



Past, Present and Future in Our Shared Effort to Improve Quality and Safety

*Joe McCannon, Vice President
Institute for Healthcare Improvement*

April 27, 2009

Ground to Cover...

- A brief history of our shared efforts to improve health care quality and safety (past)
- An assessment of international progress (present)
- Insights from the most successful organizations and efforts
- New frontiers (future)

But First...

CONGRATULATIONS!!!

PAST

Some Lonely Mavericks...



SEMMELWEIS



CODMAN



FLEXNER

Recent Milestones In Quality and Safety

- Harvard Medical Practice Study (1991)
- The Quality in Australian Health Care Study (1995)
- To Err is Human (1999)/Crossing the Quality Chasm (2001)

Recent Milestones In Quality and Safety

- An Organization with A Memory (2000)/Bristol Inquiry (2001)
- The Danish Adverse Event Study (2001)

IHI - Why We Exist

- Best-known science is not reliably applied.
- Widespread inefficiencies waste precious resources.
- Patients are suffering and being harmed at alarming rates.

Aims

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

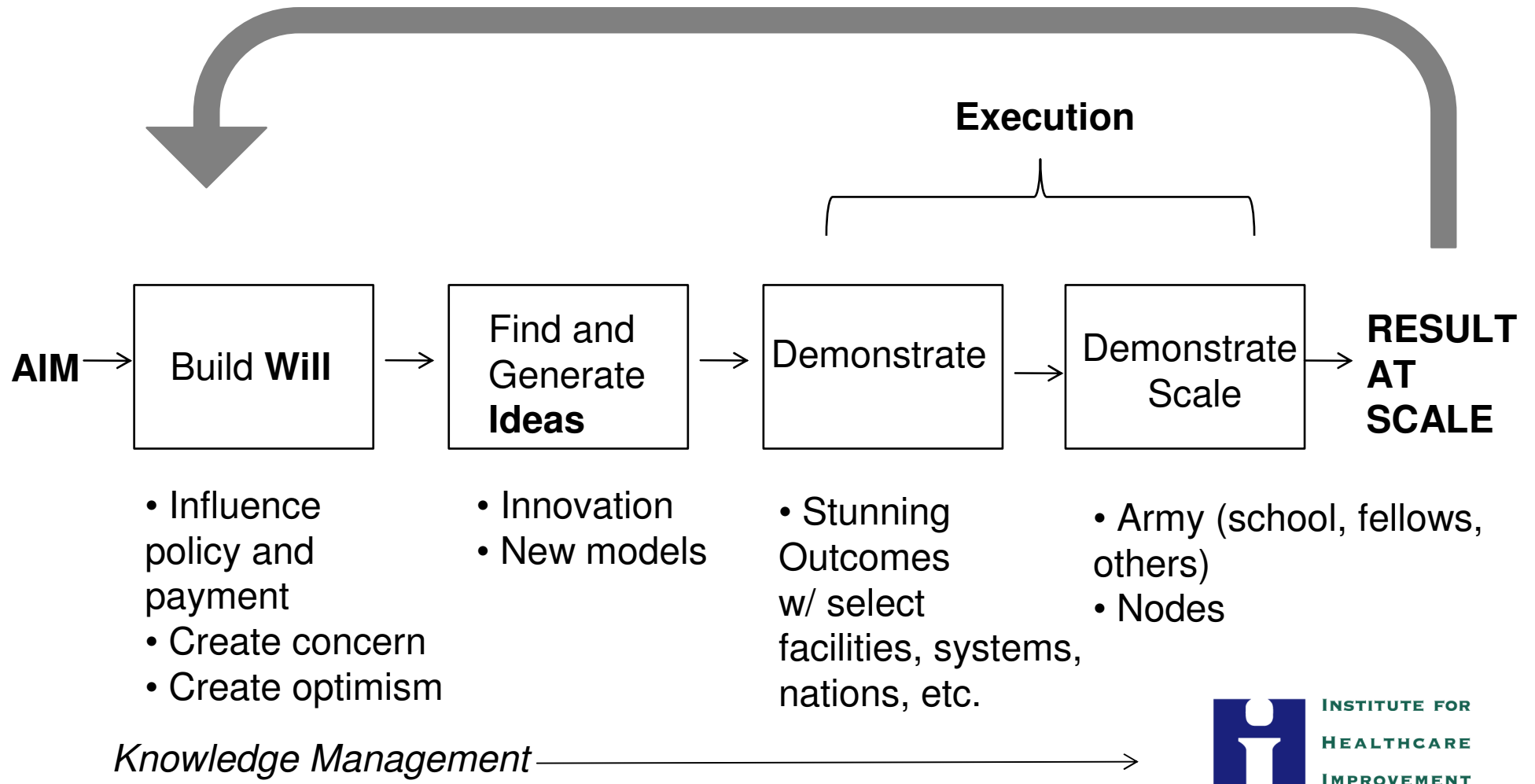
We Transform Health Care By...

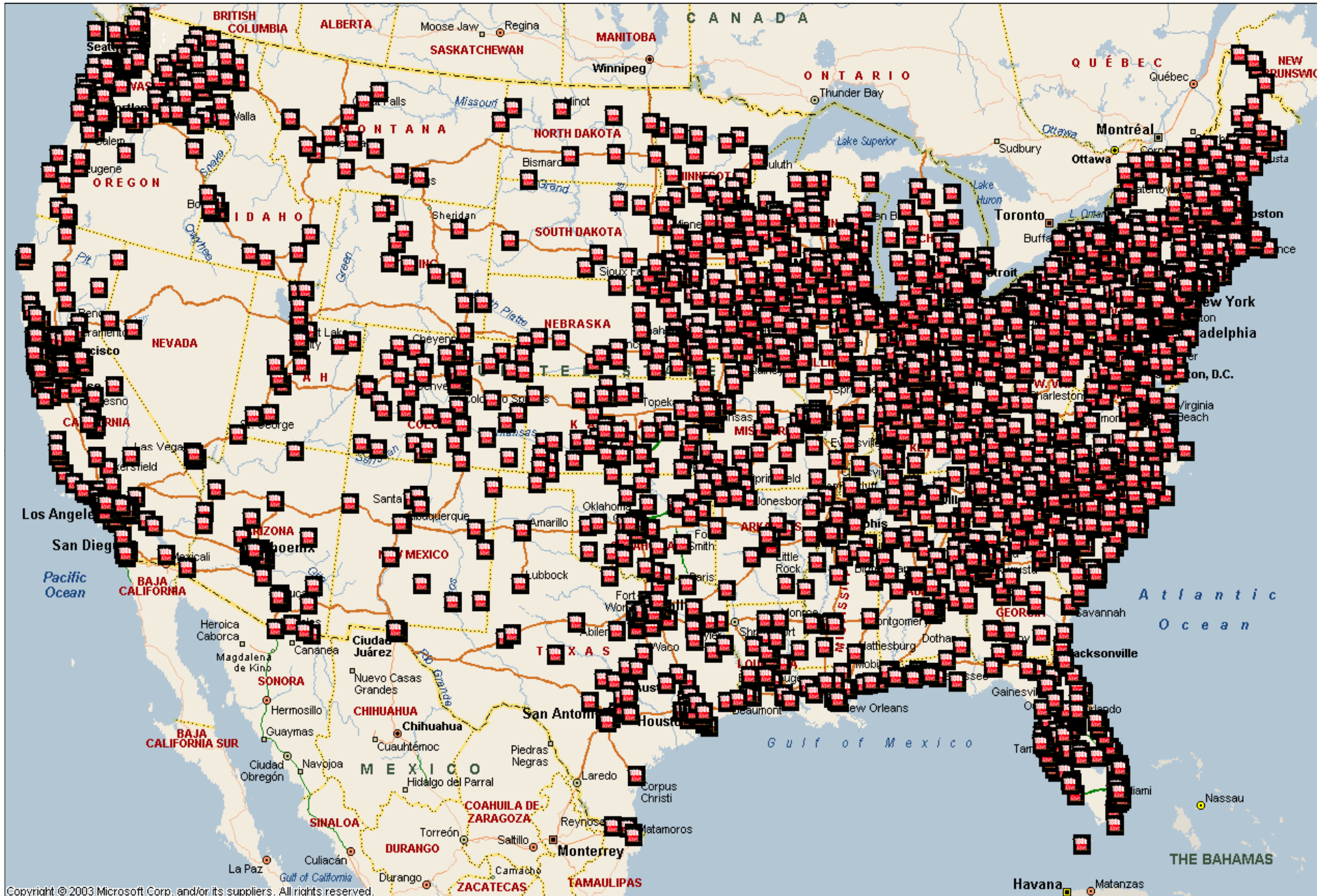
- Building Will
 - Motivating health care provider organizations to think beyond the status quo and imagine a better system
- Harvesting Ideas
 - Finding, cultivating, or inventing new approaches for better patient care
- Getting Results at Scale
 - Providing the support, methods and tools for teams to take action

