

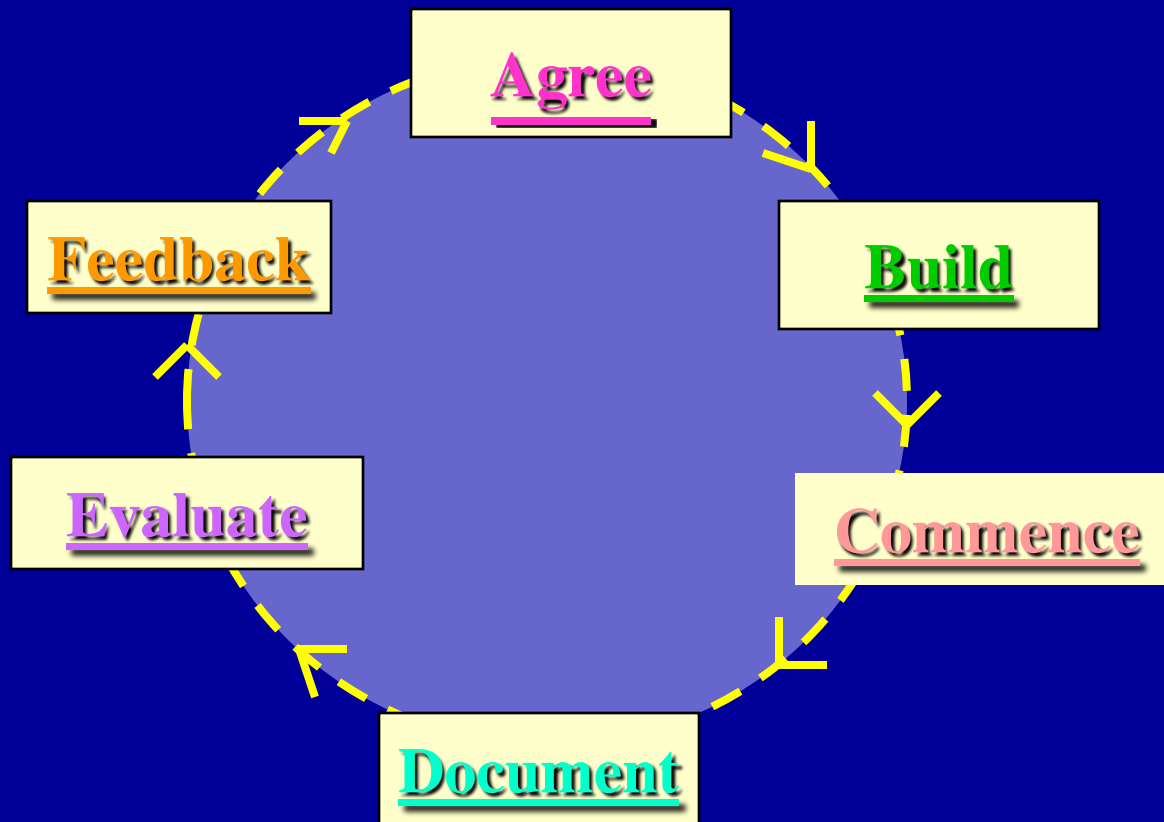
**ACE**

**Acute Care for Elders:  
Creating the Business Case**

**Meeting the Challenge  
of Providing Quality  
and Cost-Effective Hospital Care  
to Older Adults**

**Summa Health System  
Akron, Ohio**

# The ABCs of ACE Unit Implementation



# “The Burning Platform” & The Rosetta Stone for ACE

- Step 1: Being “Fred”
  - *Our Iceberg Is Melting* - by John Kotter and Holger Rathgeber
- Find out what is keeping the CFO and COO up at night
- Explain you have a “solution for their problem”.
- Must learn to understand the business language, multi-linguistic

# Baseline Assessment

- Capacity Management
- Through-put efficiency
- Margins for Medicare “Medical” Business
- Knowing the variable costs of care
  - Average Age
  - Average Length of Stay
  - 30 day re-admission rate
  - Average variable costs

