



INSTITUTE FOR
HEALTHCARE
IMPROVEMENT

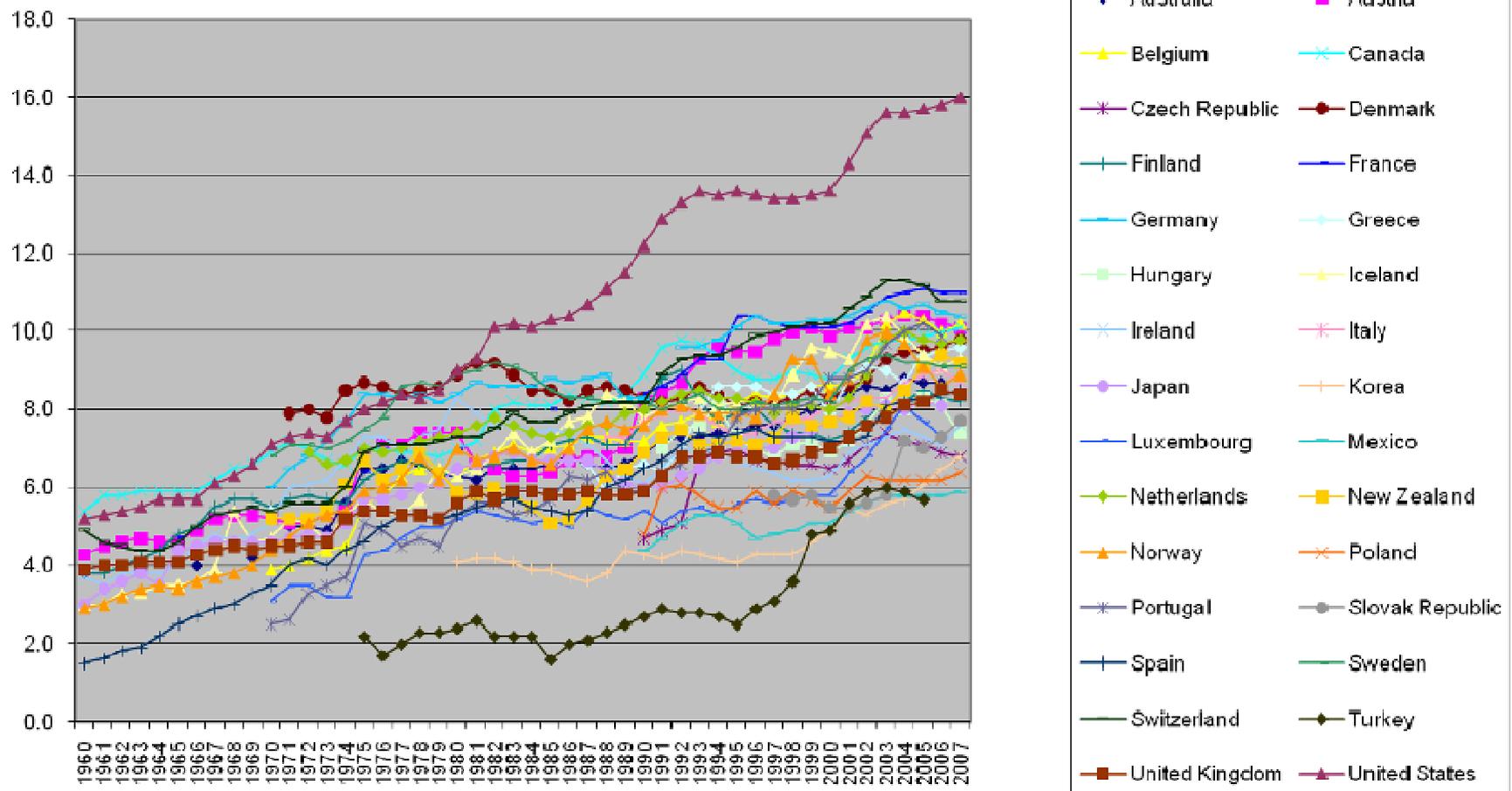
Achieving the "Quadruple Aim" - Military Health Care Leading the Nation

Donald M. Berwick, MD, MPP
President and CEO
Institute for Healthcare Improvement

*Military Health System Conference
Washington, DC: January 27, 2010*

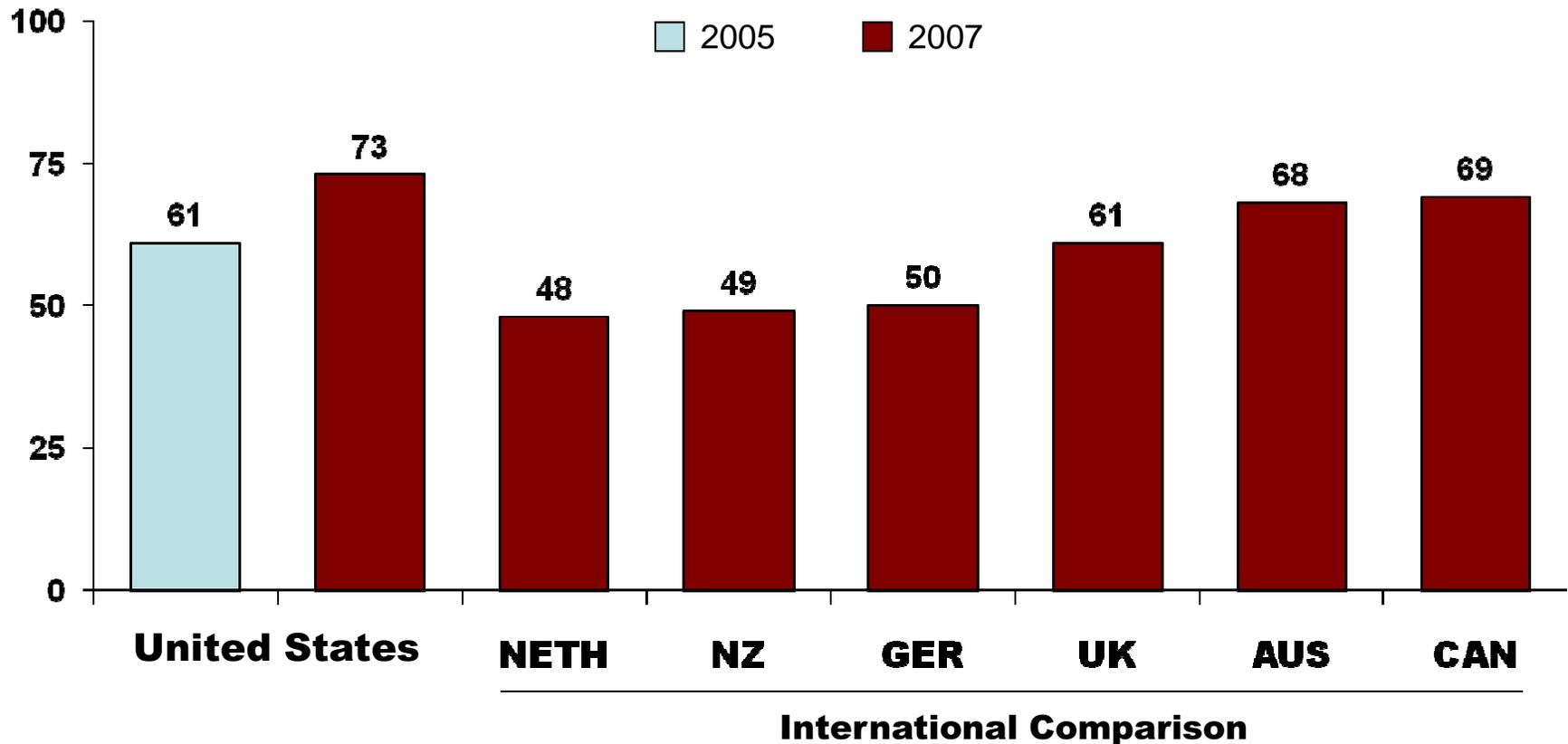
Health Care Expenditure Out of GDP

OECD 2009: Total Expenditure on Health, % Gross Domestic Product



Difficulty Getting Care on Nights, Weekends, Holidays Without Going to the Emergency Room, Among Sicker Adults

Percent of adults who sought care reporting “very” or “somewhat” difficult

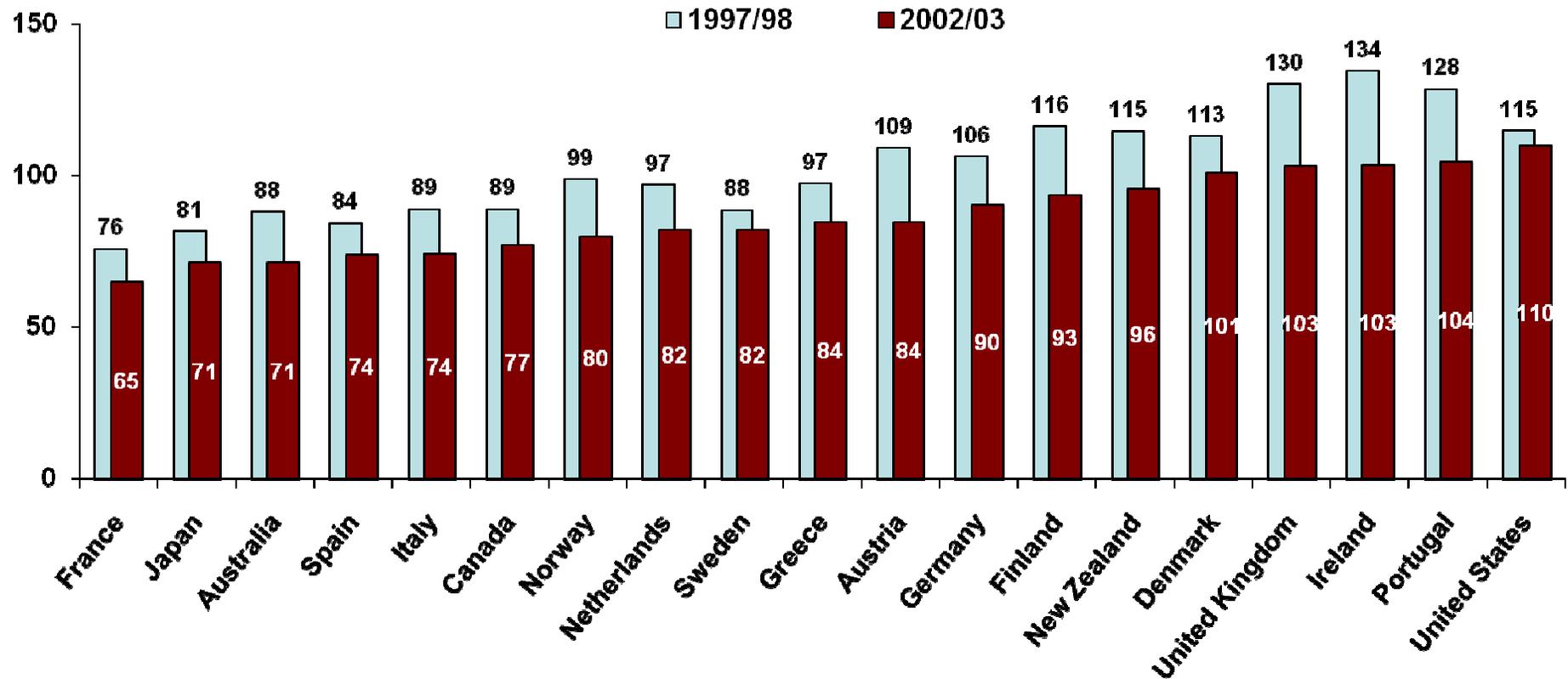


AUS=Australia; CAN=Canada; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom.
Data: 2005 and 2007 Commonwealth Fund International Health Policy Survey.

Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2008

Mortality Amenable to Health Care

Deaths per 100,000 population*



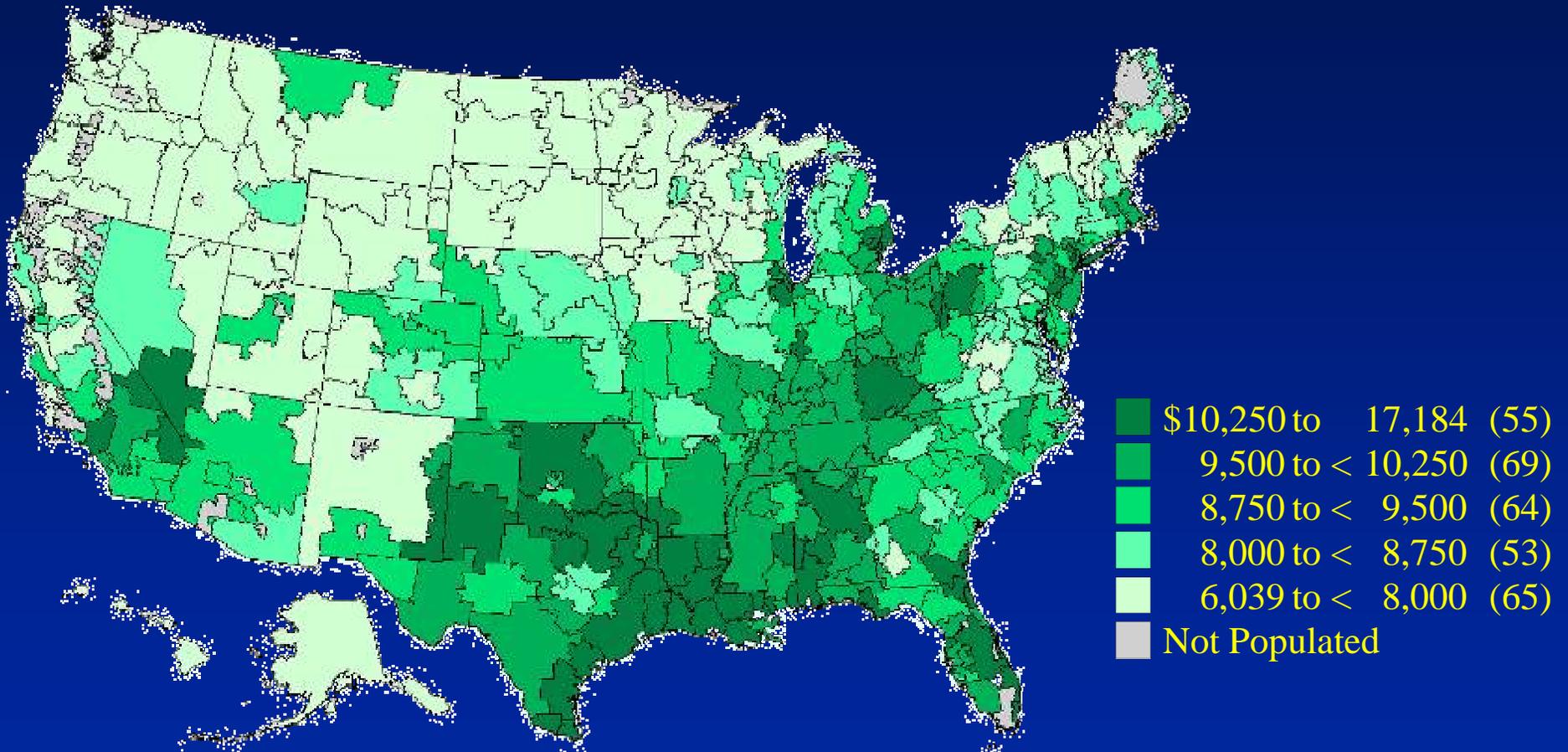
* Countries' age-standardized death rates before age 75; including ischemic heart disease, diabetes, stroke, and bacterial infections.

See report Appendix B for list of all conditions considered amenable to health care in the analysis.

Data: E. Nolte and C. M. McKee, London School of Hygiene and Tropical Medicine analysis of World Health Organization mortality files (Nolte and McKee 2008).

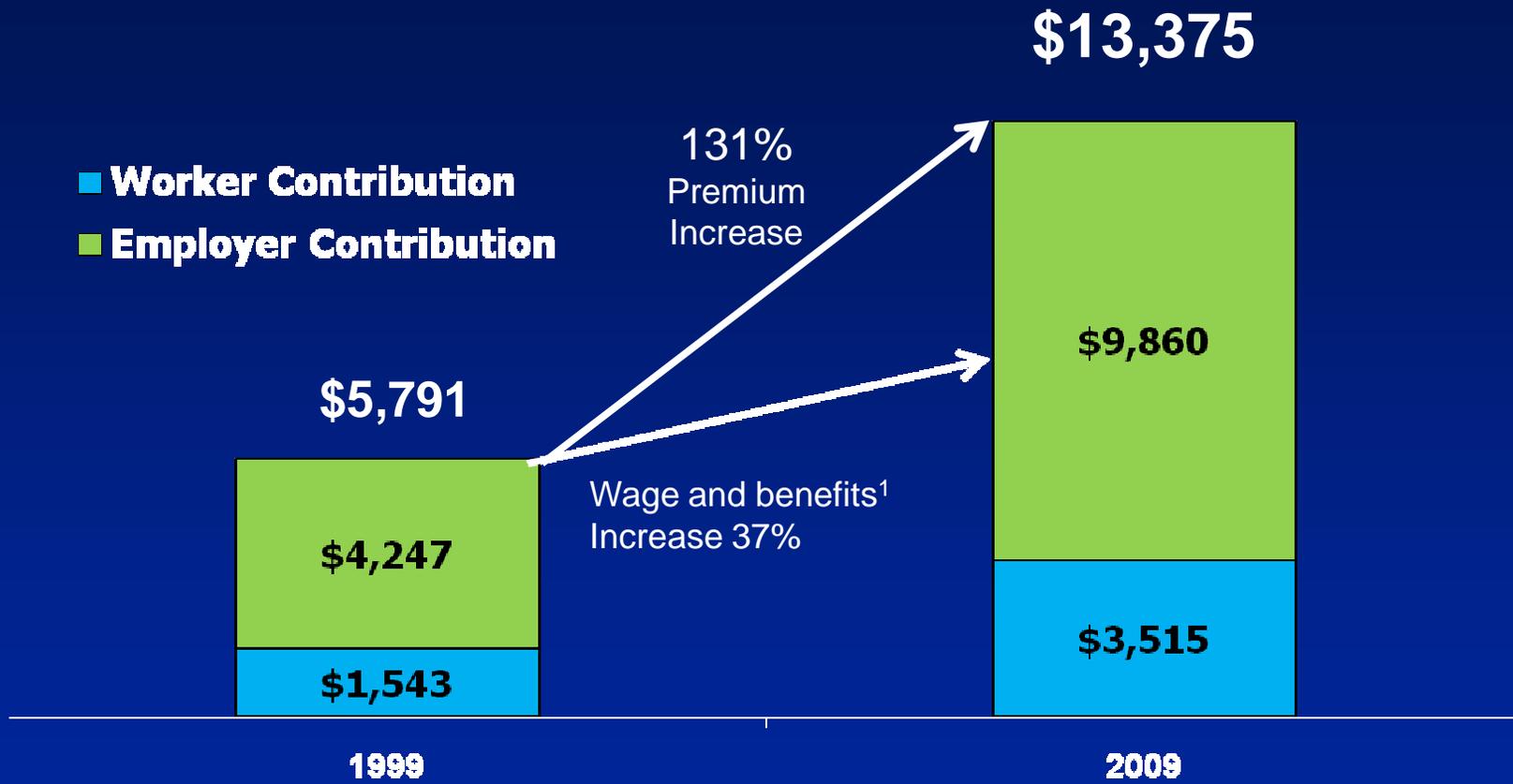
The Dartmouth Atlas

Regional Variation in Medicare Spending *per Capita*



Source: Elliott Fisher and the Dartmouth Atlas Project

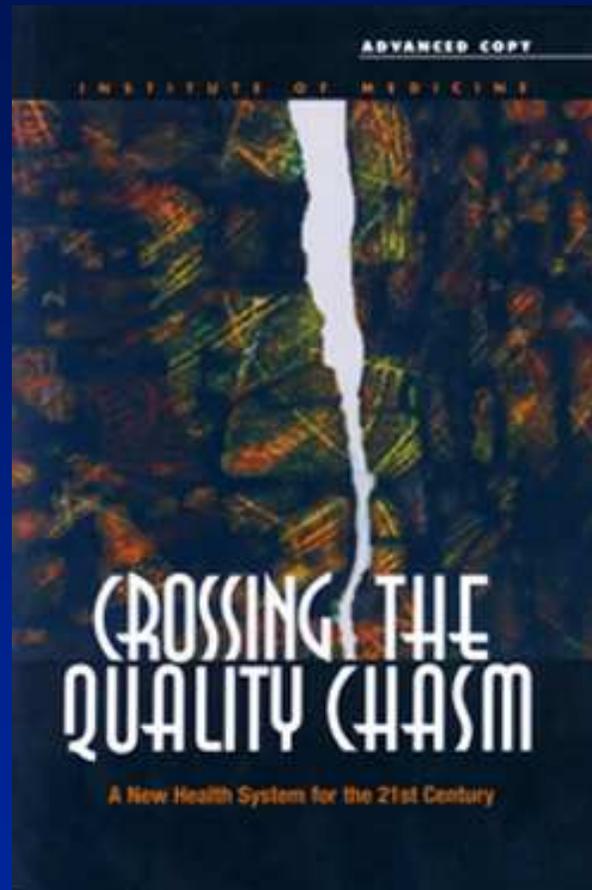
Average Health Insurance Premiums and Worker Contributions for Family Coverage, 1999-2009



Note: The average worker contribution and the average employer contribution may not add to the average total premium due to rounding.

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999-2009.

1. Bureau of Labor Statistics Employment Cost Index



What Should We Aim for?

- No Needless Deaths
- No Needless Pain or Suffering
- No Unwanted Waits
- No Helplessness
- No Waste

.....For Anyone

Aims

- Safety
- Effectiveness
- Patient-centeredness
- Timeliness
- Efficiency
- Equity

“The First Law of Improvement”

Every system is perfectly designed to achieve exactly the results it gets.