*“Improvement of any system requires **will, ideas and execution.**”*

- Tom Nolan, PhD

IHI's Recursive Assembly Line





PROTECTING

5 Million

lives

FROM HARM

IHI.org



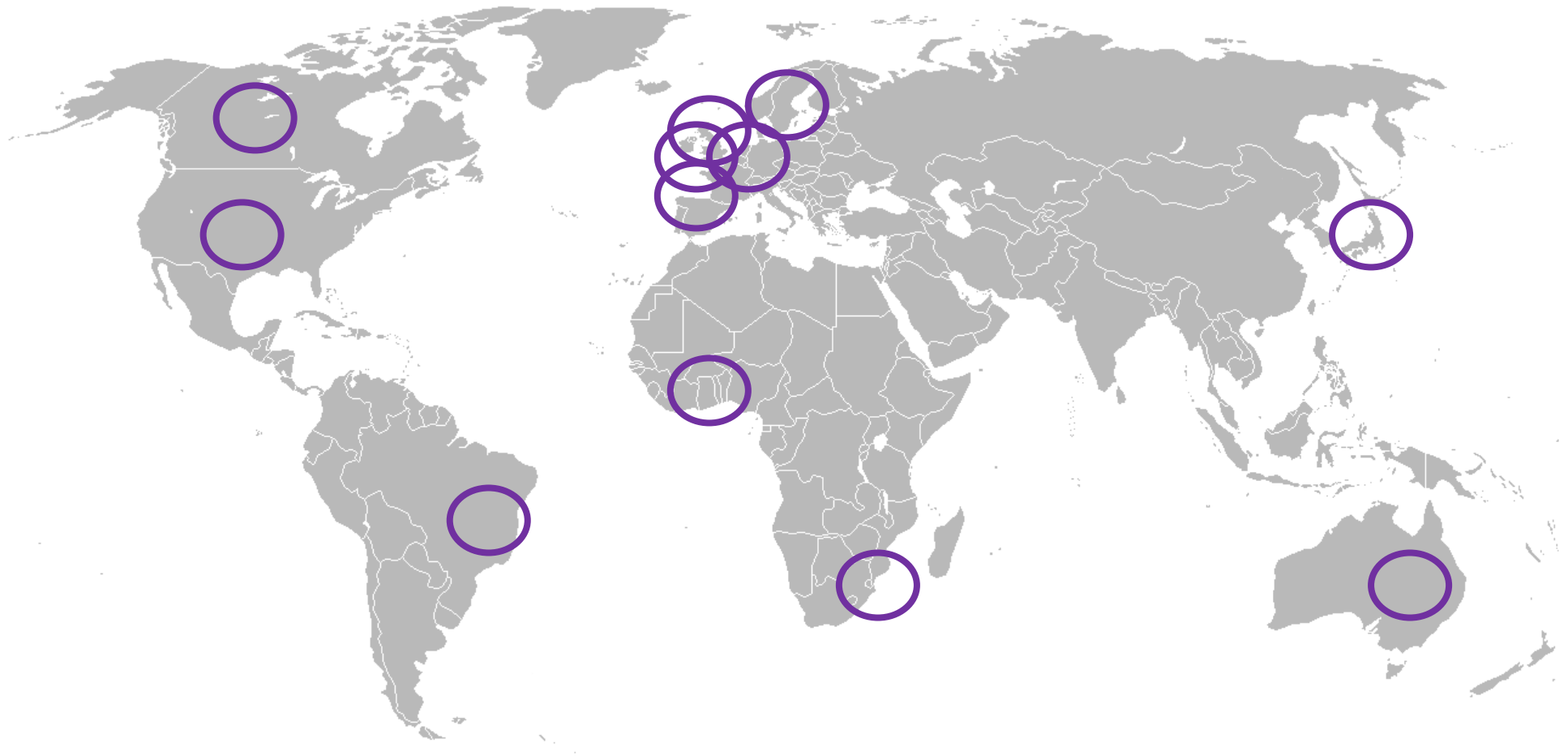
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Striking Cases of Ambition and Success

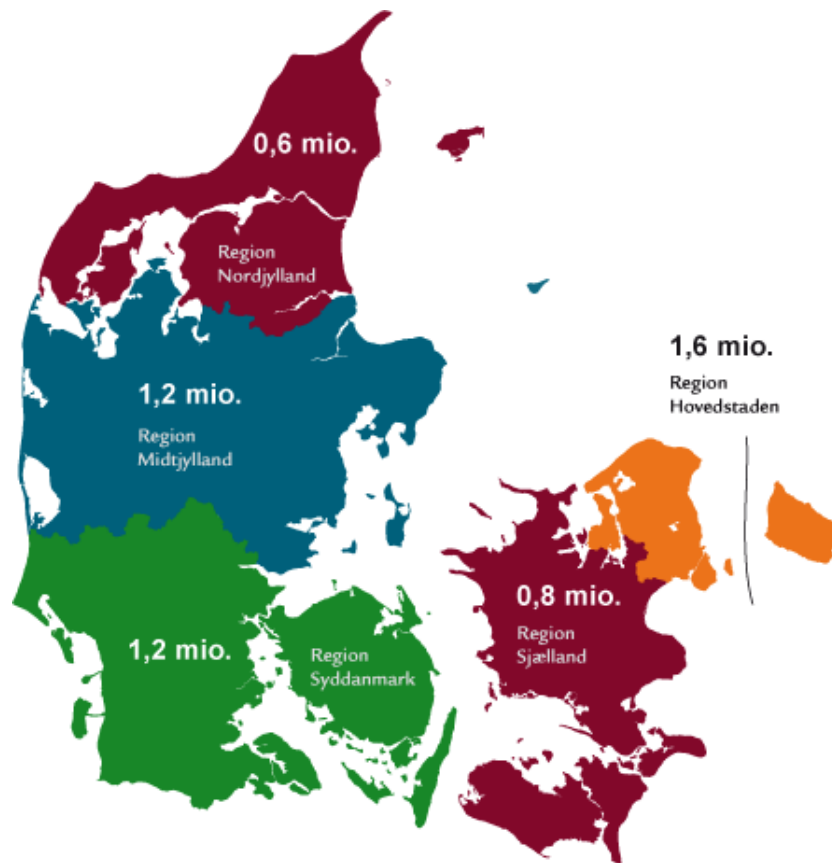
- The professionalization of improvement
- The emergence of centers of excellence
- The Pursuing Perfection initiative
- Scores of collaborative improvement projects

PRESENT

An International Movement of Movements?