# Financial Performance

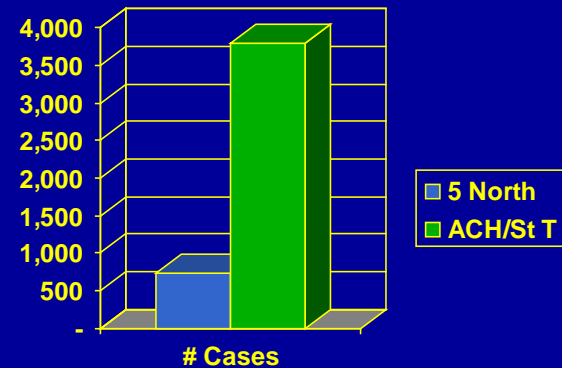
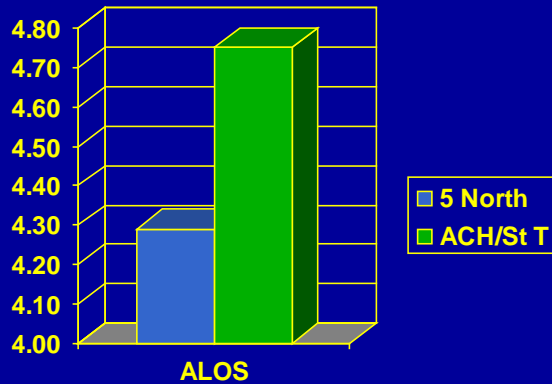
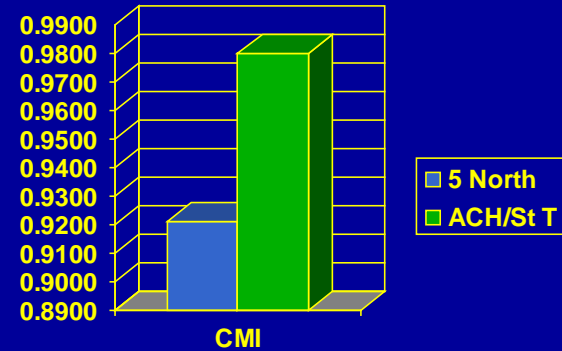
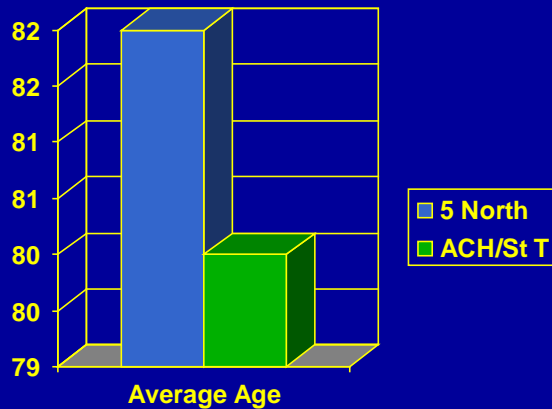
2008

- Group 1 N= 741 cases
  - Patients 65 and over admitted and discharged from 5 North ( ACE Unit)
  - Top 20 MSDRG by volume
  - Excluded all transfers from other units
- Group-2 N = 3800
  - Patients 65 and over discharge from other medical surgical units ACH/StT ( excluded critical care transfers)
  - Used same top 20 MSDRGs as in Group 1