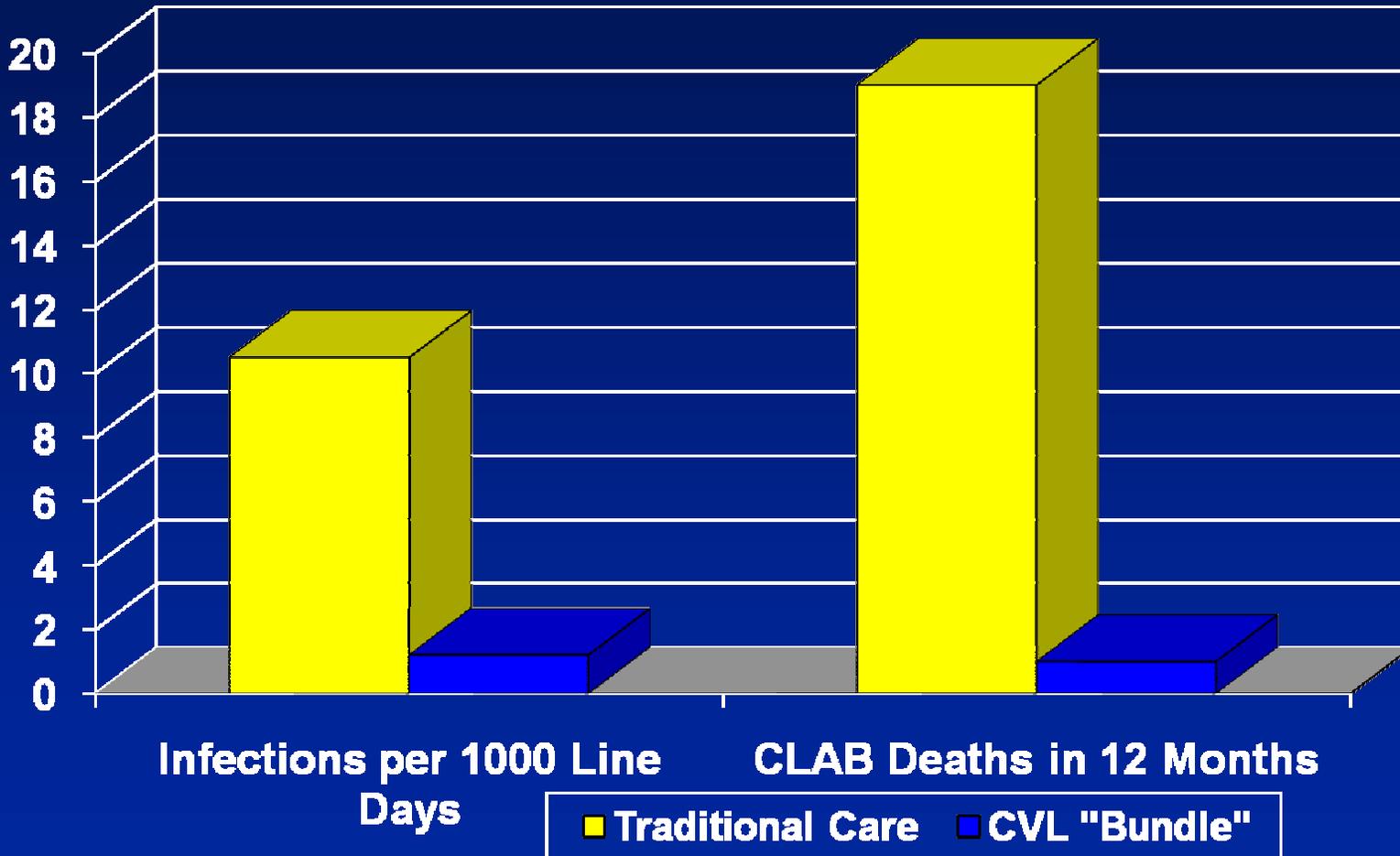
PARIS
IN THE
THE SPRING

Preventing Central Line Infections

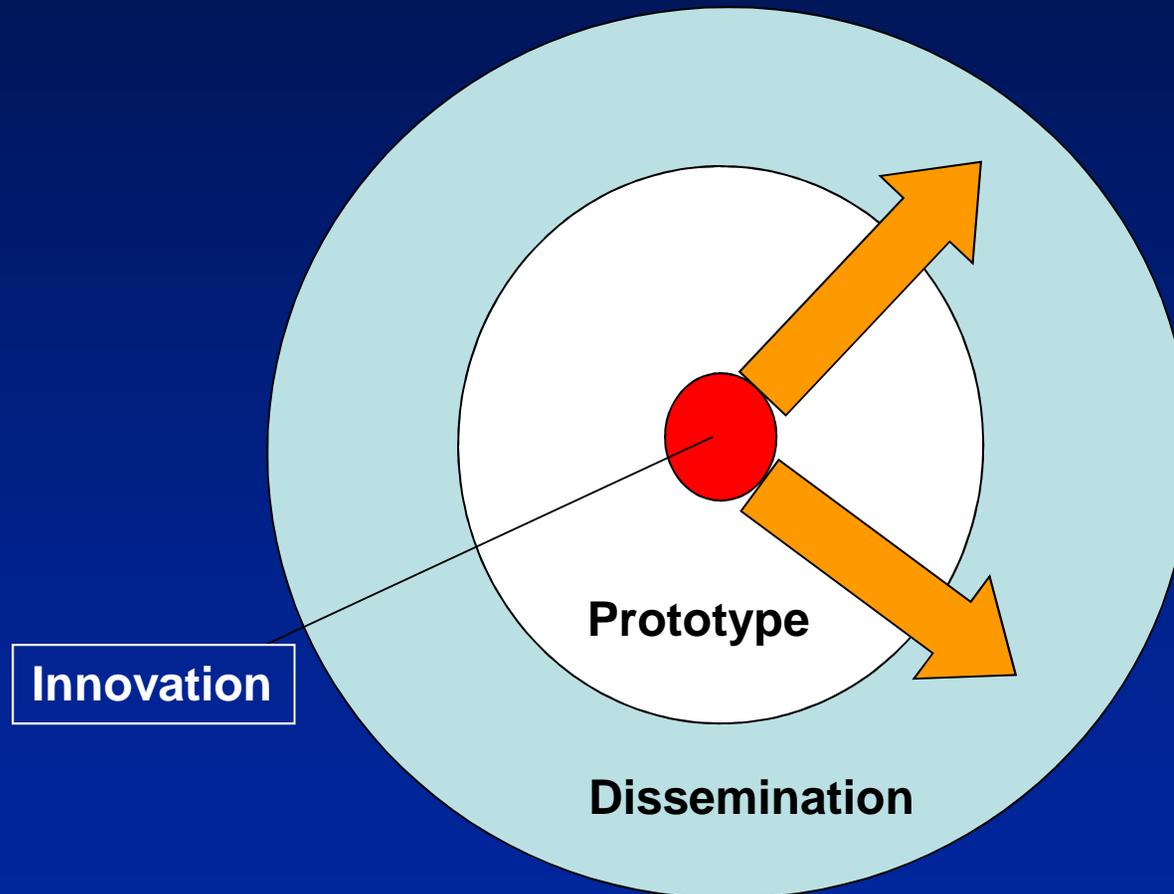
- Hand hygiene
- Maximal barrier precautions
- Chlorhexidine skin antisepsis
- Appropriate catheter site and administration system care
- Daily review of line necessity and prompt removal of unnecessary lines

Central Line Associated Bloodstream Infections (CLABs)

(from Rick Shannon, MD, West Penn Allegheny Health System)



IHI's "Rings" of Activity



The “100,000 Lives Campaign”

100k *lives* Campaign

SOME IS NOT A NUMBER. SOON IS NOT A TIME.

The Campaign “Planks” -- Six Changes That Save Lives

1. Deployment of Rapid Response Teams
2. Delivery of Reliable, Evidence-Based Care for Acute Myocardial Infarction
3. Medication Reconciliation
4. Prevention of Central Line Infections
5. Prevention of Surgical Site Infections
6. Prevention of Ventilator-Associated Pneumonias

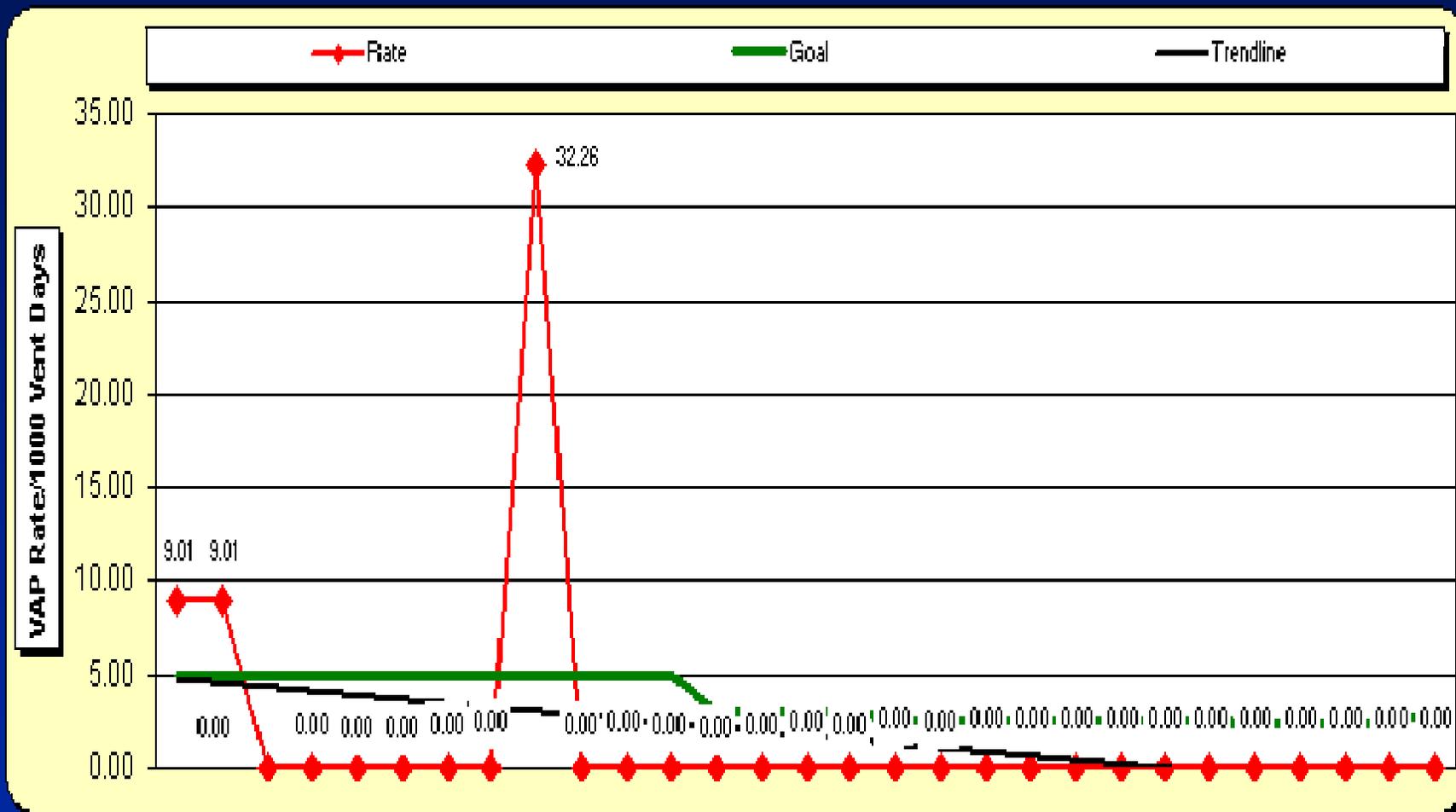


Six Additional Planks

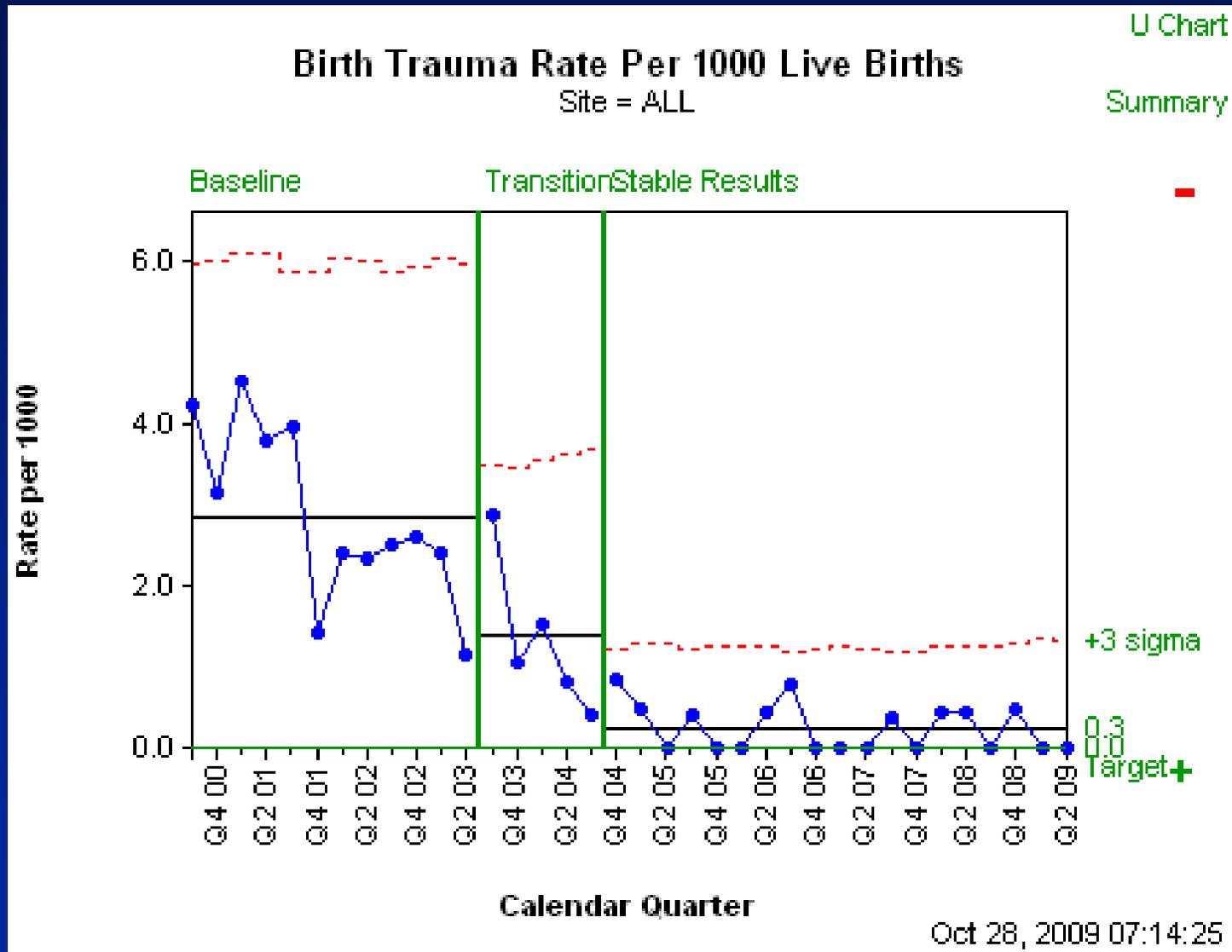
7. Prevent Pressure Ulcers
8. Reduce Methicillin-Resistant *Staphylococcus Aureus* (MRSA) Infection
9. Prevent Harm from High-Alert Medications
10. Reduce Surgical Complications (the Surgical Care Improvement Project (SCIP))
11. Deliver Reliable, Evidence-Based Care for Congestive Heart Failure
12. Get Boards on Board

Sentara Williamsburg

Zero Ventilator Pneumonias in Five Years!

