Quality Leadership Summit

Achieving Breakthrough Performance
in Rural Health Quality

December 2010

Jeff Spade, FACHE
Executive Director, NC Center for Rural Health
Innovation and Performance
Vice President, NCHA
jspade@ncha.org

North Carolina Hospital Association

NCHA

Acknowledgements

The Duke Endowment

NC Office of Rural Health

Institute for Healthcare Improvement

Leadership for Breakthrough Performance

- **NC CAH and Small Rural Hospital Performance Improvement Portfolio**

- **NC Rural Hospital Lean Transformation Collaborative**

- **Leadership for Improvement: Models and Principles**

- **Observations and Lessons-Learned**

Breakthrough Performance

Fundamentally, the only way to achieve exceptional performance in any complex organization ..... is by generating, then sustaining, high speed, broad-based, non-stop improvement and innovation.

Stephen Spear

Why Breakthrough Performance in Rural Health?

Because In Rural Hospitals, We Can Lead:

- **Quality of Care and Patient Safety**
- **High Value Customer Service**
- **Cost Effectiveness and Efficiency**

Adopting a Quality Improvement Culture Drives Breakthrough Performance !!!

NC Rural Hospital Performance Improvement Portfolio

- **CMS Core Measures (inpatient & outpatient)**
- **Board Quality Curriculum**
- **340B Drug Program**
- **AHRQ Culture of Patient Safety Survey**
- **HIT Strategic Plan**
- **Lean Culture Transformation Collaborative**

Quality Assessment Tool (HLQAT)
- **Trauma, Cardiac and Stroke System Development**
- **Pediatric Emergency Care Pilot**
- **Community Paramedic Program**
- **Telehealth**

- **HCAHPS**

North Carolina Office of Rural Health and Community Care
Department of Health and Human Services

Core Measure Improvement Collaborative

- **Commitment by 30 small, rural hospitals to improve core measure performance.**

- **Working to accomplish 95% process reliability.**

- **Partnership with NC Office of Rural Health, NCHA and CCME.**

- **Small, rural hospitals will enroll in the Hospital Outpatient Quality Data Reporting Program by submitting data for 11 quality measures for Acute Myocardial Infarction (AMI), Chest Pain (CP), Surgery, and Imaging Efficiency Measures.**

- **Purpose:** Small, rural hospitals working together to achieve high reliability in CMS core measures.

- **Outcomes:** Over 200% improvement in pneumonia care and more than 120% improvement in heart failure care.
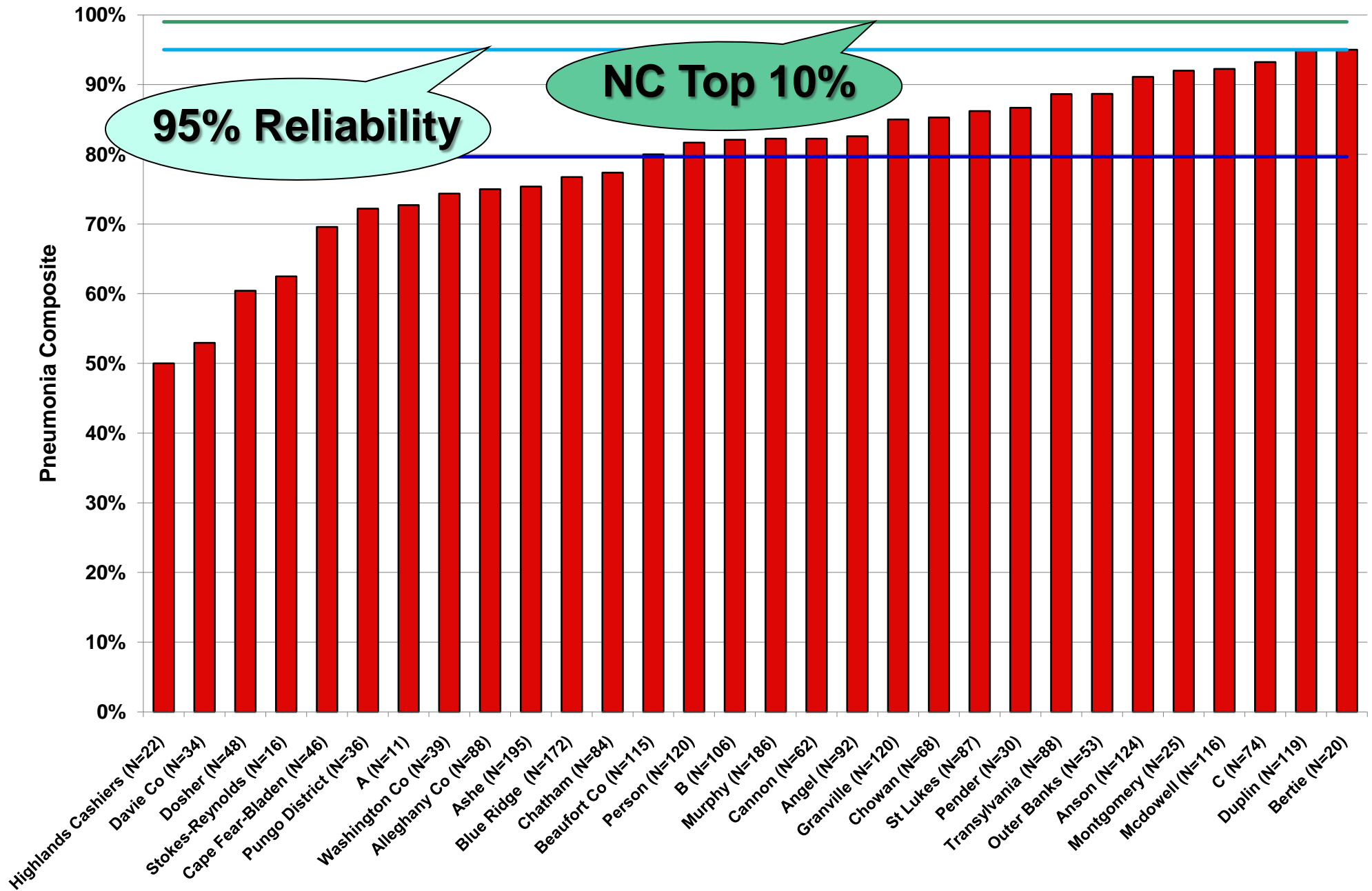
North Carolina
Office of Rural Health
and Community Care
Department of Health and Human Services

North Carolina Hospital Association

Outpatient Quality Measures

OP-1   **Median Time to Fibrinolysis**

OP-2   **Fibrinolytic Therapy Received Within 30 Minutes of ED Arrival**

OP-3   **Median Time to Transfer to Another Facility for Acute Coronary Intervention**

OP-4   **Aspirin at Arrival**

OP-5   **Median Time to ECG**

OP-6   **Prophylactic Antibiotic Initiated Within One Hour Prior to Surgical Incision**

OP-7   **Prophylactic Antibiotic Selection for Surgical Patients**

OP-8   **MRI Lumbar Spine for Low Back Pain**

OP-9   **Mammography Follow-up Rates**

OP-10   **Abdomen CT Use of Contrast Material**

OP-11   **Thorax CT Use of Contrast Material**

Pneumonia Composite Score
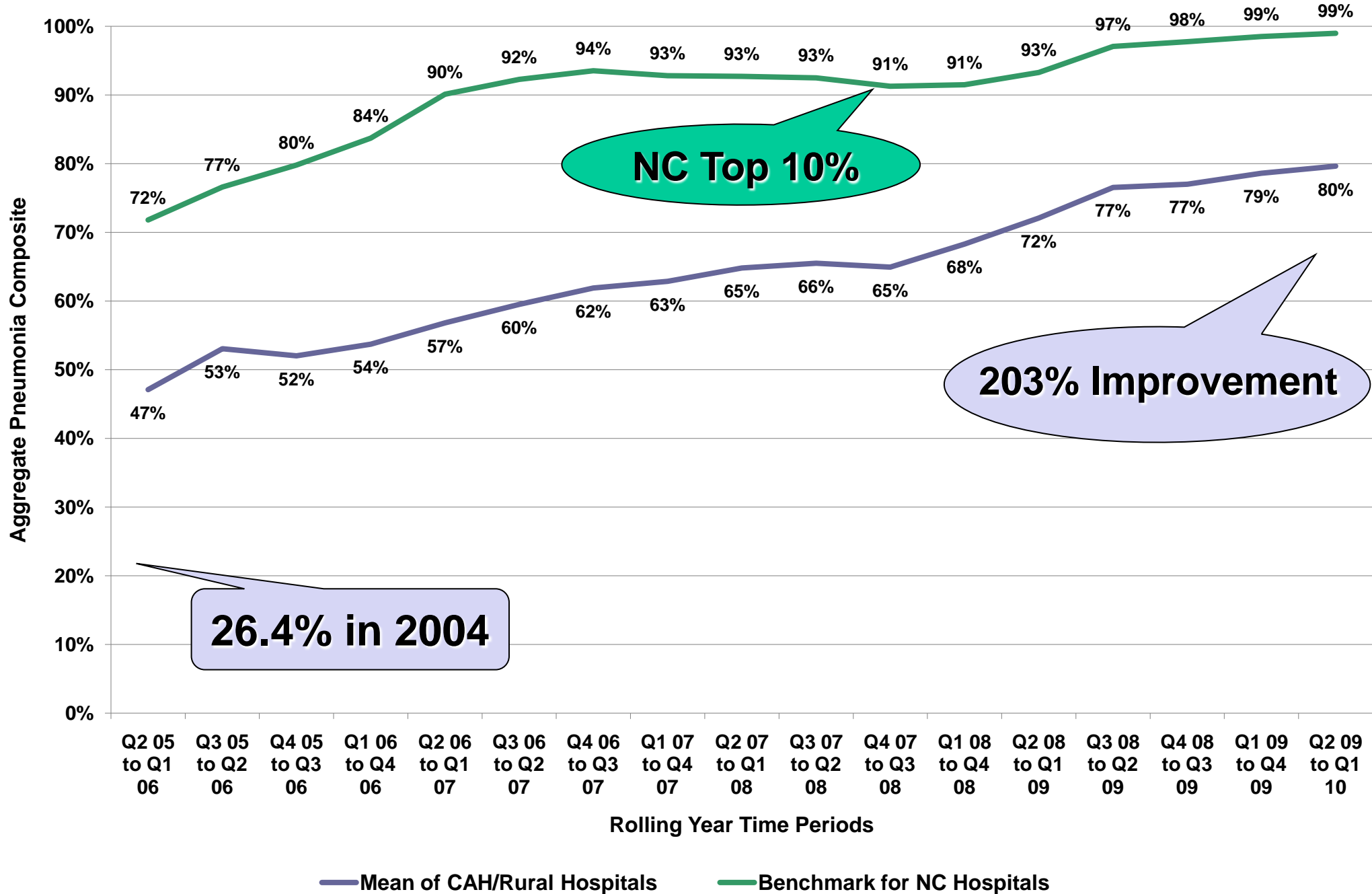Time Period: April 2009 through April 2010