Denmark



- 5.5 million inhabitants
- Health care is a public task
- 5 regions that are responsible for health care

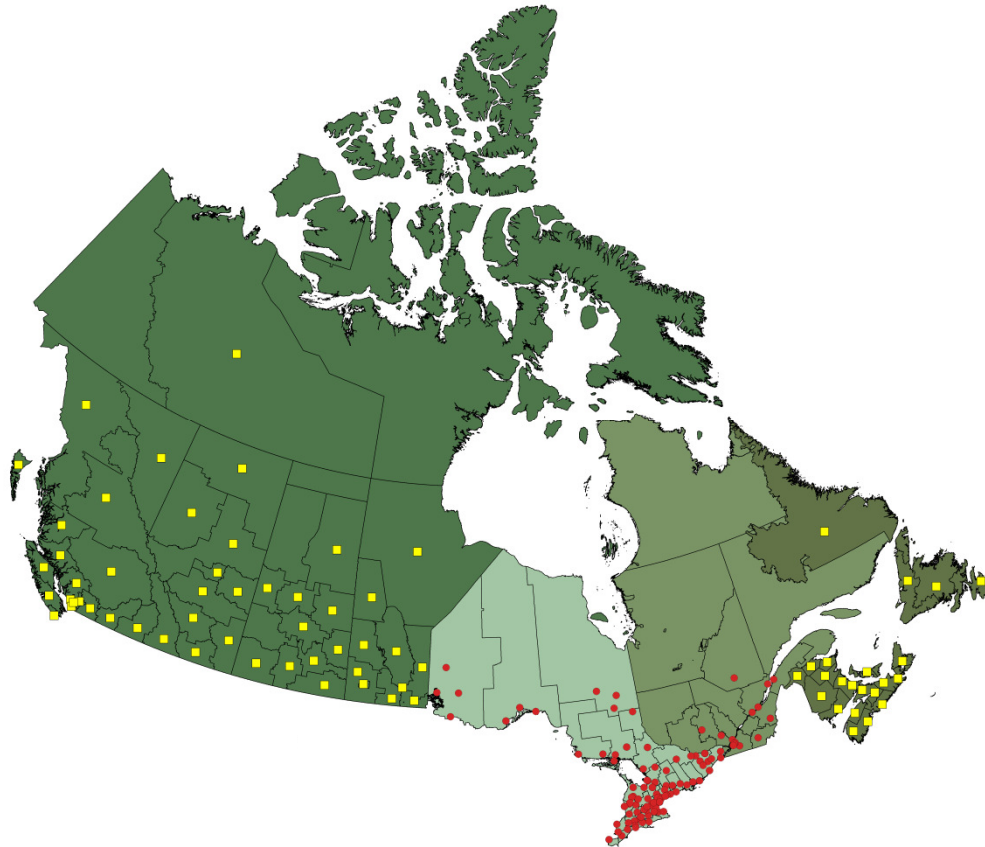
Operation Life:

- 38 hospital units
 - Rapid Response Systems
 - AMI Bundle
 - Medication Reconciliation
 - Ventilator Bundle
 - Central Line Bundle
 - Surviving Sepsis Campaign
- Aims
 - Save 3000 lives during campaign period
 - ✓ All regions present at campaign start
 - ✓ Cover 75% of discharges

Canada

safer healthcare

now!



- 33 million people
- 10 interventions + 2 pilots
- 1035 teams enrolled
- 80% of acute care hospitals enrolled
- All regional health organizations outside of Quebec enrolled

Aim

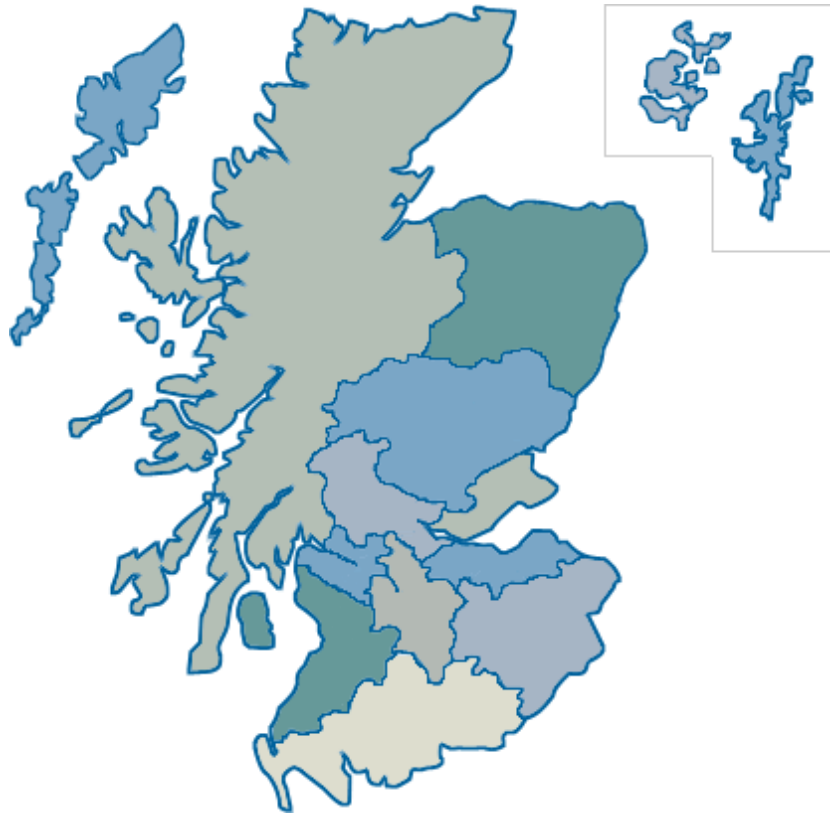
- Reduce adverse events by 40-100% dependent upon intervention

Wales



- 3 million people
- 1000 Lives Campaign
 - All Hospitals, Primary Care and Ambulance services
 - Leadership
 - Critical Care/Rapid response
 - Medicines
 - Healthcare associated infection
 - Surgical care
 - General medical and surgical care
- Aims
 - To save 1000 lives, and
 - Avoid 50,000 cases of harm in 2 years from April 2008

Scotland

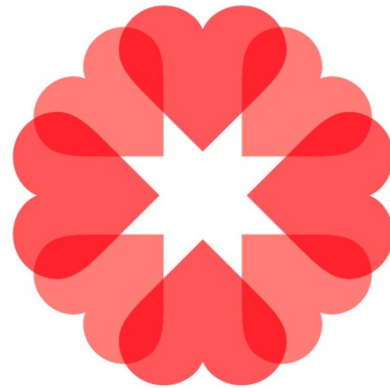


- 5.5 million people
- Scottish Patient Safety Programme
 - 37 acute hospitals
 - Critical care
 - Peri-op
 - Medicines
 - General ward
 - Leadership
- Aims
 - 15% reduction in mortality
 - 30% reduction in adverse events

England



- Cause
 - To make the safety of patients everyone's highest priority
- Aim
 - No avoidable death and no avoidable harm
- Interventions
 - Leadership for safety
 - Reducing harm from deterioration
 - Reducing harm in critical care
 - Reducing harm in perioperative care
 - Reducing harm from high risk medicines



いのちをまもるPARTNERS
医療安全全国共同行動

“PARTNERS for Patient Safety”

National Campaign for Patient Safety in Japan

<http://kyodokodo.jp/>

Targets of the Campaign (by May 2010)



- Enroll more than 3000 hospitals
- Reduce 300,000 medical injuries
- Reduce 10,000 preventable death events

