

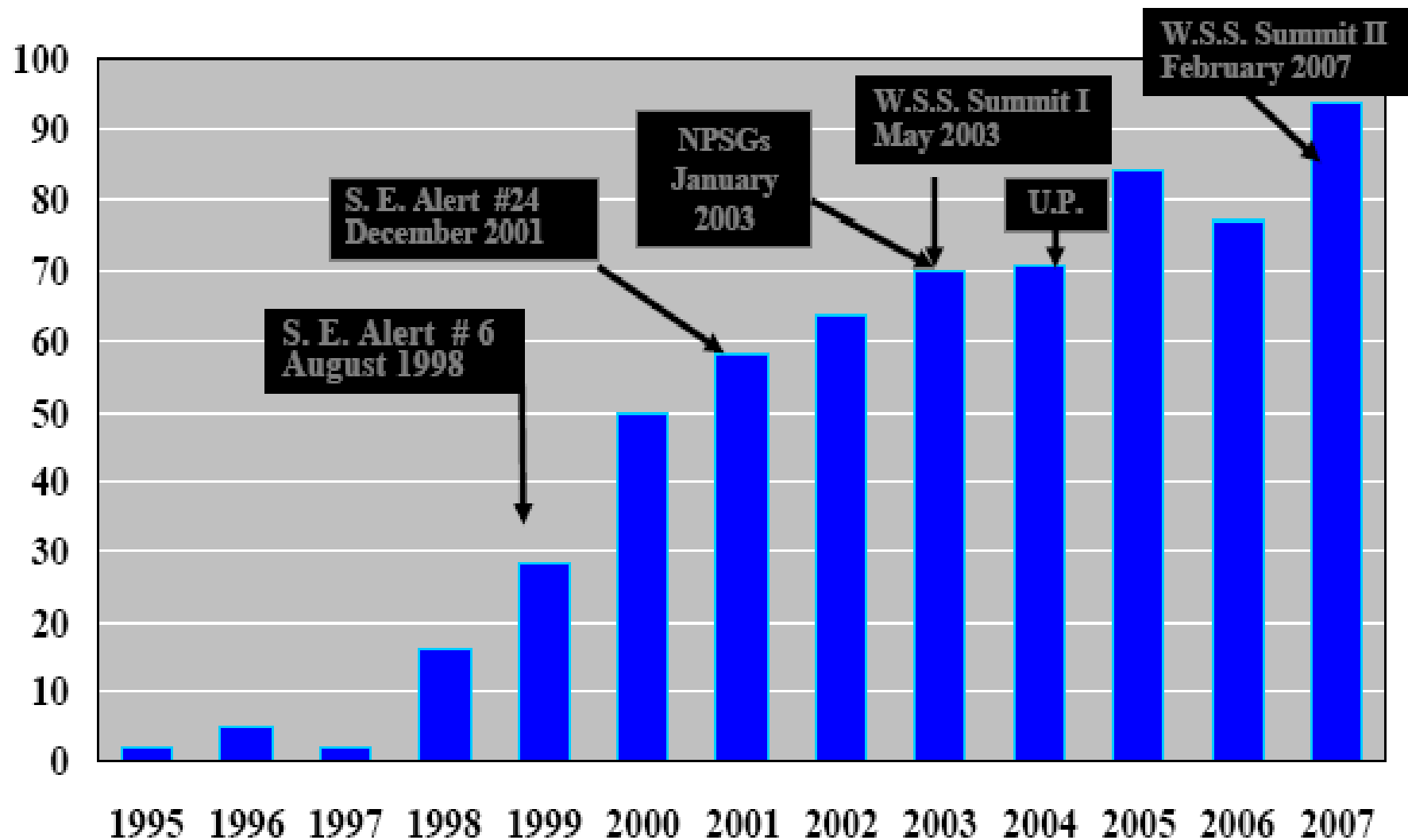
# Eliminating CLABSI: a model for reducing preventable harm

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I Will ...



# Wrong-site Surgeries Reviewed by Year







# Improving Care

## CUSP

1. Educate staff on science of safety
2. Identify defects
3. Assign executive to adopt unit
4. Learn from one defect per quarter
5. Implement teamwork tools

## Translating Evidence Into Practice (TRIP)

1. Summarize the evidence in a checklist
2. Identify local barriers to implementation
3. Measure performance
4. Ensure all patients get the evidence
  - Engage
  - Educate
  - Execute
  - Evaluate