Pneumonia Trend
Composite Aggregate

Aggregate Pneumonia Composite

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Benchmark for NC Hospitals (green line): 72%, 77%, 80%, 84%, 90%, 92%, 94%, 93%, 93%, 93%, 91%, 91%, 93%, 97%, 98%, 99%, 99%

Mean of CAH/Rural Hospitals (purple line): 47%, 53%, 52%, 54%, 57%, 60%, 62%, 63%, 65%, 66%, 65%, 68%, 72%, 77%, 77%, 79%, 80%

NC Top 10%

203% Improvement

26.4% in 2004

Rolling Year Time Periods

Q2 05 to Q1 06, Q3 05 to Q2 06, Q4 05 to Q3 06, Q1 06 to Q4 06, Q2 06 to Q1 07, Q3 06 to Q2 07, Q4 06 to Q3 07, Q1 07 to Q4 07, Q2 07 to Q1 08, Q3 07 to Q2 08, Q4 07 to Q3 08, Q1 08 to Q4 08, Q2 08 to Q1 09, Q3 08 to Q2 09, Q4 08 to Q3 09, Q1 09 to Q4 09, Q2 09 to Q1 10

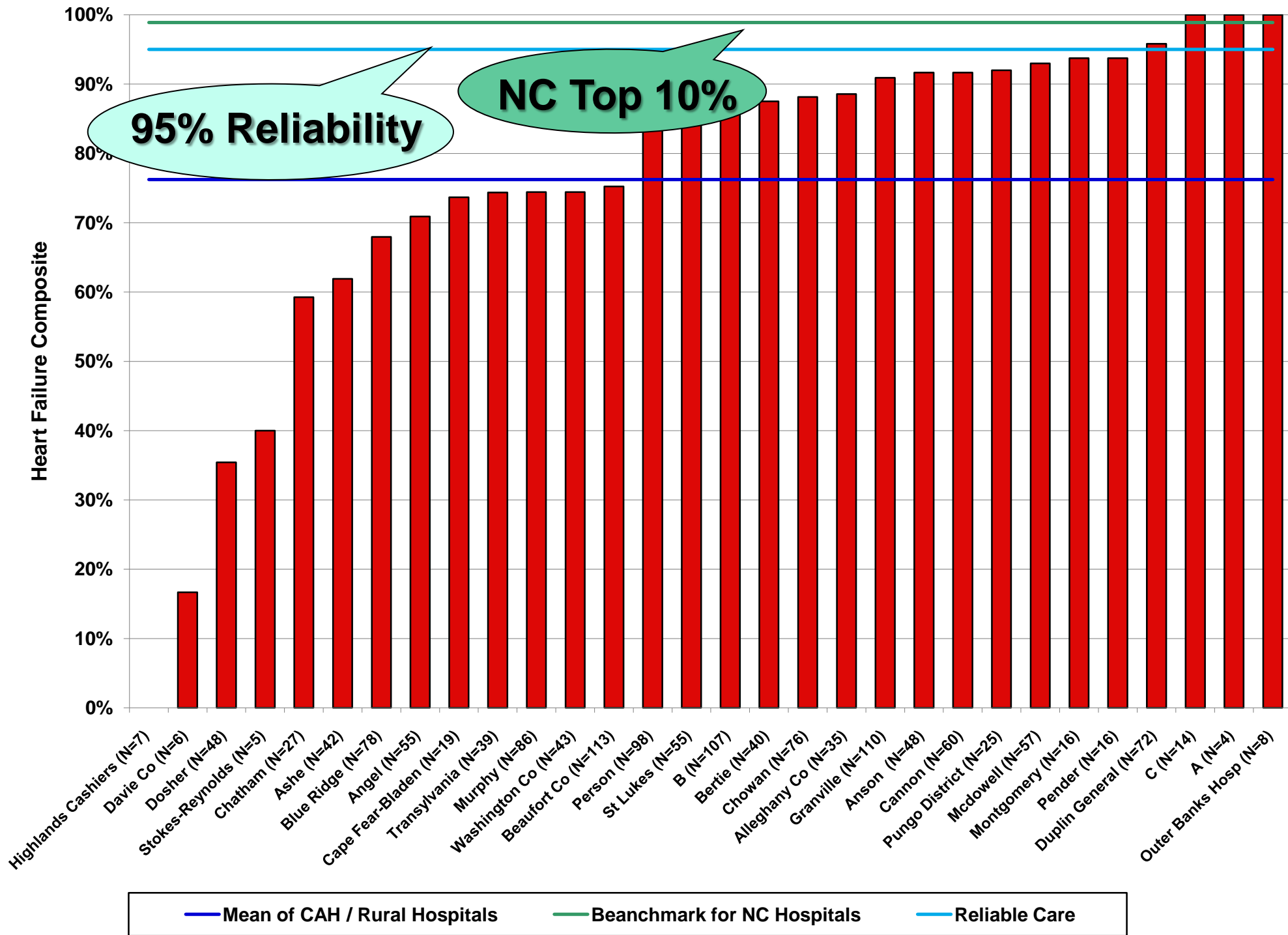—— **Mean of CAH/Rural Hospitals**   —— **Benchmark for NC Hospitals**

NOTE: The data points represented here represent the group of hospitals and the makeup of the composite at the time that time frame was originally ran. Changes to the measure definition and group defintion have occured over time.
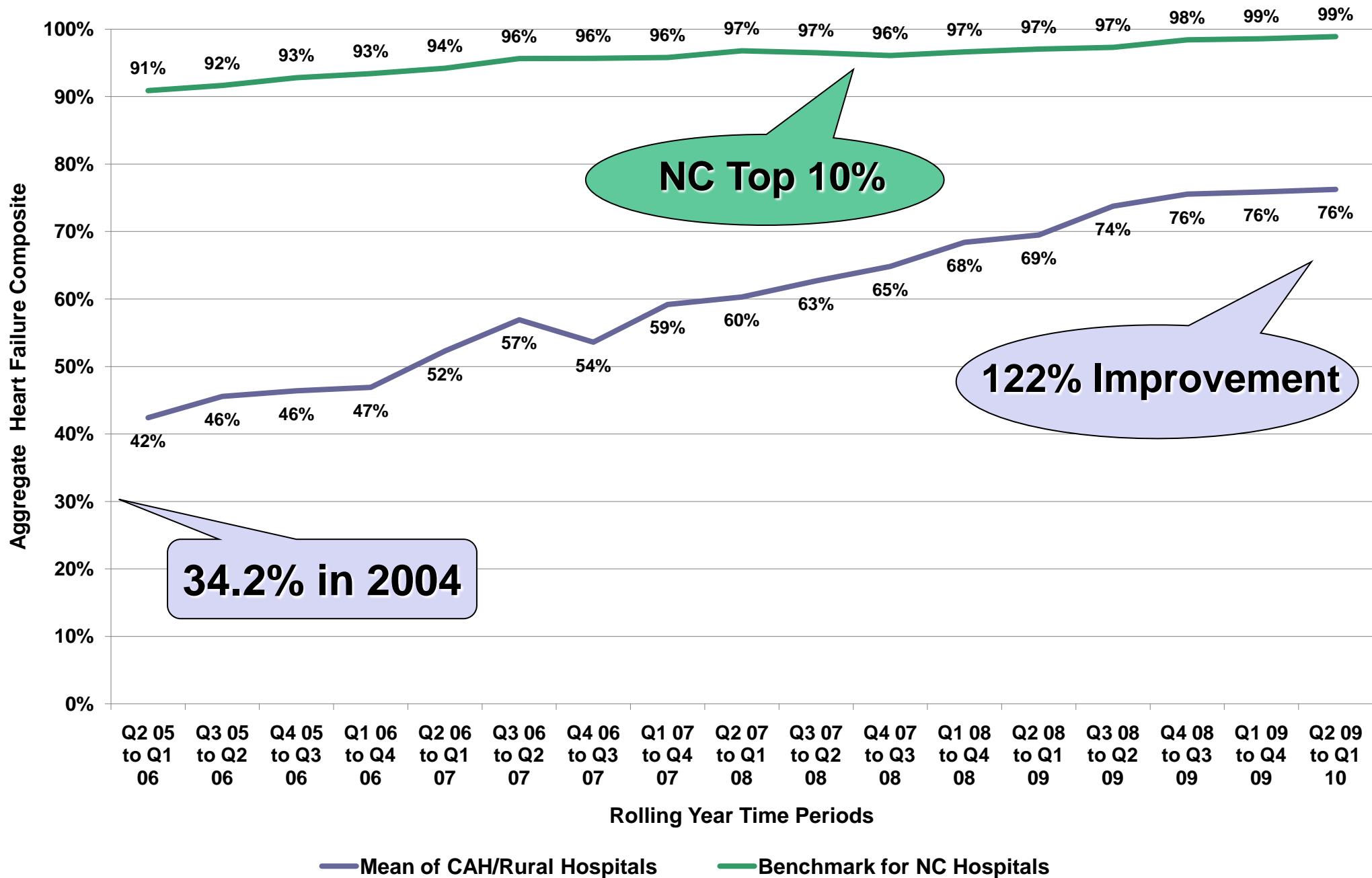
Heart Failure Composite Score
Time Period: April 2009 through April 2010

Heart Failure Trend
Composite Aggregate

Aggregate Heart Failure Composite (Y-axis)

Rolling Year Time Periods (X-axis)

Benchmark for NC Hospitals (green line): 91%, 92%, 93%, 93%, 94%, 96%, 96%, 96%, 97%, 97%, 96%, 97%, 97%, 97%, 98%, 99%, 99%

Mean of CAH/Rural Hospitals (purple line): 42%, 46%, 46%, 47%, 52%, 57%, 54%, 59%, 60%, 63%, 65%, 68%, 69%, 74%, 76%, 76%, 76%

NC Top 10%

122% Improvement

34.2% in 2004

X-axis labels: Q2 05 to Q1 06, Q3 05 to Q2 06, Q4 05 to Q3 06, Q1 06 to Q4 06, Q2 06 to Q1 07, Q3 06 to Q2 07, Q4 06 to Q3 07, Q1 07 to Q4 07, Q2 07 to Q1 08, Q3 07 to Q2 08, Q4 07 to Q3 08, Q1 08 to Q4 08, Q2 08 to Q1 09, Q3 08 to Q2 09, Q4 08 to Q3 09, Q1 09 to Q4 09, Q2 09 to Q1 10

— Mean of CAH/Rural Hospitals   — Benchmark for NC Hospitals

NOTE: The data points represented here represent the group of hospitals and the makeup of the composite at the time that time frame was originally ran. Changes to the measure definition and group defintion have occured over time.

