven, Leapfrog
- Consumer Reports, Others ...

## Insurance providers

- Aetna, BCBS
- Others, but you don't know it

## Consumer Websites

- RateMD.com, Angie's List
- Yelp, Others . . .





# On the Internet Now

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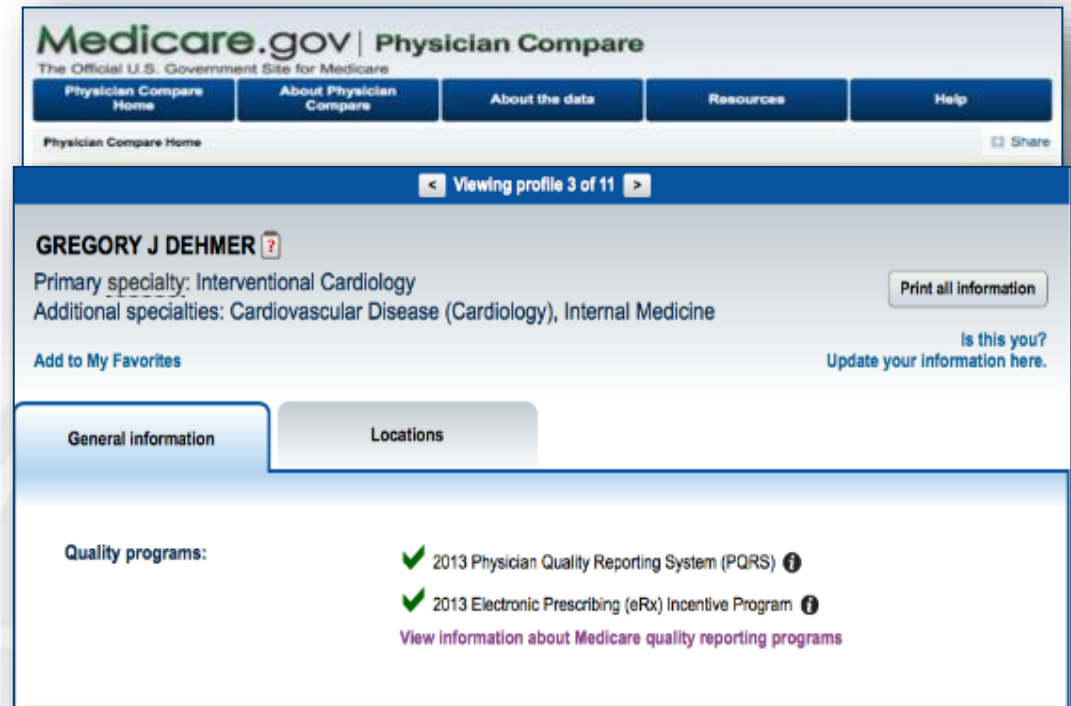


Medicare.gov | Hospital Compare  
The Official U.S. Government Site for Medicare

Hospital Compare Home About Hospital Compare About the data Resources Help

Home Share

Find a hospital



Medicare.gov | Physician Compare  
The Official U.S. Government Site for Medicare

Physician Compare Home About Physician Compare About the data Resources Help

Physician Compare Home Share

Viewing profile 3 of 11

**GREGORY J DEHMER** ⓘ

Primary specialty: Interventional Cardiology Print all information

Additional specialties: Cardiovascular Disease (Cardiology), Internal Medicine

Add to My Favorites Is this you? Update your information here.

General information Locations

Quality programs:

- ✓ 2013 Physician Quality Reporting System (PQRS) ⓘ
- ✓ 2013 Electronic Prescribing (eRx) Incentive Program ⓘ

[View information about Medicare quality reporting programs](#)



June 3, 2015 **THE WALL STREET JOURNAL.**

Home World U.S. Politics Economy Business Tech Markets Opinion Arts Life Real Estate

Philadelphia Steps to Stage for Pope's Visit States Push Back Against Cities' Wage Floors Kerry Presses for Political Solution to Syrian Conflict Economy's Trajectory: Slow Down, Surge Forth, Grow ...

U.S. | POLITICS | HEALTH POLICY

### New Medicare Data Offer a More Complete Picture

Methodology change accounts for a further \$12.4 billion in medical-provider payments for 2012

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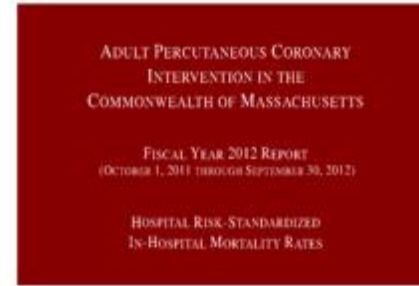
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Massachusetts Data Analysis Center  
 Department of Health Care Policy  
 Harvard Medical School  
 180 Longwood Avenue  
 Boston, MA 02115  
[www.massdac.org](http://www.massdac.org)

**PERCUTANEOUS  
 CORONARY  
 INTERVENTIONS  
 (PCI)  
 in  
 New York State  
 2009 – 2011**

## California Cardiac Surgery Intervention Project

[Home](#) | [California Summaries](#) | [Cardiac Procedure Volumes](#) | [Mortality](#) | [MACCE](#) | [MACCE-90](#) | [Methods](#) | [Contact](#)

### Volume of All Cardiac Procedures, 2013-2014

Surgical and intervention volumes for 150 hospitals are displayed in the table. 39 hospitals with fewer than 25 combined surgical and intervention cases and Children's Hospitals are not shown; these hospitals' volumes are included in the All Hospitals row.

For definitions of the surgery groups, refer to [Methods Q&A sections 5 through 8](#).

For an explanation of the charts displayed when clicking on a hospital name, refer to the [Methods Q&A section "What is shown in the charts incorporated into the Volume, Mortality, MACCE and MACCE-90 tables for each California hospital?"](#).

Hospital	Region	Isolated CABG	Isolated Valve	CABG / Valve	Other with ECC	Total Surgeries	PCI with ACS	PCI w/o ACS	Total PCI
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## CHHS Open Data

[Datasets](#) [Topics](#) [Departments](#) [Training](#)

[Home](#) > [Departments](#) > [Office of Statewide Health ...](#) > [CA Surgeon Risk-Adjusted ...](#) > [CA Surgeon Risk-Adjusted ...](#)

## CA Surgeon Risk-Adjusted Operative Mortality Rates for Coronary Artery Bypass Graft (CABG) Surgery (CSV)

[Download](#) [Data API](#)

URL: <https://data.chhs.ca.gov/dataset/4a16bd51-b278-443d-84c9-8d04de9dc9e6/resource/607db97c-acac-440c-9f30-e60fdc65ad66/download/test-ca-oshpd-cabg-surgeonsummary-2011-2014.csv>

This dataset provides performance ratings for California Surgeons for Risk-Adjusted Operative Mortality Rates for Coronary Artery Bypass Graft (CABG) Surgery from 2011 to 2014. It also includes the number of isolated CABG surgery cases and deaths that each surgeon performed as well as the location of hospitals where the surgeon performed CABG surgery.

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There's more to choosing a doctor than insurance plans and office hours. Let us show you how to find the *right* doctor for you.

Get Started

## Evaluation of a Consumer-Oriented Internet Health Care Report Card

### The Risk of Quality Ratings Based on Mortality Data

Harlan M. Krumholz, MD

Saif S. Rathore, MPH

Jersey Chen, MD, MPH

Yongfei Wang, MS

Martha J. Radford, MD

**Context** Health care "report cards" have attracted significant consumer interest, particularly publicly available Internet health care quality rating systems. However, the ability of these ratings to discriminate between hospitals is not known.

**Objective** To determine whether hospital ratings for acute myocardial infarction (AMI) mortality from a prominent Internet hospital rating system accurately discriminate between hospitals' performance based on process of care and outcomes.

JAMA 2002;287:1277-87

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U.S. News & WORLD REPORT

HEALTH

## Best Hospitals 2015-16: an Overview

Rankings by region and specialty, with an Honor Roll of hospitals that excel in complex specialty care.



To help patients make informed decisions regarding their complex care in 16 medical and surgical specialties.

## Which Hospitals Are Best for Patients Who Need Common Care

New hospital ratings reveal performance in everyday surgeries and medical conditions.



See which hospitals shined – and which ones have room for improvement.

CABG  
Hip Replacement  
Knee Replacement  
COPD  
Heart Failure

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Don't Miss: Darren Sharper Dollars for Docs **Surgeon Scorecard** Water Crisis



PRO PUBLICA | Journalism in the Public Interest



THE LEAPFROG GROUP

**SURGEON RATINGS.ORG** by **CHECKBOOK**

Search for the Best | Advice & Explanations

### Surgeon Ratings (New!)


Choosing the best surgeon can reduce your chances of death, complications, or other bad outcomes. Which surgeons' patients get the best outcomes? This website lists surgeons Checkbook has identified as having better-than-average outcomes based on analysis of more than four million surgeries done for hospital inpatients by more than 50,000 surgeons.

- **There are big differences among surgeons.** For example, Checkbook.org found that for some types of surgeries, patients of the worst-performing surgeons were more than three times as likely to die compared to those of the best performing surgeons—even after taking into account differences in the age, health, and other characteristics of their patients.
- **Checkbook.org is funded by consumers, for consumers.** Unlike most other websites, our nonprofit organization takes no advertising or similar payments from businesses or professionals we evaluate. For more than 20 years, we have evaluated hospital performance using these types of data, and spent many years pushing and suing the federal government to release the data for doctors. Thanks to some forward-thinking people in the government, it's finally now available.

1. Display surgeons within  miles of zip

2. Surgery type:

- Angioplasty or Pacemaker Surgery
- Aortic or Endovascular Surgery
- Endarterectomy/Head or Neck Muscle Angioplasty
- Femur Fracture Surgery
- Gallbladder Removal Surgery
- Gastric Surgery
- Heart Valve or Heart Bypass Surgery
- Hernia Surgery
- Hip or Knee Replacement Surgery
- Hysterectomy and Cystocele/Rectocele Repair Surgery
- Major Bowel Surgery
- Prostate Removal Surgery
- Pulmonary Surgery
- Spinal Cord Exploration or Spine Fusion Surgery



We want this information to be helpful to consumers and to doctors. If you have comments or suggestions, please contact us here.

# Inconsistencies in Reporting and Ratings of Hospitals

## CONCLUSIONS

- Compared 4 national rating systems  
**USNWR, HealthGrades, Leapfrog, Consumer's Reports**
- Designated “high” and “low” performers and examined ratings overlap
- No hospital was rated a high performer in all 4 rating systems
- Only 10% of the 844 hospitals rated as a “high performer” in one rating system were rated as a high performer by any other rating system

PATIENT ENGAGEMENT

By J. Matthew Austin, Ashish K. Jha, Patrick S. Romano, Sara J. Singer, Timothy J. Vogus, Robert M. Wachter, and Peter J. Pronovost

## National Hospital Ratings Systems Share Few Common Scores And May Generate Confusion Instead Of Clarity

Health Affairs 2015; 34:423-30



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NATIONAL CARDIOVASCULAR DATA REGISTRY

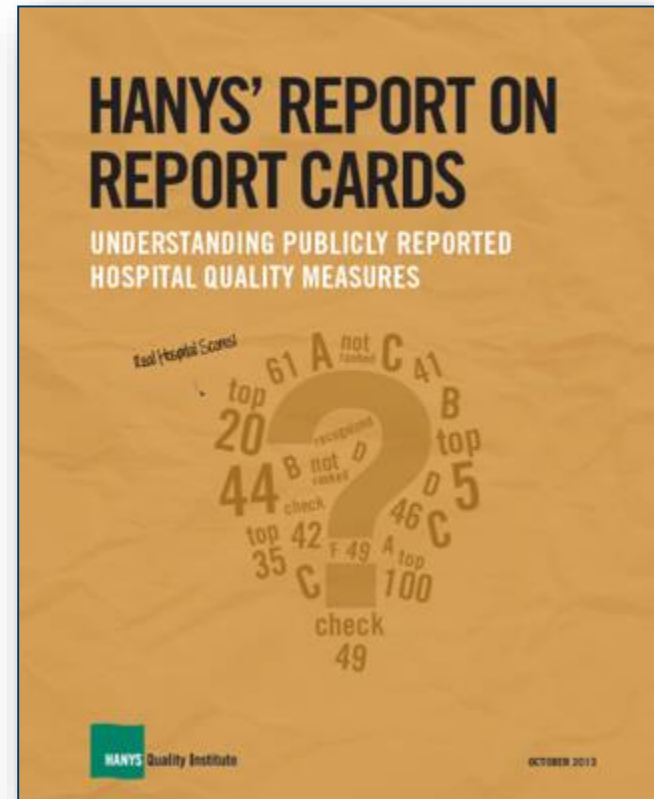
# Inconsistencies in Reporting and Ratings of Hospitals

## HANY'S REPORT CARD ON HOSPITAL REPORT CARDS

HANY'S EVALUATION	REPORT CARD
★★★	<b>THE JOINT COMMISSION QUALITY CHECK</b> Latest report as of April 2013 version, 2011 user guide
★★★	<b>DOH HOSPITAL-ACQUIRED INFECTION REPORT</b> Latest report as of September 2012
★★★	<b>CMS HOSPITAL COMPARE</b> Latest report as of April 2013
★★★	<b>DOH HOSPITAL PROFILE QUALITY SECTION</b> Latest report as of July 2013
★★	<b>NIAGARA HEALTH QUALITY COALITION NEW YORK STATE HOSPITAL REPORT CARD</b> Latest report as of 2011
★	<b>LEAPFROG HOSPITAL SAFETY SCORE</b> Latest report as of October 2012
★	<b>TRUVEN HEALTH ANALYTICS 100 TOP HOSPITALS</b> Latest report as of February 2013
★	<b>HEALTHGRADES AMERICA'S BEST HOSPITALS</b> Latest report as of 2013
★	<b>CONSUMER REPORTS HOSPITAL SAFETY RATINGS</b> Latest report as of November 2012
★	<b>U.S. NEWS AND WORLD REPORT</b> Latest report as of July 2013

- ★★★ If the report card fully met all, or nearly all, of the criteria, the report card was awarded **three stars**.
- ★★ If the report card fully met some of the criteria and partially met others, the report card was awarded **two stars**.
- ★ If the report card fully or partially met few or none of the criteria, the report card was awarded **one star**.
- ★ If the report card fully met only one criteria, partially met few, or did not meet any of the criteria, the report card was awarded a **half star**.