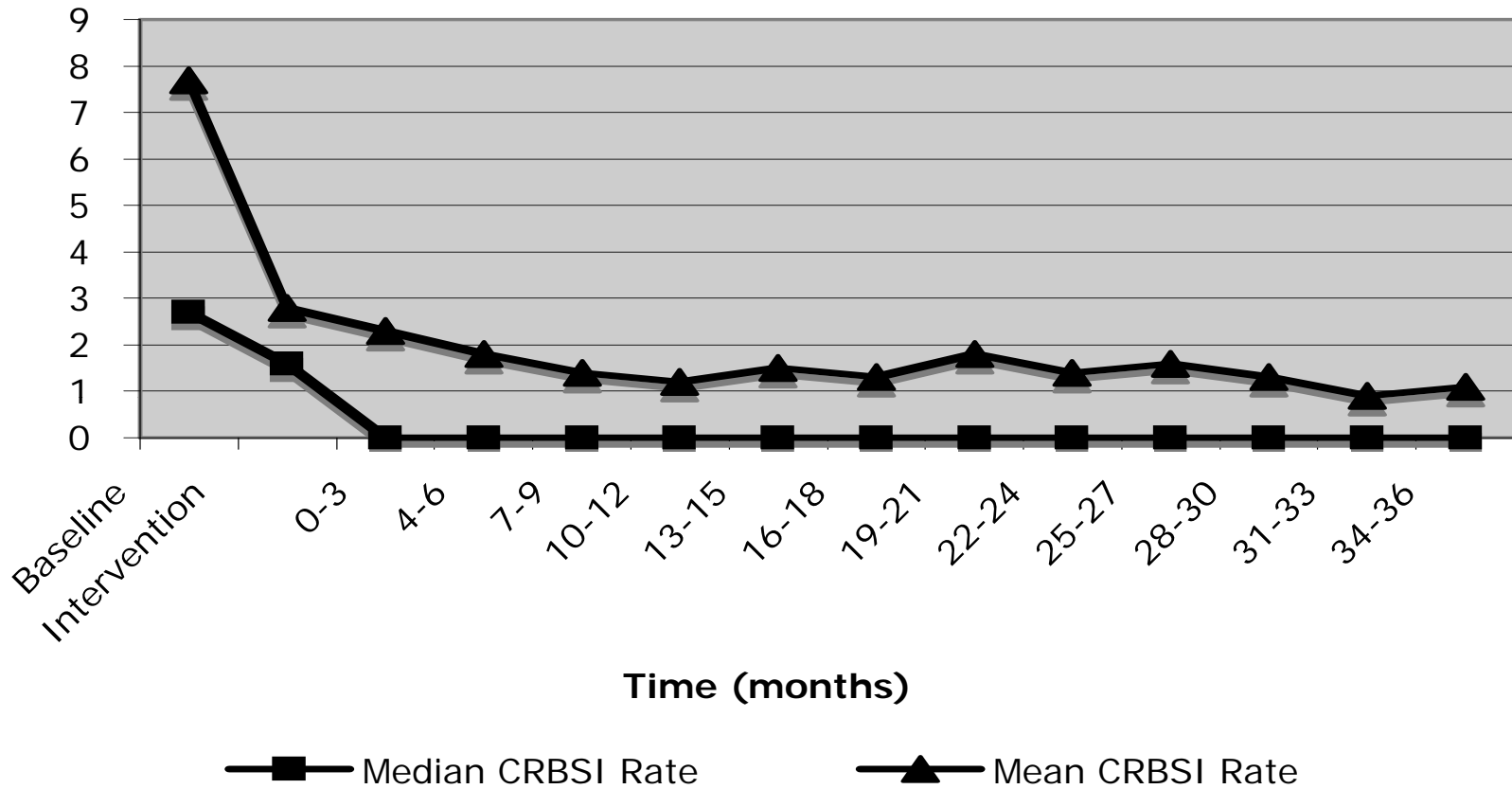
[www.safercare.net](http://www.safercare.net)

# Chain of ownership

	Senior leaders	Team leaders	Staff
Engage	<i>How does this make the world a better place?</i>		
Educate	<i>What do we need to do?</i>		
Execute	<i>What keeps me from doing it?</i> <i>How can we do it with my resources and culture?</i>		
Evaluate	<i>How do we know we improved safety?</i>		