CAH Combined Indicator Scores
Time Period: April 2009 through April 2010
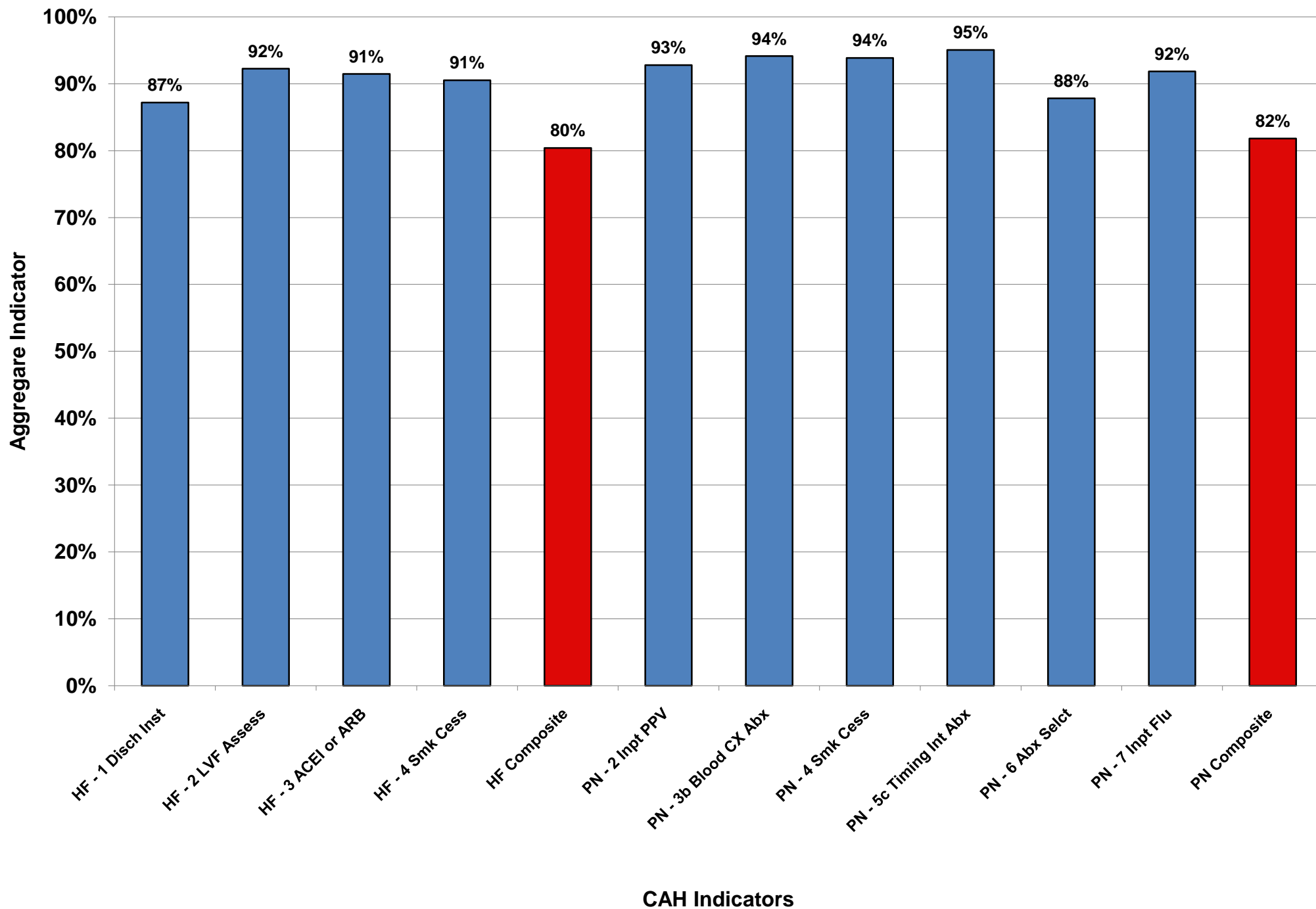
www.nchospitalquality.org

Pneumonia Measures for Wilmington/Southern Area for six months ending 03/31/2009

Pneumonia ▾ | Wilmington/Southern Area ▾ | (select)

Pneumonia	Pneumonia Vaccine	Antibiotic at Arrival	Smoking Counseling	Appropriate Antibiotic	Blood Culture	Flu Vaccine	# of Patients	Optimal Care PN Score
Average for NC Hospitals	92%	94%	94%	89%	93%	90%	157	80%
Top 10% of NC Hospitals	100%	100%	100%	98%	100%	100%		94%
Anson Community Hospital	98%	100%	92%	100%	98%	96%	64	95%
Betsy Johnson Regional Hospital	86%	92%	68%					68%
Bladen County Hospital	90%	96%						75%
Brunswick Community Hospital	100%	96%						88%
Cape Fear Valley	95%	91%						82%
Central Carolina Hospital	98%	98%	100%					88%
Columbus Regional Healthcare System	96%	79%	100%	81%	91%	95%	112	TF
FirstHealth Montgomery Mem Hosp	100%	100%	100%	100%	96%	100%	30	97%
FirstHealth Moore Regional Hosp	96%	96%	100%	91%	97%	94%	338	86%
FirstHealth Richmond Mem Hosp	96%	89%	100%	81%	91%	98%	58	72%
J. Arthur Dosher Memorial Hospital	88%	100%	88%	91%	80%	81%	26	65%
New Hanover Reg Medical Ctr	76%	89%	100%	87%	76%	71%	114	61%
Sampson Regional Medical Center	87%	97%	100%	86%	88%	83%	125	74%
Sandhills Regional Medical Center	100%	92%	100%	95%	98%	98%	62	92%
Scotland Memorial Hospital	78%	100%	100%	81%	98%	82%	80	76%
Southeastern Regional Med Ctr	81%	85%	97%	87%	94%	78%	252	69%

First Health Montgomery 97% performance

Hover over the column names at the top of the table for explanations of individual measures.
NP indicates that there were no patients in this category.
TF indicates "too few" patients or "too few" months of data.
* indicates a measure that is not included in the Optimal Care score.
Hospitals highlighted in green reported all measures for this condition and are in the top 10% for the optimal care score.
The optimal care score is the percent of patients that received each and every recommended treatment for which they were eligible.
The number of patients is the denominator for the optimal care score.
What do these numbers mean?
Why isn't my hospital shown on this table?

This site is developed by the **NC Quality Center.**

NCHA

Additional support comes from the **North Carolina Hospital Association**

and **The Carolinas Center for Medical Excellence.**

FOLLOW US ON TWITTER

www.nchospitalquality.org

This site is developed by the **NC Quality Center**.

Additional support comes from the **North Carolina Hospital Association**

and **The Carolinas Center for Medical Excellence**.

FOLLOW US ON TWITTER

Heart Failure Measures for Greenville/Eastern Area for six months ending 03/31/2009

Heart Failure ⇕ | Greenville/Eastern Area ⇕ | (select)

Heart Failure	ACE Inhibitor	LVS Evaluation	Discharge Instructions	Smoking Counseling	# of Patients	Optimal Care HF Score
Average for NC Hospitals	91%	95%	83%	96%	131	80%
Top 10% of NC Hospitals	100%	100%	98%	100%		96%
Albemarle Hospital	93%	98%	73%			75%
Beaufort County Medical Center	83%	96%				73%
Bertie Memorial Hospital	100%	82%				TF
CarolinaEast Medical Center	77%	98%				66%
Carteret County General Hospital	82%	96%	71%			70%
Chowan Hospital	93%	96%	85%	100%	50	82%
Duplin General Hospital	100%	100%	97%	100%	47	98%
Halifax Regional Medical Center	91%	100%	82%	100%	170	82%
Heritage Hospital	98%	99%	88%	100%	126	88%
Lenoir Memorial Hospital	86%	96%	53%	100%	205	58%
Nash Health Care Systems	86%	97%	95%	100%	299	90%
Onslow Memorial Hospital	93%	97%	85%	100%	116	84%
Pitt County Memorial Hospital	96%	99%	79%	96%	494	79%
Pungo District Hospital Corp	50%	55%	100%	100%	11	45%
Roanoke-Chowan Hospital	97%	100%	81%	100%	94	82%
The Outer Banks Hospital	100%	100%	100%	100%	< 10	TF
Washington County Hospital	100%	96%	89%	75%	24	88%
Wayne Memorial Hospital	93%	99%	93%	100%	239	91%
Wilson Medical Center	100%	94%	86%	97%	115	83%

Duplin General 98% performance

Hover over the column names at the top of the table for explanations of individual measures.
NP indicates that there were no patients in this category.
TF indicates "too few" patients or "too few" months of data.
* indicates a measure that is not included in the Optimal Care score.
Hospitals highlighted in green reported all measures for this condition and are in the top 10% for the optimal care score.
The optimal care score is the percent of patients that received each and every recommended treatment for which they were eligible.
The number of patients is the denominator for the optimal care score.
What do these numbers mean?
Why isn't my hospital shown on this table?

Sample Quality Dashboard

N.C. Quality Dashboard for Sample Hospital

HCAHPS Patient Perceptions Survey	Response Category	Apr 2008-Mar 2009
Would you Recommend?	Yes, Definitely	
How would you rate hospital overall? (Scale of 1-10)	9 or 10	

Quartiles are developed from the scores of 108 N.C. Hospitals. To see more detail and definitions of the measures please visit www.NCHospitalQuality.org or www.hospitalcompare.hhs.gov

Conditions	Optimal Care Score	Mortality Rate	Readmission Rate
Heart Attack[a]			
Heart Failure	80%	9%	23%
Pneumonia	70%	12%	16%
Surgical Care			

Color Codes:

	NC Top Quartile
	Second Quartile
	Third Quartile
	Lowest Quartile
	No Data

North Carolina Center for **Hospital Quality and Patient Safety**

Measure Benchmarks	NC 25th %-ile Score[b]	NC 50th %-ile Score[c]	NC 75th %-ile Score[d]	National Rate	Measure Timeframe
Yes, would recommend	64%	71%	77%	68%	4/08-3/09
Rating of 9 or 10	64%	68%	72%	64%	4/08-3/09
H.F. Optimal Care	76.3%	86.2%	92.7%	83%	4/09-9/09
H.F. Mortality Rate	11.7	10.9	10.1	11.1	7/05-6/08
H.F. Readmission Rate	25.4	24.4	23.2	24.5	7/05-6/08
AMI Optimal Care	90%	95.2%	98.4%	92%	4/09-9/09
AMI Mortality Rate	17.4	16.5	15.4	16.6	7/05-6/08
AMI Readmission	20.8	20.0	19.3	19.9	7/05-6/08
PN Optimal Care	80.9%	87.2%	91.5%	77%	4/09-9/09
PN Mortality Rate	13.4	11.9	11.0	11.5	7/05-6/08
PN Readmission Rate	19.7	18.7	17.5	18.2	7/05-6/08
SCIP8 Optimal Care	83.0%	89.4%	93.2%	85%	4/09-9/09

[a] Heart Attack O.C. does not use Quartiles: Red for < 85%, yellow 85 to < 90%, green 90 to < 95%, and blue for 95% or better.