Healthcare  
 Association of  
 New York State



# Grading the Graders

[http://www.hanys.org/quality/data/report\\_cards/2013/](http://www.hanys.org/quality/data/report_cards/2013/)

- Transparent methodology
- Evidence-based measures
- Measure alignment
- Appropriate data source
- Current data
- Risk-adjusted data
- Data quality
- Consistent data
- Hospital preview



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# Why Are Their Inconsistencies?

## Administrative Data



1. “Claims” data are derived from reimbursement information (bills) sent to Medicare
2. Contains: Demographic data, admission/discharge, diagnoses, procedures, date of death, . . .
3. Linkage to other external datasets: US census, cancer registries, national death index, etc . . .
4. Available, inexpensive

### Limitations

1. Co-existing diseases (HBP, diabetes) underdiagnosed and missed
2. Limited diagnosis codes - - - improved by ICD-10
3. Limited clinical information
4. Many services excluded
5. Delayed reporting
6. Medicare FFS only



# Why Are Their Inconsistencies?

Clinical Data  
(NCDR, STS)



1. Derived from clinical registries (STS, NCDR, . . .)
2. Comprehensive
3. Contains extensive clinical data
4. Composite data available
5. Risk adjustment more robust

## Limitations

1. Labor intensive to collect
2. Costly
3. Audited, but only a modest percentage of records.
4. Still lack data elements that can effect clinical outcomes (inadequate risk-adjustment)



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## Insurance providers

- Aetna, BCBS
- Others, but you don't know it

## Consumer Websites

- RateMD.com, Angie's List
- Yelp, Others ...

## Physician Quality Measurement and Blue Physician Recognition Programs

The Blue Cross and Blue Shield Association (BCBSA) and Blue Cross and Blue Shield of Texas (BCBSTX), have developed transparency programs that provide quality related performance information on the National Doctor and Hospital Finder<sup>SM</sup> and the BCBSTX Provider Finder<sup>®</sup>.

### Physician Quality Measurement Program (PQM)

The PQM program collects data on nationally endorsed physician quality measures, also known as Evidence Based Measures (EBM). The program will display measurement results on the National Doctor and Hospital Finder and the BCBSTX Provider Finder to assist users in making healthcare decisions.



BlueCross BlueShield  
of Texas

## 3 Factors Considered

- Volume
- Clinical performance
  - Readmissions
  - Complications
- Efficiency standards
  - Charges
  - How many services performed



Quality health plans & benefits.  
Healthier living.  
Financial well-being.  
Innovative solutions.

**aetna**

What the blue star means for you  
A guide to the Aexcel<sup>®</sup>  
specialist performance  
network  
[www.aetna.com](http://www.aetna.com)



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Insurance providers

- Aetna, BCBS
- Others, but you don't know it

Consumer Websites

- RateMD.com, Angie's List
- Yelp, Others ...



Healthcare Bluebook  
Fair Health  
Castlight  
Catalyst for Payment Reform, etc ...

Healthcare Bluebook

Find Your Fair Price

Healthcare Bluebook helps you save money on out-of-pocket medical expenses. Shop for affordable care in your area and save hundreds or thousands of dollars while making informed decisions about your healthcare.



# On the Internet Now

Federal Government

- Hospital Compare
- Physician Compare
- Payments to physicians

State Government

- Many State Public Reporting Programs
  - MA, NY, PA, CA, TX, others

Independent Groups

- HealthGrades, ProPublica
- USNWR, Truven, Leapfrog
- Consumer Reports, Others ...

Insurance providers

- Aetna, BCBS
- Others, but you don't know it

Consumer Websites

- RateMD.com, Angie's List
- Yelp, Others ...



# What Are the Sources for These Data?

Administrative  
Data

Clinical Data

Anything Goes

CNN Money Business Markets Tech Media Personal Finance Small Biz Luxury stock tickers

## Peeples app will let you rate people you know

10/1/15

Categories:  
Personal  
**Professional**  
Dating

*Our Story*

Years ago, Nicole set out to change the way people can learn about each other online. She saw the value of a referral and then it struck her - why is there nothing that provides reviews, ratings and commentary on aspects that truly matter to us?

Teaming up with her best friend Julia, the two ladies have set out to change the way people learn about each other online. The Peeples app allows us to better choose who we hire, do business with, become our neighbours, roommates, landlords/tenants, and teach our children. There are many reasons as to why we would want this reference check for the people around us.

Looking at everyone in the three ways you could possibly know someone - personally, professionally, or romantically - you can provide a rating and review on everyone you come in contact with, and yourself to be reviewed.

Commenters called the new people-rating app "thoughtless and irresponsible."

Commenters called this new people rating app **“thoughtless and irresponsible”**



# The Status of Public Reporting

- Lack of consistency
- Better risk-adjustment needed
- Need greater transparency
- Not all based on accepted quality metrics (NQF, NCQA standards)

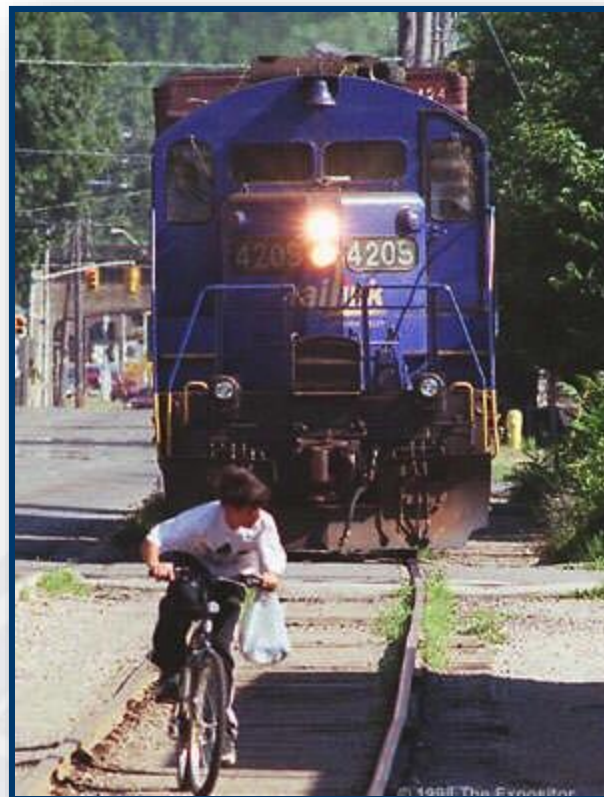
1. There is an explosion of activity in many different directions
2. It draws a large crowd
3. Some think it's beautiful
4. Some think it's very scary
5. You can get hurt if not used properly

- Sho... based
- Inde
- Phys
- Con
- Use



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The train has left the station, but . . .



. . . how do we do this and not get run over by the train?







If you're not at the table, you're on  
the menu

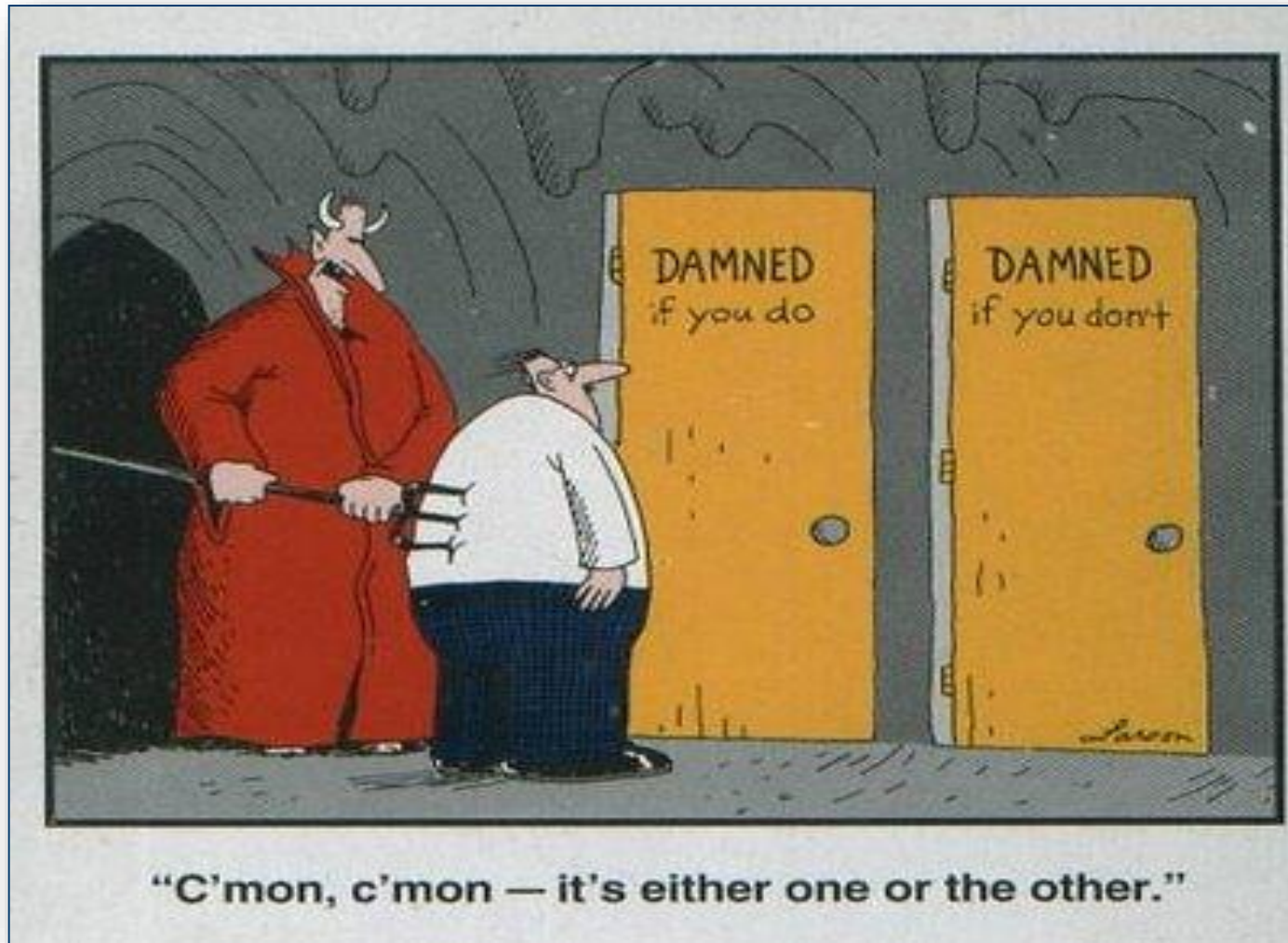
— *Michael Enzi* —

**Senior Senator from Wyoming**



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NATIONAL CARDIOVASCULAR DATA REGISTRY

# Strategies for Dealing with Public Reporting



# In the Beginning . . . . .

Journal of the American College of Cardiology  
© 2008 by the American College of Cardiology Foundation  
Published by Elsevier Inc.

Vol. 51, No. 20, 2008  
ISSN 0735-1097/08/\$34.00  
doi:10.1016/j.jacc.2008.03.004

## HEALTH POLICY STATEMENT

### **ACCF 2008 Health Policy Statement on Principles for Public Reporting of Physician Performance Data**

A Report of the American College of Cardiology Foundation Writing Committee to Develop Principles for Public Reporting of Physician Performance Data

- Promote quality improvement
- Performance measures with scientific validity (NQF approved)
- Developed in partnership with physicians
- Standardized data elements and uniform submission process across all public reporting programs
- Reporting should occur at the appropriate level of accountability
- Include a formal process for evaluating the impact of the program on the quality and cost of health care including assessment of unintended consequences



# We Have Declared that We are “In”

## The National Cardiovascular Data Registry Voluntary Public Reporting Program

An Interim Report From the NCDR Public Reporting  
Advisory Group

JACC 2015

Gregory J. Dehmer, MD, *Chair*\* Jonathan Jennings, BS, RN,† Ruth A. Madden, MPH, RN,‡ David J. Malenka, MD,§

Although recognizing the challenges to developing accurate and meaningful reporting, the ACC and its partnering organizations believe that a thoughtful, measured public reporting program, which uses clinical data with scientifically open methodology, subject to iterative improvement and oversight by professional organizations, has benefits and hopefully can minimize the potential unintended consequences.

## 2016 Revision of the SCAI Position Statement on Public Reporting

CCI 2017

Lloyd W. Klein,<sup>1\*</sup> MD, FSCAI, Kishore J. Harjai,<sup>2</sup> MD, FSCAI, Fred Resnic,<sup>3,4</sup> MD, FSCAI,

This position statement updates the prior Society for Cardiac Angiography and Interventions (SCAI) Policy on Public Reporting [1]. SCAI continues to endorse public reporting, provided the reports are not misleading, deliver meaningful information to consumers to help inform their choices, and facilitate quality improvement. Offering the public accurate and understandable metrics, including measures to assess the appropriateness of case selection, are essential to achieve this aim.



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NATIONAL CARDIOVASCULAR DATA REGISTRY

# Public Reporting: Benefits to Patient Care

- **Public Reporting of data encourages:**
  - Transparency of outcomes
  - Attention to quality metrics by hospitals and physicians
  - Contributions to national data registries
  - Adjustments of techniques to improve results
  - Increased choice by consumers and more shared decision making
- **Public reporting is becoming more widespread**
  - Physicians/patients should be aware of publicly available reports
  - Physicians should be prepared to review reports as patients ask questions
  - Physicians should be prepared to share their own outcomes



# Located on CardioSmart (www.CardioSmart.org)

- Voluntary
- Hospitals can preview their data
- Where metrics will display to public for OPT IN sites



**Search** Clear Search

Hospital Name

Location  
Zipcode (22205) or City,ST (Arlington,VA) or State (Virginia)  
78508

Cardiac Services Services Glossary  
select one or more service  
Nothing selected

**Search**

Search returns a list of hospitals that participate in at least one of the American College of Cardiology's data registries or the Quality Improvement for Institutions program.