Pronovost: Health Services Research 2006

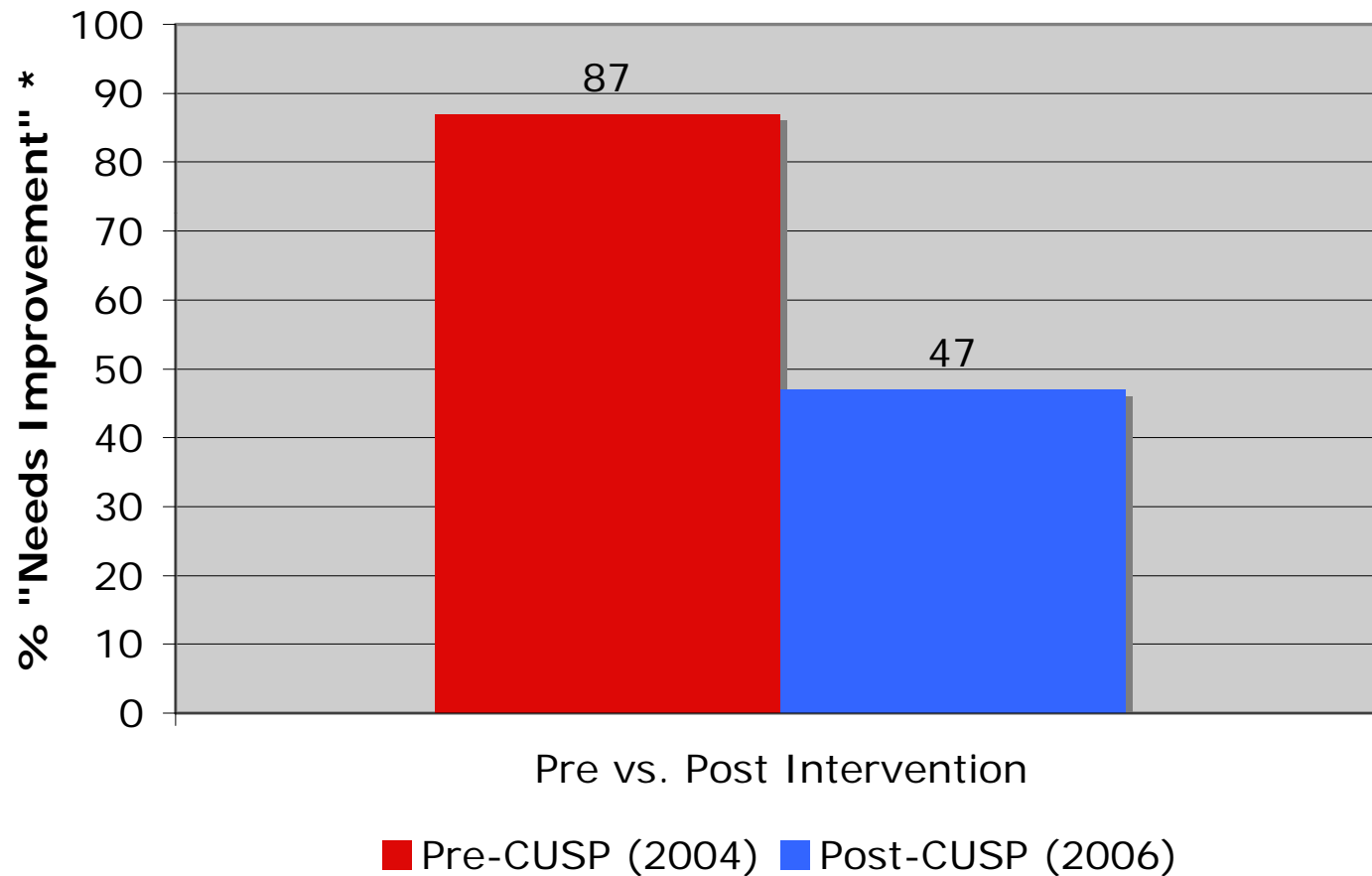
## Median and Mean CRBSI Rate



Pronovost NEJM 2006: Pronovost BMJ 2010: Sawyer CCM2010

# Michigan ICU Safety Climate Improvement

Effect of CUSP on Safety Climate

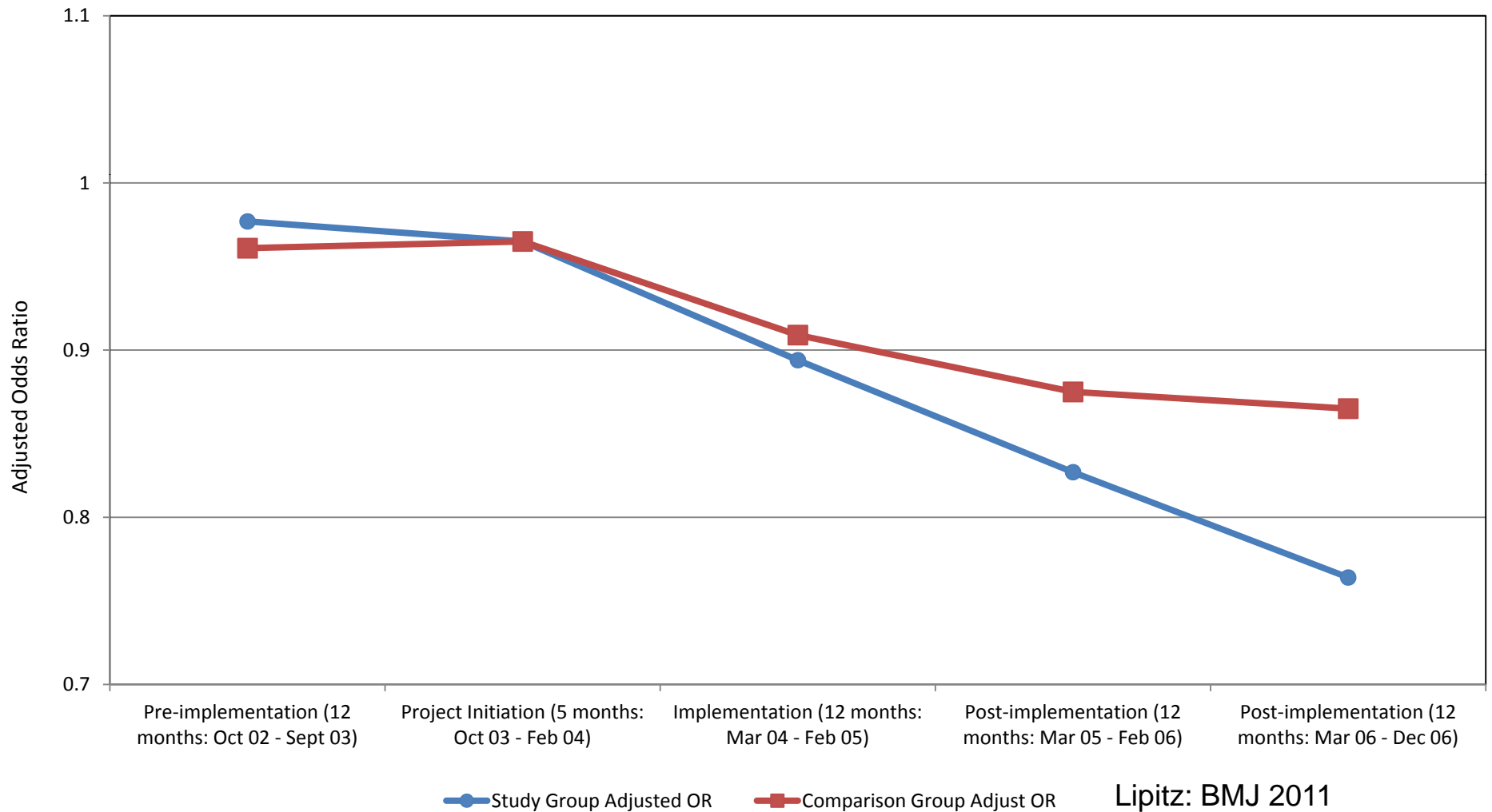