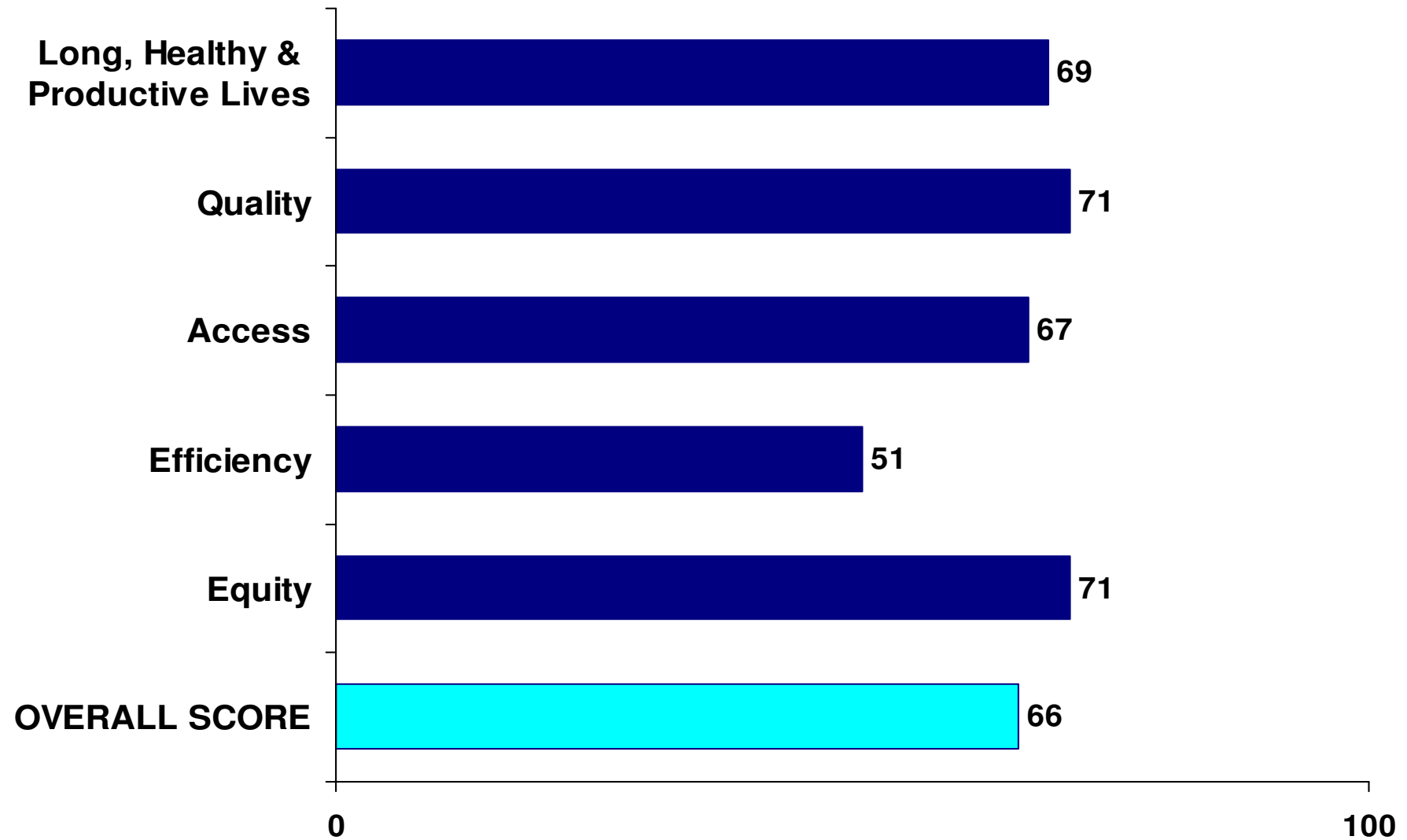
What is the Net Impact of Our Efforts?

- Are we making progress? Rapidly? Little by little?
- Are we noticing progress? Or do we only see disturbance and trouble?
- Are we impatient or too patient? What rate of change should we expect?
- Are we satisfied with activity in the absence of meaningful results?

Defects Abound

- 45% of needed care is not received
- 22% of chronically ill adults report a “serious error” in their care
- 74% of chronically ill adults say the system needs “fundamental change” or “complete rebuilding
- Case-mix adjusted hospital death rates vary 400%
- Resource use in the last six months of life varies >500% among 77 top-rated US hospitals
- Per capita annual health care costs:
 - US: ~\$6000
 - Sweden: ~\$2800

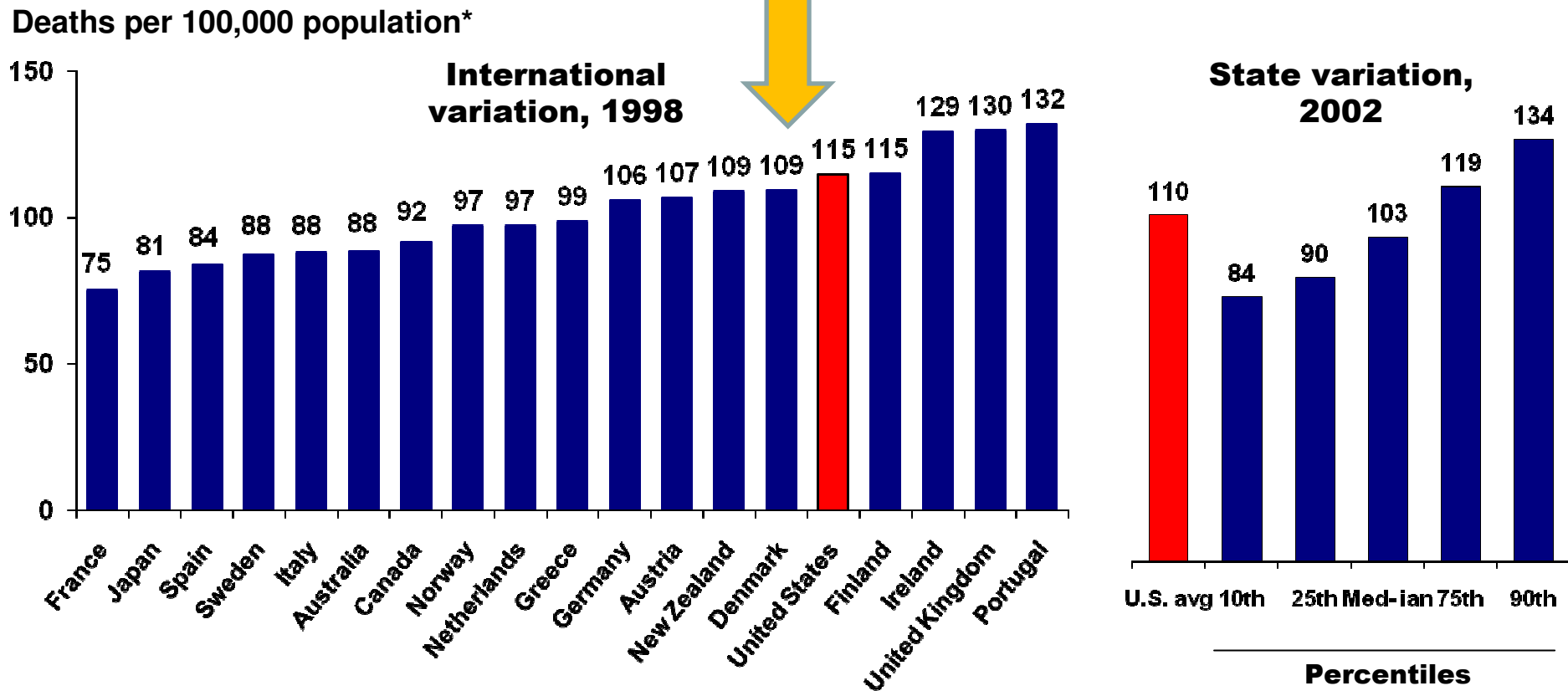
U.S. Scorecard: Falls Short of Benchmarks on All Dimensions of a High Performance Health System - 2006



Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2006

Mortality Amenable to Health Care

Mortality from causes considered amenable to health care is deaths before age 75 that are potentially preventable with timely and appropriate medical care