[b] Hospitals with a score worse than this threshold fall in the lowest 4th quartile.

[c] Hospitals with a score equal to or better than the 25th %-ile but worse than this threshold fall in the 3rd quartile.

[d] Hospitals with a score equal to or better than the 50th %-ile but worse than the NC 75th %-ile threshold fall in the 2nd quartile.

A score equal to or better than the 75th %-ile puts a hospital in the top, most favorable quartile.

NC Rural Hospital Performance Improvement Portfolio

- **CMS Core Measures (inpatient & outpatient)**
- **Board Quality Curriculum**
- **340B Drug Program**
- **AHRQ Culture of Patient Safety Survey**
- **HIT Strategic Plan**
- **Lean Culture Transformation Collaborative**

Quality Assessment Tool (HLQAT)

- **Trauma, Cardiac and Stroke System Development**
- **Pediatric Emergency Care Pilot**
- **Community Paramedic Program**
- **Telehealth**

- **HCAHPS**

North Carolina Office of Rural Health and Community Care
Department of Health and Human Services

North Carolina Hospital Association

Performance Improvement Primer

- **Family and Patient Centered Care**
- **Design for Reliability (zero defect rates)**
- **Evidence-based Practice**
- **The Model for Improvement (PDSA)**
- **Rapid Cycle Improvement**
- **Collaborative Learning and Spreading Innovations**
- **Measurement and Segmentation (small tests of change, testing reliability)**
- **Leadership Framework for Improvement**
- **This is THE WORK of Healthcare Organizations and Professionals**

Board Governance of Quality

- Board governance curriculum on the critical topic of **Improving Board Governance of Quality and Patient Safety.**

- Organized as a four to six-hour board retreat.

- designed to help hospital trustees understand, evaluate and improve their governance of quality by creating a board action plan.

- Quality Curriculum may be offered as a one-day board retreat or a two-day session.

- **Purpose:** To improve Board Governance of Quality for 30 small, rural NC hospitals.

- **Eligibility:** Small, rural hospitals and CAHs (rural hospitals less than 50 ADC)

AHRQ Culture of Patient Safety Survey

- **The NC Center for Hospital Quality and Patient Safety has partnered with The Patient Safety Group to provide an electronic tool to administer this important measurement of culture.**

- **The AHRQ survey is easy to setup, simple to administer and the results are instant.**

- **Hospitals can benchmark results to the national AHRQ data.**

- **Purpose:** All CAHs and small, rural hospitals (< 30 ADC) to perform AHRQ survey to guide quality and patient safety improvements.

- **Eligibility:** CAHs and small, rural hospitals (< 30 ADC).

North Carolina Hospital Association

NCHA

HCAHPS

- A national, standardized survey instrument and data collection methodology for measuring patients' perceptions of their hospital experience and their perspectives of care.

- **Purpose:** To ensure that all small, rural hospitals and CAHs collect, report and improve HCAHPS measures.

- **Eligibility:** All hospitals are eligible for technical assistance.

- **Outcomes:** 11 CAHs currently reporting HCAHPS measures.

- **Funding Source:** Assistance made possible through the NC Flex Grant.

- **Internet Resources:** **www.hcahpsonline.org**

- **To Enroll:** Complete an application for Flex Funding.

- **For Questions:** Matt Womble, NCORHCC (matt.womble@dhhs.nc.gov)

North Carolina Office of Rural Health and Community Care
Department of Health and Human Services

Medication Safety Project

- 29 SHIP-eligible hospitals joined together to form the NC Collaborative for Medication Safety (NCCMedS).

- The pilot began September 1, 2010, through August 31, 2011.

- **Purpose:** To collectively improve the safety of inpatient medication delivery.

- **Eligibility:** Only SHIP-eligible hospitals can participate at this time.

- **Expectations:** Hospitals voluntarily submit SHIP funding for the project and are expected to participate in the on-site consultation and engage the hospital and medical staff in the medication safety improvement effort.

Trauma Cardiac and Stroke System Development

- **Purpose:** A state-wide effort to improve the system of care for patients who suffer from traumatic injury, myocardial infarctions and stroke.

- **Funding Source:** Rural Trauma System Coordinator is funded 100% by the NC Flex Grant.

- **To Enroll:** Express interest in participating in a community assessment to Matt Womble, NCORHCC.

- **For Questions:** Beth Diaz, Rural Trauma System Coordinator with the NC Office of EMS: (Beth.Diaz@dhhs.nc.gov) or 919-855-3965.

- **General questions:** Matt Womble, NCORHCC (matt.womble@dhhs.nc.gov)

Patient Centered Care

Dignity and respect: **Health care providers listen to and honor patient perspective and choices.**

Information sharing: **Patients and their families receive information that is timely, accurate and understandable so that they can participate in decision making.**

Participation: **Patients and their families are encouraged and supported to participate in their care and decision making at the level they choose.**

Collaboration: **Patients are included in program and policy development.**

Carolinas Lean Healthcare Roundtable

Mission

To be an active partnership model spreading lean culture transformation across healthcare organizations in the Carolinas.

Goals

- To achieve successful lean culture transformations in early adopter, leadership hospitals and healthcare systems by 2011.
- To spread lean healthcare transformation to other hospitals and healthcare sectors.

Carolinas Lean Healthcare Roundtable

- **Piloting a Rural Hospital Lean Transformation Collaborative engaging eleven rural hospitals in Eastern and Western NC.**

- **Three year collaborative to accomplish lean culture transformation.**

- **Partnering with rural hospitals, Simpler Healthcare^{SM} and NC State University IES.**

- **There is power in Lean AND in Collaborative Learning.**

NCHA

Ashe Memorial → Jefferson

Cannon Memorial → Linville

Blue Ridge Regional → Spruce Pine

Caldwell Memorial → Lenoir

McDowell → Marion

2nd Collaborative

North Carolina Hospital Association

NCHA
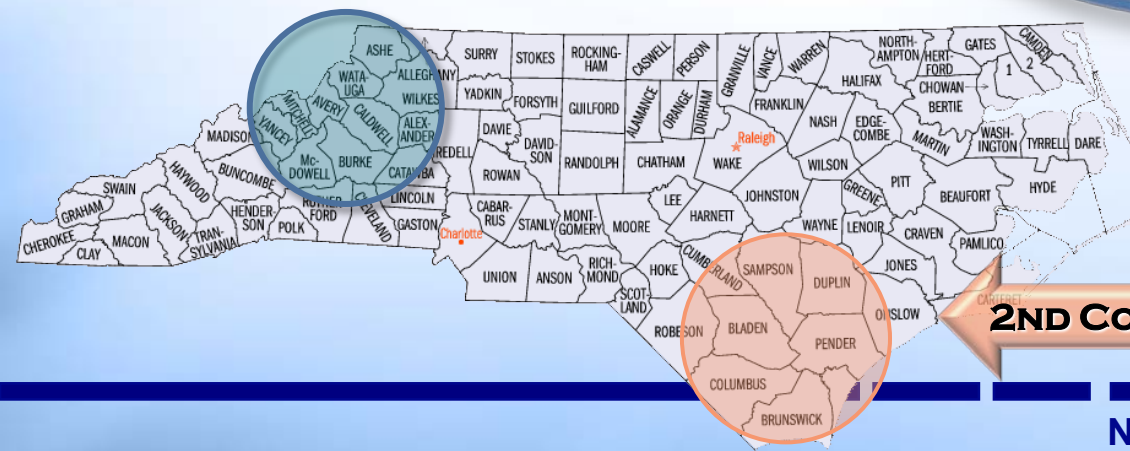
Creating a Lean Collaborative

- **Invited Lean Managed hospitals to NC to share their journey.**

- **Organized informal workshops and learning sessions to create dialogue among CEOs.**

- **Developed partners and learning relationships to guide development of Collaborative.**
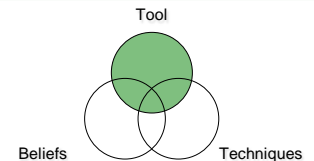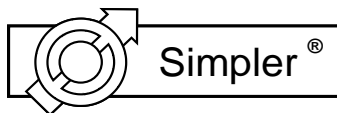
Carolinas Lean Healthcare Roundtable

- **Utilizes a funding collaborative, however ROI is clearly advantageous.**

- **Hospitals must commit their management team and leadership, plus invest in lean coordinators and managers.**

- **In the first year, the Collaborative accomplished 20+ Rapid Improvement Events for three rural hospitals.**

- **More than 35 Rapid Improvement Events are scheduled for Year 2 at five rural hospitals.**

What Lean is ...

❑ Lean is an approach that enables the true performance *potential* of a process or business to be realized

❑ Lean achieves this through the fundamental use and applications of various *tools* to see waste and eliminate waste.

Lean is an approach that enables Revolutionary Levels of Performance: 10%, 25%, 50%, 100%, 200% gains

Simpler ®

Tool

Beliefs   Techniques

Carolinas Lean Healthcare Roundtable

Lean is …

- **Human Resource Development**

- **Culture Transformation**

- **Aligning Strategy, Culture and Execution**

Lean is NOT …

- Deploying Tools

- Cost Reduction

- Quick Fix

- **Less People**

Breakthrough Improvement Results

Think Half of Everything

50% less time

50% less steps

50% less waste

50% less handoffs

50% less errors

50% less inventory

50% less space

Understanding Value

From the Patient's Point of View

Value Added: what the patient is willing to pay for --- activity that changes form, fit or function.

Non-Value Added: no added value based on the patient's perspective.

Waste: what the patient is unwilling to pay us to do.

Collaborative Results

The Simpler Solution >

Carolinas Lean Healthcare Roundtable

- 5 Hospital Collaborative in Western NC

- Shared resources and funding for lean transformation
- 20 RIEs held at 3 hospitals during Year 1

- Solutions developed in value streams including: Surgical Services, the Emergency Department, InPatient Flow, Radiology/Imaging, and Revenue Cycle

Spread

Over 150 Employees from all 5 hospitals engaged in RIEs during Year 1 spreading specific implemented ideas plus lean learnings.

Savings

Total Savings (both "hard" and "soft") for the 3 active hospitals in Year 1 exceeds **$2,554,000**.