\* "Needs Improvement" - Safety Climate Score <60%

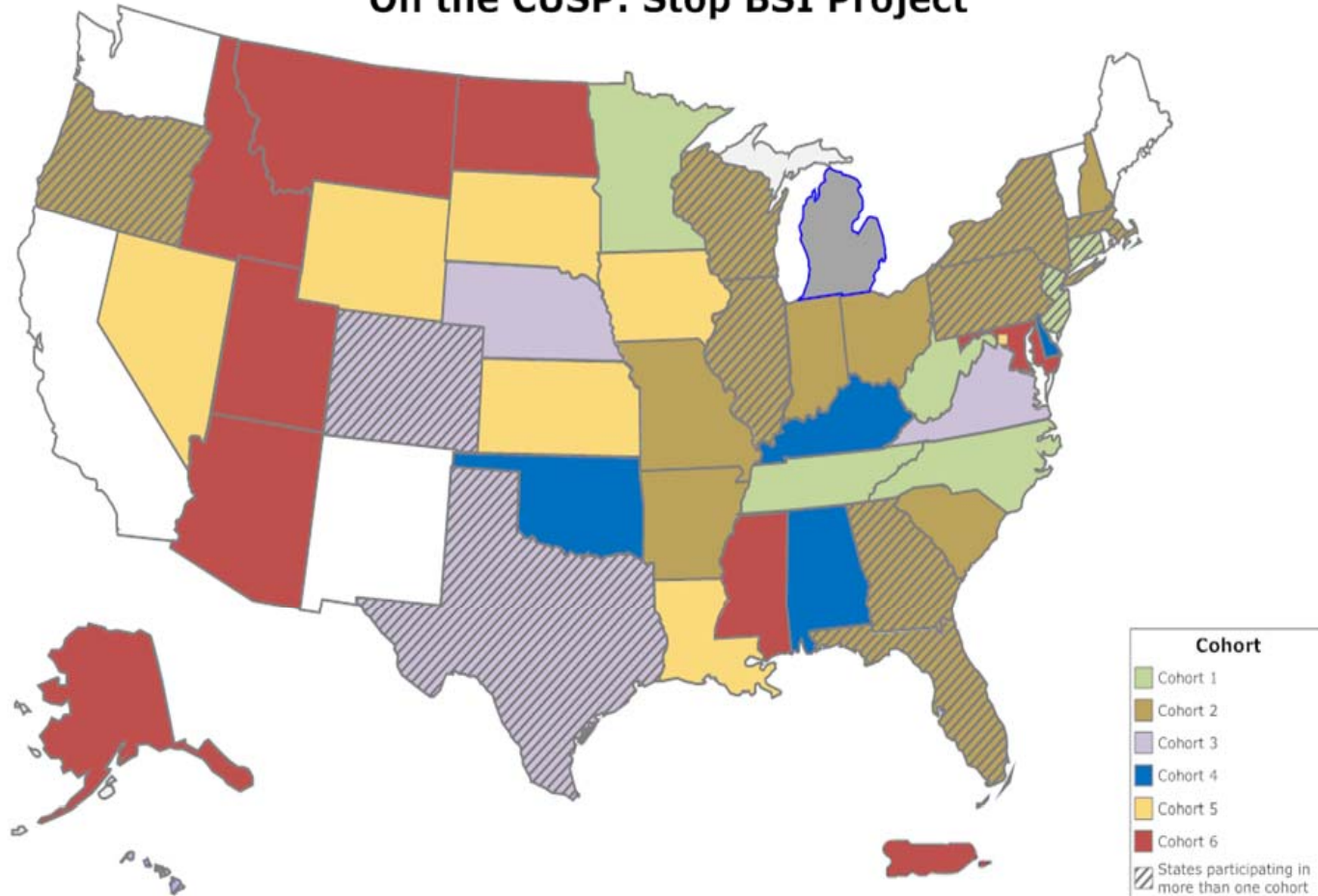
CCM 2011

# Impact of Statewide Quality Improvement Initiative on Hospital Mortality

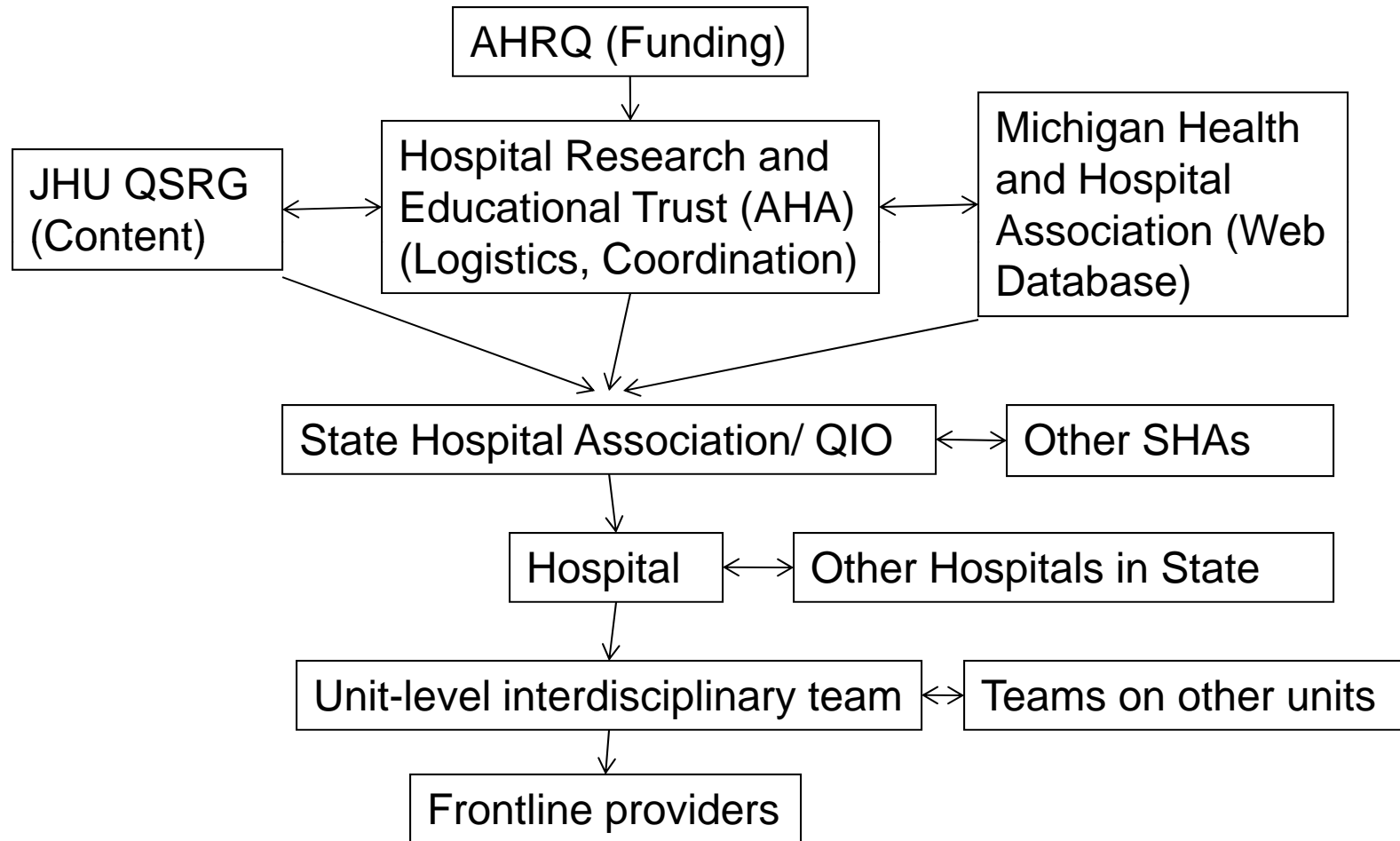
Impact of Michigan Keystone Project on Hospital Mortality