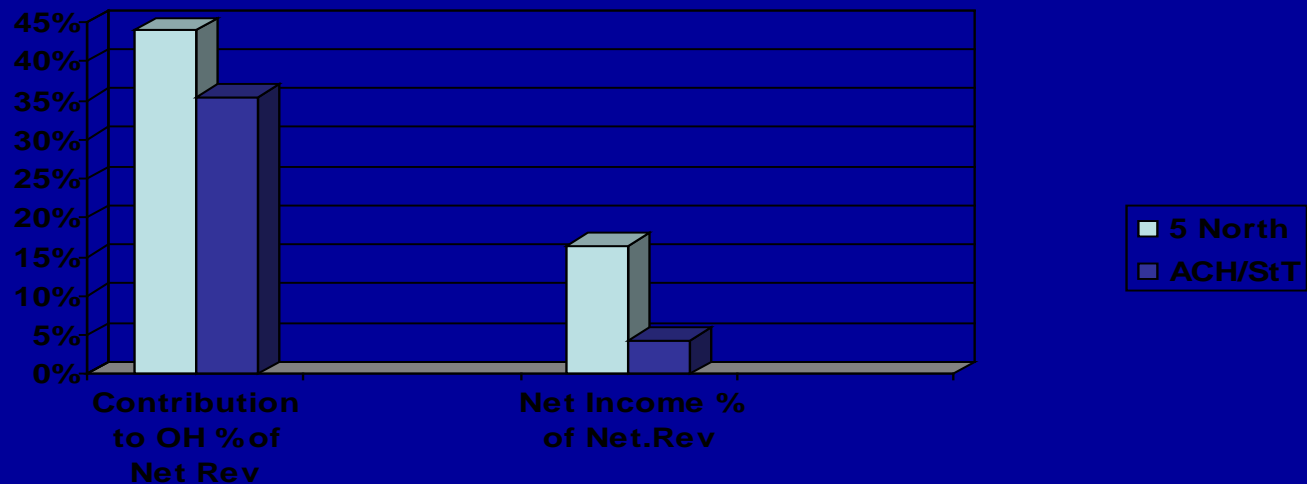
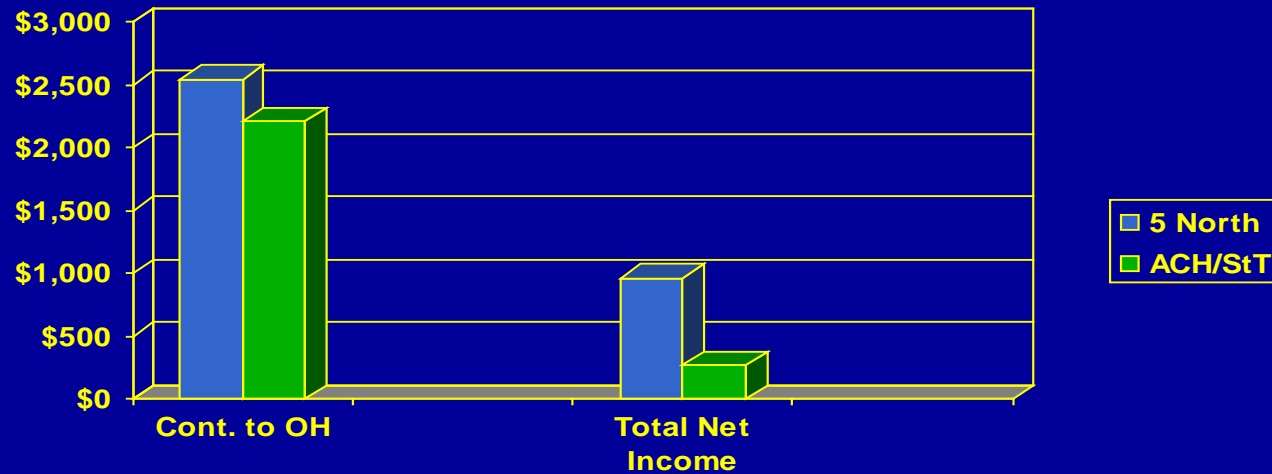
# Financial Analysis

- Variables examined
  - Average Age
  - Case Mix Index
  - Average Length of Stay
  - Total Charges
  - Deductions
  - Total Net Revenue
  - Contribution to Overhead: total and % of NetRev
  - Total Hospital Overhead (OHD)
  - Net Income: Total and % of Net Revenue

# Key Stat Comparison 5 N vs. Entire Hospital for ACE-like population



# 5 North Contribution to Overhead and Net Income compared to entire hospital for ACE-like population





# Bottom Line Impact

Net savings:

– \$2547 (Cont. to OH 5 N/case) - \$2212( Cont.  
To OH ACH/StT/case) = \$335/case

Net income difference:

\$964( Net Income/case 5 N)- \$268 ( Net  
Income/case = \$696 net income difference

Thus.....