**Search by Name, Zipcode or Service**

**Download Data**

If you are interested in obtaining in-depth data showing which hospitals are participating in the National Cardiovascular Data Registry (NCDR®), you can download reports below.

*Note: The "Find a Hospital" tool is the most user-friendly option for researching hospitals' quality performance.*

American College of Cardiology (ACC) National Cardiovascular Data Registry (NCDR®) - All Hospital List

List of all hospitals participating in an ACC registry or quality improvement program. Data available in this download includes hospital identifiers, address, services offered and participating ACC programs.

Downloadable Files: CSV | User Guide

American College of Cardiology (ACC) National Cardiovascular Data Registry (NCDR®) - All Hospital Metrics and Measures List

List of all hospitals participating in an ACC registry or quality improvement program. Data available in this download includes hospital identifiers, address, services offered and participating ACC programs.

Downloadable Files: CSV | User Guide

ACC Public Reporting Mission Statement

Heart Conditions   Drugs and Treatments   Heart Basics   Healthy Living

[Back](#) **Find Your Heart a Home**

**Search** [Clear Search](#)

Hospital Name  
Kaiser Permanente

Location  
San Francisco, CA

Cardiac Services [Services Glossary](#)  
Select all services hospitals must perform  
Nothing selected

Filter search results by  
 Reporting Data

[Search](#)

1-1 of 1   25

**Kaiser Permanente**  
[Add to compare](#)

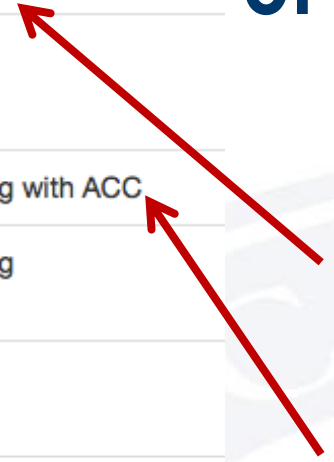
**Address**  
2425 Geary Blvd  
San Francisco CA 94115  
[Get Directions](#)

**Phone Number**  
[415-833-2000](#)

<b>CathPCI Registry®</b> <i>Assoc Services: Diagnostic Cardiac Catheterization, Percutaneous Coronary Intervention for Elective and Emergency Cases &amp; Percutaneous Coronary Intervention for Acute Myocardial Infarction</i>	Participating
<b>CathPCI Public Reporting Status</b>	Participating with ACC
<b>ICD Registry™</b> <i>Assoc Services: Electrophysiology Studies, Pacemaker Implantation &amp; Cardiac Defibrillator Implantation</i>	Participating
<b>ICD Public Reporting Status</b>	Not Participating with ACC
<b>ACTION Registry®</b> <i>Assoc Services: Acute Myocardial Infarction Treatment</i>	Not Participating
<b>ACTION Registry® Performance Achievement Award Recipient</b>	
<b>AFib Ablation Registry™</b> <i>Assoc Services: Atrial fibrillation ablation</i>	Does Not Perform Services
<b>IMPACT Registry®</b> <i>Assoc Services: Congenital Heart Defect Intervention</i>	Not Participating
<b>LAO Registry™</b> <i>Assoc Services: Left atrial appendage occlusion</i>	Does Not Perform Services
<b>PVI Registry™</b> <i>Assoc Services: Percutaneous Peripheral Vascular Intervention, Carotid Artery Stenting &amp; Carotid Endarterectomy</i>	Not Participating
<b>STS/ACC TVT Registry™</b> <i>Assoc Services: Transcatheter Valve Replacement</i>	Participating
<b>Quality Improvement for Institutions Program</b>	Participating

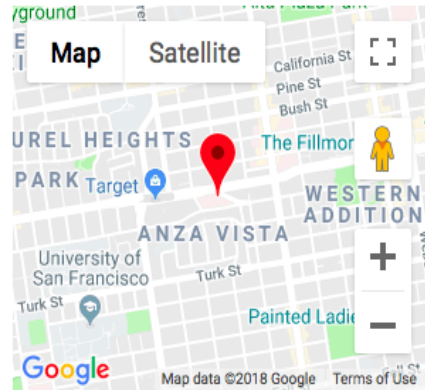
# The Second Level of a Search Shows

## Public Reporting Status for CathPCI & ICD





## Kaiser Permanente Medical Center



### Address

2425 Geary Blvd  
San Francisco CA 94115

[Get Directions](#)

### Phone Number

415-833-2000

### Cardiac Services

- Acute Myocardial Infarction Treatment
- Cardiac Defibrillator Implantation
- Carotid Artery Stenting
- Carotid Endarterectomy
- Congenital Heart Defect Intervention
- Diagnostic Cardiac Catheterization
- Electrophysiology Studies
- Pacemaker Implantation
- Percutaneous Coronary Intervention for Elective and

## Registry and Quality Program Participation

Hospital's participation in American College of Cardiology's data registries and the Quality Improvement for Institutions program.

CathPCI Registry®	Participating
<i>Assoc Services: Diagnostic Cardiac Catheterization, Percutaneous Coronary Intervention for Elective and Emergency Cases &amp; Percutaneous Coronary Intervention for Acute Myocardial Infarction</i>	
CathPCI Public Reporting Status	Participating with ACC
ICD Registry™	Participating
<i>Assoc Services: Electrophysiology Studies, Pacemaker Implantation &amp; Cardiac Defibrillator Implantation</i>	
ICD Public Reporting Status	Not Participating with ACC
ACTION Registry®	Not Participating
<i>Assoc Services: Acute Myocardial Infarction Treatment</i>	
ACTION Registry® Performance Achievement Award Recipient	
AFib Ablation Registry™	Does Not Perform Services
<i>Assoc Services: Atrial fibrillation ablation</i>	
IMPACT Registry®	Not Participating
<i>Assoc Services: Congenital Heart Defect Intervention</i>	
LAO Registry™	Does Not Perform Services
<i>Assoc Services: Left atrial appendage occlusion</i>	
PVI Registry™	Not Participating
<i>Assoc Services: Percutaneous Peripheral Vascular Intervention, Carotid Artery Stenting &amp; Carotid Endarterectomy</i>	
STS/ACC TVT Registry™	Participating
<i>Assoc Services: Transcatheter Valve Replacement</i>	
Quality Improvement for Institutions Program	Participating

# Results for a Hospital

## Diagnostic Catheterization and Percutaneous Coronary Intervention Metrics

Hospital performance for patients who have had a cardiac catheterization or PCI (angioplasty)

Number of PCI/angioplasty procedures performed during the calendar year.	1211
Use of Aspirin to reduce the chance of blood clots after PCI/angioplasty.	★★★★?
Use of a P2Y12 inhibitor medication to reduce the chance of blood clots after PCI/angioplasty.	★★★★?
Use of a Statin to decrease cholesterol after PCI/angioplasty.	★★★★?

### Metric Details

<b>Metric Name:</b>	<b>Kaiser Permanente Medical Center</b> 2425 Geary Blvd San Francisco CA 94115
<b>Metric Description:</b>	<b>Use of all recommended medications (Aspirin, P2Y12 inhibitor medication, and Statin) to reduce the chance of blood clots and decrease cholesterol after PCI/angioplasty.</b>  Patients should be prescribed Aspirin, a P2Y12 inhibitor medication, and a Statin medication after having a PCI/angioplasty to reduce the chance of blood clots in new stents ,decrease cholesterol and reduce the risk of heart attacks- unless there is a reason not to use these medicines (such as an allergy). This score shows how well this facility is following this guideline - higher is better. Patients who cannot take all of the recommended medicines are excluded.
<b>Timeframe:</b>	Data for Patients discharged from this facility between January 1 2016 and December 31 2016

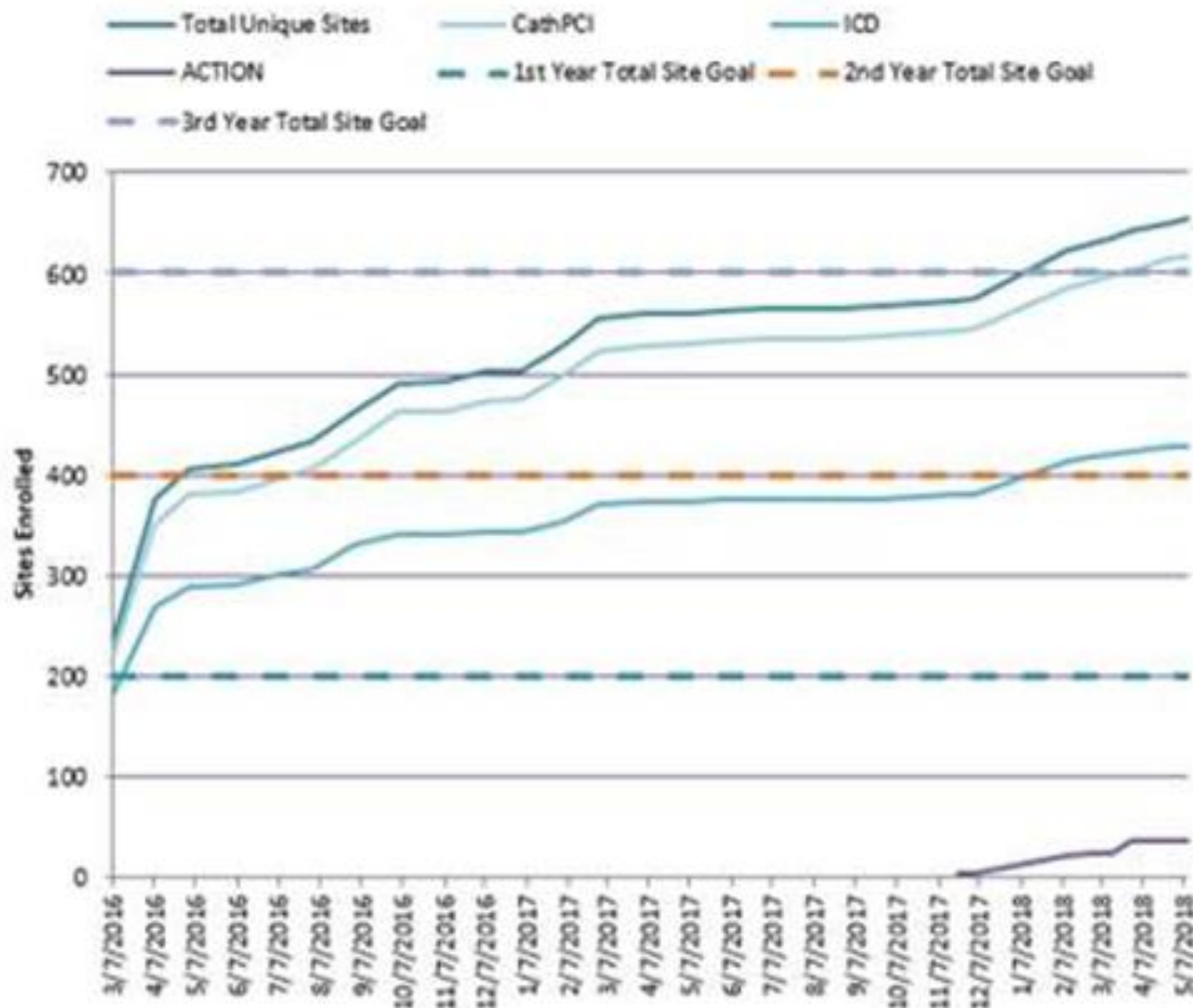
## Compare up to 3 Hospitals

Hospital Data

State Data: CA



# Launched with CathPCI Registry & ICD Registry composites



- To date, over 600 hospitals are opting into ACC's voluntary hospital public reporting program
- CathPCI Registry & ICD Registry gearing up for third reporting year
- ACTION Registry launching next, and hospitals already opting in to report



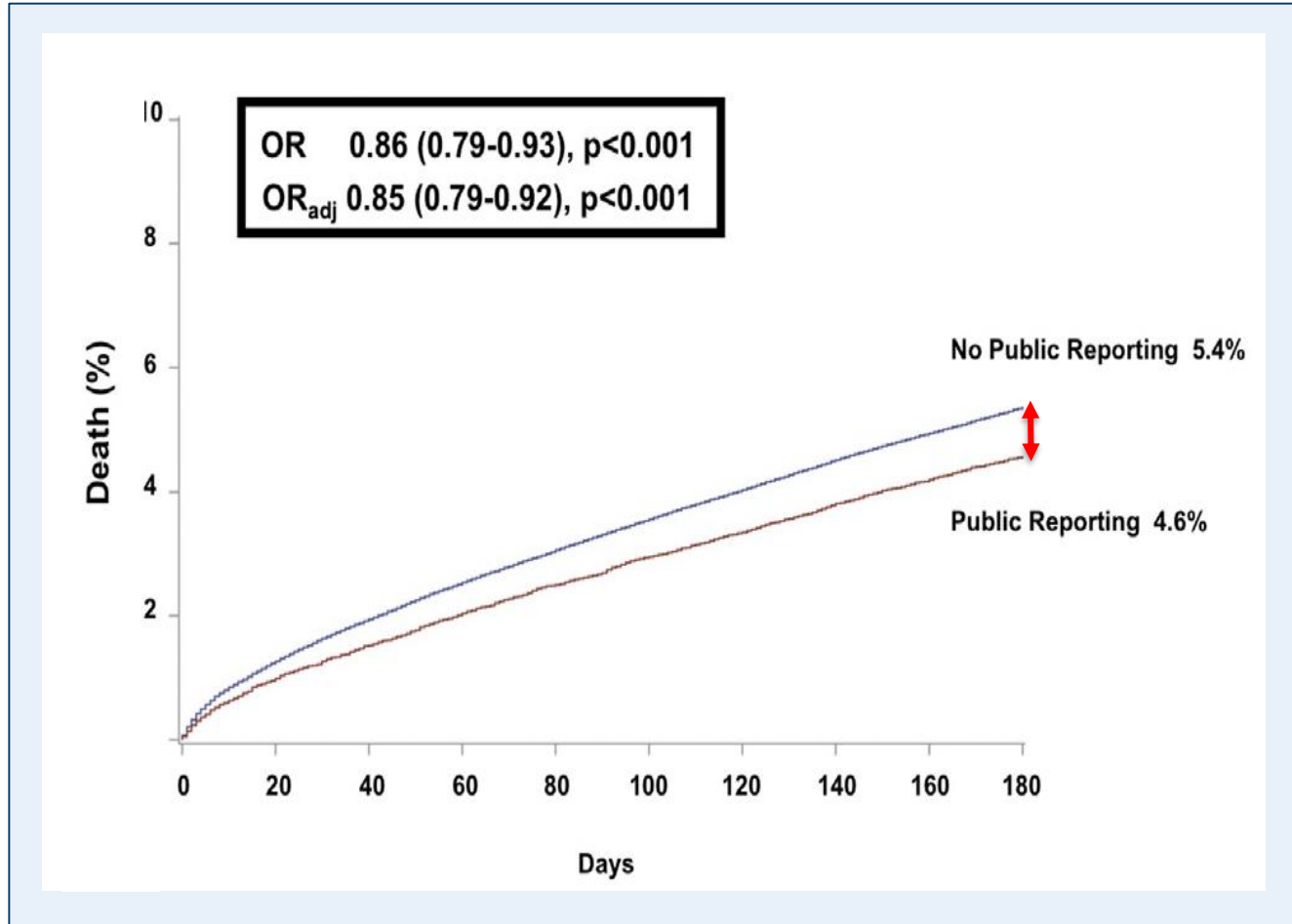
# A Need for Caution - - The Bad *(Ugly)*



Even something that seems innocent and well-intentioned can have negative consequences.