## State Participation in the On the CUSP: Stop BSI Project

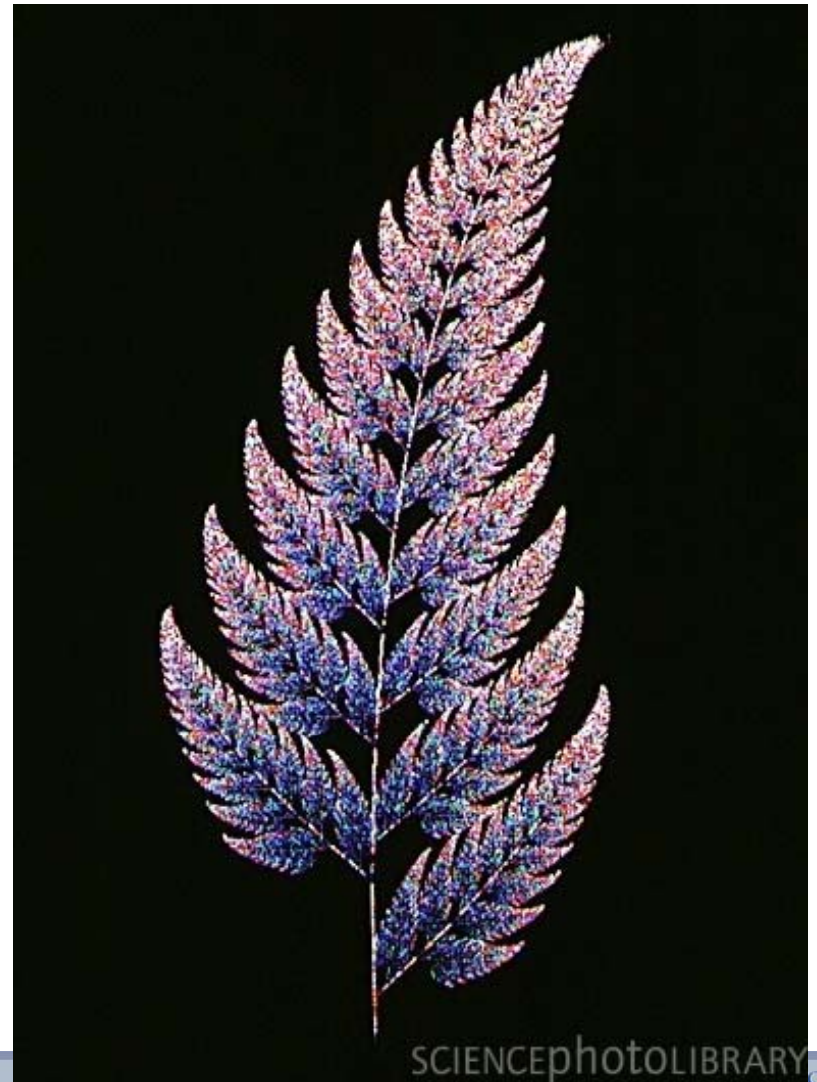


# Structure of the Program

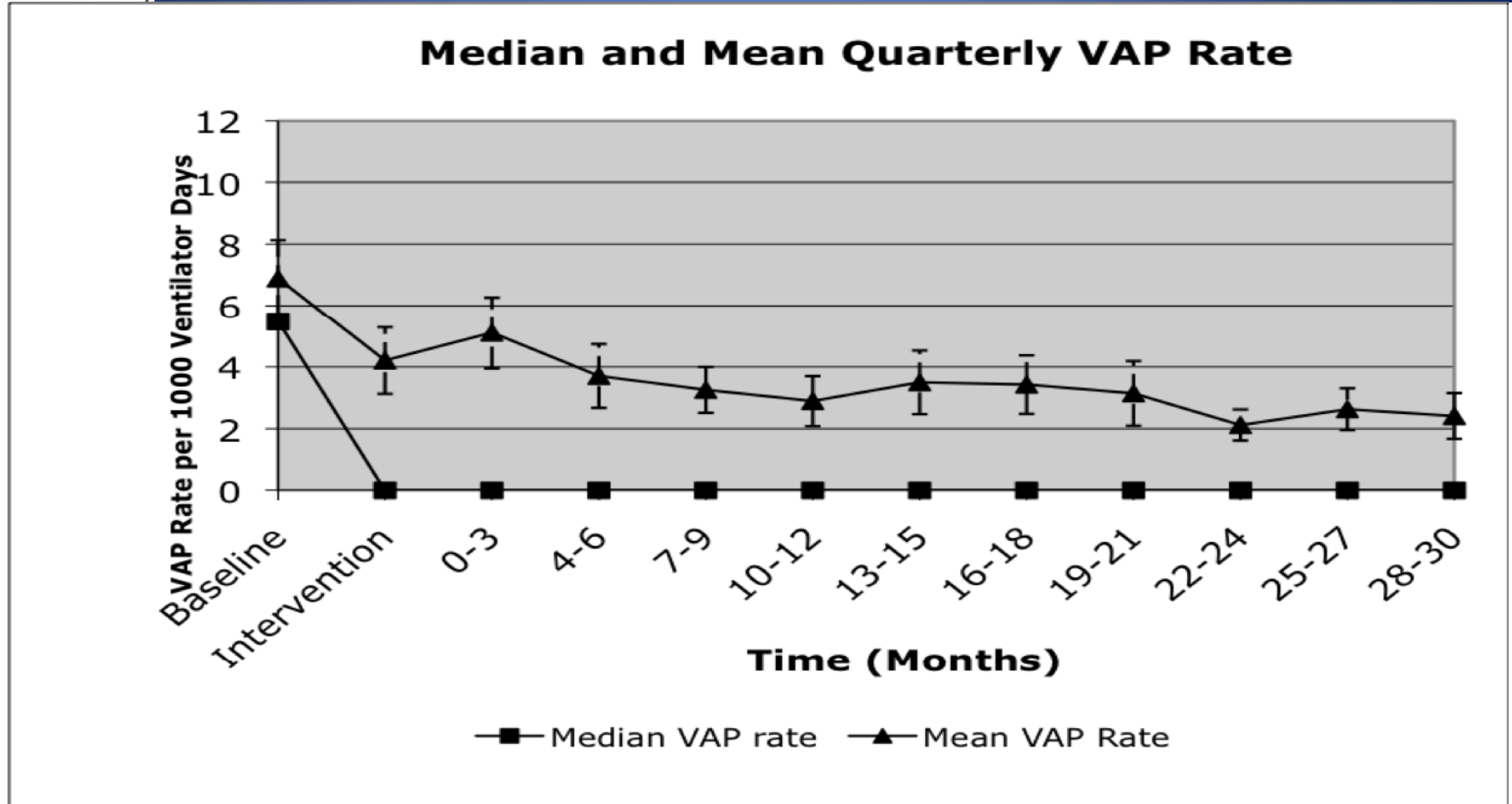


# Fractal-

- A fractal is the same geometric pattern repeated in different sizes and shapes.
- Each piece is part of the whole.



# Michigan Keystone ICU



Infect Control Hosp Epidemiol 2011;32(4):epub

# Getting to 0 in a Hospital

- CEO commits to 0
- ICU leaders accountable, know rates, commit to 0
- ICU makes it easy to comply with checklist
- ICU empowers nurses to ensure compliance
- ICU reviews every infection as a defect