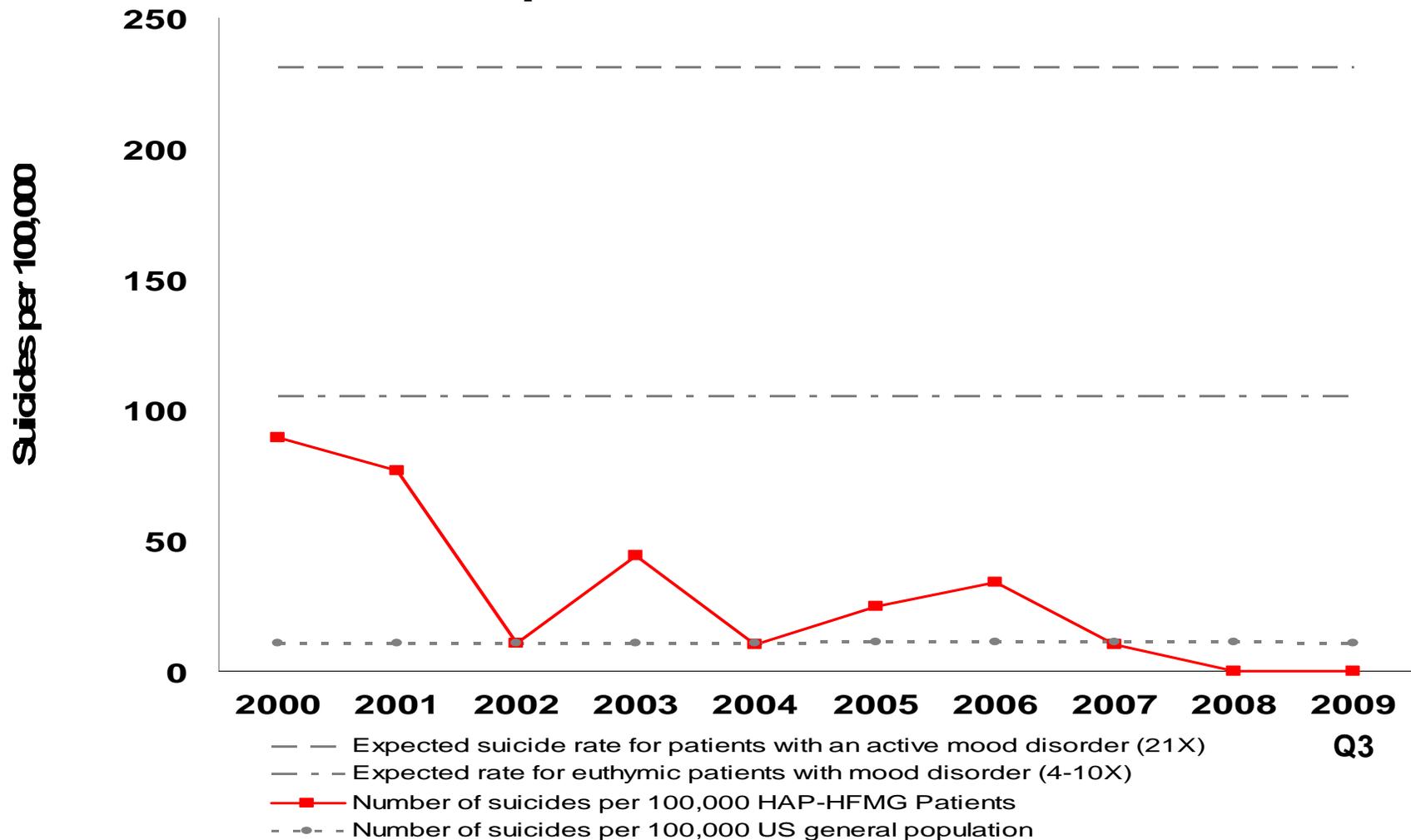


Seton Family of Hospitals Birth Trauma Prevention

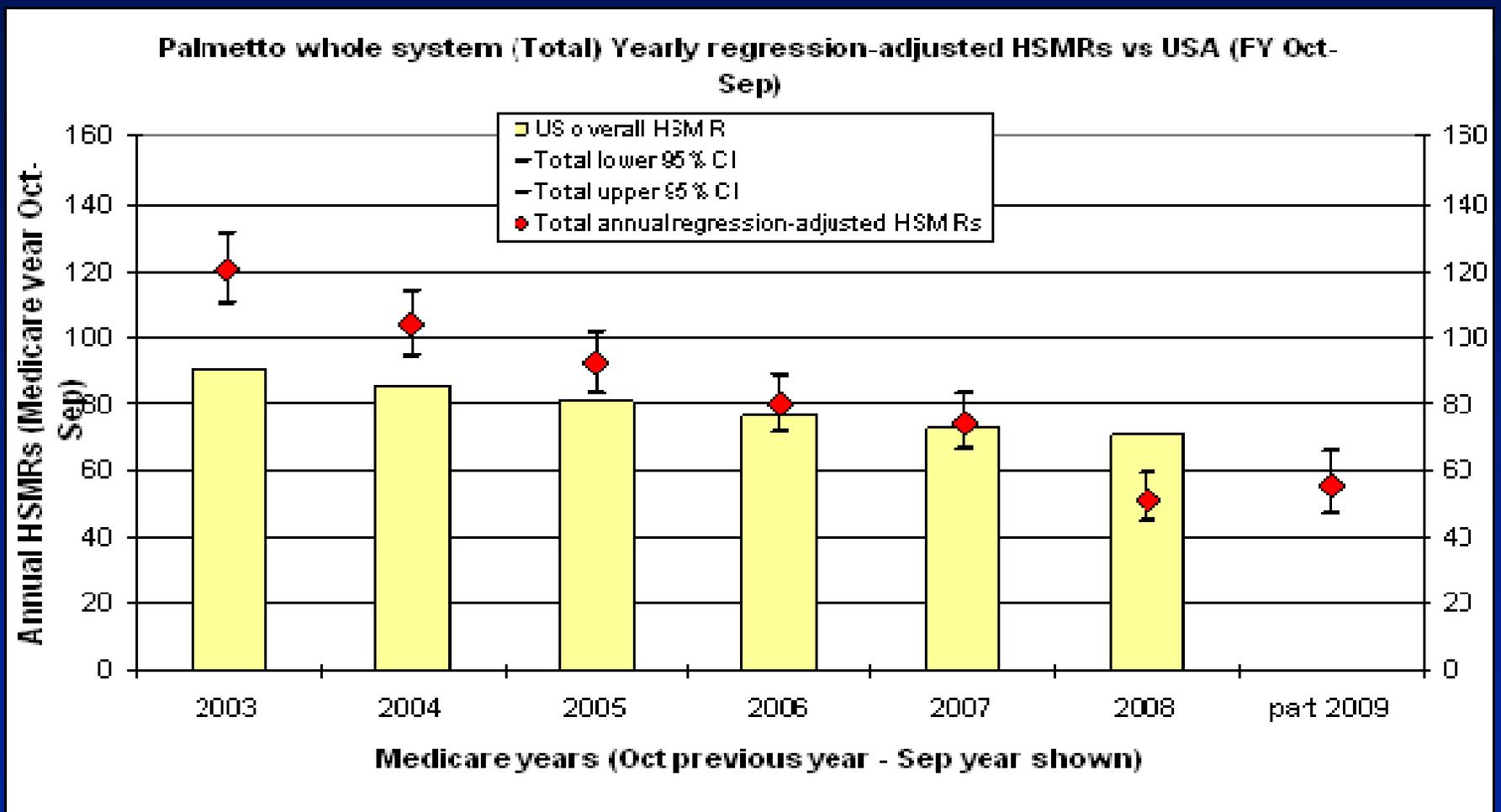


Henry Ford Health System

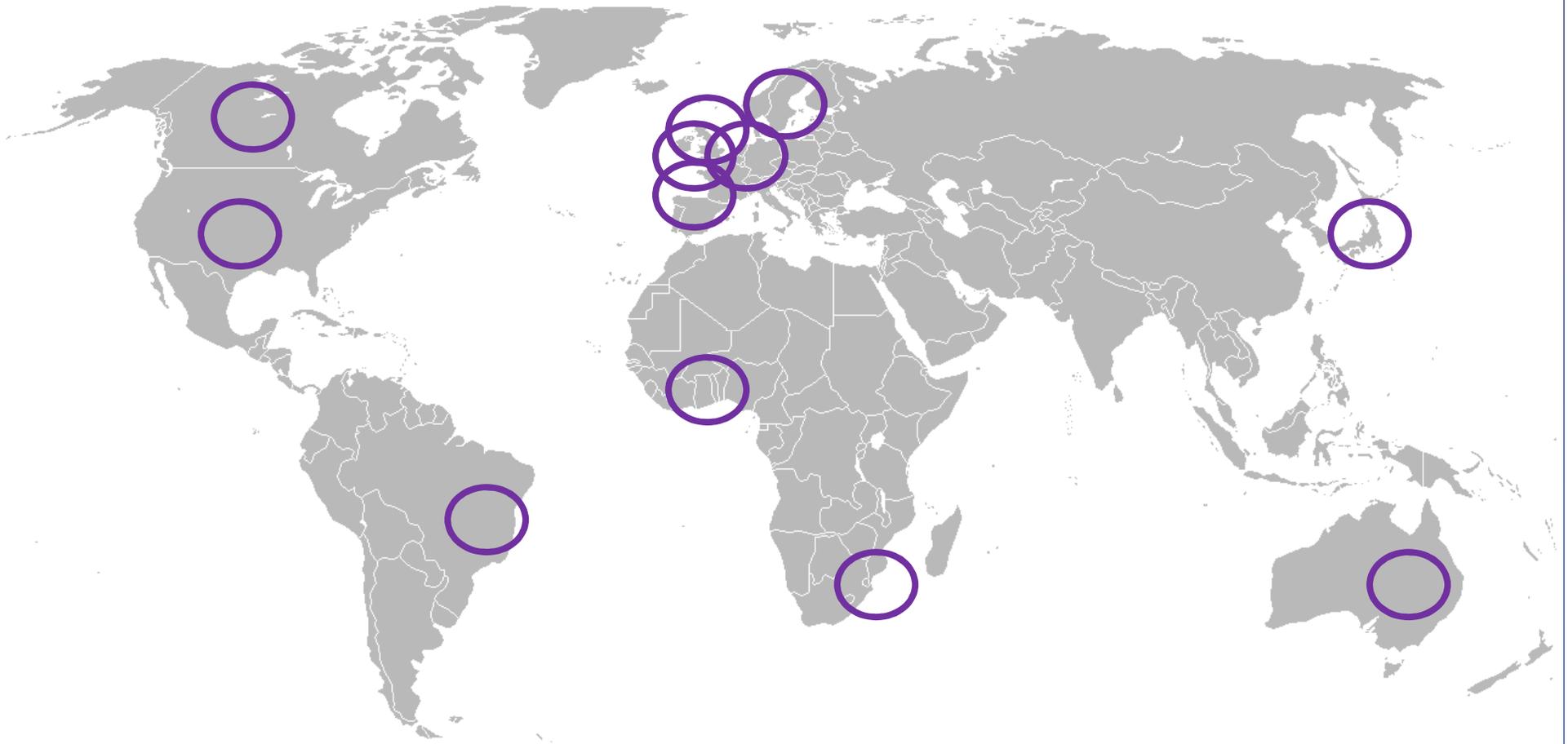
Suicides per 100,000 HMO Patients



Palmetto Hospital Mortality Rates



An International Movement of Movements?