# Improved survival in PR(+) States

Study of 1.3 million PCI from the CathPCI registry found lower mortality out to 180 days with PR+.



Cavender et al. Am J Cardiol. 2014

## Take Aways:

- PR(+) is associated with a 15% reduction in risk-adjusted mortality
- Analysis includes **ONLY** patients undergoing PCI.
- Critical limitation of many treatment based outcomes analysis



# What do physicians think of PCI risk adjustment ?

## ORIGINAL INVESTIGATION

### The Influence of Public Reporting of Outcome Data on Medical Decision Making by Physicians

Craig R. Narins, MD; Ann M. Dozier, RN, PhD; Frederick S. Ling, MD; Wojciech Zareba, MD, PhD

Table 2. Responses by 120 Interventional Cardiologists to a Survey Questionnaire

Statement or Question	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
Mortality statistics provide an accurate measure of physician quality	38.3	46.7	12.5	0.8	1.7
Mortality statistics provide information that is useful for the public in terms of selecting a physician or hospital for angioplasty	32.5	49.2	15.0	1.7	1.7
Public reporting of mortality statistics for interventional cardiologists should be adopted by other states	25.8	45.0	24.2	4.2	0.8
The <i>Percutaneous Coronary Interventions (PCI) in New York State 1998-2000</i> report <sup>2</sup> serves to improve patient care in New York State	35.0	40.8	20.0	3.3	0.8
Knowledge that mortality statistics will be publicly disseminated has, in certain instances, influenced your decision on whether to perform angioplasty on individual patients	5.0	15.0	43.3	35.8	0.8
Knowing that your patient mortality statistics will be made public influences your decision on whether to intervene in critically ill patients with high expected mortality rates (eg, patients with cardiogenic shock)	6.7	12.5	31.7	47.5	1.7
Patients who might benefit from angioplasty may not receive the procedure as a result of public reporting of physician-specific mortality rates	0.8	15.0	44.2	39.2	0.8
The <i>Percutaneous Coronary Interventions (PCI) in New York State 1998-2000</i> report <sup>2</sup> uses a risk stratification model to derive a physician's patient risk-adjusted mortality rate: Do you agree or disagree that the model is sufficient to avoid penalizing physicians who perform higher-risk interventions?	52.5	32.5	10.0	3.3	1.7
Physicians may report higher-risk conditions to improve their risk-adjusted mortality statistics	2.5	8.3	55.0	33.3	0.8

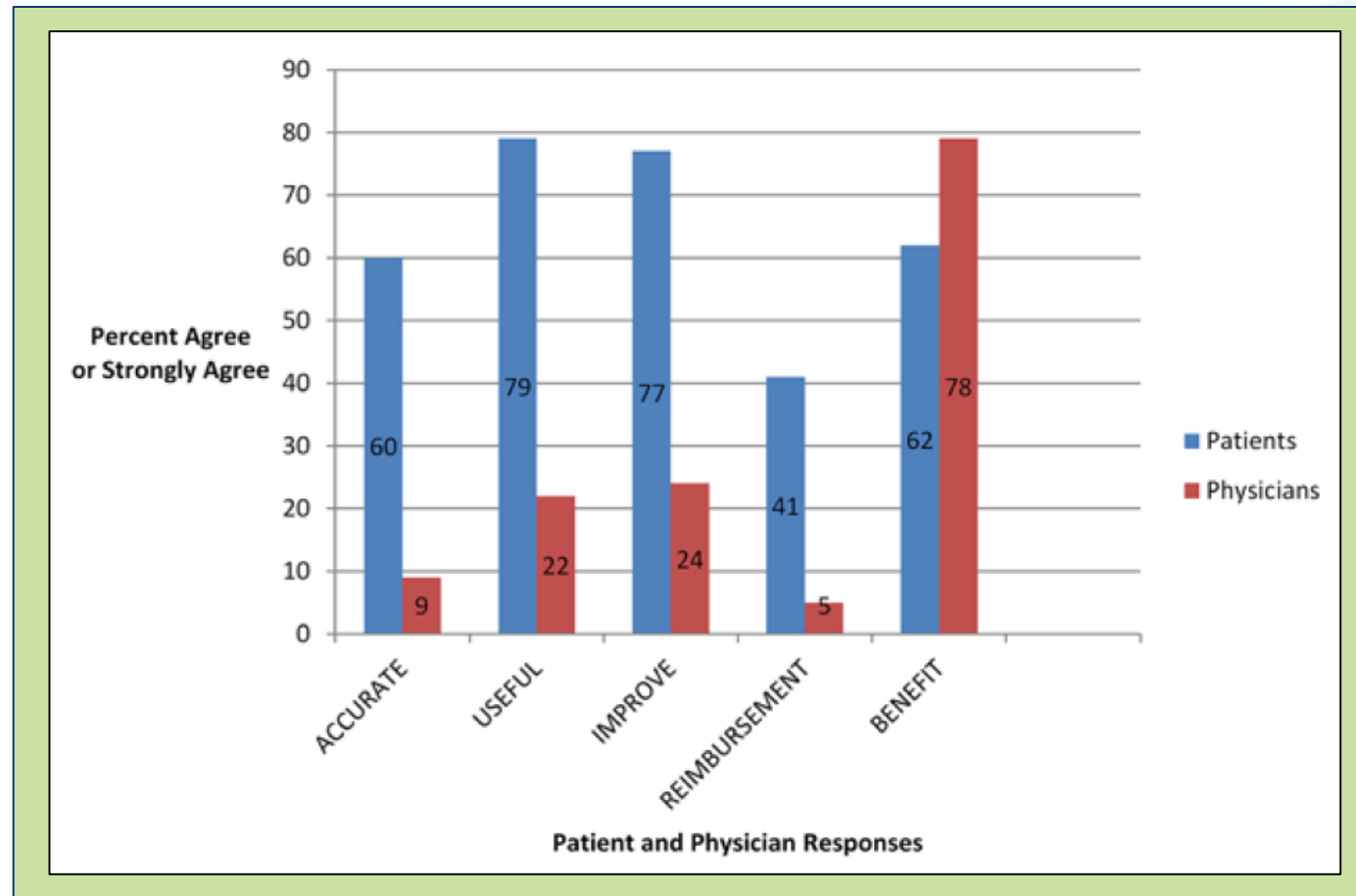
- 89% agree influences decision to perform PCI
- 83% agree may not receive the procedure as a result of public reporting
- 88% may report higher-risk conditions to improve statistics
- 85% don't think the risk-adjustment is adequate



# Physician versus Patient Perceptions

While MD's remain concerned, patient perceptions of public report value stand in stark contrast.

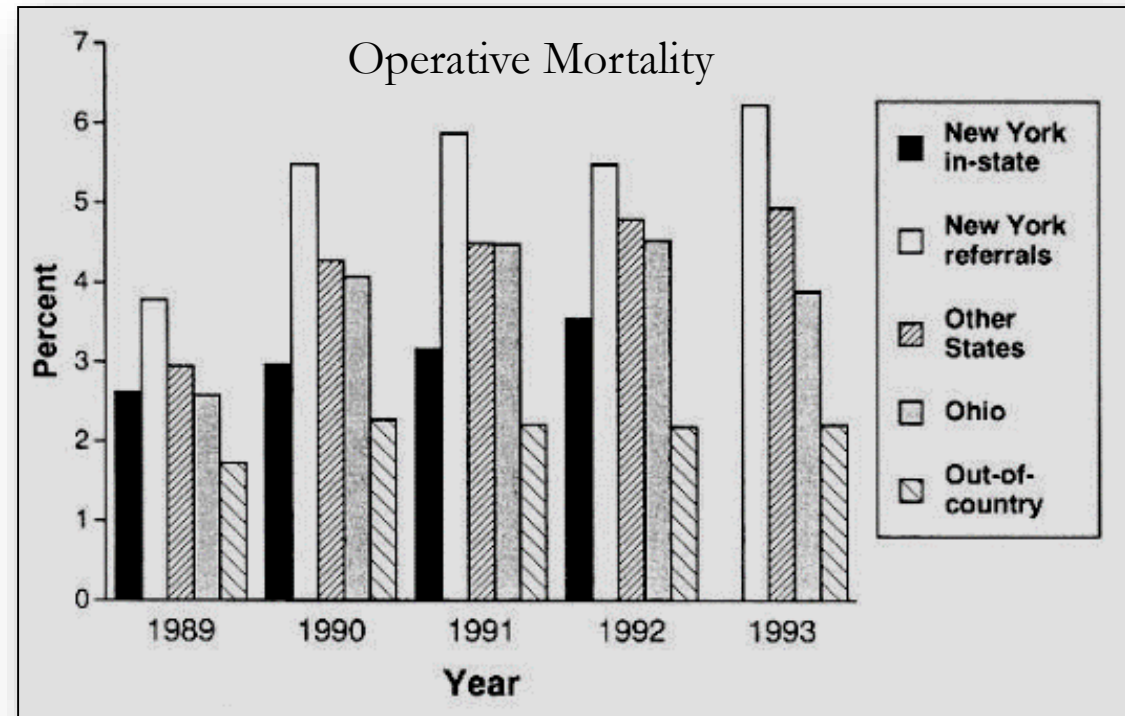
Patient vs. Physician Perceptions



Source: Fernandez G et al. *Circ CV Qual Outcomes* 2017

# Negative Effects of Public Reporting

- Review of 9442 isolated CABG operations at the Cleveland Clinic from 1989 – 1993
- Patients referred from NY compared with Ohio and other referrals
- Referrals from NY ↑ 31% after the start of public reporting in 1989
- 67% of NY surgeons refused to treat at least 1 high-risk patient
- Similar observations in PA



Schneider EC, et al. NEJM 1996;335:251-6.

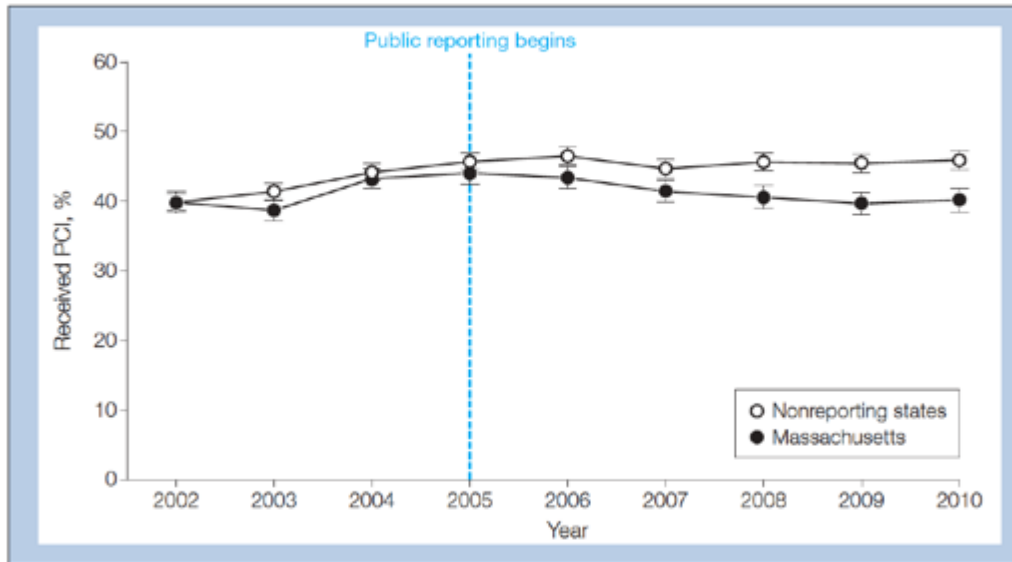
Omoigui NA, et al. Circulation 1996;93:27-33.