# If other units could perform at the same variable cost and utilization rates of 5 North for a Medicare population

In a hypothetical community hospital with X cases discharged with common medical diagnoses:

1. 500 cases x \$600/case= \$300,000 savings
2. 1000 cases x \$600/case= \$ 600,000 savings

Average start up costs of ACE Unit =

- .4 Geriatrician year one
- 1 .0 CNS
- .25 staff ( core nurses, social work, PT/OT, pharmacist) development time and team first three months then .125 ( one hour per day)
- Approximately \$200,000- \$250,000

# Stealth Geriatrics

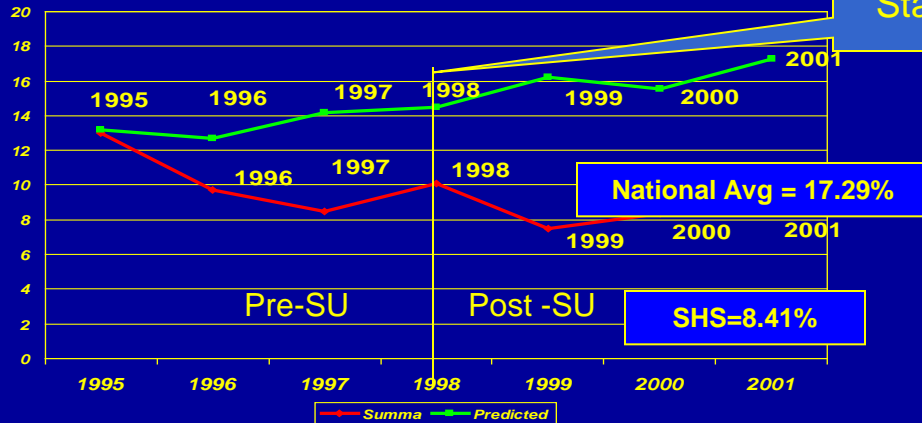


**“Geriatric Medicine: It’s More Than Caring for Old People”**

**Thomas Gill, MD, American Journal of Medicine, 2002 July; 113:85-90.**

# The “Technology” of ACE is Transferrable

Risk-Adjusted In-Hospital Mortality Rate



Statically difference in death pre-SU vs. Post -SU

National Avg = 17.29%

SHS=8.41%

- *Senior services concepts when applied to other clinical areas have similar excellent results*