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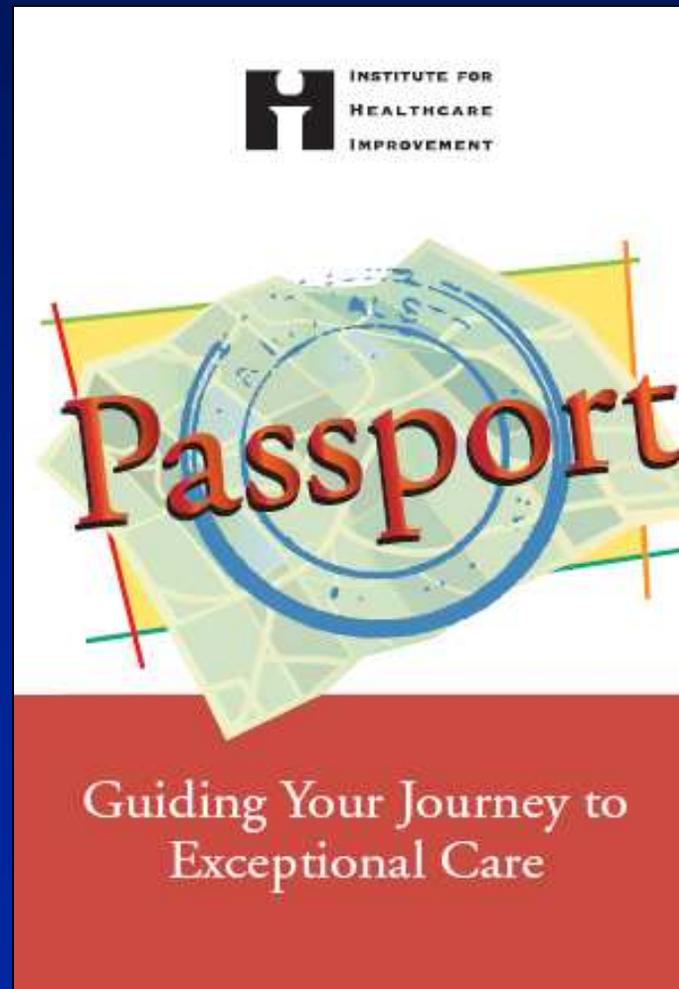
IHI's "Improvement Map"

www.ihl.org

IHI
i m p r o v e m e n t
map • *from here to excellence*
RELIABLE ROUTES TO
EXCEPTIONAL HOSPITAL CARE

<p>Advance Care Planning</p> <p>Along with advance care directives, advance care planning allows providers and caregivers to adequately anticipate patient's desires and needs at the end of life.</p> <p>\$ 1 ⏰ 2 📄 3 🤝 3</p>	<p>Communication with Patients & Families after an Adverse Event</p> <p>Communication, including disclosure and apology, with patients and families after an adverse event is ethical, patient-centered, and essential to mitigating the impact of the event.</p> <p>\$ 1 ⏰ 2 📄 3 🤝 3</p>	<p>Daily Goal Setting & Planning</p> <p>Establish daily goals to include patients and families in care and prepare patients for treatment and discharge.</p> <p>\$ 1 ⏰ 1 📄 3 🤝 3</p>	<p>Efficient and Reliable Transportation Services</p> <p>Establish the mechanisms for timely and reliable patient transportation within the hospital.</p> <p>\$ 1 ⏰ 1 📄 3 🤝 1</p>
<p>L3 Will: Patients & Families</p> <p>Leaders engage with patients and families in all elements of care delivery, design, measurement, assessment, and improvement.</p> <p>\$ 1 ⏰ 2 📄 2 🤝 3</p>	<p>Multidisciplinary Rounding</p> <p>Multidisciplinary rounds (MDR) enable several members of the team caring for at-risk patients to come together to offer expertise and coordinate patient care.</p> <p>\$ 1 ⏰ 1 📄 2 🤝 2</p>	<p>Neonatal Intensive Care Unit (NICU) Standard Care</p> <p>Establish routine care to assure safety and effectiveness in the neonatal intensive care unit.</p> <p>\$ 1 ⏰ 1 📄 2 🤝 2</p>	<p>Patient Transitions & Handoffs</p> <p>Improve transitions and handoffs in care with standard processes and communication techniques.</p> <p>\$ 1 ⏰ 2 📄 2 🤝 3</p>

IHI's "Passport" Program: A Key to the Improvement Map

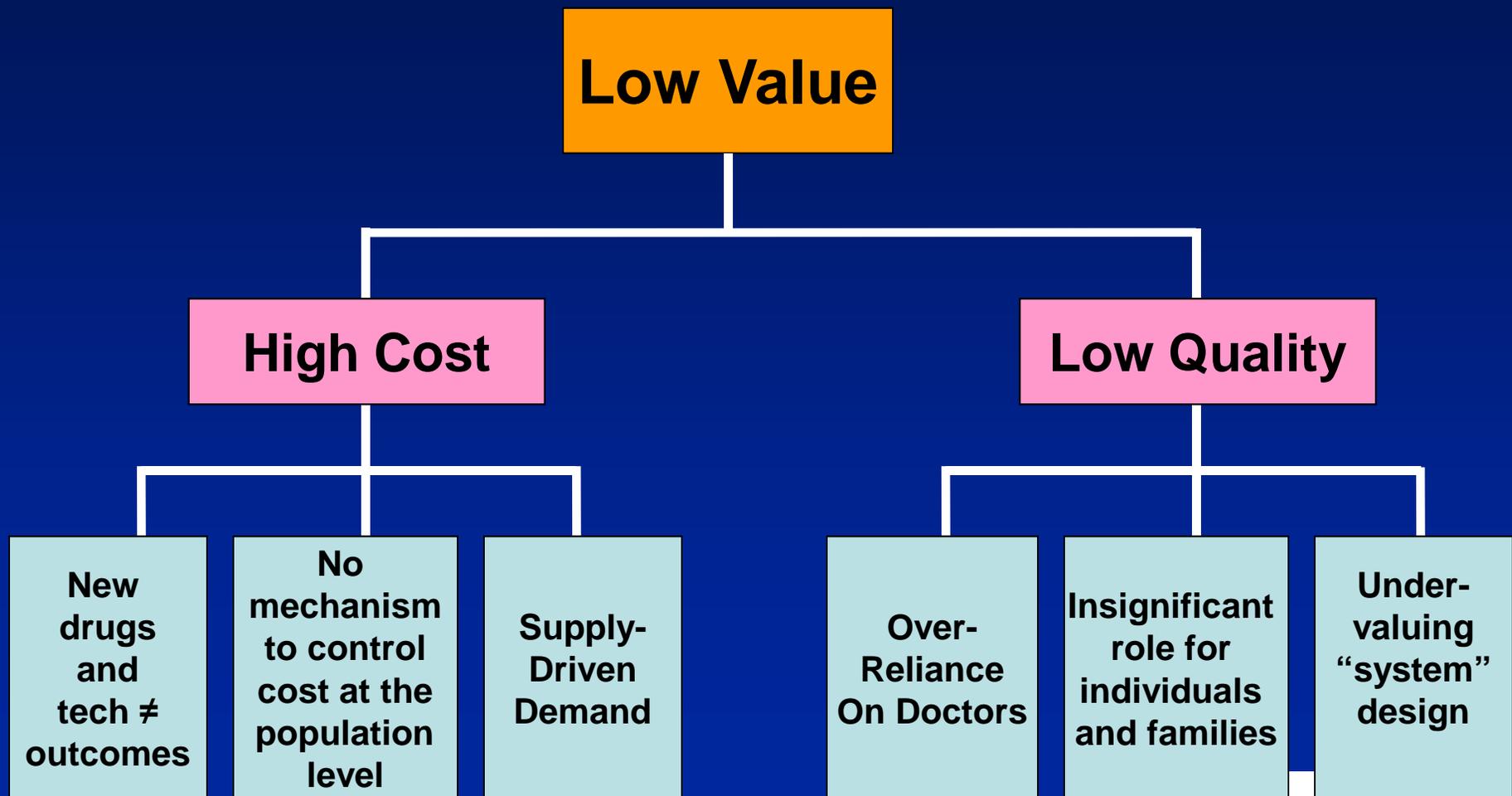


Does Improving Safety Save Money?

HENRY FORD HEALTH SYSTEM

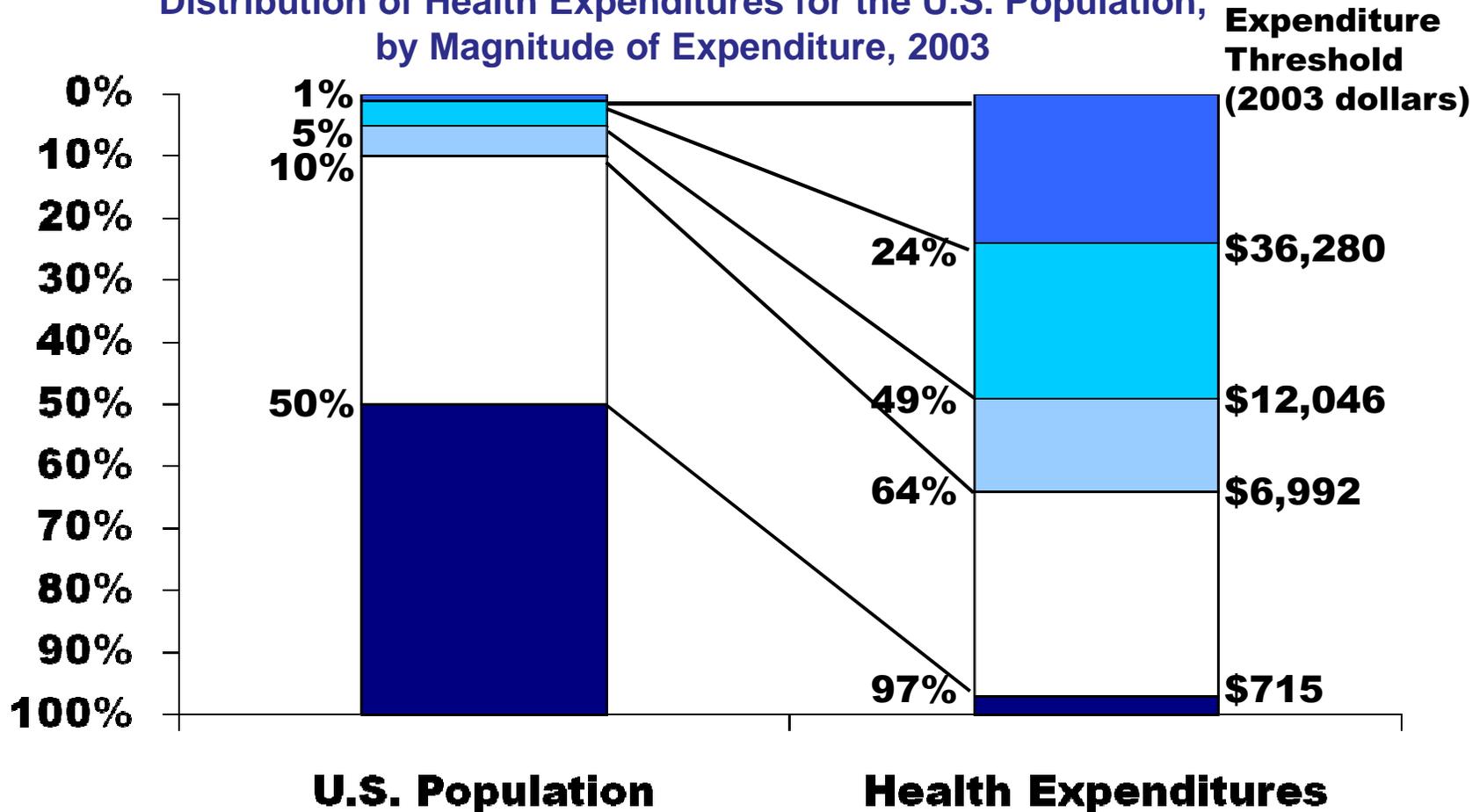
IMPROVEMENT	COST	SAVINGS	NET
<i>SURGICAL INFECTIONS</i>	(\$110,000)	\$540,000	\$430,000
<i>BLOODSTREAM INFECTIONS</i>	(\$22,500)	\$4,780,000	\$4,757,500
<i>VENTILATOR PNEUMONIAS</i>	(\$1,268,500) (Reduced Revenue)	\$1,166,400	(\$102,100)
<i>RAPID RESPONSE TEAMS</i>	(\$390,000)	?	(\$390,000)
TOTAL	(\$1,791,000)	\$5,320,000	\$4,695,400