Lean Enterprise Transformation

Simpler®

Collaborative Results

- **$160K in ED supply charge recapture.**
- **Increased to 70% the proportion of pre-registered imaging patients.**
- **For ED patients: 35% reduction in laboratory turnaround time; 40% improvement in radiology process time; 50% improvement in time to initial treatment.**
- **50% improvement for inpatient bed preparation time.**
- **40% reduction in time for OR preparation.**
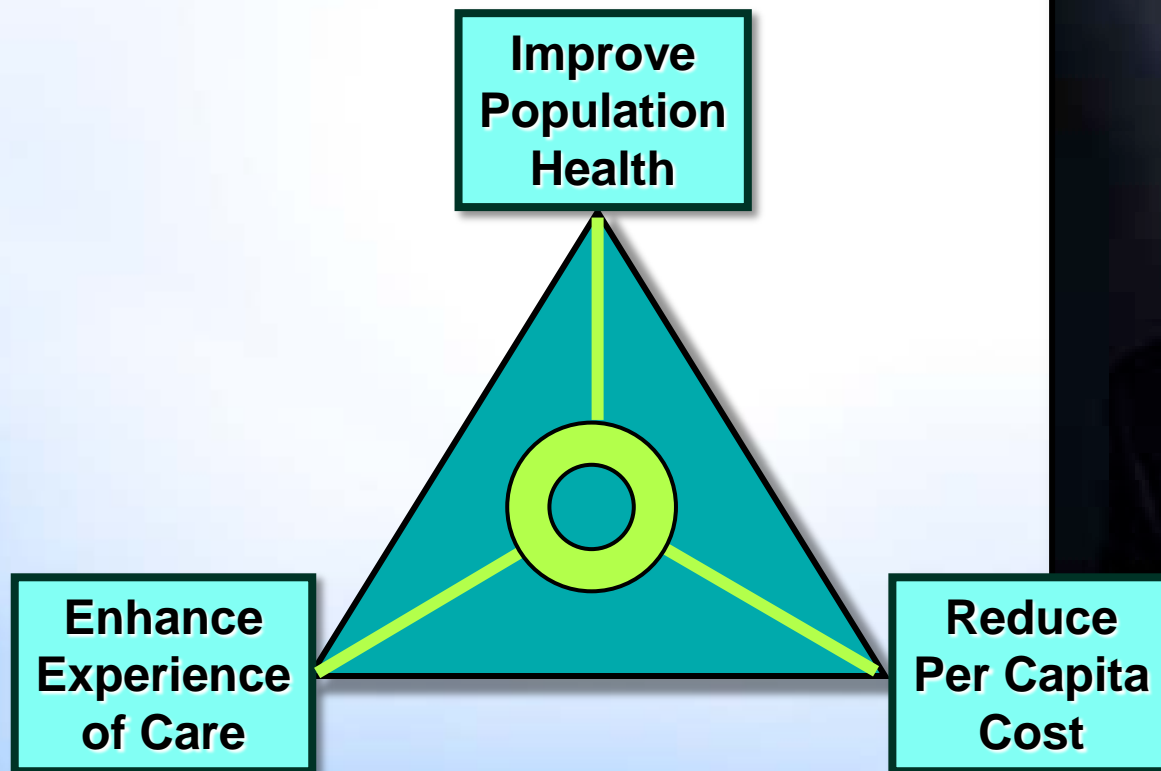
Leadership for Improvement

Models and Principles

- **Triple Aim**
- **Model for Improvement**
- **Leadership Framework**
- **Kotter Change Model**
- **Spread of Innovation**
- **Strategic Execution of Improvement**
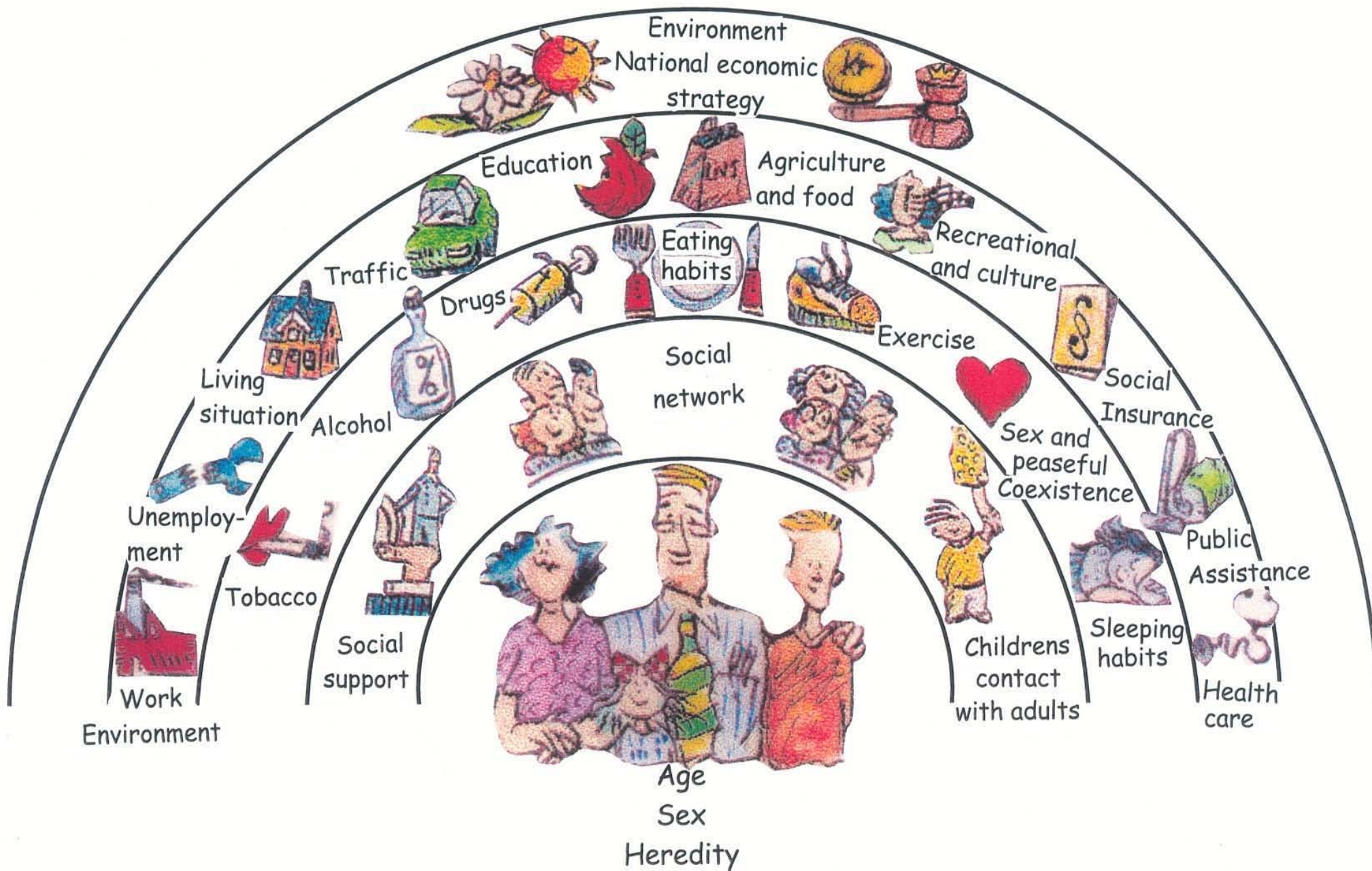- **Baldrige Framework**

The Triple Aim

The Simultaneous Pursuit of Population Health, Enhanced Individual Care and Controlled Costs for a Population

Improve Population Health

Enhance Experience of Care

Reduce Per Capita Cost

Potential Triple Aim Outcome Measures 11/09

Dimension	Measure
Population Health	1. Health/Functional Status: single-question (e.g. from CDC HRQOL-4) or multi-domain (e.g. SF-12, EuroQol)
	2. Risk Status: composite health risk appraisal (HRA) score
	3. Disease Burden: Incidence (yearly rate of onset, avg. age of onset) and/or prevalence of major chronic conditions; summary of predictive model scores
	4. Mortality: life expectancy; years of potential life lost; standardized mortality rates. _Note: Healthy Life Expectancy (HLE) combines life expectancy and health status into a single measure, reflecting remaining years of life in good health. See_ http://reves.site.ined.fr/en/DFLE/definition/
Patient Experience	1. Standard questions from patient surveys, for example: -Global questions from US CAHPS or How's Your Health surveys -Experience questions from NHS World Class Commissioning or CareQuality Commission -Likelihood to recommend
	2. Set of measures based on key dimensions (e.g., US IOM Quality Chasm aims: Safe, Effective, Timely, Efficient, Equitable and Patient-centered)
Per Capita Cost	1. Total cost per member of the population per month
	2. Hospital and ED utilization rate

Determinants of health

Environment

National economic strategy

Education

Agriculture and food

Recreational and culture

Traffic

Eating habits

Exercise

Drugs

Social Insurance

Living situation

Alcohol

Social network

Sex and peaseful Coexistence

Public Assistance

Unemploy- ment

Tobacco

Sleeping habits

Social support

Childrens contact with adults

Health care

Work Environment

Age
Sex
Heredity

Improve the Health of the Population

Public Health – Hospital Collaborative
- **Reduce Incidence of Obesity**
- **Improve Tobacco Policy**

Consistent, Transparent Health Measures
- **Healthy NC 2020 Objectives**
  - **Healthiest State in the Nation**
- **MATCH/CATCH County Health Rankings**

Collaborative Improvement Initiatives
- **Care Share Health Alliance**
- **Safety Net Advisory Committee (SNAC)**
- **Community Care North Carolina**