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# Public Reporting and PCI for Heart Attack

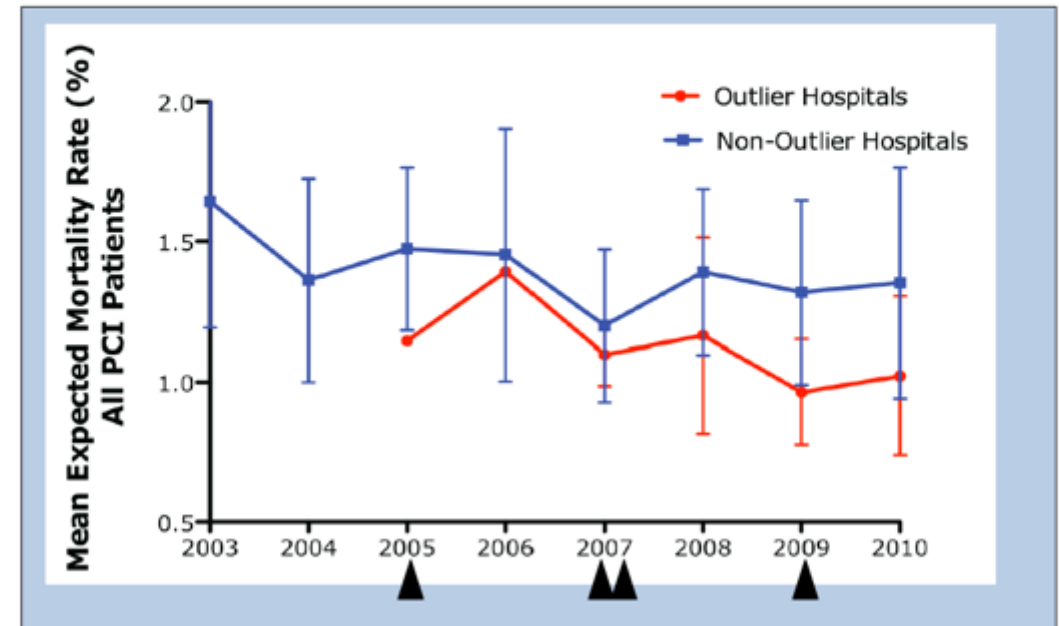
There has been a decrease in the proportion of AMI patients treated with PCI in MA versus other states.



Joynt K. et al. JAMA 2012;308(14) 1460-1468.

McCabe JM et al J Am Coll Cardiol Interv 2013;6:625-30.

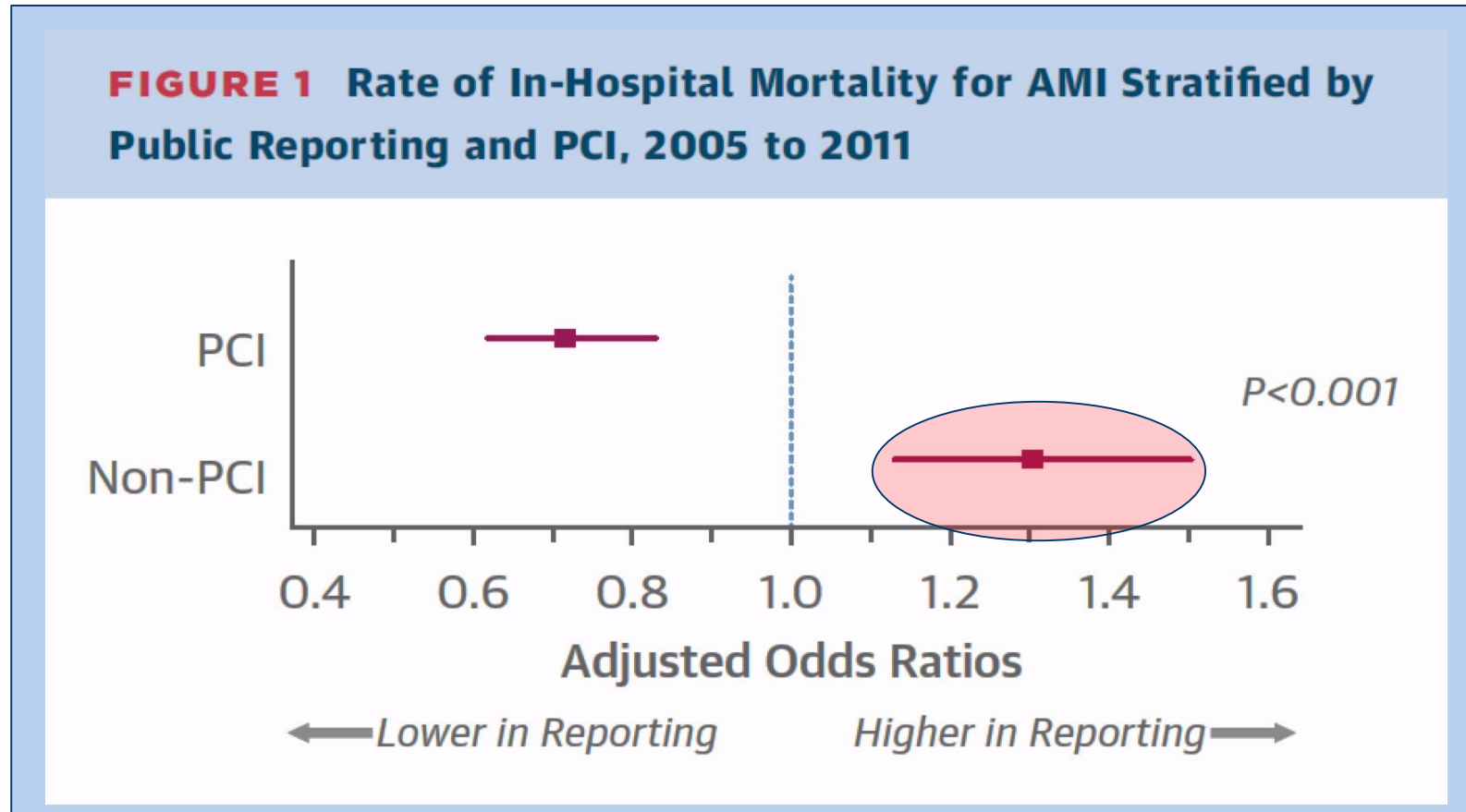
“Negative outlier” hospitals experienced significant reduction in expected mortality after public identification



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# Condition Specific Analysis...

Using National Inpatient Sample, Waldo and colleagues compared treatment and outcomes of 85K AMI Patients for NY + MA compared with neighboring states.

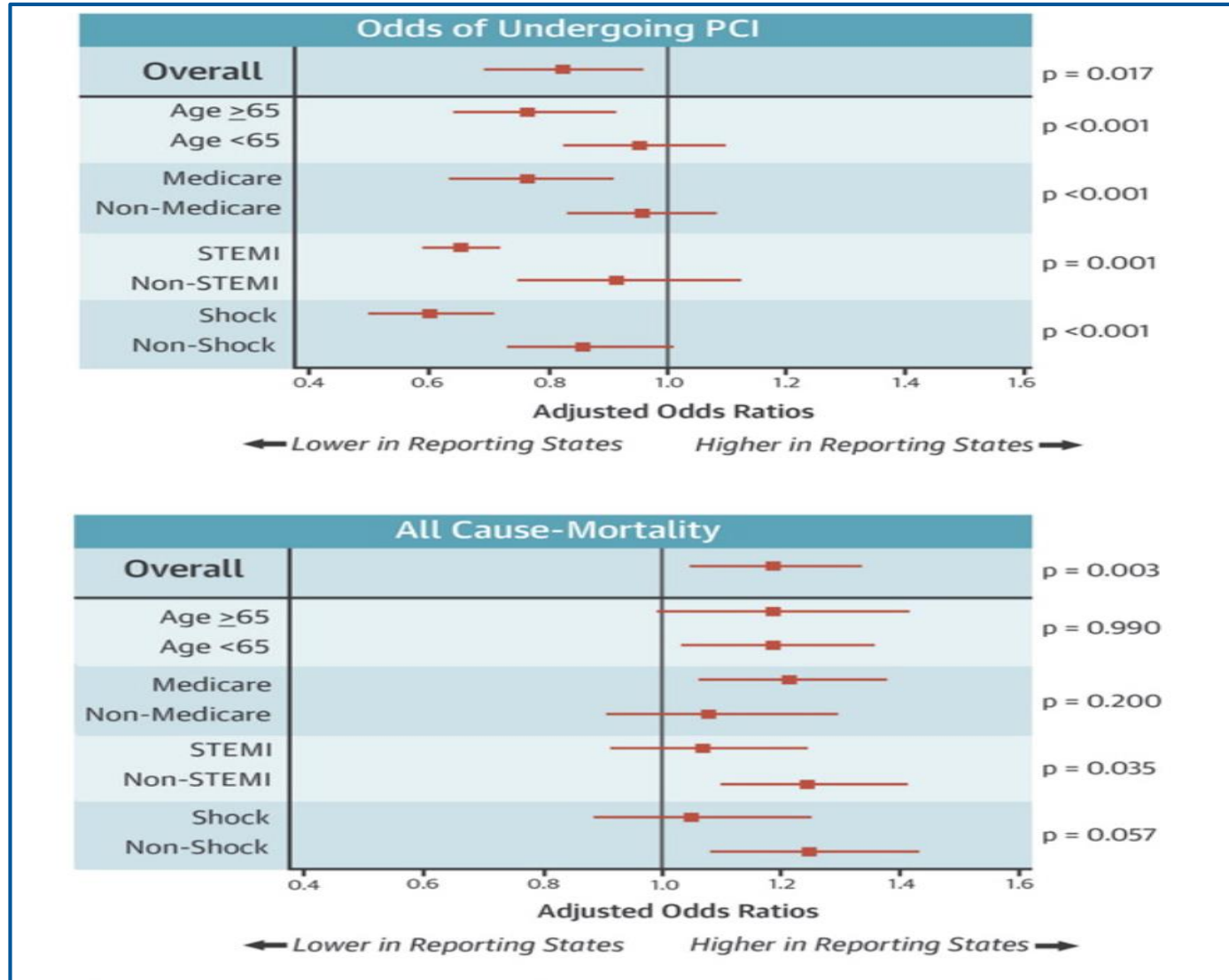


Source: Waldo et al. JACC 2015





# Less PCI and higher in-hospital mortality for patients with AMI in Public Reporting States



# Unintended Consequences – Risk Avoidance

## Public Reporting and Case Selection for Percutaneous Coronary Interventions

An Analysis From Two Large Multicenter  
Percutaneous Coronary Intervention Databases

Mauro Moscucci, MD,\* Kim A. Eagle, MD,\* David Share, MD, MPH,† Dean Smith, PhD, MS,\*  
Anthony C. De Franco, MD,‡ Michael O'Donnell, MD,§ Eva Kline-Rogers, RN, MS,\*  
Sandeep M. Jani, MPH,\* David L. Brown, MD||

*Ann Arbor, Detroit, and Flint, Michigan; and Stony Brook, New York*

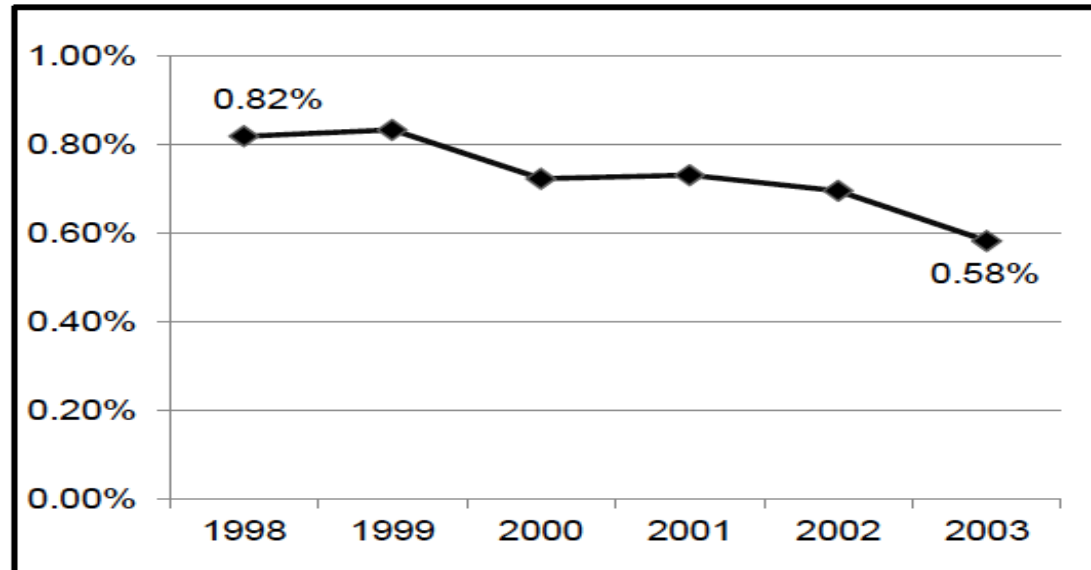
<b>OBJECTIVES</b>	The purpose of this research was to determine the potential effect of public reporting on case selection for percutaneous coronary intervention (PCI).
<b>BACKGROUND</b>	Previous studies have suggested that public reporting of coronary artery bypass graft surgery (CABG) mortality might result in case selection bias and in denial of care to or out migration of high-risk patients. The potential effect of public reporting on case selection for PCI is unknown.
<b>METHODS</b>	We compared demographics, indications, and outcomes of 11,374 patients included in a multicenter (eight hospitals) PCI database in Michigan where no public reporting is present, with 69,048 patients in a statewide (34 hospitals) PCI database in New York, where public reporting is present. The primary end point was in-hospital mortality.
<b>RESULTS</b>	Patients in Michigan more frequently underwent PCI for acute myocardial infarction (14.4% vs. 8.7%, $p < 0.0001$ ) and cardiogenic shock (2.56% vs. 0.38%, $p < 0.0001$ ) than those in New York. The Michigan cohort also had a higher prevalence of congestive heart failure and extracardiac vascular disease. The unadjusted in-hospital mortality rate was significantly lower in New York than in Michigan (0.83% vs. 1.54%, $p < 0.0001$ ; odds ratio [OR] 0.54, 95% confidence interval [CI] 0.45 to 0.63). However, after adjustment for comorbidities, there was no significant difference in mortality between the two groups (adjusted OR 1.05, 95% CI 0.84

There are significant differences in case mix between patients undergoing PCI in Michigan and New York that result in marked differences in unadjusted mortality rates. A propensity in New York toward not intervening on higher-risk patients because of fear of public reporting of high mortality rates is a possible explanation for these differences. (J Am Coll Cardiol 2005;45:1759–65) © 2005 by the American College of Cardiology Foundation

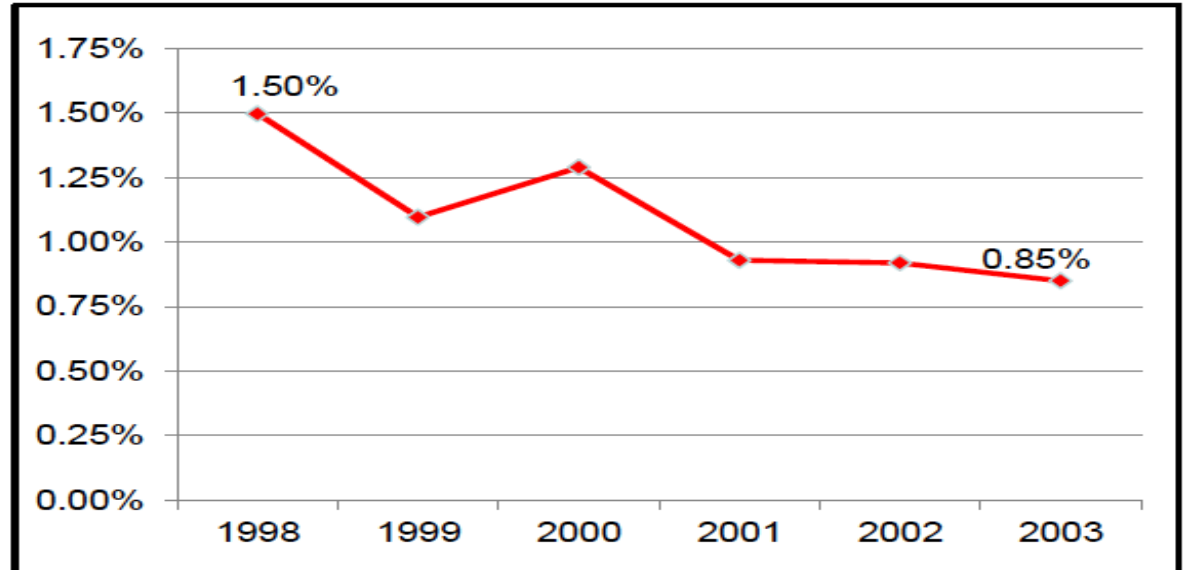
# Unintended Consequences – Risk Avoidance

In-hospital mortality declined by 29% between 1998-2004, but was accompanied by a 43% reduction in the PCI treatment of CG shock.