Drivers of a Low-Value Health System

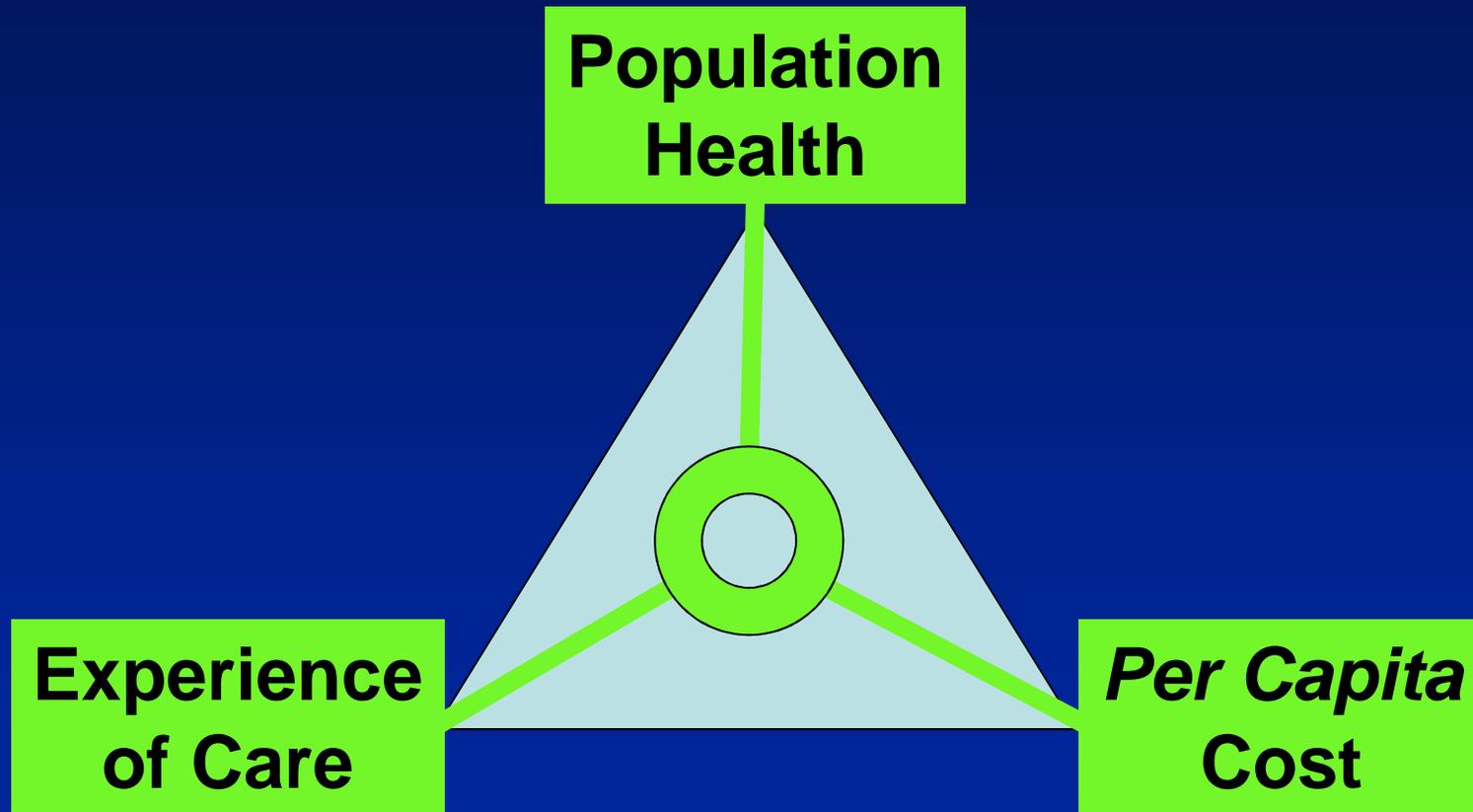


Health Care Costs Are Concentrated in Sick Few— The Sickest 10% Account for 64% of Expenses

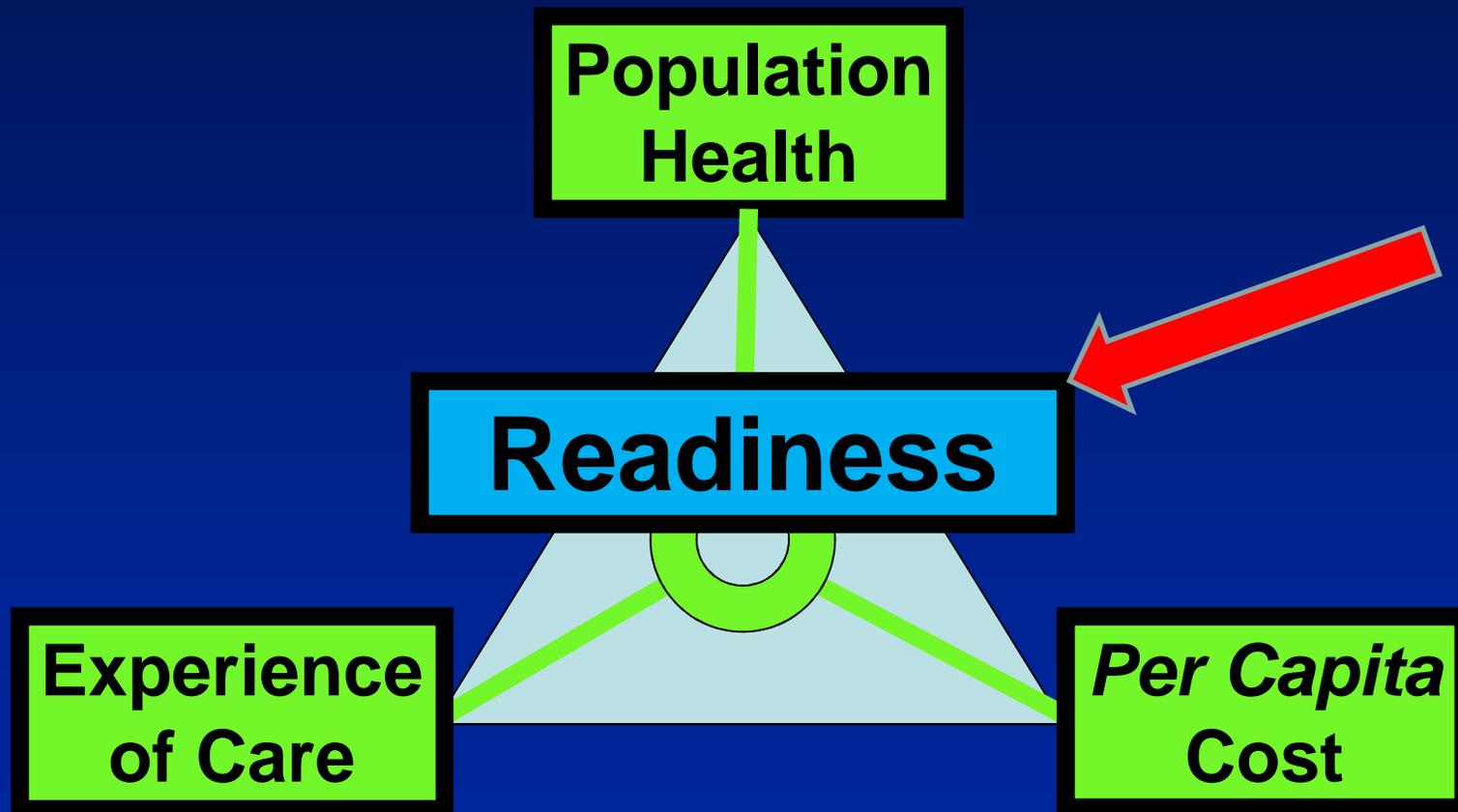
Distribution of Health Expenditures for the U.S. Population,
by Magnitude of Expenditure, 2003



The “Triple Aim”



The “Quadruple Aim”





THE NEW YORKER

REPORTING & ESSAYS

ARTS & CULTURE

HUMOR

FICTION & POETRY

THE TALK OF THE TOWN

ONLINE ONLY

NOVEMBER 25, 2009

THE POLITICAL SCENE

Evan Osnos on Obama's visit to China, and John Cassidy on the economy.



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Jon Michaud: Reading List:

ANNALS OF MEDICINE

THE COST CONUNDRUM

What a Texas town can teach us about health care.

by Atul Gawande

JUNE 1, 2009

It is spring in McAllen, Texas. The morning sun is warm. The streets are lined with palm trees and pickup trucks. McAllen is in Hidalgo County, which has the lowest household income in the country, but it's a border town, and a thriving foreign-trade zone has kept the unemployment rate below ten per cent. McAllen calls itself the Square Dance Capital of the World. "Lonesome Dove" was set around here.

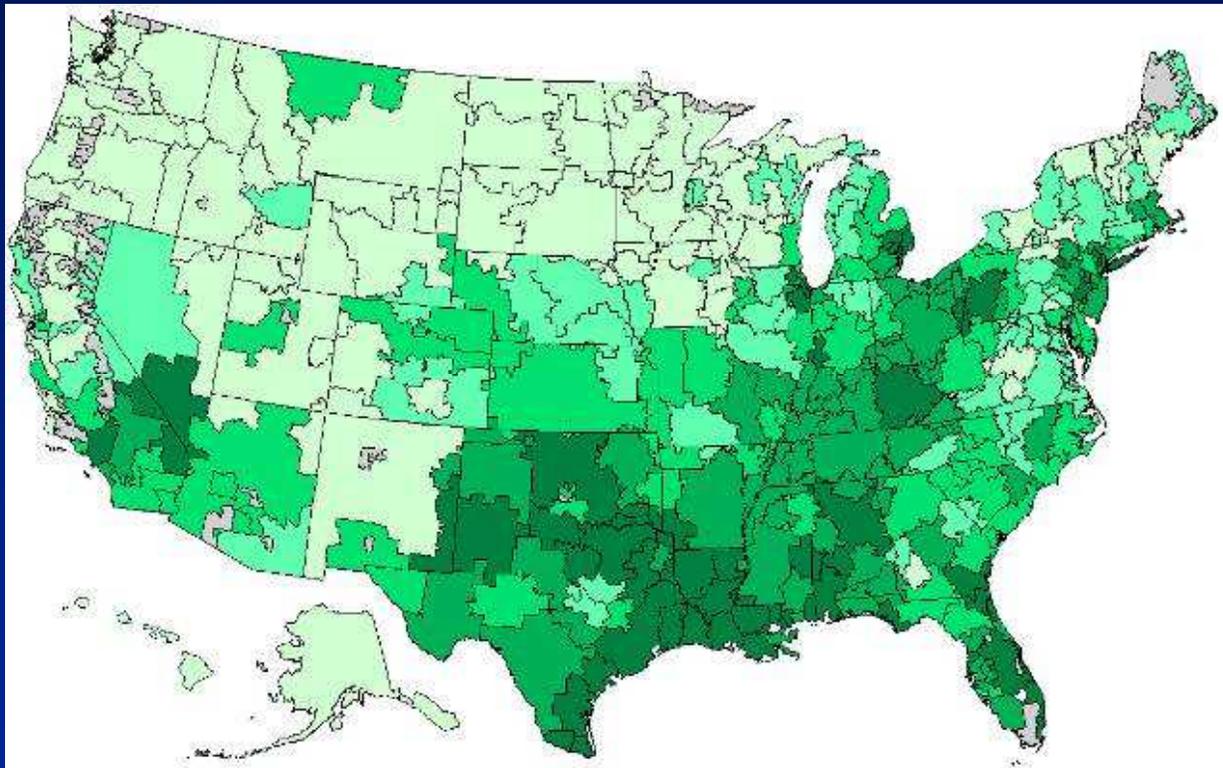
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The Dartmouth Atlas