Enhance Patient Experience of Care

Public Health – Hospital Collaborative
- **Center for Public Health Quality**
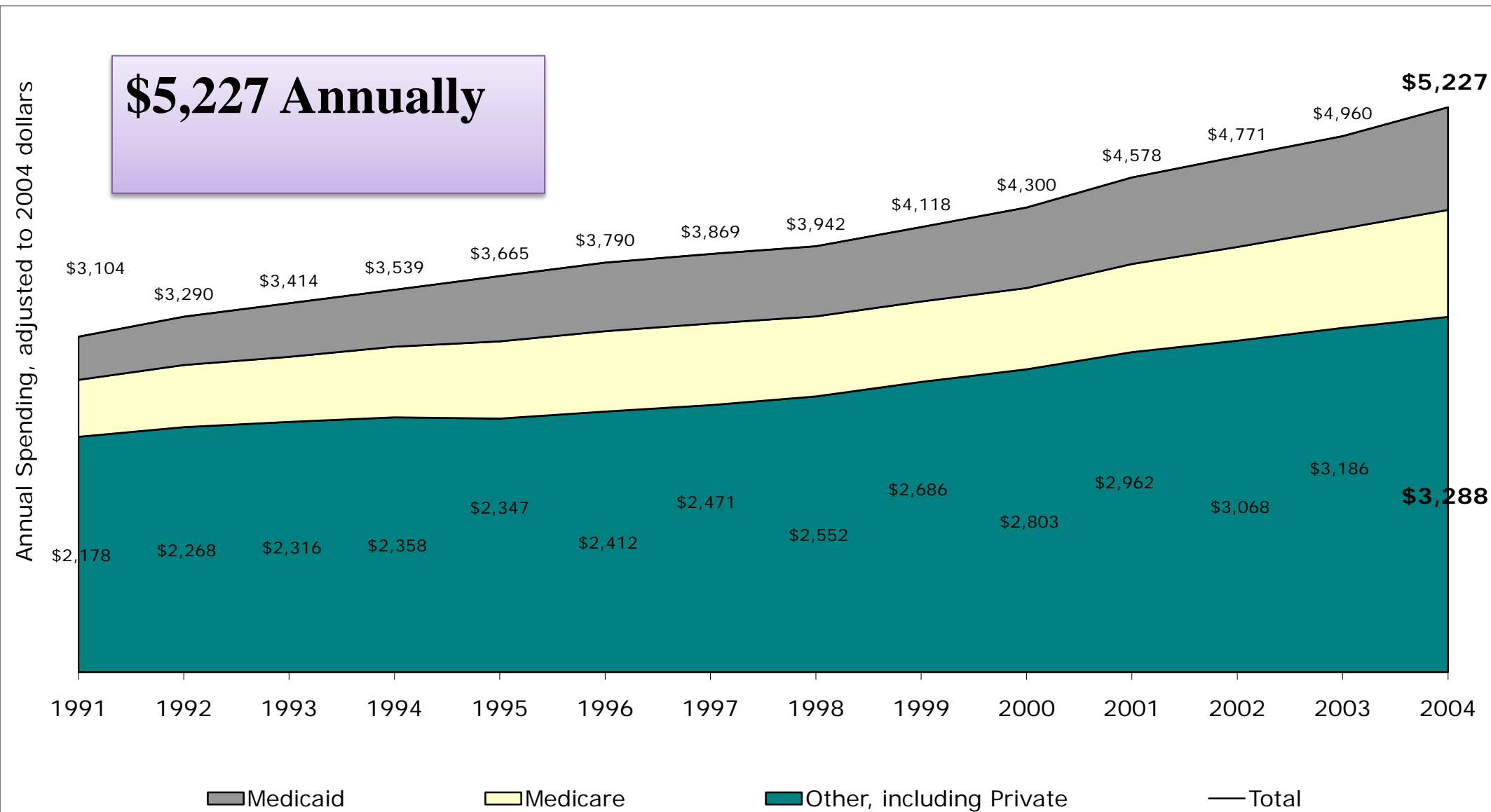
NC Center for Hospital Quality and Patient Safety
- **Teamwork and communication**
- **Just Culture**
- **Process reliability**
- **Collaborative learning**

Consistent, Transparent Quality Measures
- **Improving Core Measures (95% reliability)**
- **Reducing hospital readmissions**
- **Eliminating avoidable hospital acquired infections**

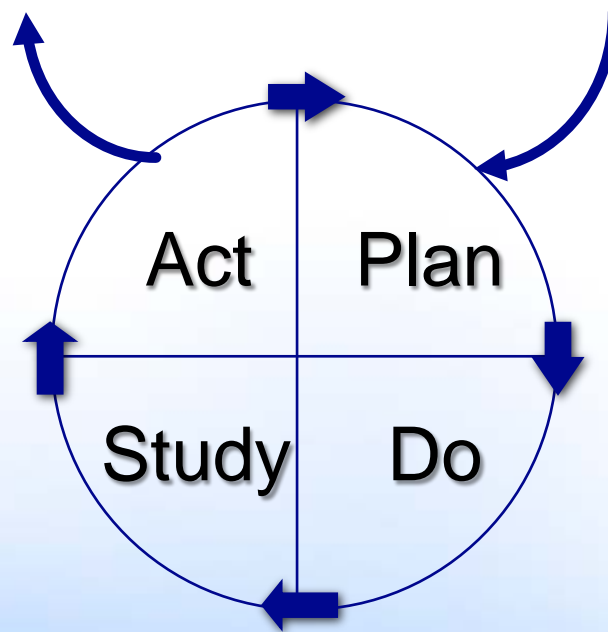# NC per Capita Health Expenditures

Model for Improvement

Focused, measureable Aim Statement - How Good by When?

- **What are we trying to accomplish?**
- **How will we know that a change is an improvement?**
- **What changes can we make that will result in an improvement?**

Act | Plan

Study | Do

Leadership for Improvement

Setting Direction: Mission, Vision and Strategy

Making the future attractive

PUSH

Changing the old

PULL

Ideas

Will

Execution

Establish the Foundation
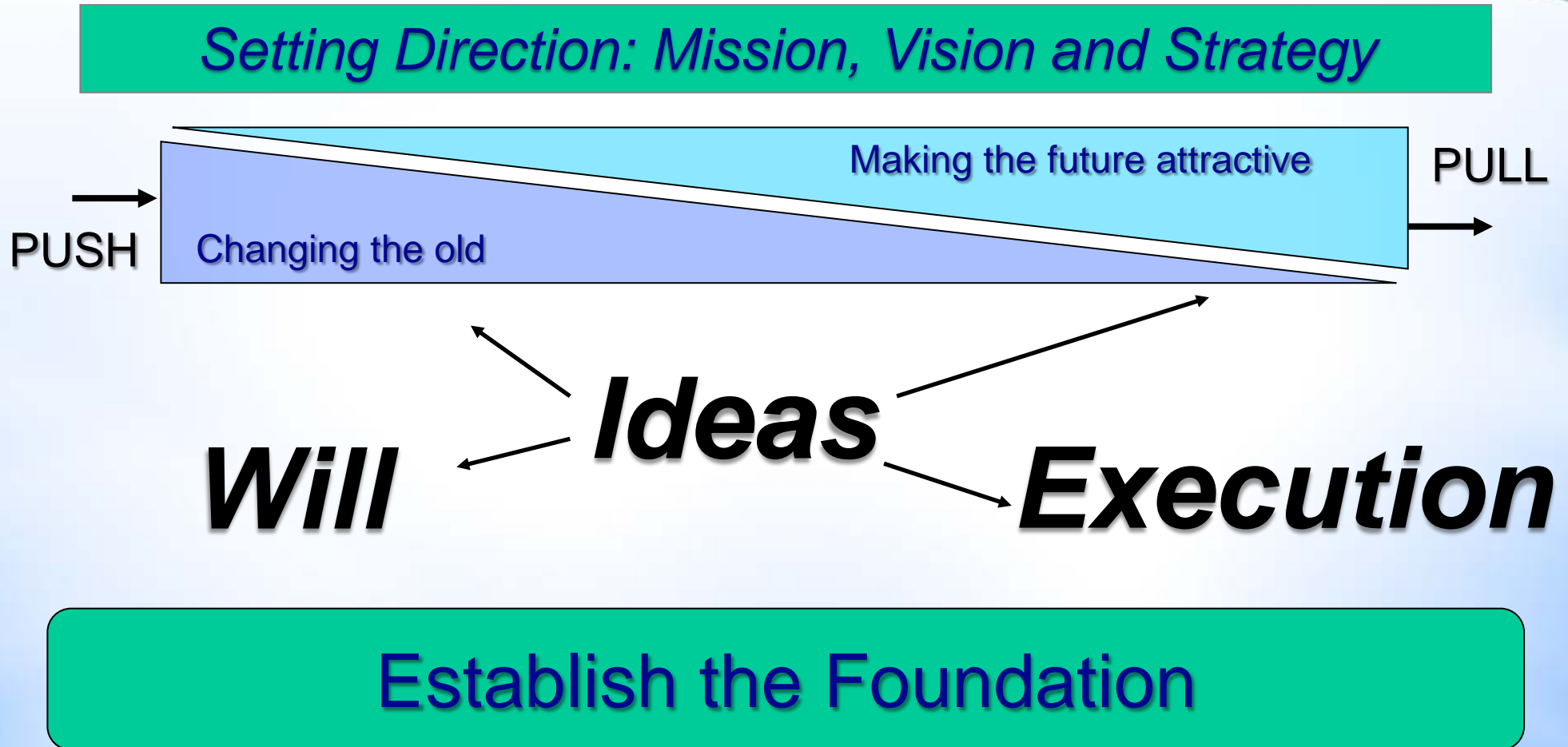
Leading Improvement

1. Establish a **Sense of Urgency**
2. Form a Powerful Guiding Coalition
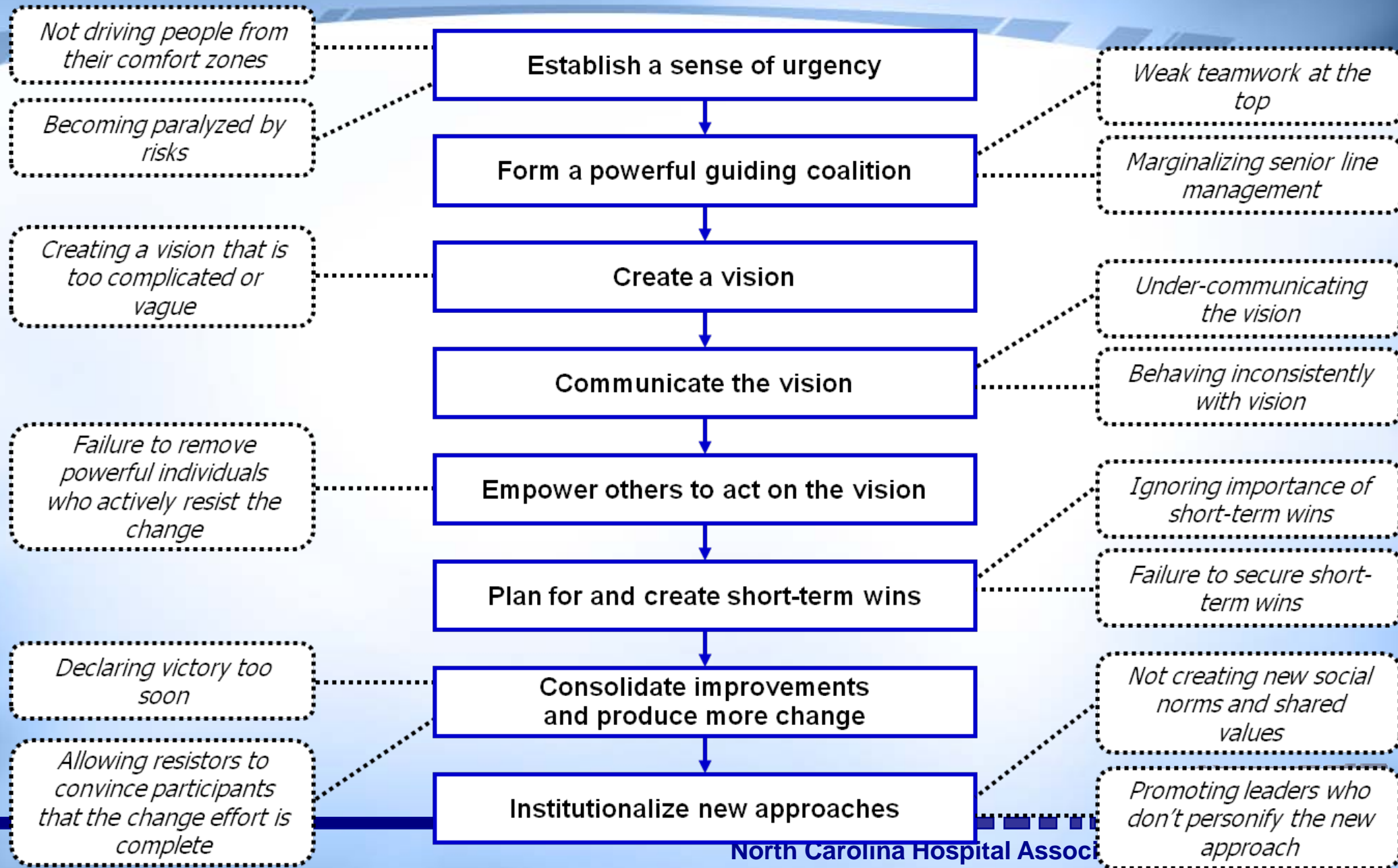3. Create a Vision
4. Communicate the Vision
5. Empower Others to Act on the Vision
6. Plan and Create Short-Term Wins
7. Consolidate Improvements and Produce More Change
8. Institutionalize the New Approaches