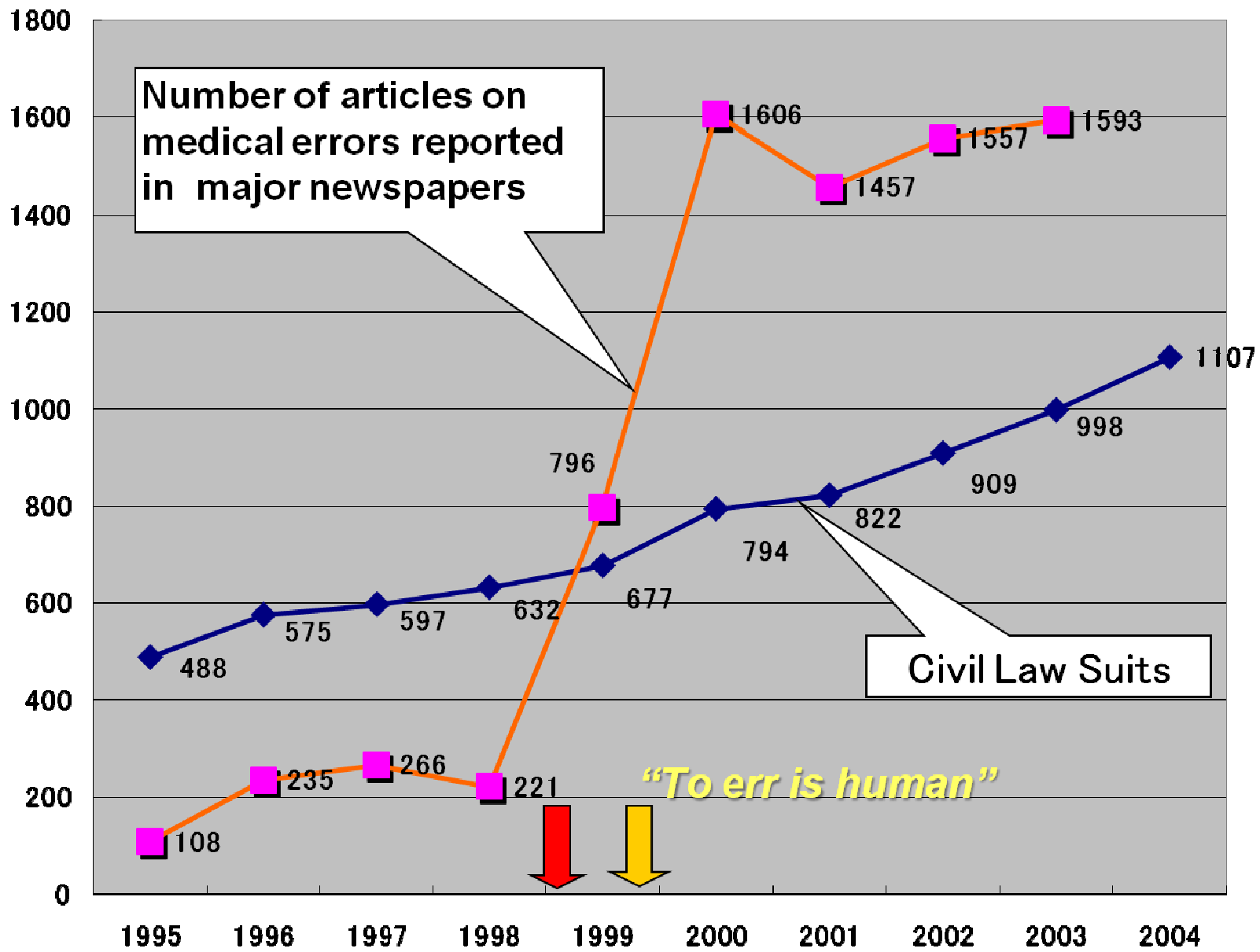


* Countries' age-standardized death rates, ages 0–74; includes ischemic heart disease.

See Technical Appendix for list of conditions considered amenable to health care in the analysis.

Data: International estimates—World Health Organization, WHO mortality database (Nolte and McKee 2003);

State estimates—K. Hempstead, Rutgers University using Nolte and McKee methodology.