- ICU standardizes, audits, and improves catheter maintenance
- ICU posts and discuss infection rates weeks without an infection

# Why Did This Work

- Started with goal and worked backwards
- Kept score with measure clinicians believed valid
- Guided by science, phase 1, 2, 3
- Committed to collaborate
- Modified locally to fit context
- Focused on adaptive work
- Framed CLABSI as a social program capable of being solved
- Created a community

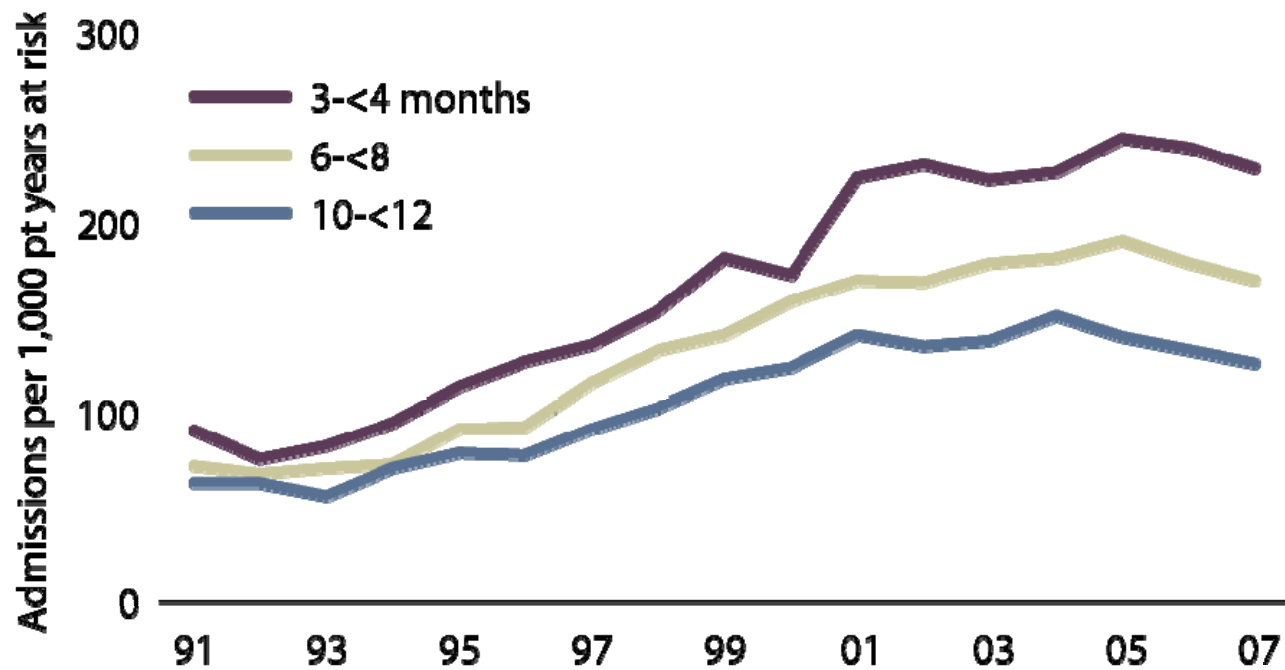
*Laws and the enforcement of laws, important though they are, can never substitute for the character of the citizens themselves*