   From: John Kotter, *Leading Change*

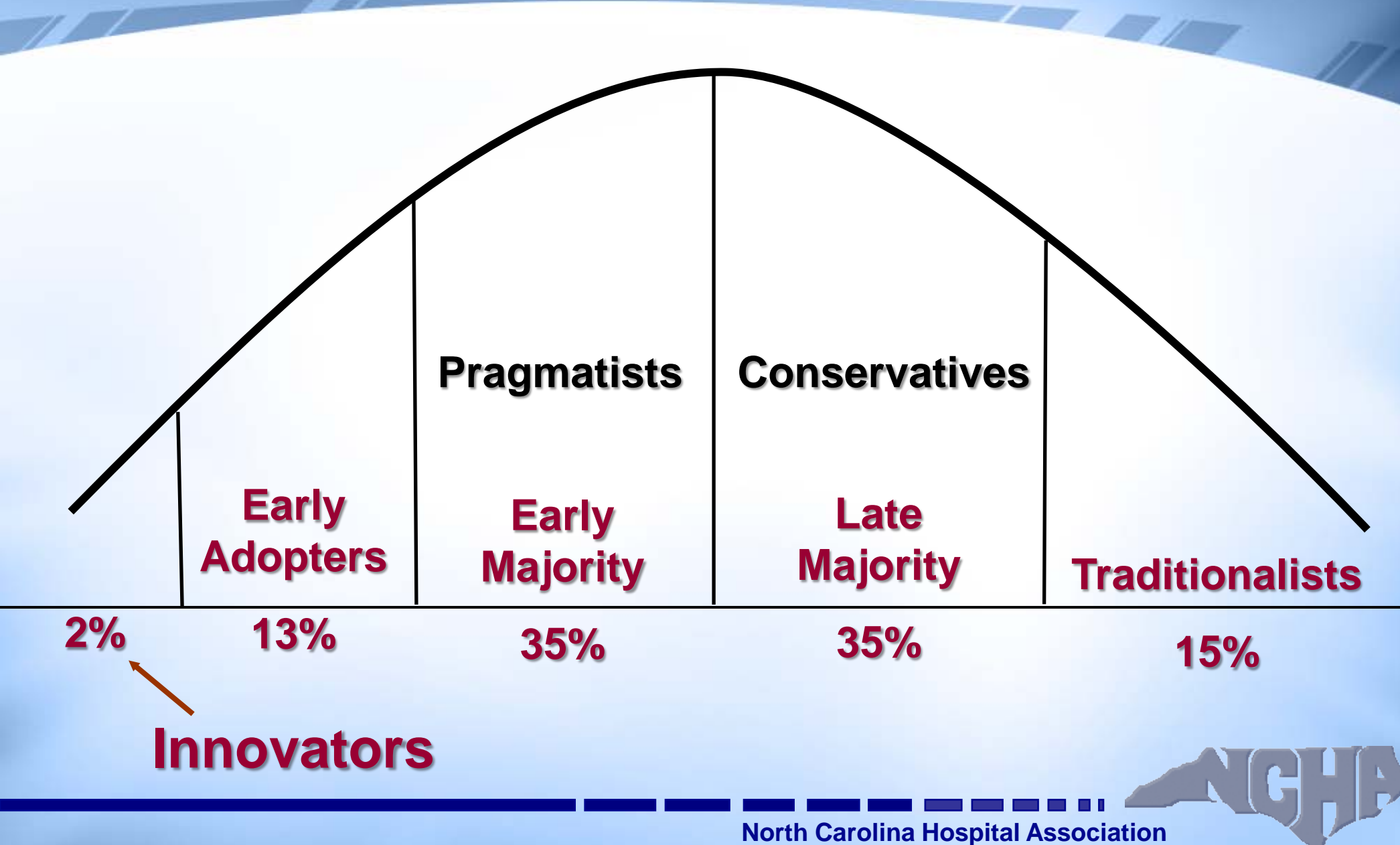# Kotter's 8 Stages of Change (*middle*) and Associated Pitfalls (*sides*)

Pitfalls (left)	Stage	Pitfalls (right)
Not driving people from their comfort zones	**Establish a sense of urgency**	Weak teamwork at the top
Becoming paralyzed by risks	**Form a powerful guiding coalition**	Marginalizing senior line management
Creating a vision that is too complicated or vague	**Create a vision**	Under-communicating the vision
	Communicate the vision	Behaving inconsistently with vision
Failure to remove powerful individuals who actively resist the change	**Empower others to act on the vision**	Ignoring importance of short-term wins
	Plan for and create short-term wins	Failure to secure short-term wins
Declaring victory too soon	**Consolidate improvements and produce more change**	Not creating new social norms and shared values
Allowing resistors to convince participants that the change effort is complete	**Institutionalize new approaches**	Promoting leaders who don't personify the new approach

North Carolina Hospital Assoc

Performance Improvement Primer

The Concepts of Innovation, Diffusion and Spread

Spread is the Diffusion of Innovation

Spread Model
The Nature of People (Everett Rogers)

Pragmatists   **Conservatives**

Early Adopters   **Early Majority**   **Late Majority**   **Traditionalists**

2%   **13%**   **35%**   **35%**   **15%**

Innovators

Measuring Engagement and Spread

RURAL HOSPITAL ENGAGEMENT MODEL
1 of 4

Hospital Name	Discharges	Total Days	ALOS	ADC (calc)	System Relationship	Network	S/R, CAH Core Measures	HIT Strategic Plan
Highest Priority (31)								
Our Community Hospital	23	52	2.3	0.1	Halifax			
Blowing Rock Hospital	167	629	3.8	1.7	Appalachian		X	
Stokes-Reynolds Memorial Hospital	213	842	4	2.3	Baptist		X	
Highlands-Cashiers Hospital	300	919	3.1	2.5		WNCHN	X	X
Hoots Memorial Hospital	203	1,100	5.4	3.0	HMC		X	
Davie County Hospital	463	1,421	3.1	3.9	Baptist		X	
Bertie Memorial Hospital	433	1,578	3.6	4.3	UHS		X	
Swain County Hospital	727	1,607	2.2	4.4	Westcare/CHS	WNCHN	X	
First Health Montgomery Hospital	603	1,835	3	5.0	FirstHealth		X	
Washington County Hospital	531	1,849	3.5	5.1	HMC		X	
Pungo District Hospital	755	2,259	3	6.2			X	X
Alleghany Memorial Hospital	849	2,788	3.3	7.6	Quorum		X	X
Pender Memorial Hospital	806	2,986	3.7	8.2	New Hanover	CCHA	X	
Chatham Hospital	888	3,342	3.8	9.1	UNC		X	
Saint Luke's Hospital	1,041	3,522	3.4	9.6	CHS	WNCHN	X	
Anson County Hospital	1,014	4,156	4.1	11.4	CHS		X	
Bladen County Hospital	1,407	4,312	3.1	11.8	Cape Fear	CCHA	X	
Outer Banks Hospital	1,832	4,333	2.4	11.8	UHS		X	
J. Arthur Dosher Memorial Hospital	1,378	4,630	3.4	12.7	New Hanover	CCHA	X	
Ashe Memorial Hospital	1,586	5,397	3.4	14.7	Quorum		X	X
Angel Medical Center	1,688	6,089	3.6	16.6		WNCHN	X	X
Transylvania Regional Hospital	1,888	6,133	3.2	16.8		WNCHN	X	X
Charles A. Cannon Jr. Memorial Hospital	1,805	6,660	3.7	18.2	Appalachian		X	
The McDowell Hospital	2,108	6,816	3.2	18.6	Mission	WNCHN		
Blue Ridge Regional Hospital(Spruce Pin	2,322	6,922	3	18.9	Mission	WNCHN		
Chowan Hospital	2,347	7,651	3.3	20.9	UHS		X	
Martin General Hospital	2,443	8,099	3.3	22.1	Community HS		X	
Granville Medical Center	2,596	8,751	3.4	23.9				X
Murphy Medical Center	2,583	8,801	3.4	24.0		WNCHN	X	X
Sampson County Memorial Hospital	3,174	9,610	3	26.3		CCHA		X
Person County Memorial Hospital	2,595	9,937	3.8	27.2	Duke		X	X

Measuring Engagement and Spread

RURAL HOSPITAL ENGAGEMENT MODEL

3 of 4

Hospital Name	Board Quality Curriculum	Lean Culture Collaborative	340B	AHRQ Culture of Patient Safety Survey	HLQAT	HCAHPS
Highest Priority (31)						
Our Community Hospital						
Blowing Rock Hospital						
Stokes-Reynolds Memorial Hospital						
Highlands-Cashiers Hospital						
Hoots Memorial Hospital						
Davie County Hospital				QC		X
Bertie Memorial Hospital				X		X
Swain County Hospital				QC		
First Health Montgomery Hospital				QC		
Washington County Hospital				X	X	
Pungo District Hospital	X					
Alleghany Memorial Hospital						X
Pender Memorial Hospital				QC		
Chatham Hospital				QC		X
Saint Luke's Hospital				QC		X
Anson County Hospital			X	QC		X
Bladen County Hospital		ENC		QC		
Outer Banks Hospital				X		X
J. Arthur Dosher Memorial Hospital		ENC				X
Ashe Memorial Hospital	X	WNC		QC	X	X
Angel Medical Center				X		
Transylvania Regional Hospital				X		X
Charles A. Cannon Jr. Memorial Hospital		WNC				
The McDowell Hospital		WNC	X			X
Blue Ridge Regional Hospital(Spruce Pine		WNC	X	QC	X	X
Chowan Hospital				X		X
Martin General Hospital						X
Granville Medical Center				X		X
Murphy Medical Center			X	X	X	X
Sampson County Memorial Hospital		ENC	X			X
Person County Memorial Hospital			X			X