**NY PCI Mortality: 1998-2004**



**PCI for Cardiogenic Shock  
1998-2004**

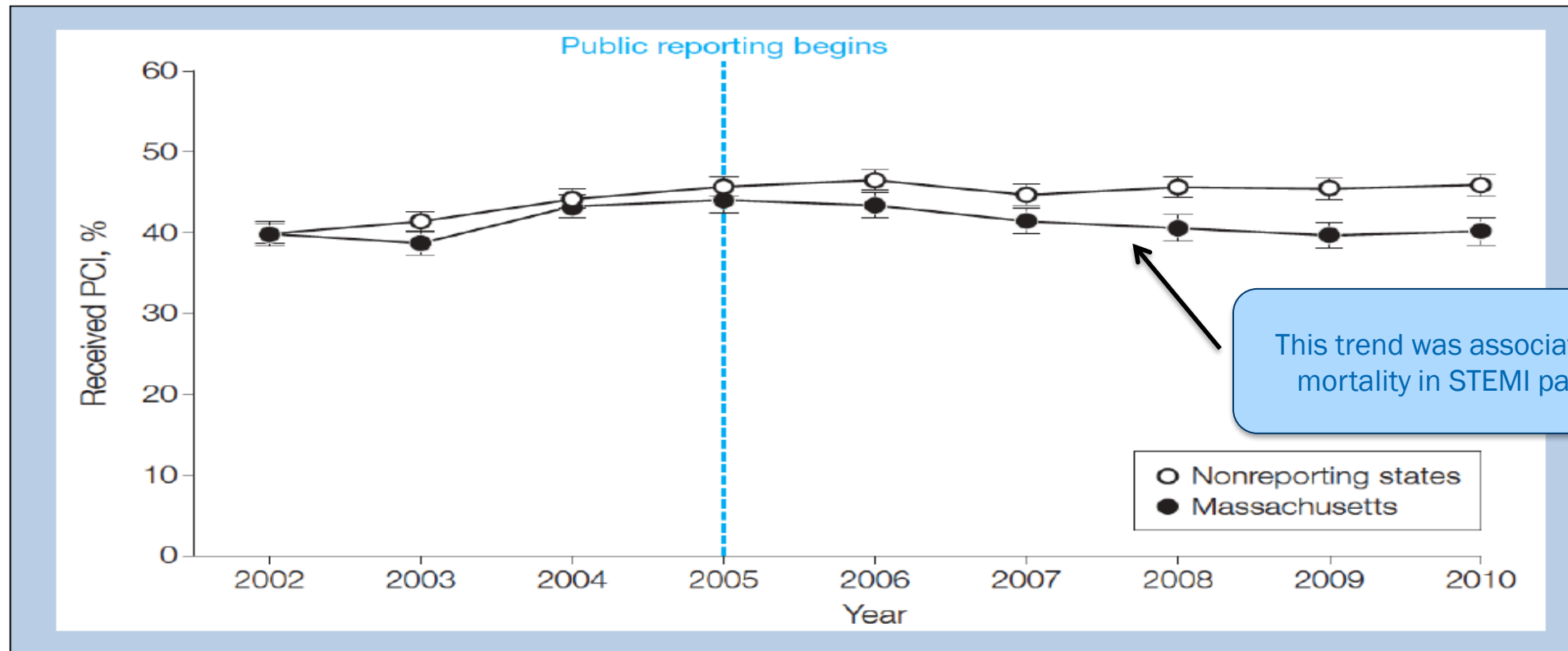


*Adapted from: Annual Angioplasty Quality Reports 1997-2004 available from:  
[www.health.state.ny.us/statistics/diseases/cardiovascular/](http://www.health.state.ny.us/statistics/diseases/cardiovascular/)*



# Unintended Consequences: Less PCI for Acute MI

There has been a decrease in the proportion of AMI patients treated with PCI in MA versus other states.



Joynt K. et al. *JAMA* 2012;308(14) 1460-1468.

# Decline in 'Risk Avoidance'

Journal of the American College of Cardiology  
© 2011 by the American College of Cardiology Foundation  
Published by Elsevier Inc.

## EDITORIAL COMMENT

# The Need for “Compassionate Provider Profiling”

Refining Risk Assessment for  
Percutaneous Coronary Intervention\*

Eric D. Peterson, MD, MPH

*Durham, North Carolina*

2.50%

2.00%

1.50%

1.00%

0.50%

0.00%

# Models Only Fit the Data Collected

## What About?

- Down Time
- Initial Rhythm
- Bystander CPR
- Aortic Stenosis
- CABG/SVG Intervention
- Surgery Refusal
- Ongoing Bleeding
- Prior/Recent Stroke
- Stent Thrombosis
- PAD
- Multivessel Disease
- Proximal LAD Infarct

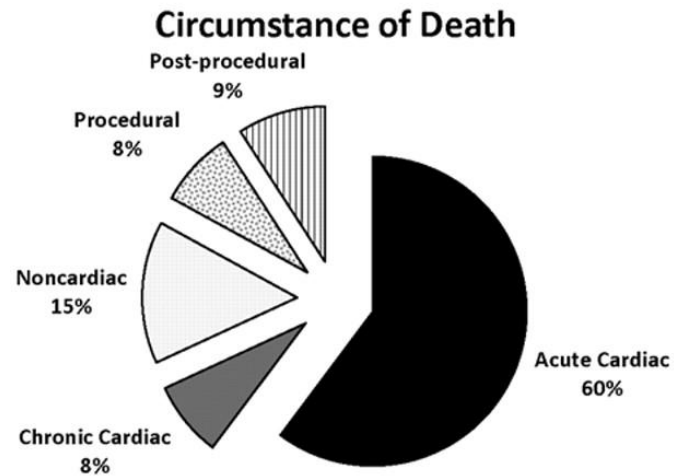
## Straight Forward Cases??

- MI Post ERCP-Thrombotically Occluded RCA
  - Successful PCI
  - Developed post ERCP-pancreatitis
  - Ranson Criteria Predicted 100% death at 48 hrs
- MI preop Biliary Cancer-"Do Everything", Withdrawal of Care HD #2 for Obstructive Liver failure, No longer surgical
- Post Infarction VSD. Diagnosed in lab. PTCA alone RCA. Refused by Surgery. Died 5 days after VSD occluder placed
- Liver Laceration from CPR Recognized 2 hours after successful PCI for Stent Thrombosis. Surgeons Unable to stop bleeding

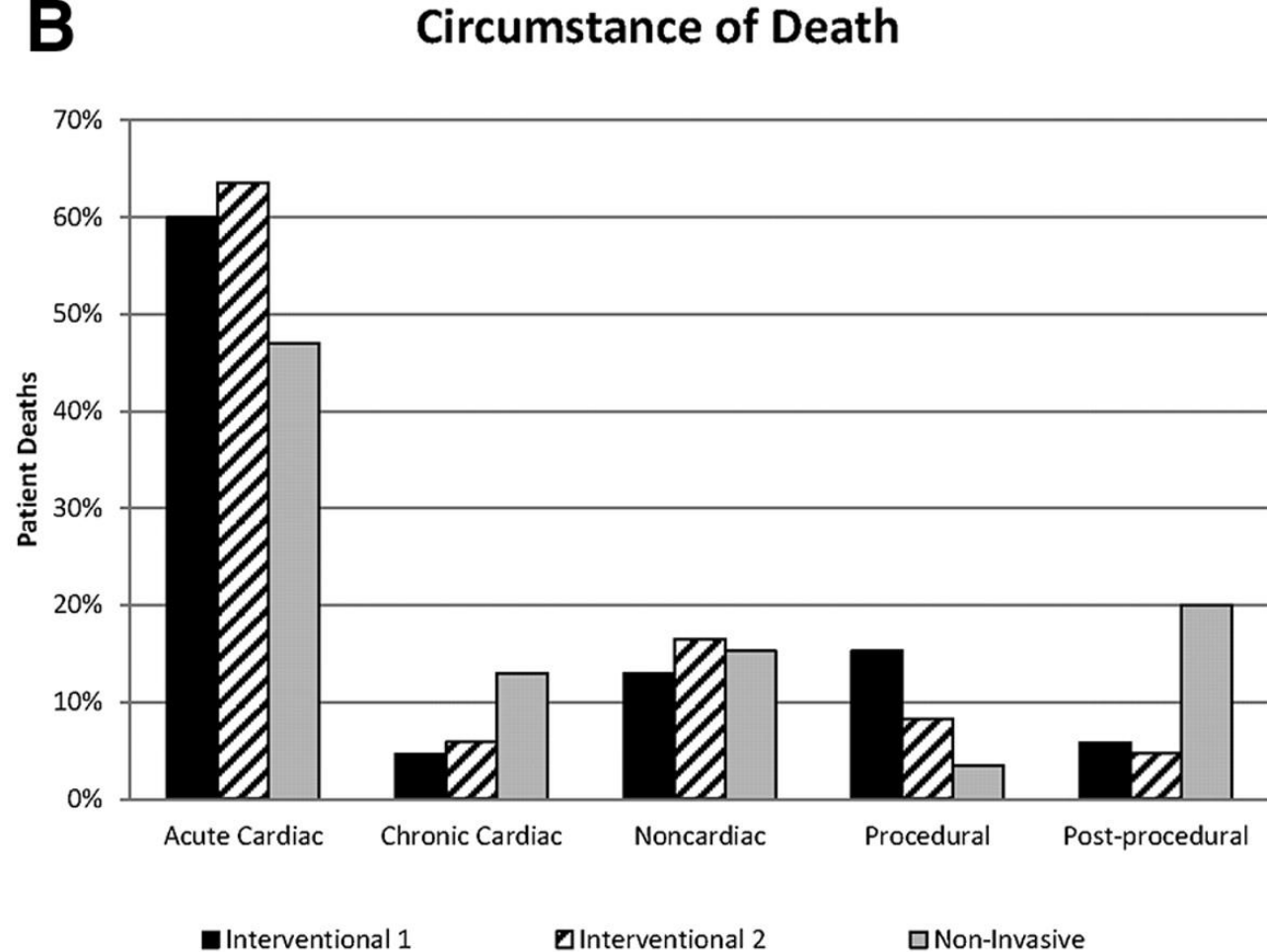


# Few Deaths After PCI are Related to the PCI

**A**

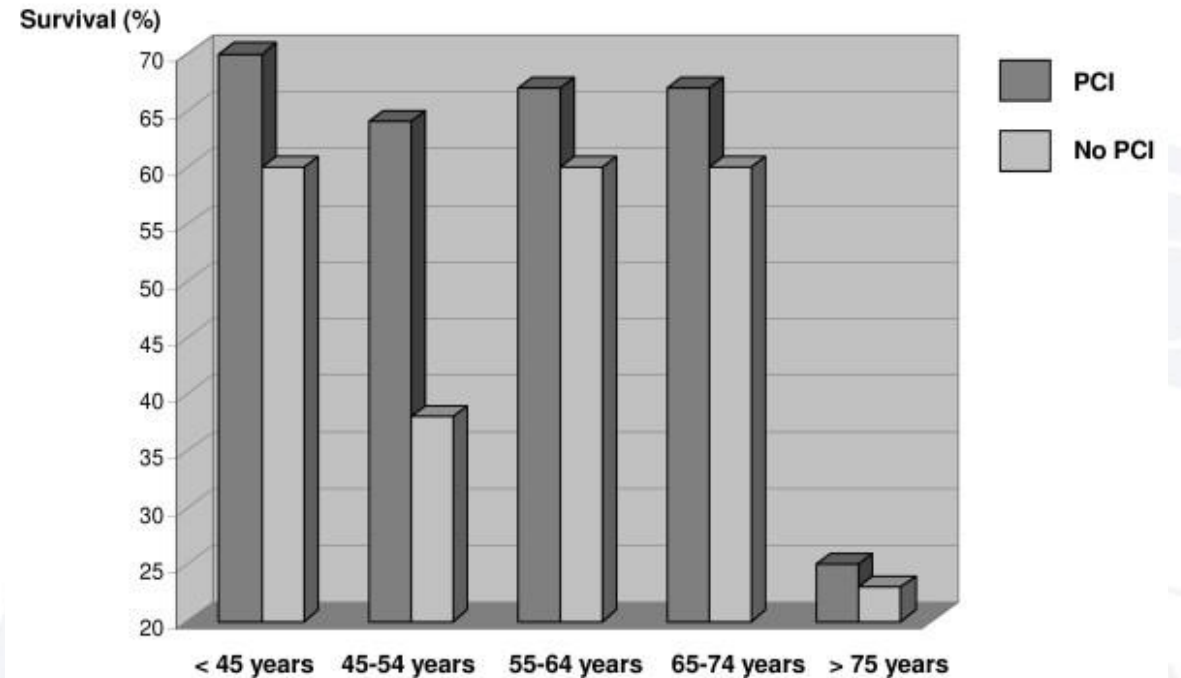


**B**



# Gaming the System

- I think we should rethink this whole Cardiac Arrest Center of Excellence Thing
  - Let's wait to see if they wake up
    - TIMI 0/1 flow in >70%
- Let's make sure we get credit for our sick patients! (AKA increase or denominator of "Shock Patients who will live")
  - "Let's just start a little dopamine till after the procedure..."
  - Analyses of whether that has been "risk averse behavior" will be confounded by these decisions