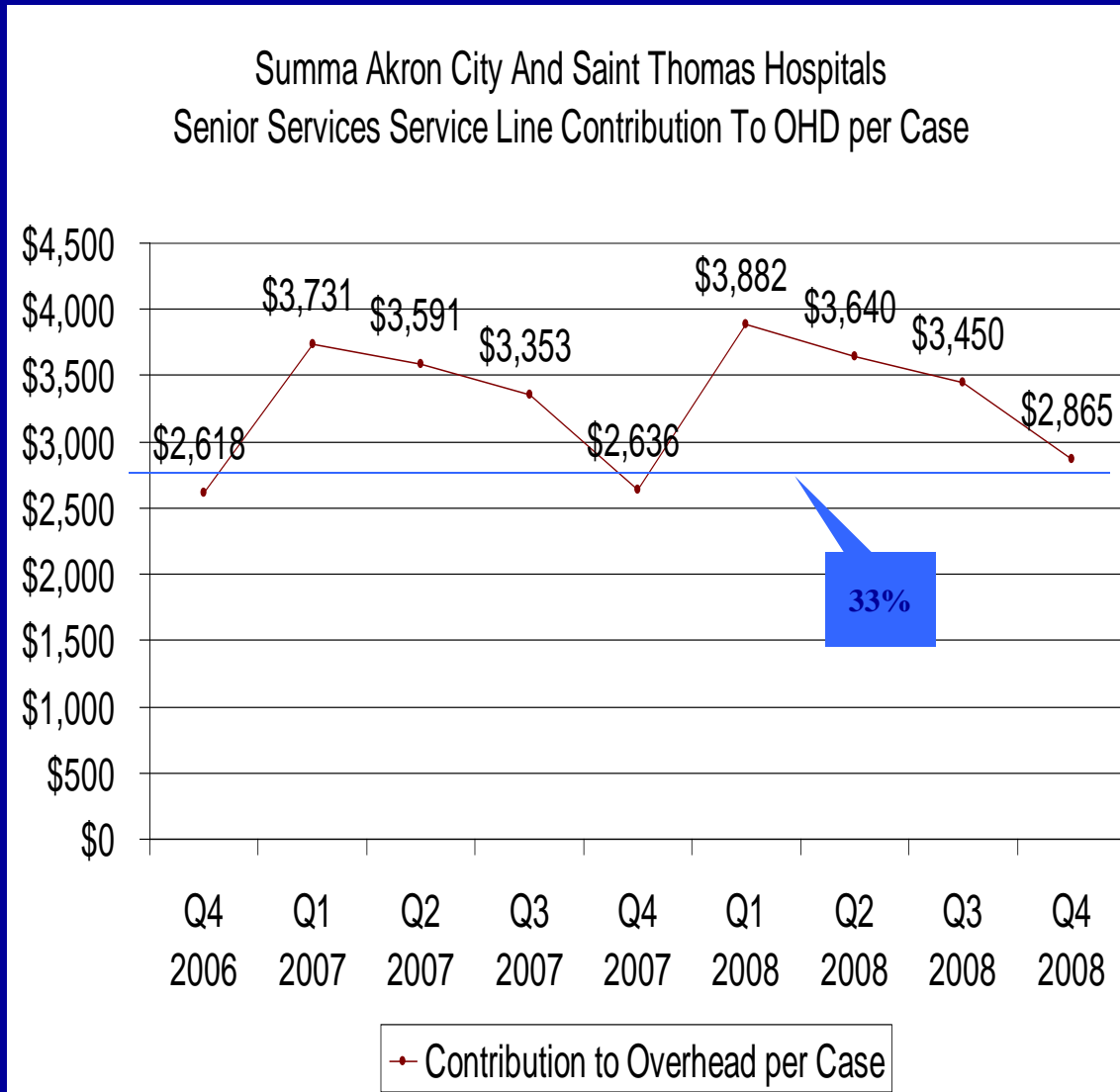
Ischemic Stroke Benchmarks 2005-2008

N= 2524 vs. Premier Peer group

	Summa	Peer Group	Expected	Index
Mortality	5.07%	6.66%	8.99%	.57 (43% better)
Readmits	2.0%	1.9%	2.52%	.8 (20% better)
ALOS	5.1 days	6.4 days	6.6 days	.77 (33% better)
Variable cost	\$2,158	\$4,361	\$4,139	.52 (48% better)