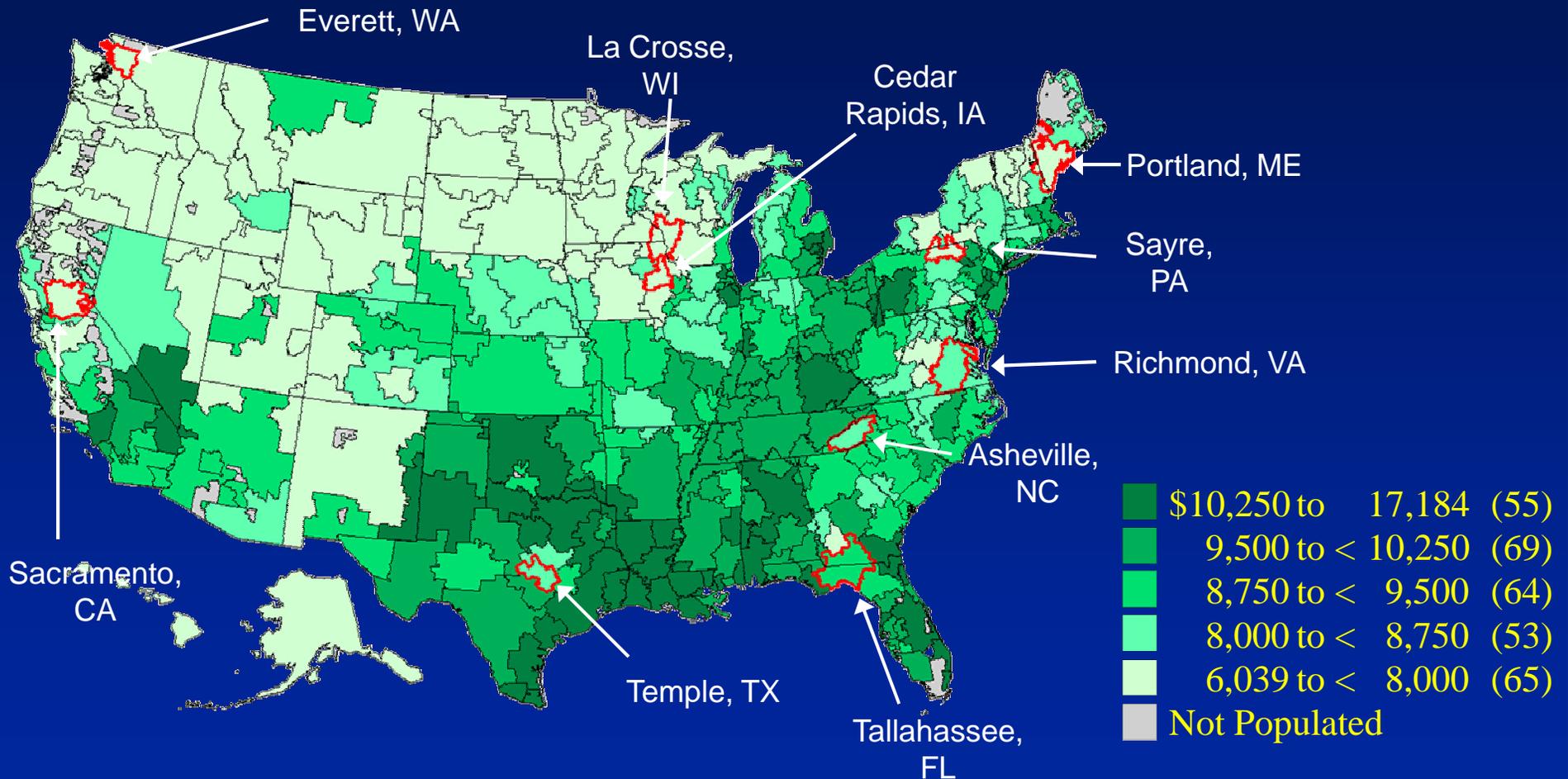
Regional Variation in Medicare Spending *per Capita*



Source: Elliott Fisher and the Dartmouth Atlas Project

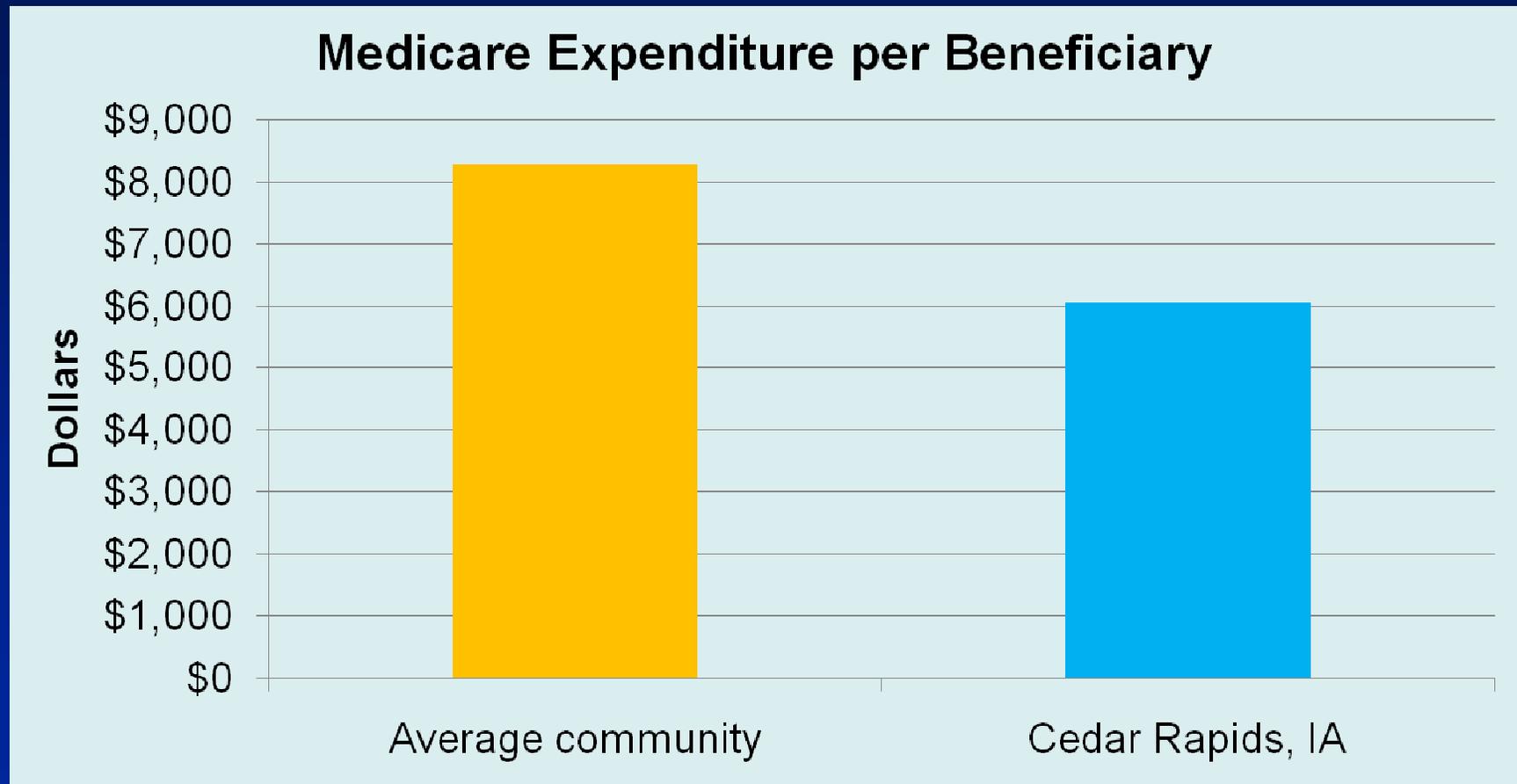
10 HRRs We Studied

Price-Adjusted *per Capita* Medicare spending



Source: Elliott Fisher and the Dartmouth Atlas Project

Cedar Rapids Spends 27% Less than the Average Community



What Are They Doing?

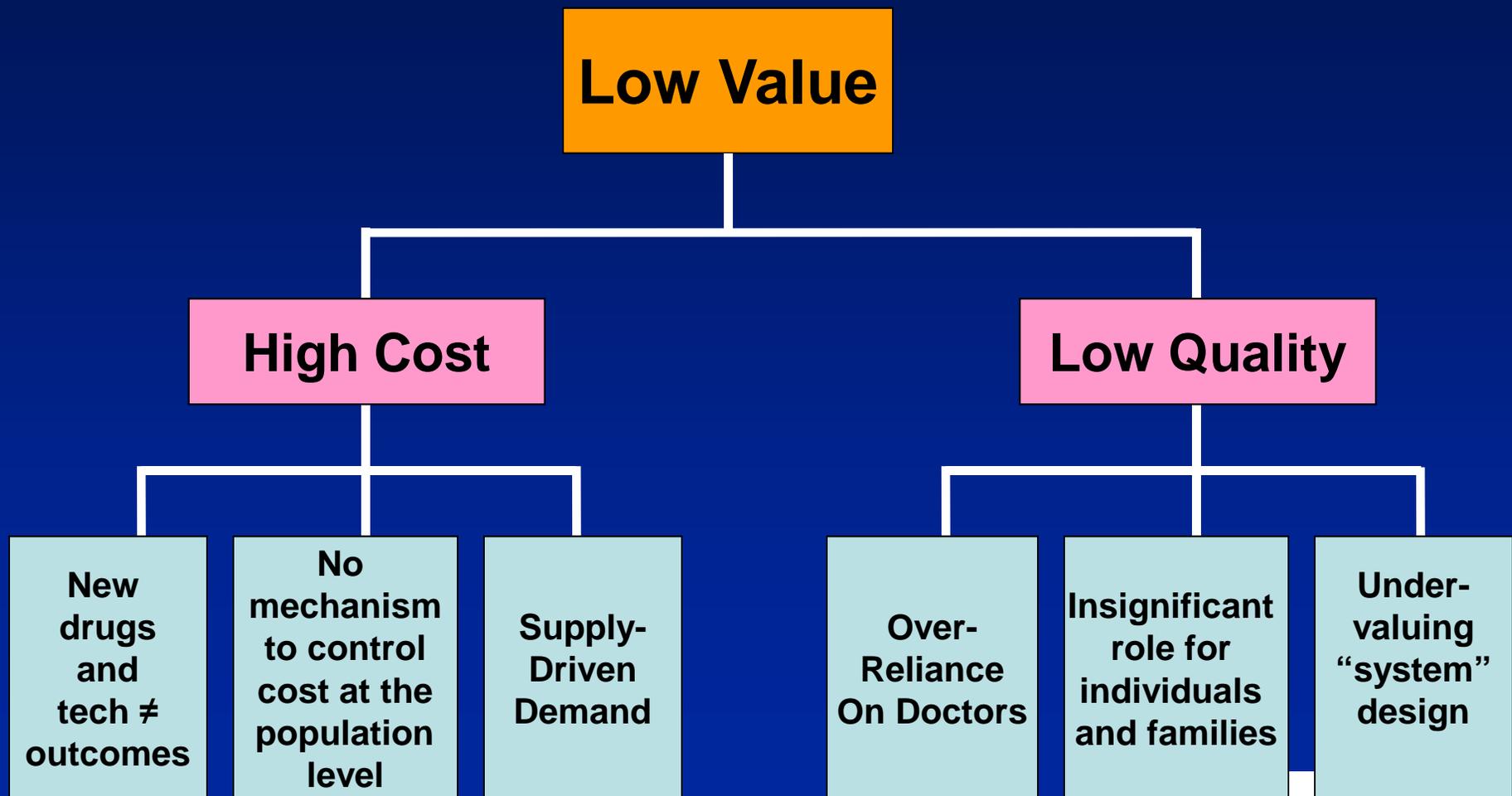
The High-Performing HRR's *per capita* Spending – and Spending Growth – Are Lower.