# Lessons about checklists

- View checklists as one component of a broader intervention (TRIP model to identify barriers)
- Link checklists in time and space
- Reduce ambiguity
- Get ground truth
- Encourage local adaptation

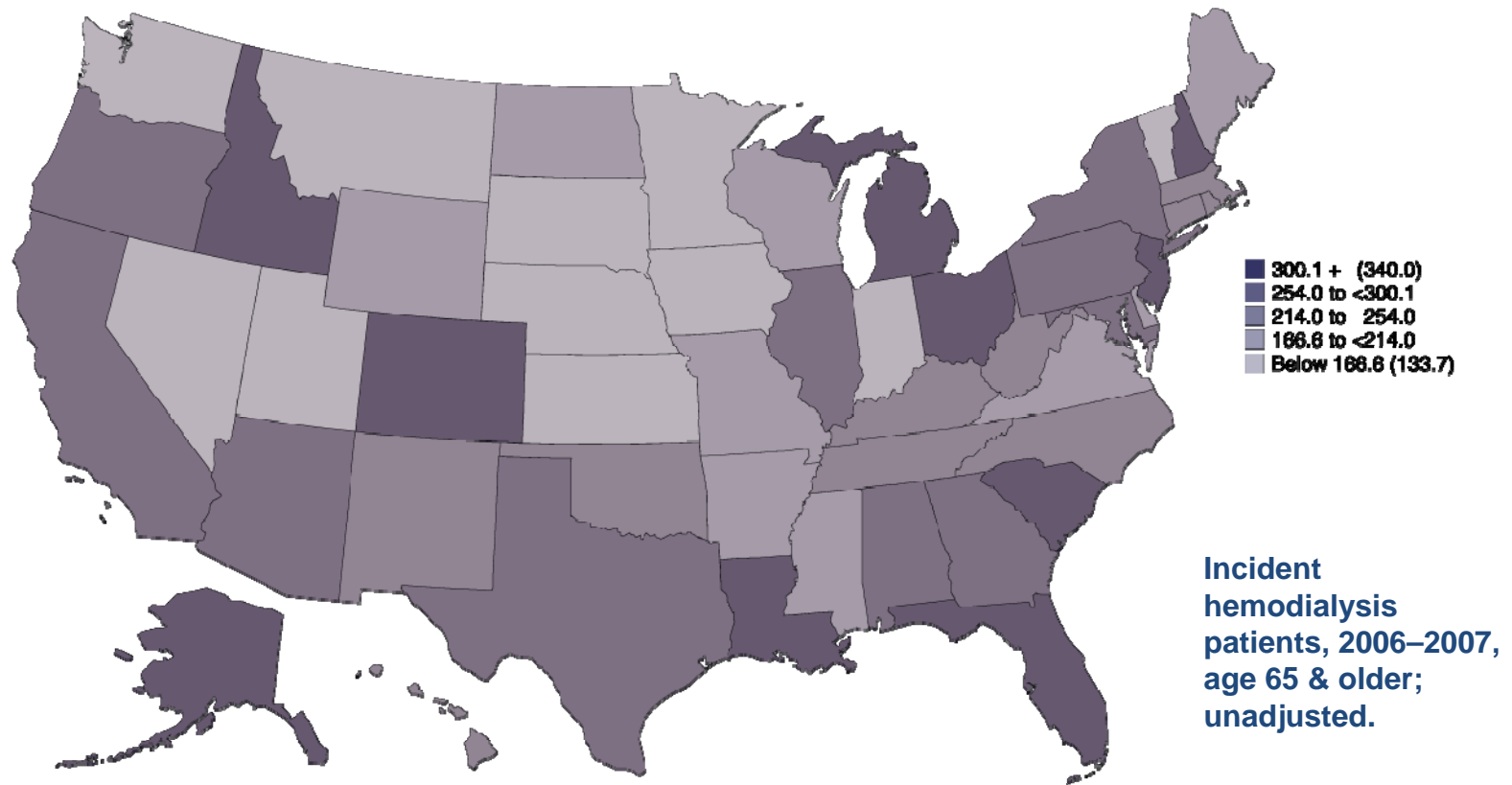
# Adjusted rates of admission for vascular access infections in the first year of hemodialysis, by month

Figure 1.6 (Volume 2)



Incident hemodialysis patients, age 20 & older. Adj: age/gender/race/primary diagnosis.