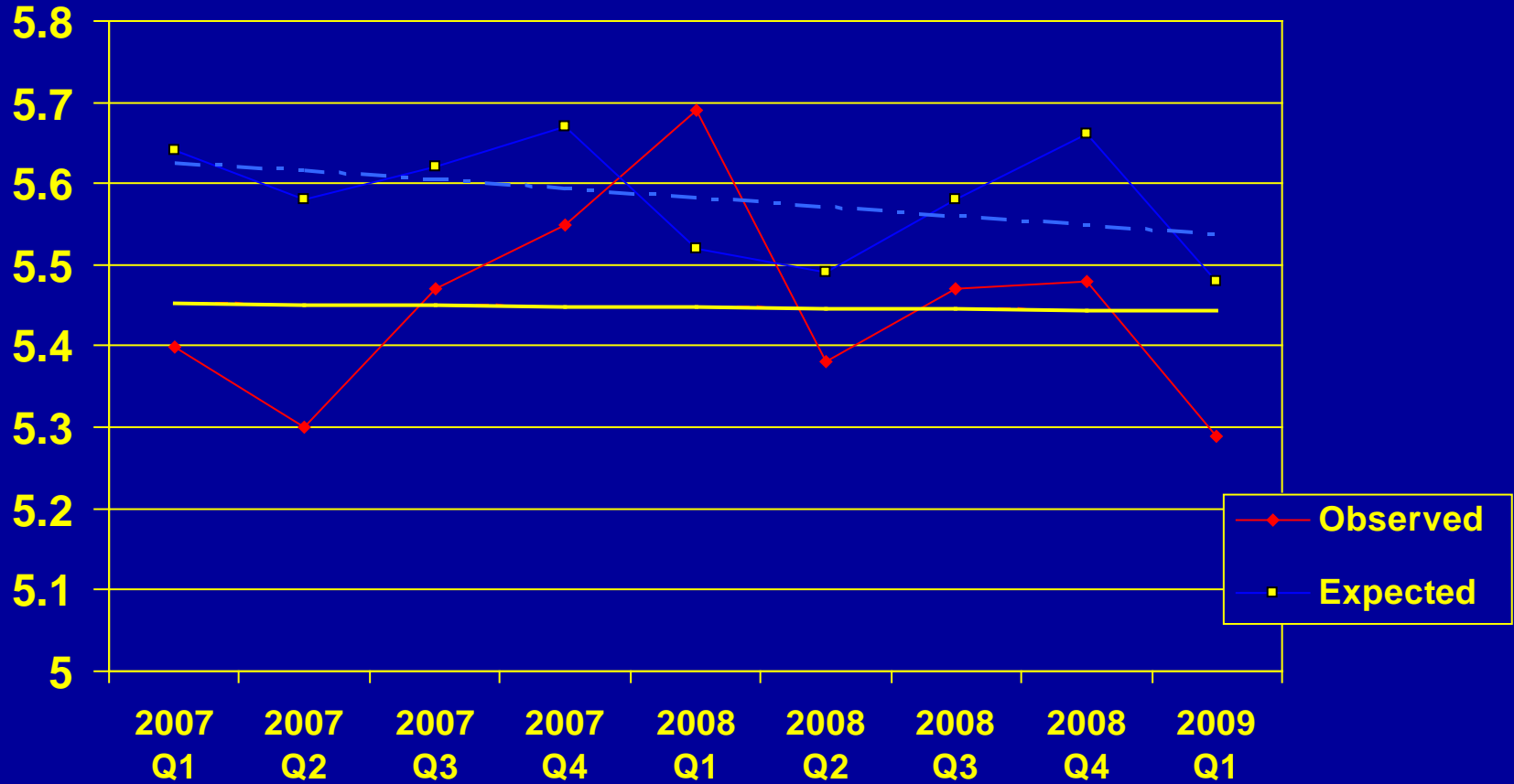
- *Potential to create additional value system-wide through deployment of proven concepts*

# Senior Services ALOS and Contribution Margin: *The Results are Outstanding...*



- *Senior services has applied care management concepts effectively to produce substantially shorter ALOS and high contribution margins for the population it serves*

# ALOS for >64



# Summa Unique Among Hospitals

Rank (by # of Discharges)	DRG	Discharges	% of Total	Average gain on Medicare cases <sup>1</sup>	Average gain on Medicare cases (Summa)
1	373: Vaginal Delivery w/o complicating diagnosis	2,339,903	7%	N/A	N/A
2	430: Psychoses	1,291,952	4%	(\$2,426)	(\$693)
3	127: Heart failure and shock	1,070,838	3%	(\$1,350)	\$866
4	371: Cesarean section w/o CC	862,260	2%	N/A	N/A
5	89: Simple pneumonia and pleurisy age >17 with CC	838,126	2%	(\$1,517)	\$620
6	209: Major joint and limb reattachment procedures of lower extremity	825,780	2%	(\$2,638)	(\$803)
7	143: Chest pain	784,528	2%	(\$868)	\$579
8	88: Chronic obstructive pulmonary disease (COPD)	628,863	2%	(\$1,330)	\$410
9	182: Esophagitis, Gastroenteritis and Miscellaneous Digestive Disorders Age >17 with CC	591,200	2%	(\$1,162)	\$668
10	390: Neonate, other significant problems	556,242	2%	N/A	N/A
Sub-Total		9,789,692	28%	(\$1,175)	\$232
Total		35,238,673	100%		