	Price Adjusted Spending 2006	Increase in Spending 1992 – 2006	Annual Growth Rate
Ten High-Performing HRRs	\$7,924	\$2,297	3.0%
232 Other HRRs	\$9,695	\$3,376	3.6%

Potential Annual Savings: 12.7% - 16.2%

Source: Elliott Fisher and the Dartmouth Atlas Project

Drivers of a Low-Value Health System



Designing for a High-Value Regional Health Care System

Design Concepts

1. Primary Care: redefined, higher capacity

- General medical practice connected to other resources
- Self-care designed by “lead patients and families”

2. Reverse the cost-flow gradient

- GP - specialist compacts
- Make the expensive places the bottlenecks

3. Reclaim wasted hospital capacity

- Flow optimization
- Chronic disease care

4. Patient goals at least total cost

- Patient reported outcomes
- Decision aids and peer to peer support

5. Focused segment: High cost, socially or medically complex

6. Integration of regional resources

- Negotiate fair arrangements
- Ostrom’s design concepts

Primary Drivers

“More Is Better” Culture

Mitigated by: 1, 2, 4

Supply Driven Demand

Mitigated by: 2, 3, 6

No Mechanism to Control Cost at the Population Level

Mitigated by: 3, 5, 6

Over-Reliance on Doctors

Mitigated by: 1, 4, 5

Lack of Appreciation for a System

Mitigated by: 1, 2, 6

High
~~Low~~
Value
Health
Care

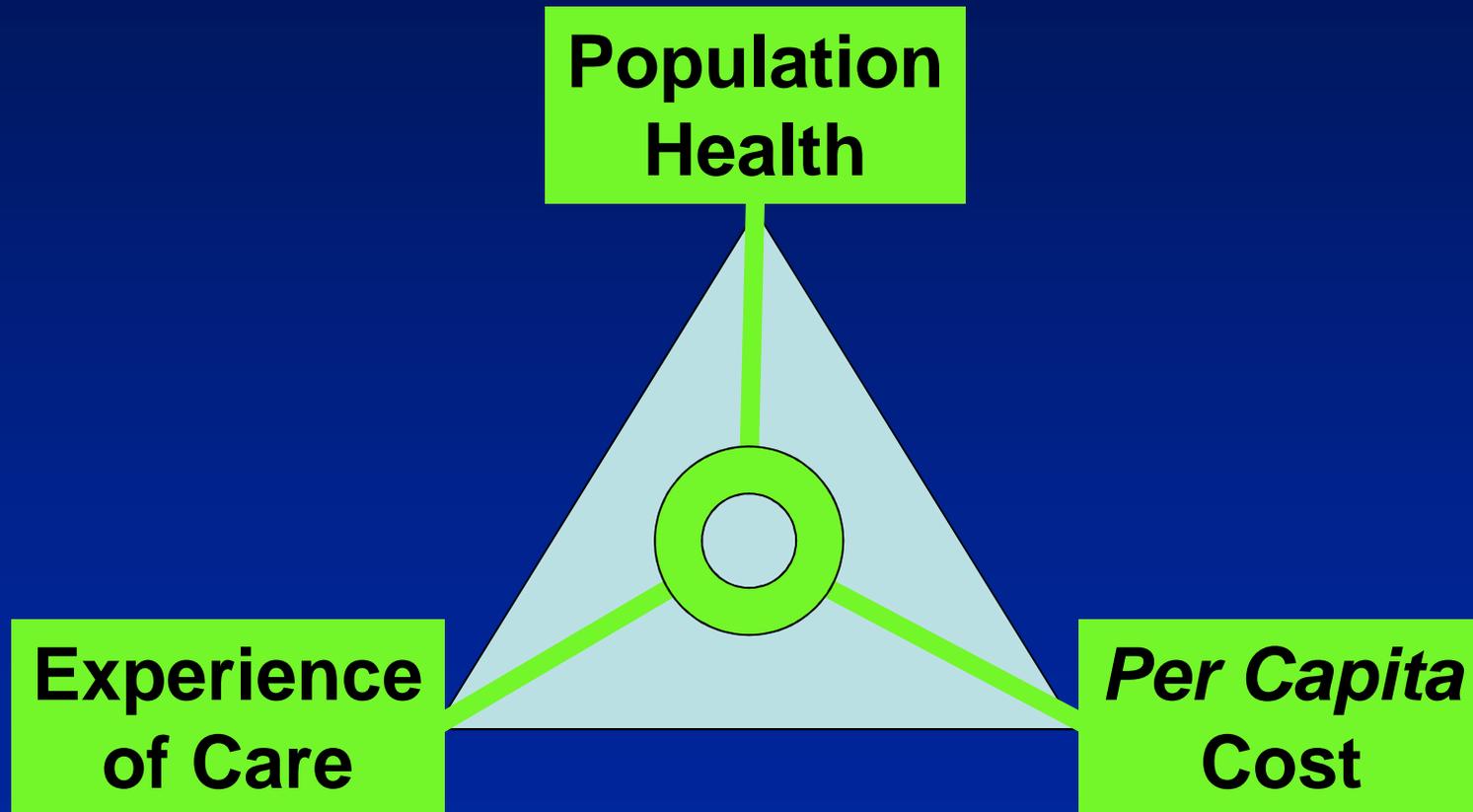
Design Concepts for High Value Care: A Regional Perspective

1. Primary Care: Redefined, Higher Capacity
2. Decrease Dependence on Highest Cost Care
3. Reclaim Wasted Hospital Capacity
4. Pursue Individual Patient Goals at Lowest Total Cost
5. Focus on the High Cost, Socially or Medically Complex Patients
6. Integrate Regional Resources

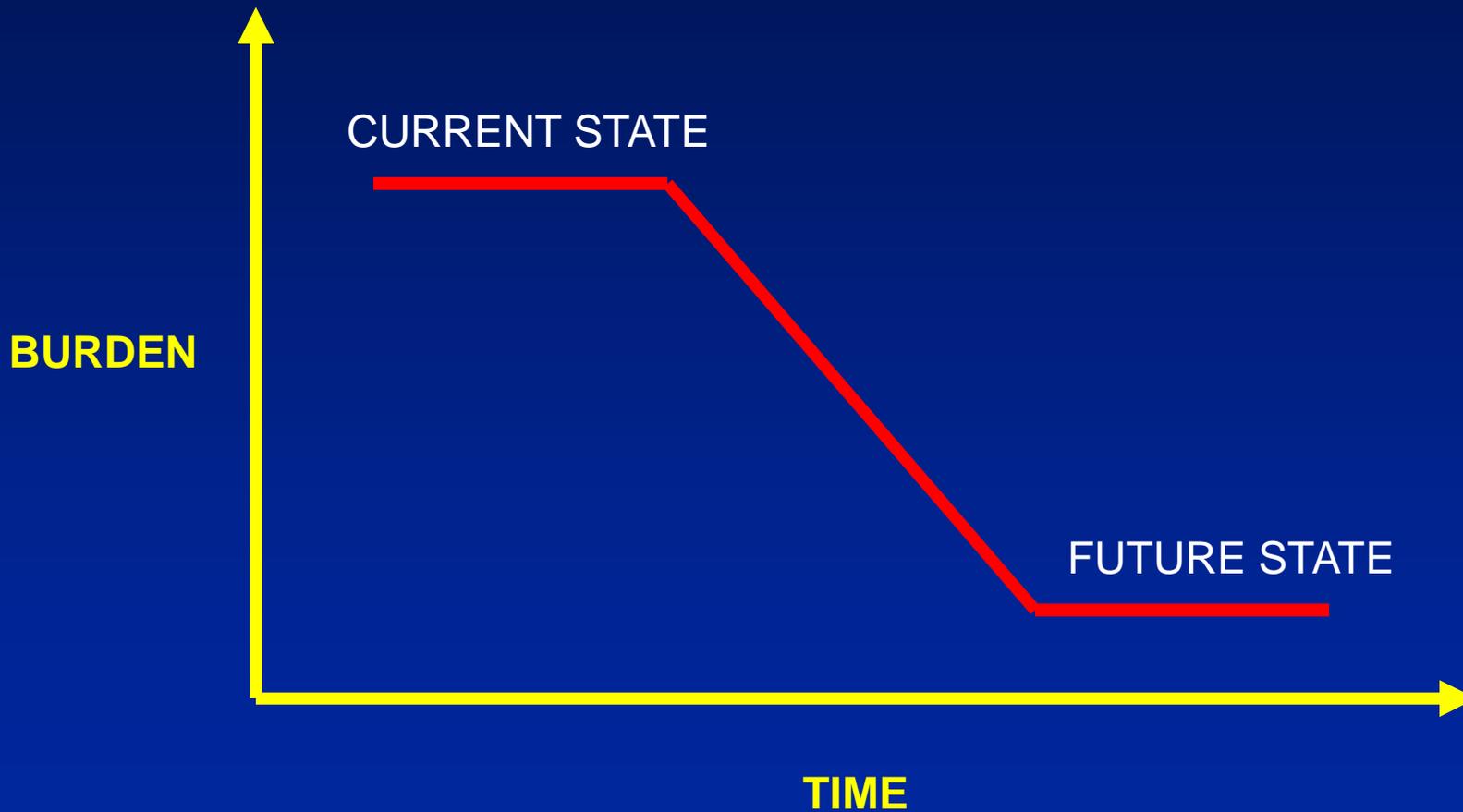
The “Integrator’s” Tasks

- **Design:**
 - Care and Finance Models
 - Ways to Engage the Population
- **Establish Essential Business Relationships:**
 - Specialty Care and High-Tech Care
 - Community-Based Services
- **Measure Performance in New Ways:**
 - Track People over Time
 - Measure Costs
- **Test and Analyze to Learn What Works**
 - A Learning Community
 - Managed Experiments
- **Develop and Deploy Information Technology**
 - To Integrate Across Boundaries
 - To Give Patients Knowledge and Control

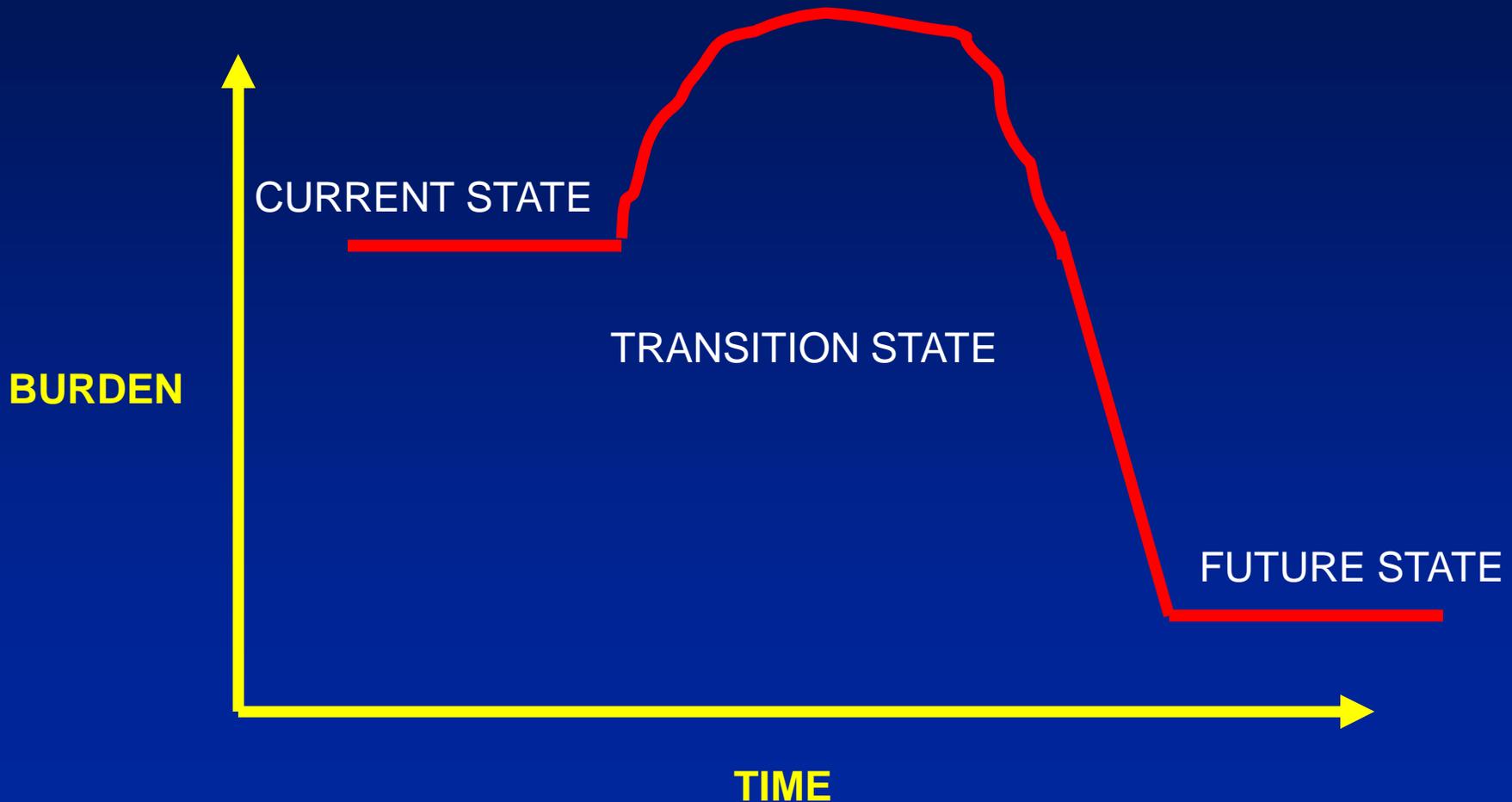
The Big Question for Our Nation: Will We Pursue the “Triple Aim”?



The Future State – Most Can Be Winners



The Transition State – Hard for All



Conditions for Pursuing the “Quadruple Aim”

- Population budget
- Discipline of a cap on total budget
- Population view of health status and care needs
- Measurement capacity
- Capacity to integrate care experience through time and space
- Capacity for proactivity
- “Memory” of the person
- Capacity for system redesign and execution
- Leverage to mold the environment

The Military Health System: A Leader for Our Nation

- ✓ Population budget
- ✓ Discipline of a cap on total budget
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THANKS!