➢ **Leadership**

➢ **Engagement**

➢ **Outcomes**

Execution of Strategic Improvement

1. **Setting Priorities and Breakthrough Performance Goals**

2. **Developing a Portfolio of Projects to Support the Goals**

3. **Deploying Resources to the Projects That Are Appropriate for the Aim**

4. **Establishing an Oversight and Learning System to Increase the Chance of Producing the Desired Change**
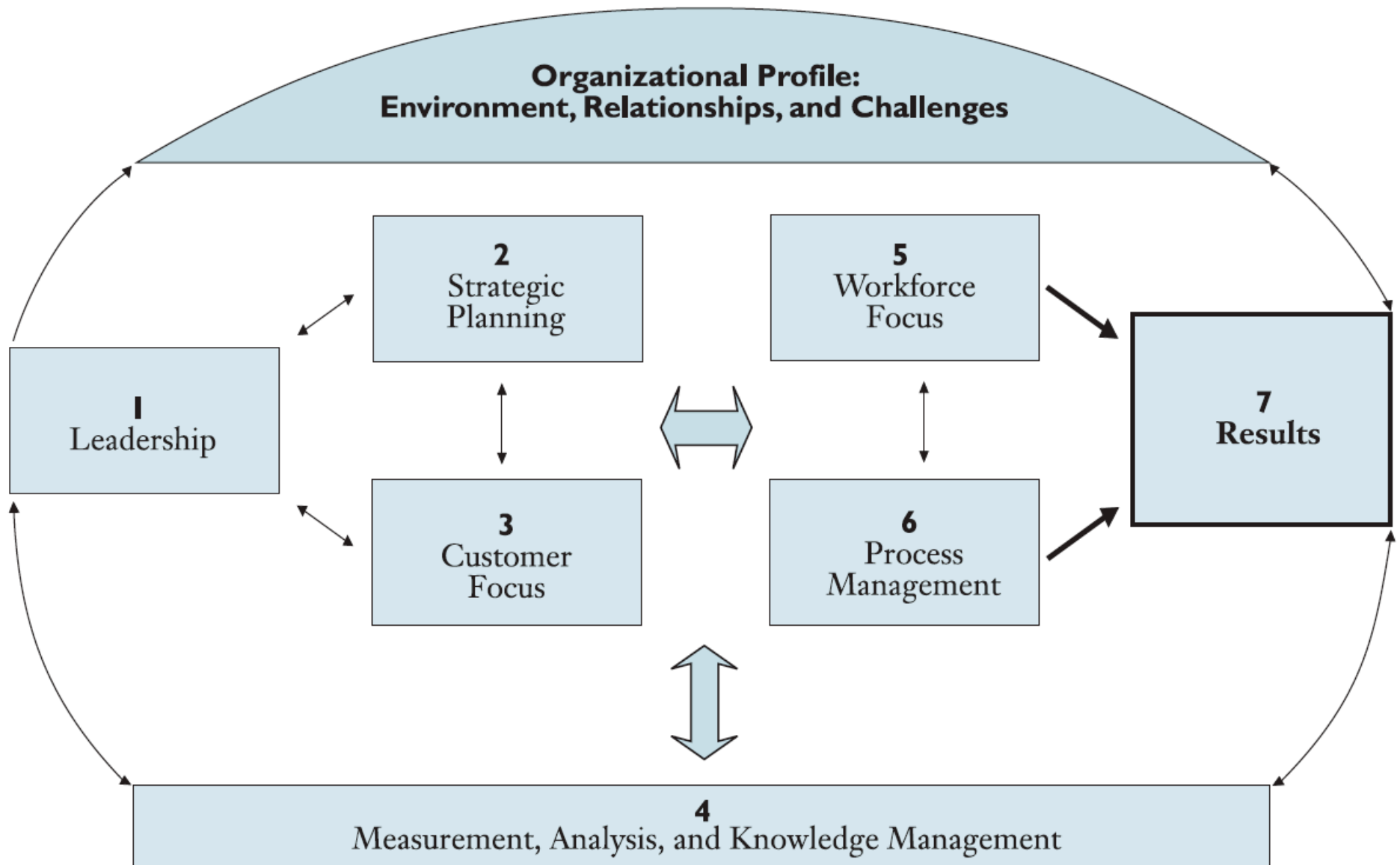
Execution of Strategic Improvement Initiatives
IHI White Paper

Baldrige Criteria for Performance Excellence Framework
A Systems Perspective

The Math of Improvement

Breakthrough Performance = Culture Transformation

Improvement = Measurement

Transparency = Accountability

Quality Improvement = Performance Improvement

Value = (Reliability + Service + Quality) / Cost

Transparency and Reliability

A process achieves exactly the results it is designed to achieve.

Transparency, Reliability & Accountability

Lucian Leape, MD

Of the three major approaches to improving patient safety - regulation/accreditation, financial incentives, and public reporting - the most promising is public reporting of performance information and feedback to providers.

Transparency, Reliability & Accountability

Lucian Leape, MD

From the standpoint of improving patient safety …. transparency is crucial. It is the cornerstone of the cultural transformation that our health care organizations need to undergo to become safe. Transparency is essential within an institution if caregivers are to feel safe in reporting and talking about their mistakes. The free flow of information is essential for identifying and correcting the underlying systems failures. Transparency is also the key to successful—and ethical—responses to patients when things go wrong. And transparency is essential for accountability, to show the public that the hospital or system responds ethically to its failures. Internal transparency begets external transparency — and vice-versa.

Transparency and Reliability

When hospitals' quality data is reported publicly…

➢ **Performance improves (for the measures being reported).**

➢ **Market share doesn't change appreciably.**

➢ **Reputation improves considerably.**

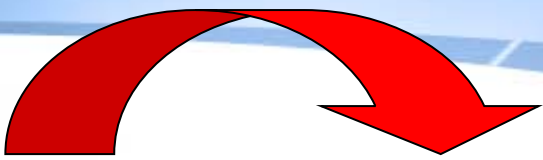**Hibbard J, J Stockard, and M Tusler:** *Hospital performance reports: impact on quality, market share, and reputation.* **Health Affairs 2005, 24, #4: 1150-116025**

Levels of Reliability in Health Care (Amalberti, Nolan)

Chaos	10^{-1}	10^{-2}	10^{-3}	10^{-5}
Processes are largely custom-crafted each time	Standard process, checklists, training, trying hard	Standard process; redundancy, habits and patterns	Obsession with Failure: Prevent Mitigate Redesign	Loss of identity
Each doctor writes individual orders, gives to RN	Standing orders, feedback on compliance	All MDs use same process, multi-disc. rounds	External approval necessary for certain orders	Equivalent actor
Preventing, treating acute and chronic disease in US	Typical hospital working hard	Best hospitals Core Measures	ADEs per 1000 doses in best hospitals	Safety in anesthesia

Concentrate Your Work Here!

Chaos	10^{-1}	10^{-2}
Processes are largely custom-crafted each time	Standard process, checklists, training, trying hard	Standard process; redundancy, habits and patterns
Each doctor writes individual orders, gives to RN	Standing orders, feedback on compliance	All MDs use same process, multi-disc. rounds
Preventing, treating acute and chronic disease in US	Typical hospital working hard	Best hospitals in Core Measures

Definitions of Reliability

Reliability is failure free operation over time.
David Garvin, Harvard

Choose the patient focus, who expects optimal care by all-or-none measures.
IHI Innovation Team

Starting Labels of Reliability

- **Chaotic process:** Failure in greater than 20% of opportunities

- **10^{-1}:** 80 or 90 percent success. 1 or 2 failures out of 10 opportunities

- **10^{-2}:** 5 failures or less out of 100 opportunities

- These are IHI definitions and are not meant to be the true mathematical equivalent.

Leadership for Breakthrough Performance

- **NC CAH and Small Rural Hospital Performance Improvement Portfolio**

- **NC Rural Hospital Lean Transformation Collaborative**

- **Leadership for Improvement: Models and Principles**

- **Observations and Lessons-Learned**

The Improvement Journey

Opportunity is missed by most people because it is dressed in overalls and looks like work.

Thomas A. Edison

Quality Leadership Summit

Achieving Breakthrough Performance
in Rural Health Quality
December 2010

Jeff Spade, FACHE
Executive Director, NC Center for Rural Health
Innovation and Performance
Vice President, NCHA
jspade@ncha.org

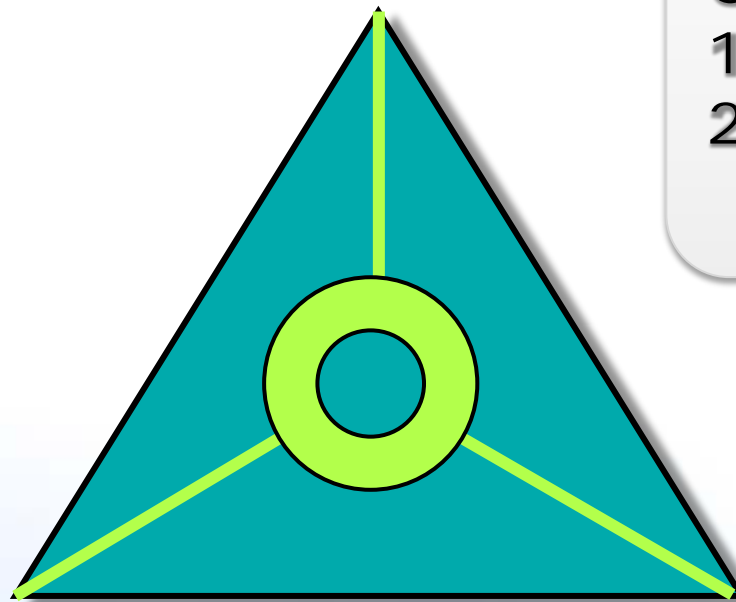**North Carolina Hospital Association**

Triple Aim Strategic Model

How Good by When?

Improve Population Health

Critical Elements
1. Model Integrator
2. A Defined Population

Enhance Experience of Care

Reduce Per Capita Cost