- *Senior services has been integral in assisting Summa to produce a margin on Medicare medical discharges in part due to the ACE and Stroke Units*

## Frail Elderly Care Management

- Physician House Calls
- Geriatric Rehabilitation Units
- Transitional Care

Home Care-  
ACE & STAR  
Team

AAoA/SHS

S.A.G.E.  
Project

ACE -  
Pulmonary

ACE -  
Heart

ACE -  
Gero-psych

ACE -  
Ortho

TEAMS Elder  
Abuse  
Program

ACE  
Unit

SNF

GEM Units

Acute  
Palliative  
Care Unit

Stroke  
Unit

Key:

Hospital

Community

Research

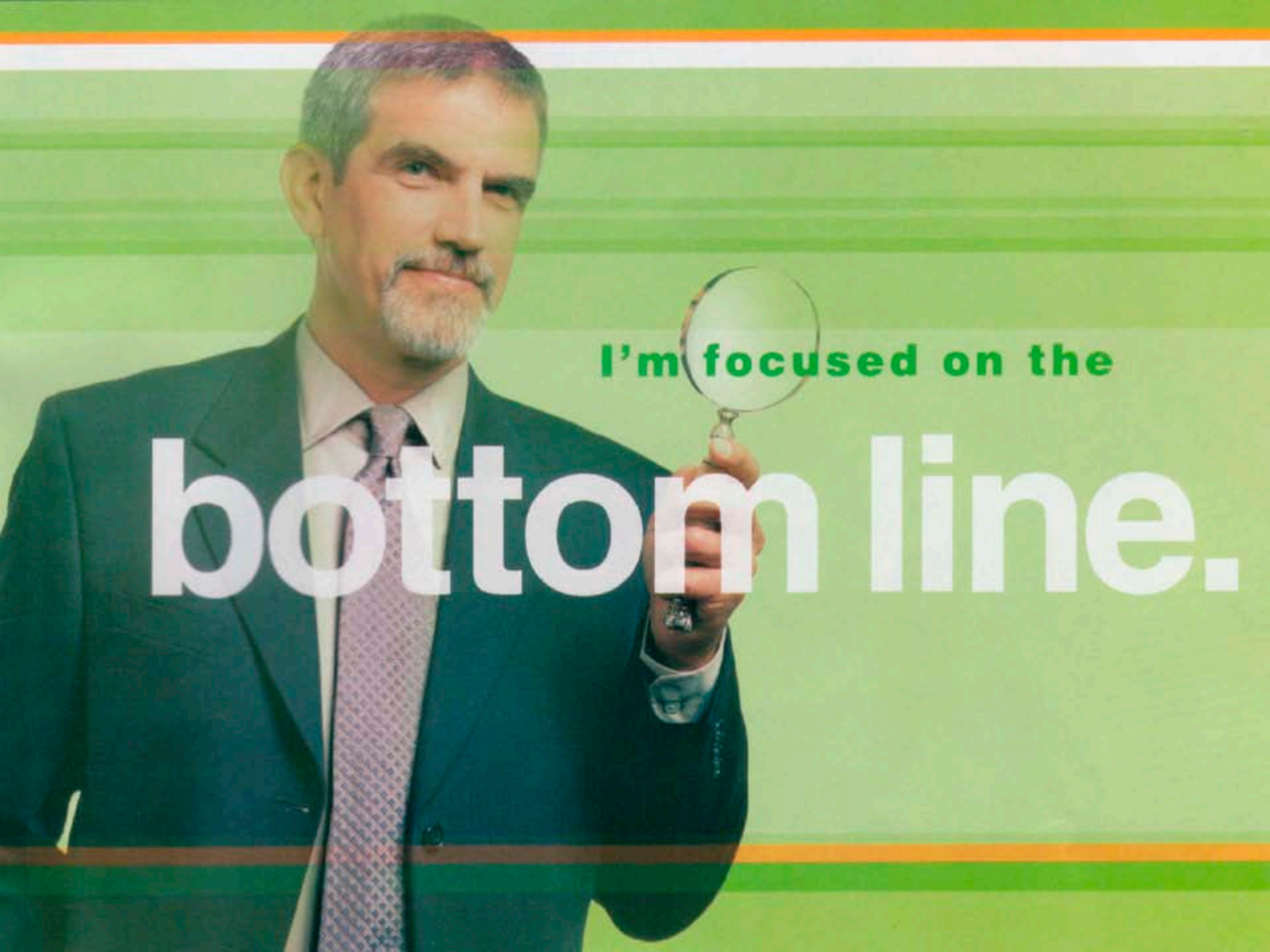
AHRQ

AD-LIFE  
Trial

CCN:SNF  
Network

NIH-STEPS  
CARE Trial





I'm focused on the

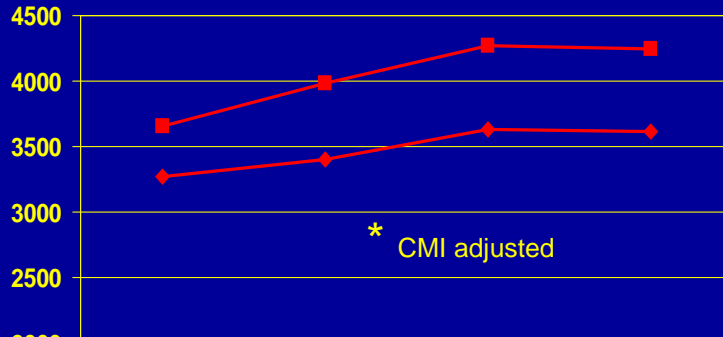
**bottom line.**

# Key Points

- Feasible
- Experience with replication, e.g. Stroke Unit, SNF – Geriatric Rehabilitation Units
- Improved quality and cost effectiveness at modest cost savings