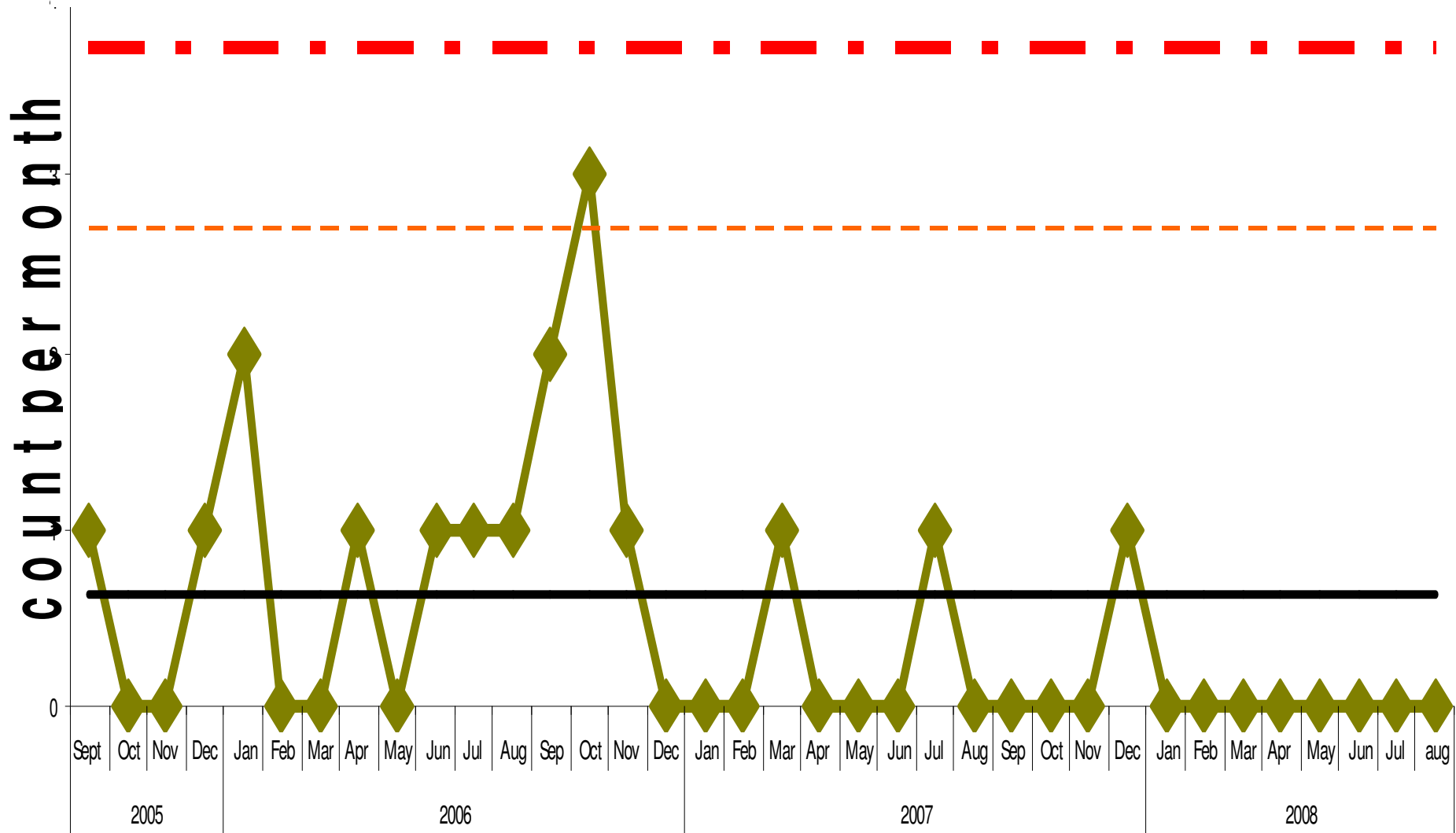


ACHE Annual Top 3 Survey

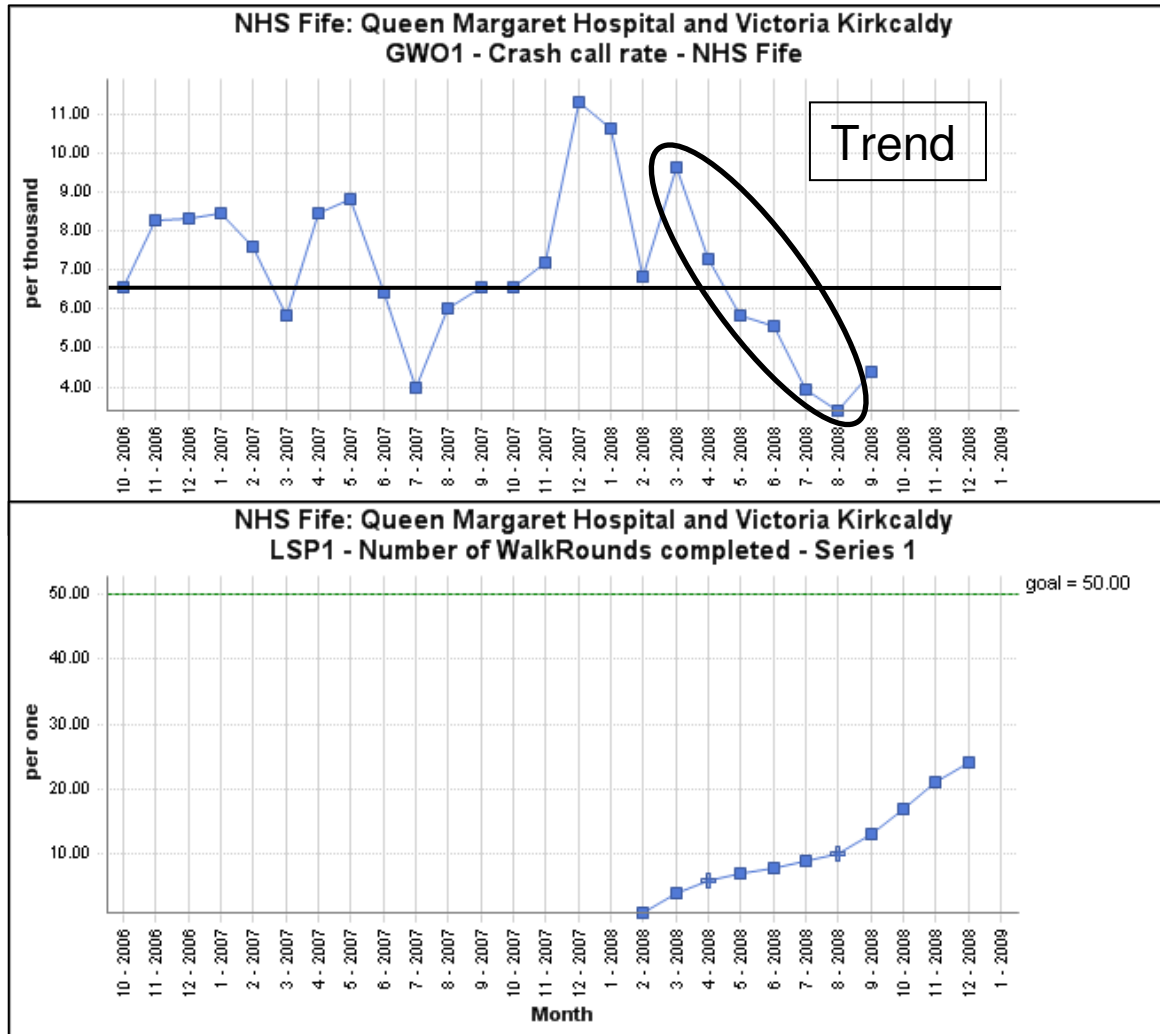
Top Issues Confronting Hospitals

<i>Issue</i>	2003	2004	2005	2006
Financial challenges	73%	71%	67%	72%
Physician/hospital relations	26%	32%	33%	40%
Care for the uninsured	26%	36%	35%	37%
Quality	17%	18%	23%	29%
Patient safety	9%	16%	20%	27%
Governmental mandates	18%	19%	16%	23%
Patient satisfaction	7%	13%	18%	16%
Capacity	28%	16%	17%	11%
Malpractice insurance	24%	25%	11%	3%

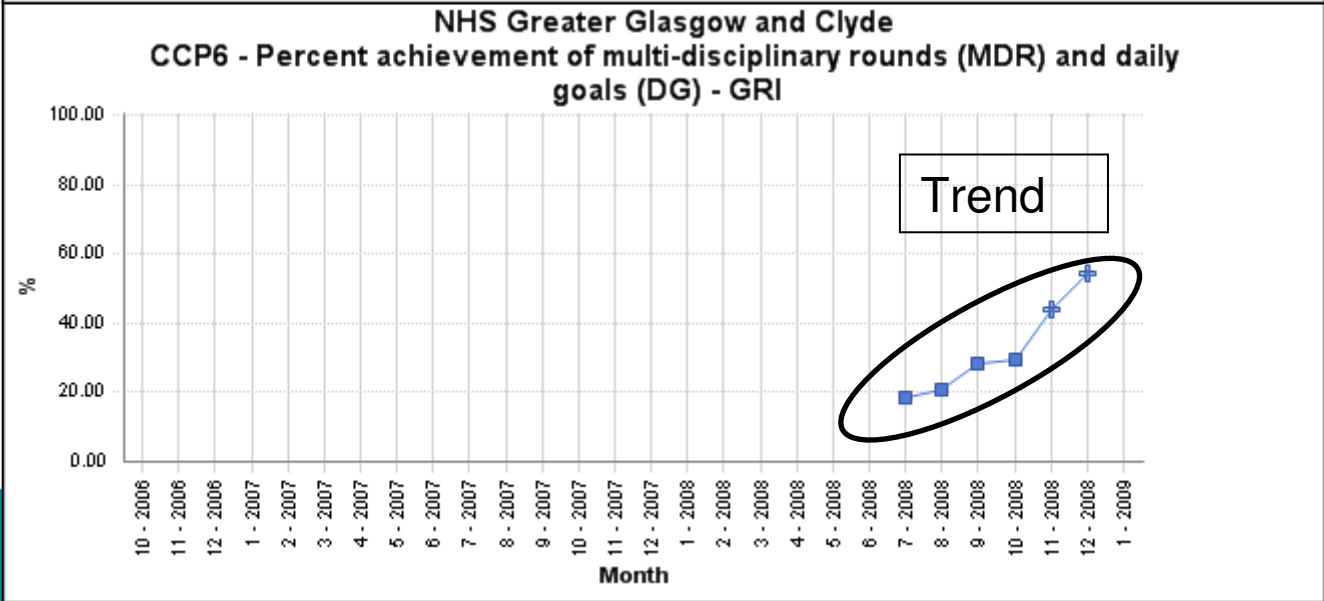
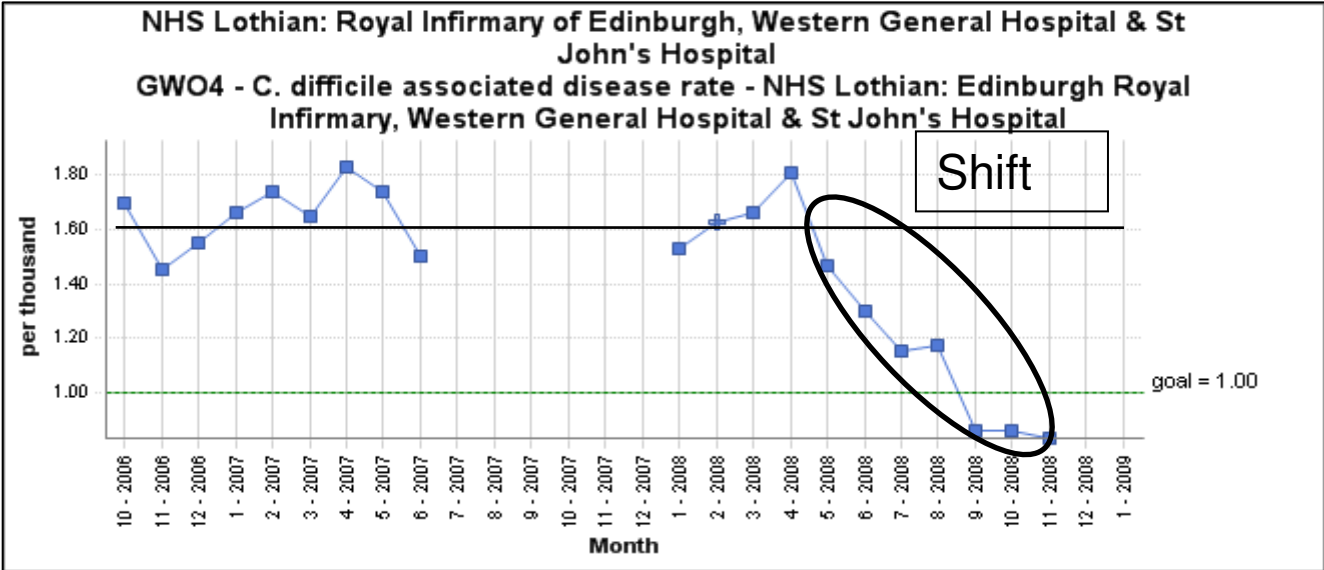
NHS Forth Valley – Central Line bloodstream infections



Successes from Action Period Two



Successes from Action Period Two



Scottish Patient Safety Programme

We have had
no cases of
C.Diff since

Dec 8th 2008

That's **49** days
without infection!