Cronier P. Impact of routine percutaneous coronary intervention after out-of-hospital cardiac arrest due to ventricular fibrillation. Critical Care 2011, 15:R122





# Our Next Priority: Exclude Cardiac Arrest

**Circulation**

JOURNAL OF THE AMERICAN HEART ASSOCIATION

August 2013

## Impact of Percutaneous Coronary Intervention Performance Reporting on Cardiac Resuscitation Centers: A Scientific Statement From the American Heart Association

Mary Ann Peberdy, Michael W. Donnino, Clifton W. Callaway, J. Michael DiMaio, Romergryko G. Geocadin, Chris A. Ghaemmaghami, Alice K. Jacobs, Karl B. Kern, Jerrold H. Levy, Mark S. Link, Venu Menon, Joseph P. Ornato, Duane S. Pinto, Jeremy Sugarman, Demetris Yannopoulos and T. Bruce Ferguson, Jr



American Heart Association®

## Cardiac Arrest

March 2016

<http://dx.doi.org>

INTERVENTIONAL COUNCIL OPINIONS

## Public Reporting of Mortality After PCI in Cardiac Arrest and Cardiogenic Shock

An Opinion From the Interventional Council and the Board of Governors of the American College of Cardiology



CATHETERIZATION  
CARDIOVASCULAR INTERVENTIONS

October 2016



Lloyd W Klein MD FSCAI <sup>1</sup>, Kishore J Harjai MD FSCAI <sup>2</sup>, Frederic S. Resnic MD MSc FSCAI <sup>3</sup>, William S Weintraub MD <sup>4</sup>, H Vernon Anderson MD FSCAI <sup>5</sup>, Robert W Yeh MD MSc FSCAI <sup>6</sup>, Dmitriy N Feldman MD FSCAI <sup>7</sup>, Osvaldo S Gigliotti MD, FSCAI <sup>8</sup>, Kenneth Rosenfeld MD FSCAI <sup>9</sup>, Peter Duffy MD FSCAI <sup>10</sup>

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# But.....Cardiac Arrest Exclusion Did Not Change Rates of Revascularization in New York

- The New York State exclusion of selected patients with cardiac arrest in 2010 did not impact rates of PCI or in-hospital mortality.
- Mortality declined in all states over time but still >40%.

## Editorial

### Public Reporting

#### Small Changes Lead to Minimal Impact

Arjun Majithia, MD; Frederic S. Resnic, MD, MSc

2006, the New York State Department of Public Health began censoring patients with refractory cardiogenic shock from analysis of operator mortality after percutaneous coronary intervention (PCI). This resulted in an increase in rates of coronary angiography and PCI and overall decline in mortality of patients presenting with cardiogenic shock.<sup>4</sup> In 2010, New York began censoring patients with cardiac arrest complicated by anoxic brain injury who subsequently died. The impact of this policy change had until now been unstudied.

#### See Article by Strom et al

In this issue of *Circulation: Cardiovascular Interventions*, Strom et al<sup>3</sup> report their evaluation of the impact of excluding patients with anoxic brain injury after cardiac arrest from analysis of operator PCI mortality in the New York State public report. This retrospective, observational study used administrative claims data from State Inpatient Databases for

Why did the introduction of an exclusion rule fail to promote increased rates of coronary angiography and PCI among patients with cardiac arrest? There are multiple possibilities, but perhaps most importantly, censoring only those patients with anoxic brain injury after cardiac arrest (rather than all patients with cardiac arrest) focused on an extremely small population of patients. In fact, only 103 patients or 0.07% of all PCI cases between 2010 and 2012 were censored based on this rule, and it may be unlikely that censoring a tiny fraction of high-risk cases would influence the treatment of all patients with AMI and cardiac arrest or assuage several physician concerns regarding the inclusion of high-risk patients in analysis of PCI mortality for public reporting—namely that risk models inadequately adjusts for patients at the extremes of risk, and that being identified as a negative outlier in the public report may have significant professional consequences.



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# Does Public Reporting Work?

QUALITY OF CARE

By Geoffrey C. Lamb, Maureen A. Smith, William B. Weeks, and Christopher Queram

## Publicly Reported Quality-Of-Care Measures Influenced Wisconsin Physician Groups To Improve Performance

### Wisconsin Collaborative for Healthcare Quality

20 physician groups; 582 affiliated clinics – voluntary reporting  
14 metrics: diabetes care, CAD, uncomplicated hypertension and screening or preventative measures

### Findings:

- 1) Improved performance in most metrics during public reporting
- 2) Physician groups motivated by public reporting

Lamb GC et al. Health Affairs 2009;39:536-43



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# Does Public Reporting Work?

## **Public release of performance data in changing the behaviour of healthcare consumers, professionals or organisations (Review)**

**Ketelaar NABM, Faber MJ, Flottorp S, Rygh LH, Deane KHO, Eccles MP**

### **Authors' conclusions**

The small body of evidence available provides no consistent evidence that the public release of performance data changes consumer behaviour or improves care. Evidence that the public release of performance data may have an impact on the behaviour of healthcare professionals or organisations is lacking.

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# CCORP Clinical Advisory Panel

- Created when Figueroa Bill became law in 2004
- Rider proposed by CA-ACC and CMA
- 9 members- 3 CMA, 3 CA-ACC, 3 consumer groups
- Membership from Kaiser since inception:
  - Tony Steimle, MD CCORP Clinical Advisor
  - Keith Flaschbart MD, Surgeon SF Kaiser
  - Hon Lee MD , Surgeon Santa Clara Kaiser
  - Ralph Brindis MD, MPH (retired)

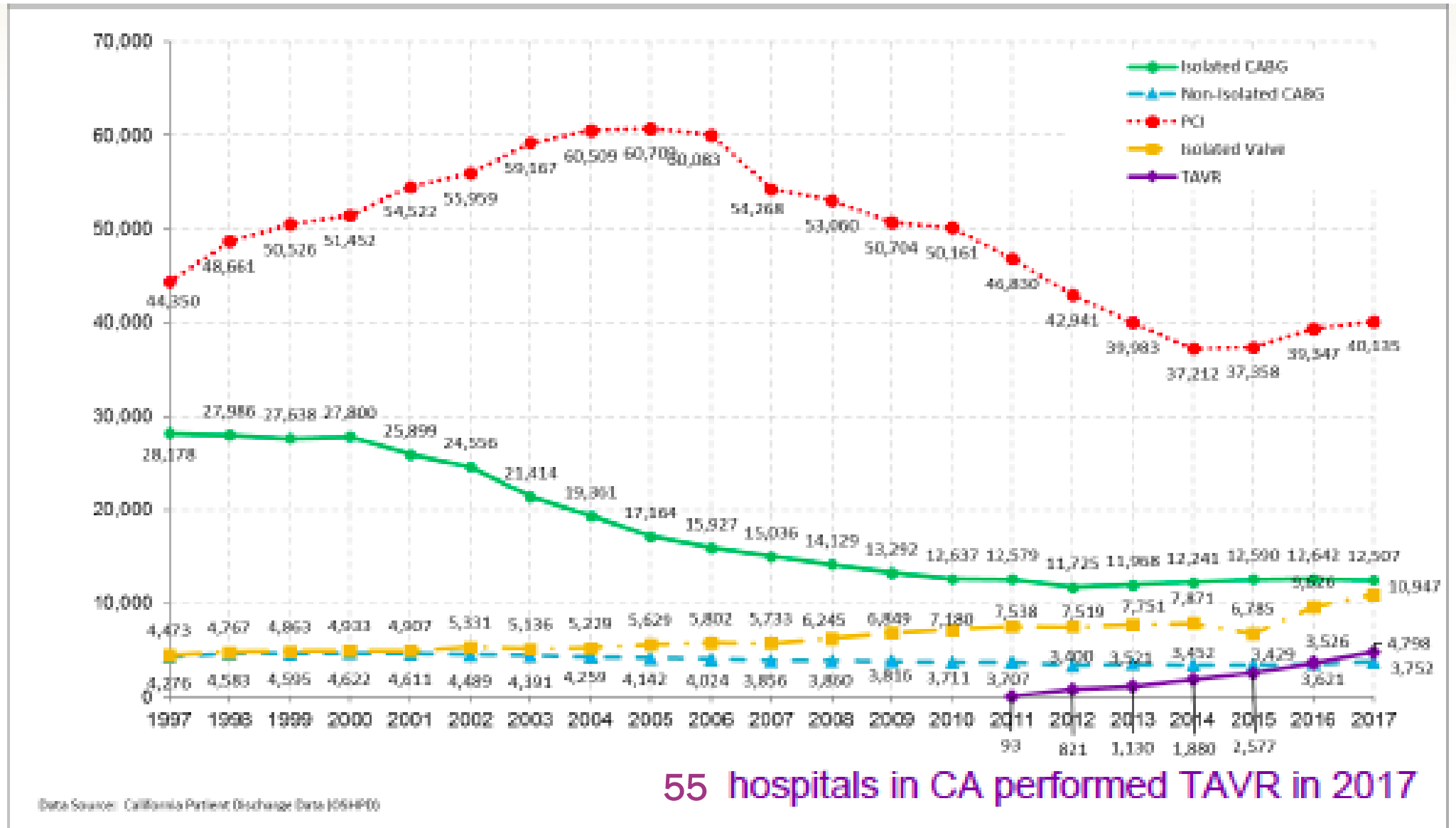


# Statutory Role of CCORP Clinical Advisory Panel

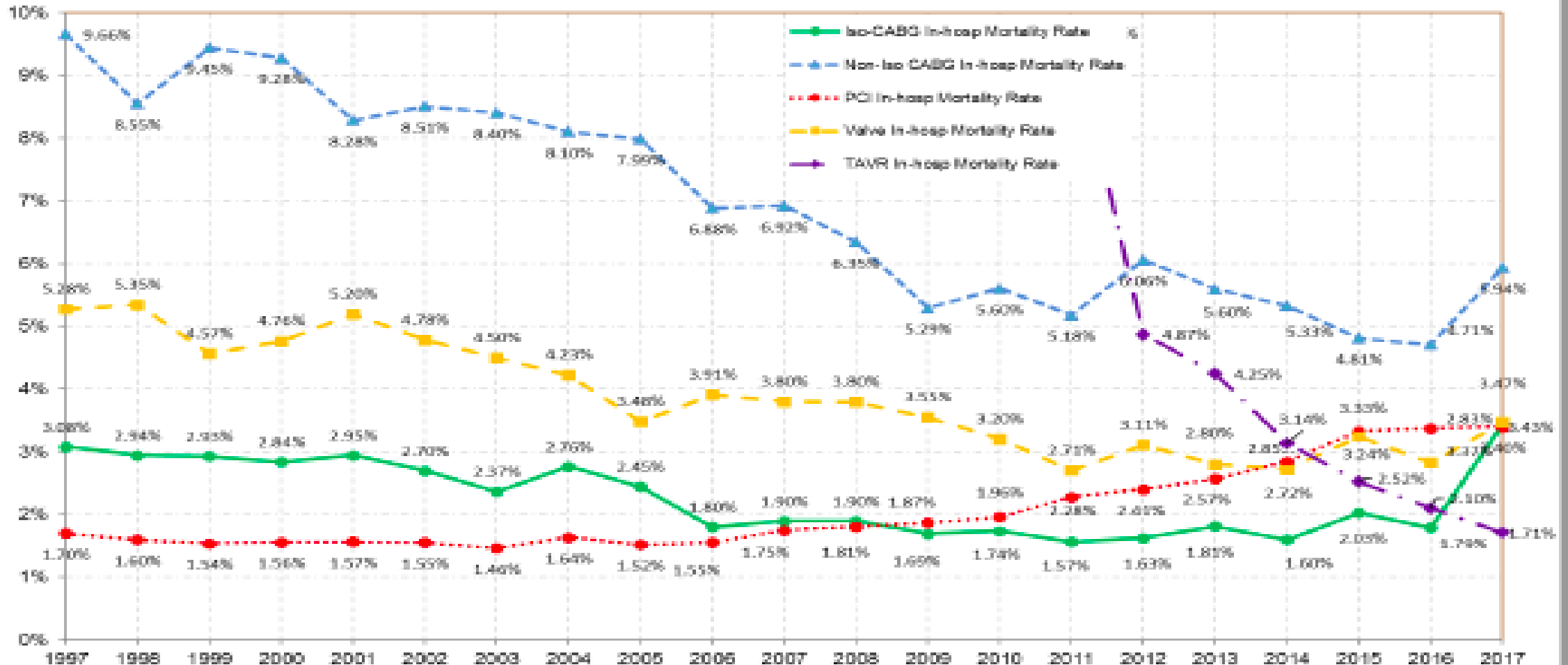
- Recommend Data Elements
- Review and Approve development of the risk-adjustment model to be used in preparation of the outcomes report
- Review Physician Statements
- Consult on Report Materials
- Advise future CV public reporting metrics



# CA Volume of CV Procedures 1997-2017



# CA In-Hospital Mortality for CV Procedures 1997-2016



Data Source: California Patient Discharge Data (OSHPD)