- Creates a “center/laboratory ” that allows dissemination and role out of models that improve hospital care of older adults and those with chronic illness.
- Value added benefits including prevention of HAC e.g. falls, decubitus ulcers, delirium, catheter associated infections, etc. Greater indirect savings

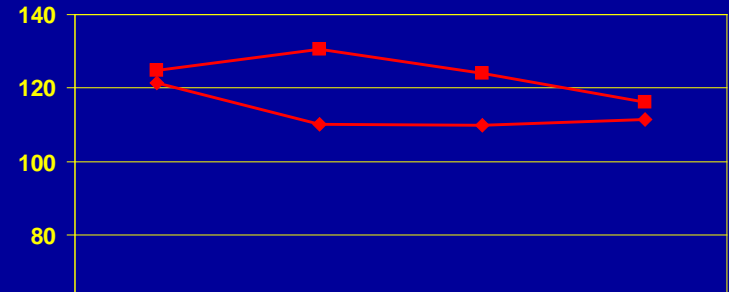
# Educations Innovations Program

## Average Direct Costs\*/Case



	2006-2007	2007-2008	2008-2009	2009-2010
◆ Gen Med	\$3,272	\$3,398	\$3,628	\$3,614
■ Private	\$3,653	\$3,987	\$4,270	\$4,250

## % Expected Readmissions



	2006-2007	2007-2008	2008-2009	2009-2010
◆ Gen Med	121.4	110.0	109.9	111.3
■ Private	124.7	130.5	123.9	116.1

## % Expected for Severity LOS



	2006-2007	2007-2008	2008-2009	2009-2010
◆ Gen Med	79.1	85.3	83.2	81.1
■ Private	91.7	102.3	102.4	100.6

# Contact Information

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