We have had
no cases of
Staph aureus
bacteremia
since

Nov. 12th 2008

That's **96** days
without
infection!

We have had
no cases of
V.A.P
since

FEB 9th

That's **8** days
without infection!

Last week we
delivered our
CVC bundle

100 %

of the time!

Last week we
delivered our
PVC bundle

96.9 %

of the time!

Last week we
delivered our
VAP bundle

96.4 %

of the time!

What Is Possible

- Drops in adverse event rates of 51%-75% in four Safer Patients Initiative hospitals
- 150 New Jersey health care facilities reduced pressure ulcers by 70%
- Rhode Island reported a 42% decrease in Central Line-Associated Bloodstream Infections (2006-2007)
- More than 65 Campaign hospitals report going more than a year without a ventilator-associated pneumonia in at least one unit; more than 35 report going a year without a central line infection
- 60% fewer VAPs than expected and 66% fewer CLIs than expected in The Beacon Collaborative (2006/2007)

We Transform Health Care By...

- *Building Will*
 - *Motivating health care provider organizations to think beyond the status quo and imagine a better system*
- *Harvesting Ideas*
 - *Finding, cultivating, or inventing new approaches for better patient care*
- **Getting Results at Scale**
 - **Providing the support, methods and tools for teams to take action**

FUTURE

A Sequence of Change

1. An innovative discovery
2. A demonstration in 50 hospitals
3. Outstanding results in 4 states
4. Interest from purchasers and payers
5. A state law in 14 states
6. A national mandate
7. A part of training
8. An expectation and a standard

A Brief History of Quality in American Health Care

- Food and Drug Administration (1906)
- Flexner report (1910)
- National Board of Medical Examiners (1915)
- American College of Surgeons Hospital Standardization Program (1917)
- Hill Burton Act (1946)
- Centers for Disease Control and Prevention (1946)
- Joint Commission on Accreditation of Hospitals (1952)

from Luce, et al, 1994



A Brief History of Quality in American Health Care (cont.)

- Medicare and shift to “optimal achievable standards” (1965-1966)
- Professional Standards Review Organizations (1972)
- Peer Review Organizations (1982)
- Agency for Healthcare Research and Quality (1989)
- Harvard Medical Practice Study (1991)
- Institute for Healthcare Improvement (1991)

from Luce, et al, 1994



A Brief History of Quality in American Health Care (cont.)

- Peer Review Organization shift of focus to quality improvement (1994)
- *To Err is Human* (1999)
- *Crossing the Quality Chasm* (2001)
- IHI launches the 100,000 Lives Campaign (2004)

from Luce, et al, 1994



“The pace of change is majestic.”

Joseph Juran

Possible Stimulants for Change

- Information
- Training
- Alignment
- Evolving evidence
- Leadership
- Coordinated regulations
- Shared infrastructure (e.g., videoconference)
- Pay for performance
- Recognition
- Collaboration

Possible Approaches to Large-scale Improvement

Many possible ways:

- Natural diffusion
- Breakthrough Series Collaborative model
- Extension agents
- Emergency mobilization
- Wave sequence
- Campaign model
- Social movements
- Hybrid models

What Do the Best Do?

- They have great ambition
- They are profoundly open to new ideas
- They are deeply skilled at measurement and execution (and measurement *for* execution)
- They have “constancy of purpose”
- They operate as a true system

Outcome Aims

- **Mortality: 15% reduction**
- **Adverse Events: 30% reduction**
- Ventilator Associated Pneumonia: 0 or 300 days between
- Central Line Bloodstream Infection: 0 or 300 days between
- Blood Sugars w/in Range (ITU/HDU): 80% or > w/in range
- Bloodstream Infection: 30% reduction
- Crash Calls: 30% reduction
- Harm from Anti-coagulation: 50% reduction in ADEs

Primary Outcomes

- Develop and build a quality improvement and patient safety culture in our hospitals
- Build in long term sustainability and capability to drive this approach at all levels



Four Pillars of Improvement

- Understanding systems
- Understanding variation (statistics)
- Understanding group process (cooperation and management)
- Understanding the creation of knowledge (epistemology)

Scottish Patient Safety Alliance (SPSA) Driver Diagram

Improve Safety of Healthcare Services in Scotland

Primary Drivers

Scottish Government Sets PSA as Strategic Priority

Boards Endorse Safety as Key Strategic Priority

Deliver the programme

Build a Sustainable Infrastructure for Improvement

Align SPSP with national improvement programmes and measures

Secondary Drivers

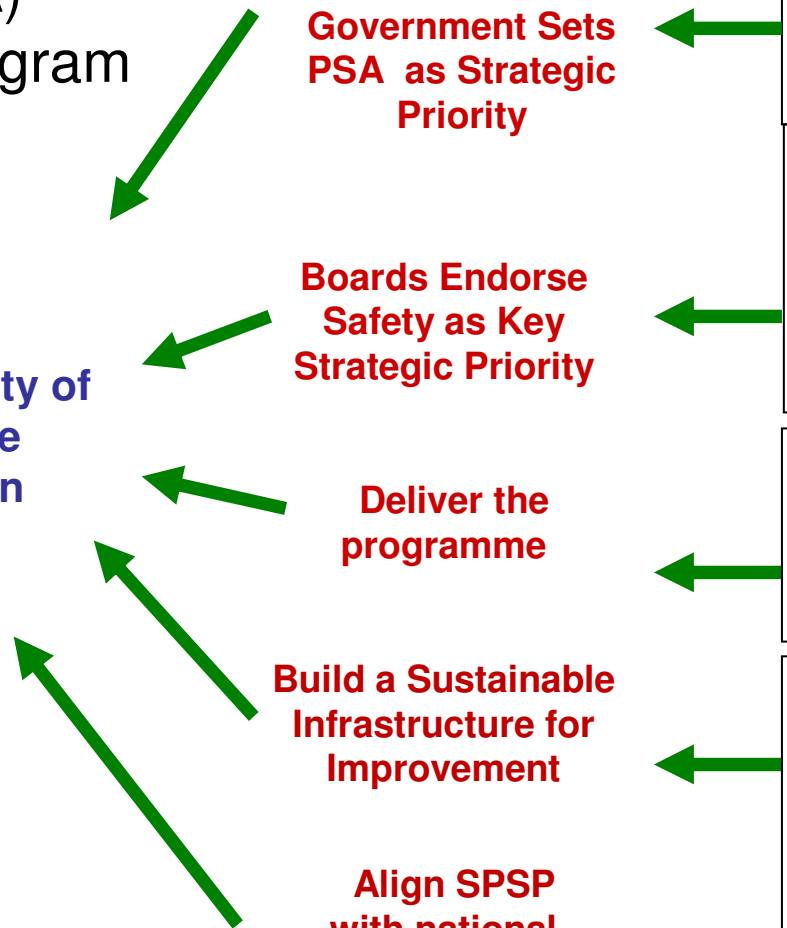
National leaders openly endorse SPSP aims, failure is not an option for execs
 - Time and space given for improvement (not a target)
 -Royal Colleges serve in official capacity
 -Safety is an element of all programmes

-National Board development strategy
 -Ownership of agreed upon set of outcomes and measures
 -Quality and safety comprises 25% of agenda
 --Development of infrastructure that supports improvement and measurement
 -Clear improvement aims in strategic plan

-Segment hospitals , customize approach
 -In-country support for Boards
 -Spread strategy community hosp., primary care
 -One Team
 -"Everyone in the tent"