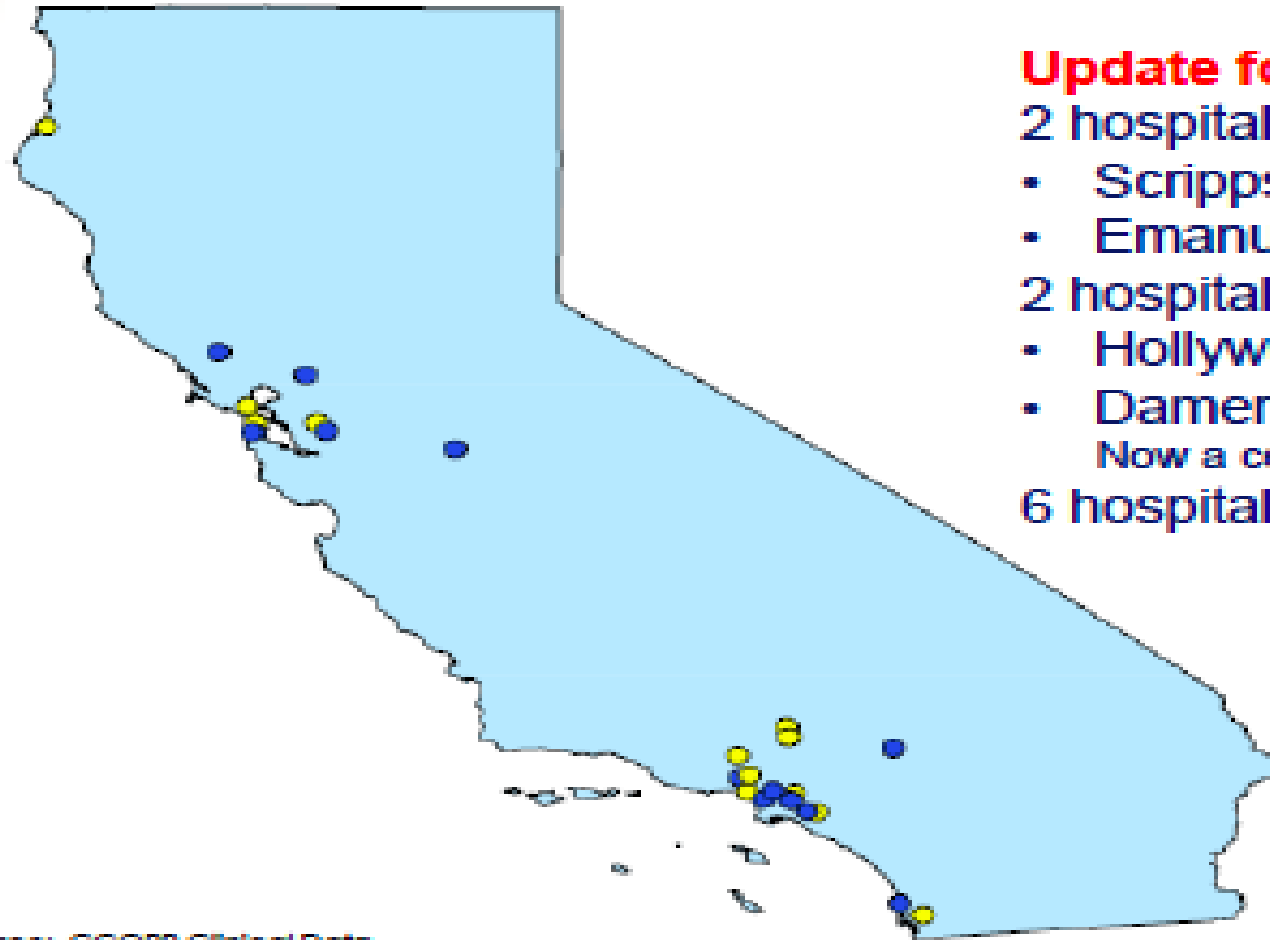
# OSHPD CA CABG Performance Ratings 2015

HOSPITAL	Isolated CABG Op. Mortality Cases(deaths) Risk-Adj Rate	CABG + Valve Op Mort 2014-2015 Cases(deaths) Risk-Adj Rate	Post-Op Stroke 2014-2015 Cases(strokes) Risk-Adj Rate	30-day Readmit 2014-2015 Cases(readmits) Risk-Adj Rate	IMA Use 2015
<b>STATE - CA</b>	12,496(313) 2.50	5,058(274) 5.42	24,727(323) 1.31	21,680(2,494) 11.50	11,664 97.5%
Kaiser SF	373(3) 1.11 Avg.	120(2) 2.57 Avg.	678(5) 0.97 Avg.	660(44) 7.52 <b>Better</b>	363 99.2%
Kaiser Santa Clara	283(6) 2.01 Avg.	181(10) 6.95 Avg.	546(6) 1.09 Avg.	518(41) 7.76 <b>Better</b>	263 100%
Kaiser Sunset	587(7) 1.39 Avg.	297(8) 2.95 Avg.	1170(18) 1.60 Avg.	1134(126) Avg.	569 99.8%
Mercy General	457 (5) 0.99 <b>Better</b>	308 (10) 3.76 Avg.	870 (14) 1.67Avg.	780 (68) 8.54 <b>Better</b>	424 98.4%



# Low Volume CABG CA Hospitals 2016

- 0-30 CABGs
- 31-40 CABGs



## Update for 2017

- 2 hospital discontinued CABG
  - Scripps Green
  - Emanuel Medical Center
- 2 hospitals moved below 40
  - Hollywood Presbyterian
  - Dameron Hospital  
Now a certified elective PCI hospital
- 6 hospitals moved above 40

Data Source: CCORP Clinical Data

# CA Elective PCI Pilot Project

<https://oshpd.ca.gov/data-and-reports/healthcare-quality/pci-reports/>

## Risk-adjusted Outcomes for California Hospitals Certified to Perform Elective Percutaneous Coronary Interventions (PCIs), 2016

Hospital	PCI Volume		Mortality <sup>1</sup>				Stroke <sup>2</sup>				Emergency Coronary Artery Bypass Graft (CABG) <sup>3</sup>			
			All PCIs		Elective PCI		All PCIs		Elective PCIs		All PCIs		Elective PCIs	
	All PCIs	Elective PCIs	# Deaths	Risk-Adjusted Rate	# Deaths	Risk-Adjusted Rate	# Strokes	Risk-Adjusted Rate	# Strokes	Risk-Adjusted Rate	# CABGs	Risk-Adjusted Rate	# CABGs	Risk-Adjusted Rate
<b>Statewide</b>	60,522	20,456	1,381	2.28*	51	0.25*	228	0.38*	26	0.13*	155	0.26*	23	0.11*
<b>Elective PCI Program Hospitals</b>	2,833	754	51	1.80*	0	0.00*	14	0.49*	0	0.00*	2	0.07*	0	0.00*
Clovis Community Medical Center	302	118	6	3.57	0	0.00	2	0.70	0	0.00	1	0.48	0	0.00
Kaiser Foundation Hospital - Rehabilitation Center Vallejo	385	117	5	1.36	0	0.00	2	0.49	0	0.00	0	0.00	0	0.00
Kaiser Foundation Hospital - Roseville	487	135	0	0.00	0	0.00	1	0.23	0	0.00	0	0.00	0	0.00
Kaiser Foundation Hospital - South Sacramento	490	75	12	2.13	0	0.00	3	0.57	0	0.00	0	0.00	0	0.00
Kaiser Foundation Hospital - Walnut Creek	395	171	6	3.08	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Los Alamos Medical Center	216	59	6	3.08	0	0.00	2	0.84	0	0.00	0	0.00	0	0.00
St. Rose Hospital	224	21	7	1.98	0	0.00	2	0.59	0	0.00	0	0.00	0	0.00
Sutter Roseville Medical Center	334	58	9	1.79	0	0.00	2	0.50	0	0.00	1	0.26	0	0.00

\* Rates for Statewide and Elective PCI Certified Hospitals are observed rates, not risk-adjusted rates

# OSHPD- CCORP Public Reporting Future??

- TAVR
- PCI
  - Elective PCI sites at present
- Cost-Value
- Appropriateness



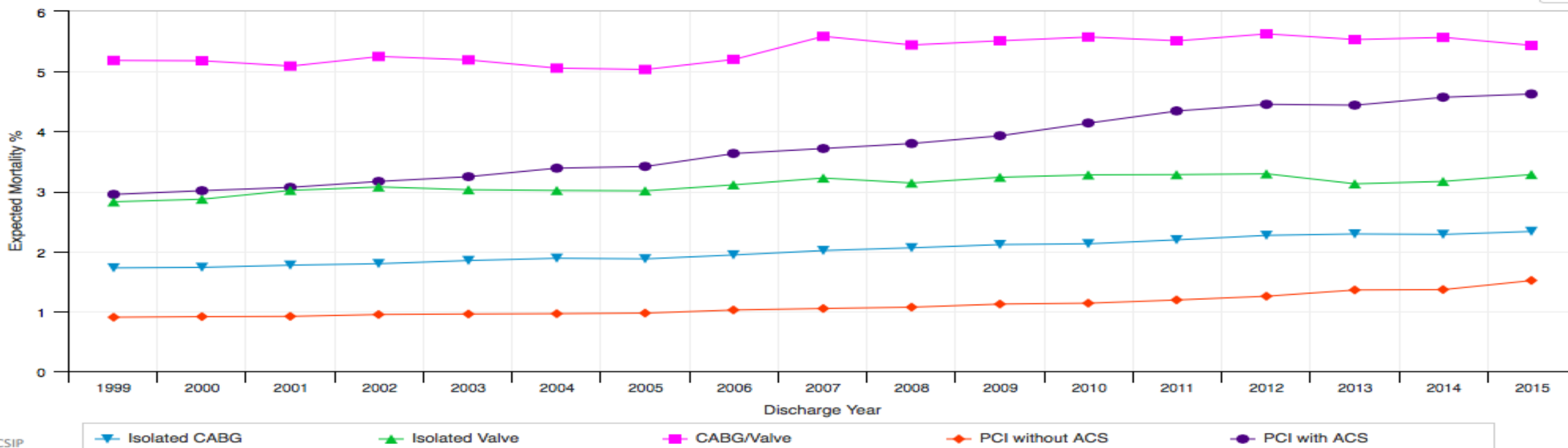
# California Cardiac Surgery Intervention Project

## California Cardiac Surgery Intervention Project

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At the same time, looking at a case mix indicator - the expected mortality rates implied by the model for the mortality outcome - the average California heart procedure patient has steadily become sicker from 1999 to 2015. This trend is particularly pronounced for patients undergoing PCI with ACS. Decreased mortality after cardiac **surgery** is therefore unlikely to be a result of procedures being performed on healthier patients, rather management of the cardiac patient has improved from 1999 to 2015. The increased mortality after PCI coupled with increasingly sicker patients undergoing the procedure needs to be explored further.

Expected Mortality for Casemix of Patients undergoing Cardiac Procedures, California, 1999-2015



Using the mortality level in 2014-2015 as a standard, mortality after isolated CABG surgery, isolated valve surgery, CABG/Valve surgery and PCI with ACS decreased significantly from 1999 to 2015. For PCI without ACS, a significant decrease in mortality occurred from 1999 to 2010, and from then on, mortality has increased back to 1999 levels.

# California Cardiac Surgery Intervention Project

## California Cardiac Surgery Intervention Project

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### Volume of All Cardiac Procedures, 2014-2015

Search:

Hospital	Region	Isolated CABG	Isolated Valve	CABG / Valve	Other Cardiac Surgery	Total Surgeries	PCI with ACS	PCI w/o ACS	Total PCIs
Kaiser Fnd Hsp - Fremont	SF Bay Area	0	0	0	1	1	76	2	78
Kaiser Fnd Hsp - Los Angeles	Los Angeles	1,176	790	319	446	2,731	1,265	1,815	3,080
Kaiser Fnd Hsp - Manteca	Central CA	0	0	0	1	1	27	18	45
Kaiser Fnd Hsp - Orange Cnty - Anaheim	Orange	0	0	0	4	4	46	17	63
Kaiser Fnd Hsp - Redwood City	SF Bay Area	0	0	0	1	1	67	10	77
Kaiser Fnd Hsp - Rehabilitation Ctr Vallejo	SF Bay Area	0	0	0	0	0	184	22	206
Kaiser Fnd Hsp - Roseville	Northern CA	0	0	0	2	2	262	30	292
Kaiser Fnd Hsp - San Francisco	SF Bay Area	673	410	122	546	1,751	1,213	1,194	2,407
Kaiser Fnd Hsp - San Jose	SF Bay Area	0	0	0	3	3	121	6	127
Kaiser Fnd Hsp - San Rafael	SF Bay Area	0	0	0	2	2	73	5	78
Kaiser Fnd Hsp - Santa Clara	SF Bay Area	525	618	180	216	1,539	1,796	1,643	3,439
Kaiser Fnd Hsp - South Sacramento	Northern CA	0	0	0	12	12	246	31	277
Kaiser Fnd Hsp - Walnut Creek	SF Bay Area	0	0	0	0	0	325	461	786

# Conclusion

- Public reporting is here to stay and will likely expand.
- Public reporting spurs quality improvement and is a good thing with some bad consequences
- As currently practiced, it is associated with clinical decisions that withhold care from patients who need it the most



# Conclusion

- Public reporting doesn't help patients make more informed decisions regarding emergent conditions
- Most physicians believe risk avoidant behavior stems from public reporting
- Data collection and analysis needs to be rigorous
- Continuous physician engagement improves the process but many remain skeptical that mortality outcomes truly represent quality of PCI





# Public Reporting- Clinicians role

## Improvements in risk classification for high-risk PCI:

- Massachusetts: compassionate use and exceptional risk categories
- NY: exclusion of pre-procedural shock or who die from hypoxic brain injury

## Need to improve classification and reporting

- Identification of patients with OHCA, hemodynamic instability, or high-surgical risk
- Inclusion of an overall quality review with PCI reporting, not just a report card score
- Monitoring of access to care for high risk patients
- Developing a reporting consortium that crosses state lines

## Engagement around public reporting system

- Educate the public on how to interpret available data
- Engage interventional cardiology community in CQA and CQI programs





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