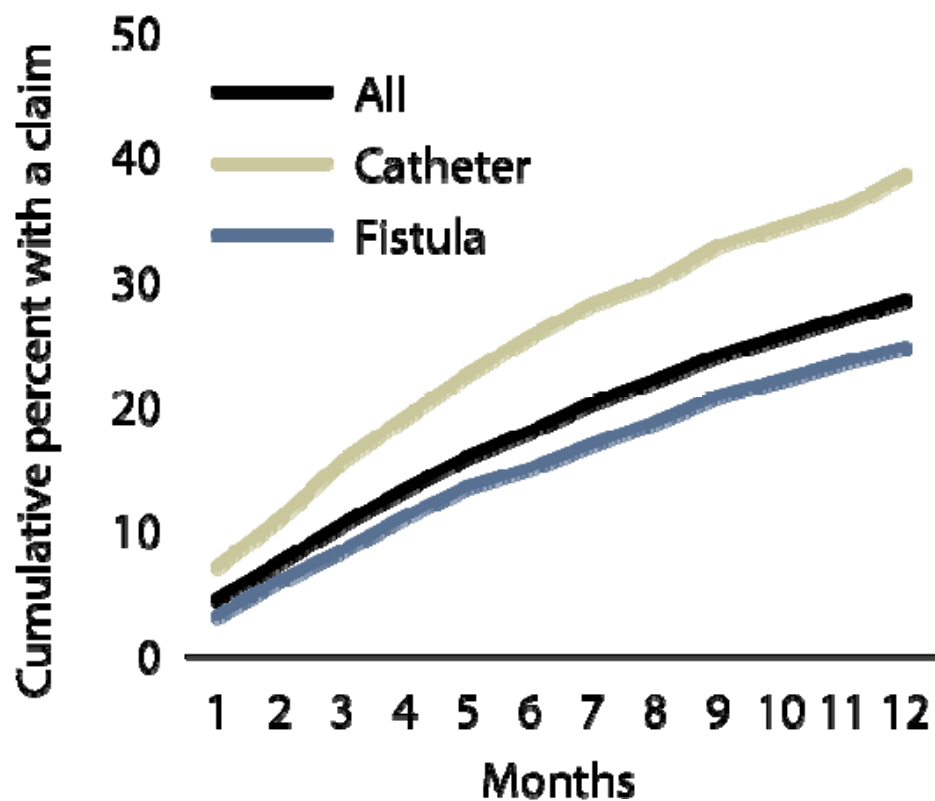
Unadjusted rates of admission for vascular access infection in the first six months of hemodialysis (per 1,000 patient years), by state, 2006–2007  
patients: Catheter only  
Figure 1.14 (continued; Volume 2)



# Cumulative percent of prevalent hemodialysis patients with a culture

claim during the year, by access, 2007

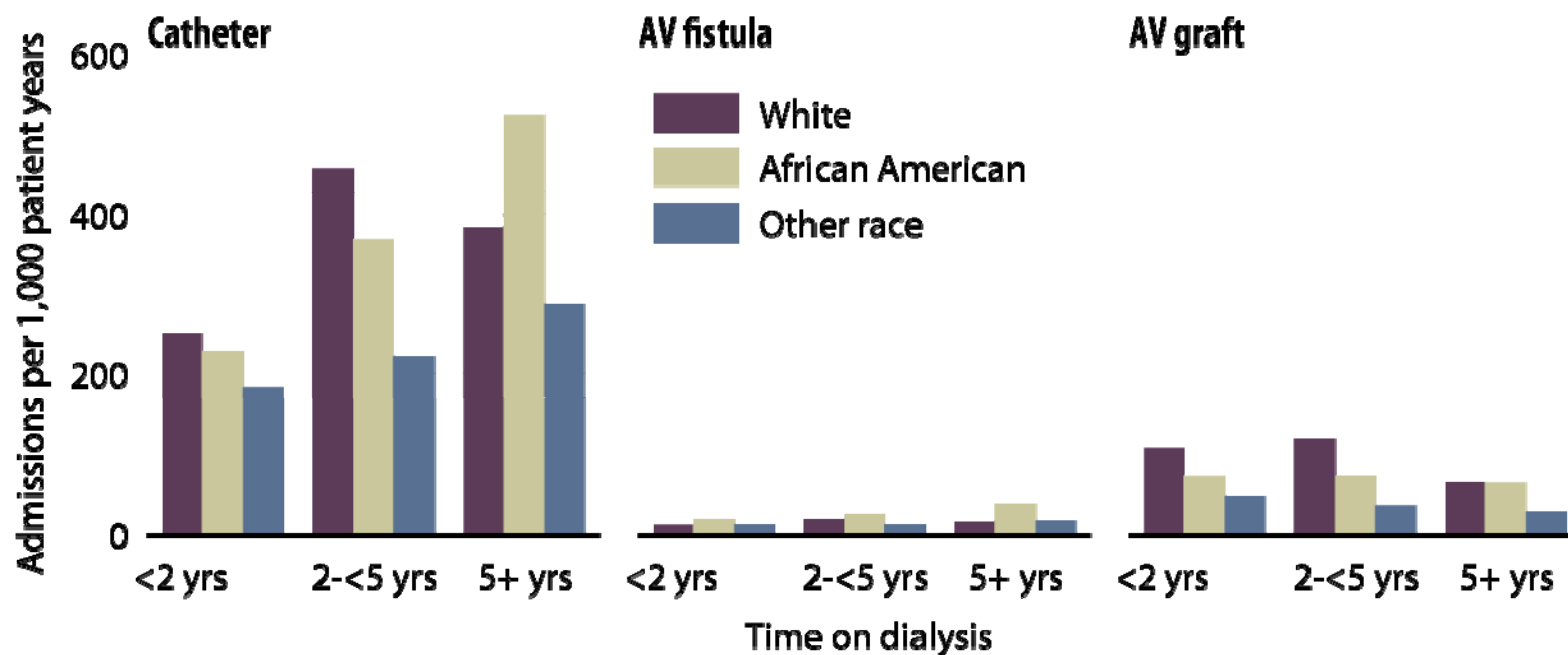
Figure 1.21 (Volume Two)



January 1 point prevalent hemodialysis patients with Part D coverage who are also in the ESRD CPM database. Access represents the current access recorded in the 2008 ESRD CPM data.

# Adjusted rates of admission for vascular access infection in prevalent patients, by access type, race, & vintage, 2008

Figure 1.23 (Volume Two)



Prevalent hemodialysis patients, age 20 & older, reaching day 90 of ESRD on or before October 1, 2007, & followed for admissions in 2008; ESRD CPM & Medicare claims data. Adj: age/gender/ primary diagnosis.

# Collaborate

- Let us commit to work together to eliminate CLABSI in ESRD patients
- Let us create a learning community
- Let us keep score and be guided by science to eliminate CLABSI
  
- Most importantly, let us believe
  
- Believe we can do this



I Will ...



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