-One Team
 -Develop experts in imp. methods and coaching
 -In-country measurement system, culture survey
 -Safety work migrates to appropriate agency
 -Training programmes developed in Scotland
 - Work with IST, QIS and HES to develop unified improvement approach

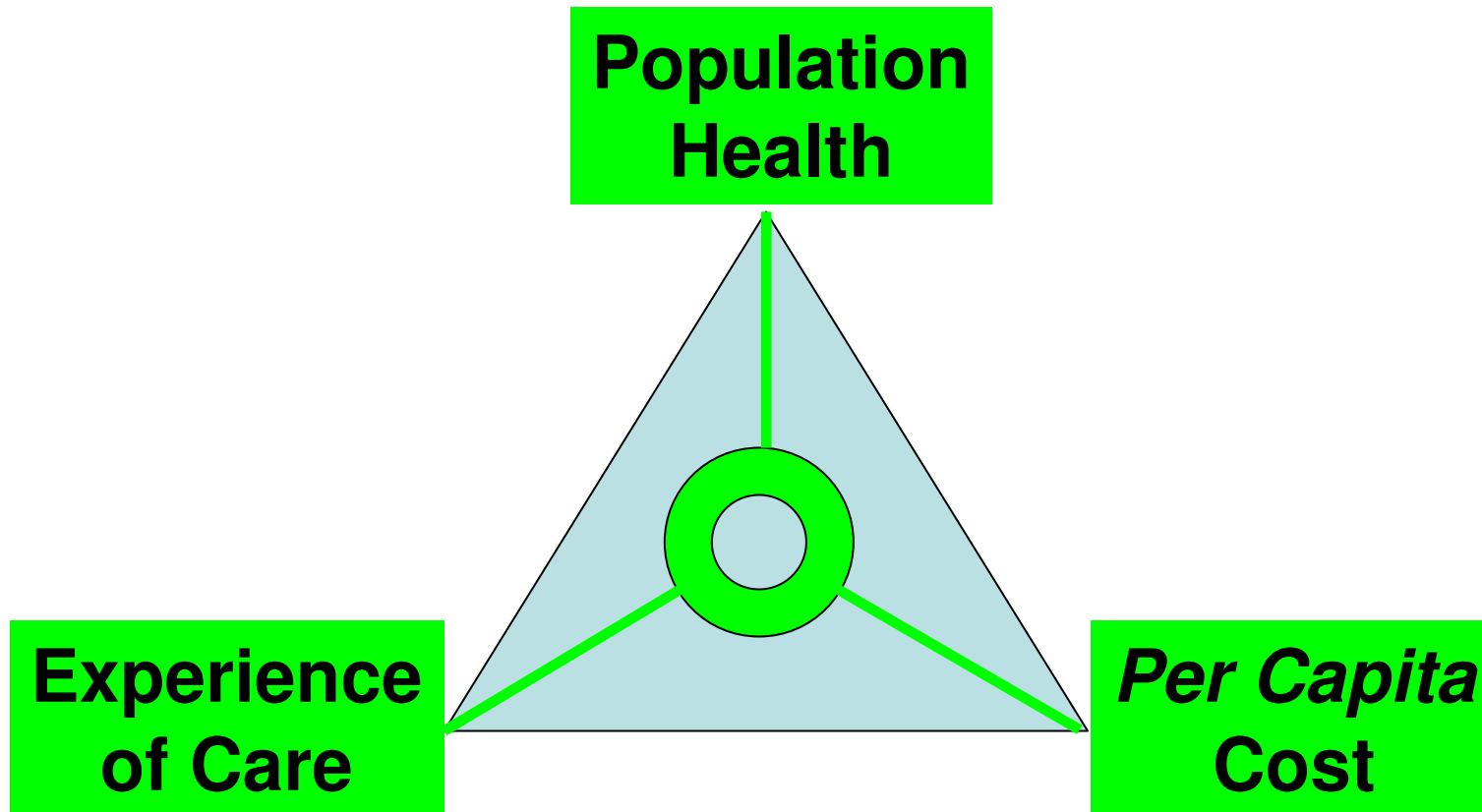
-Align aims and measures with national programmes
 -Develop a portfolio and execution model
 -Build connection to safety in national work
 -Define within clinical governance framework



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An Integrated Vision for Improvement (Triple Aim)

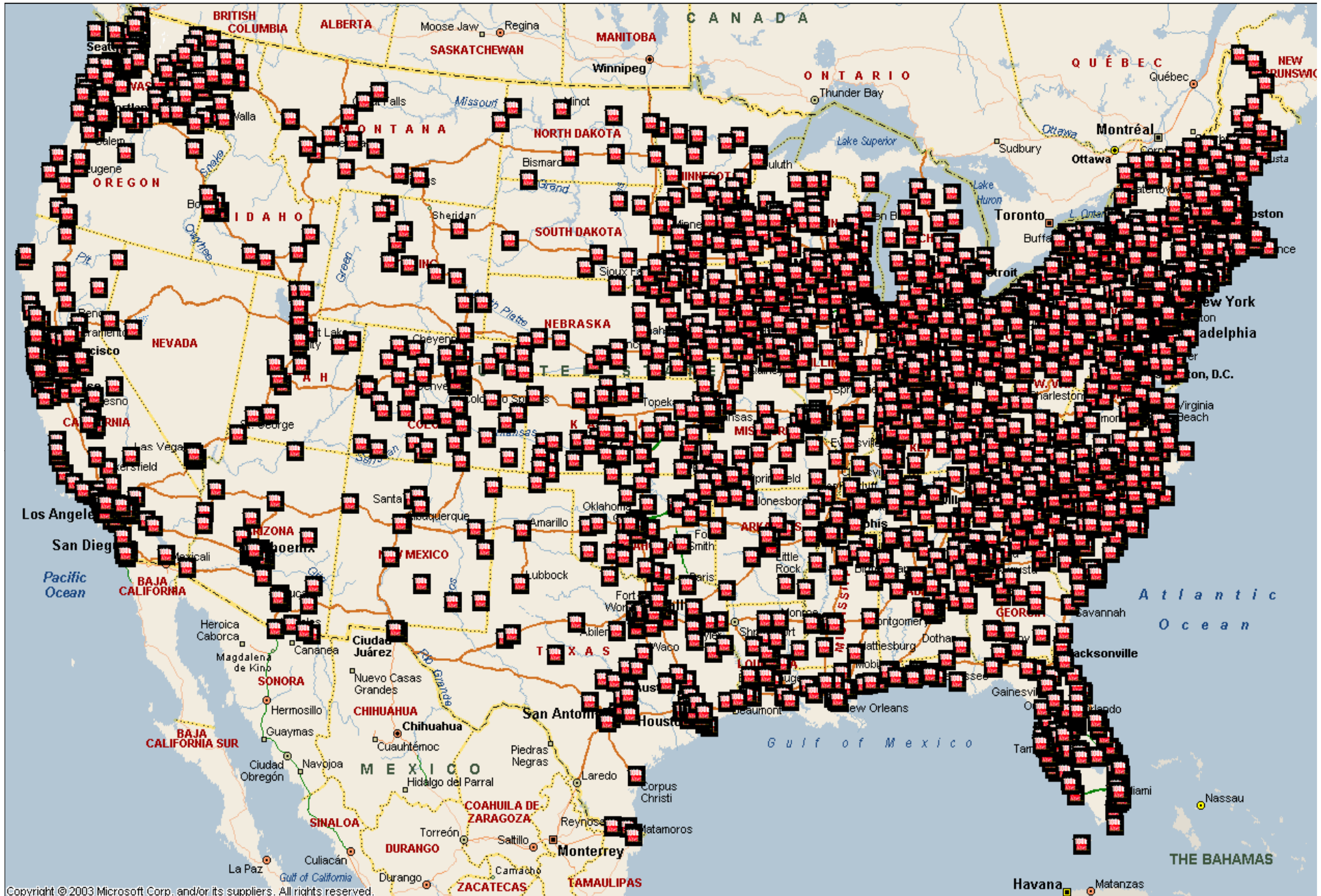


A Possible, National System for Improvement

- Leadership
- R&D
- Prototype
- Dissemination
- Capacity

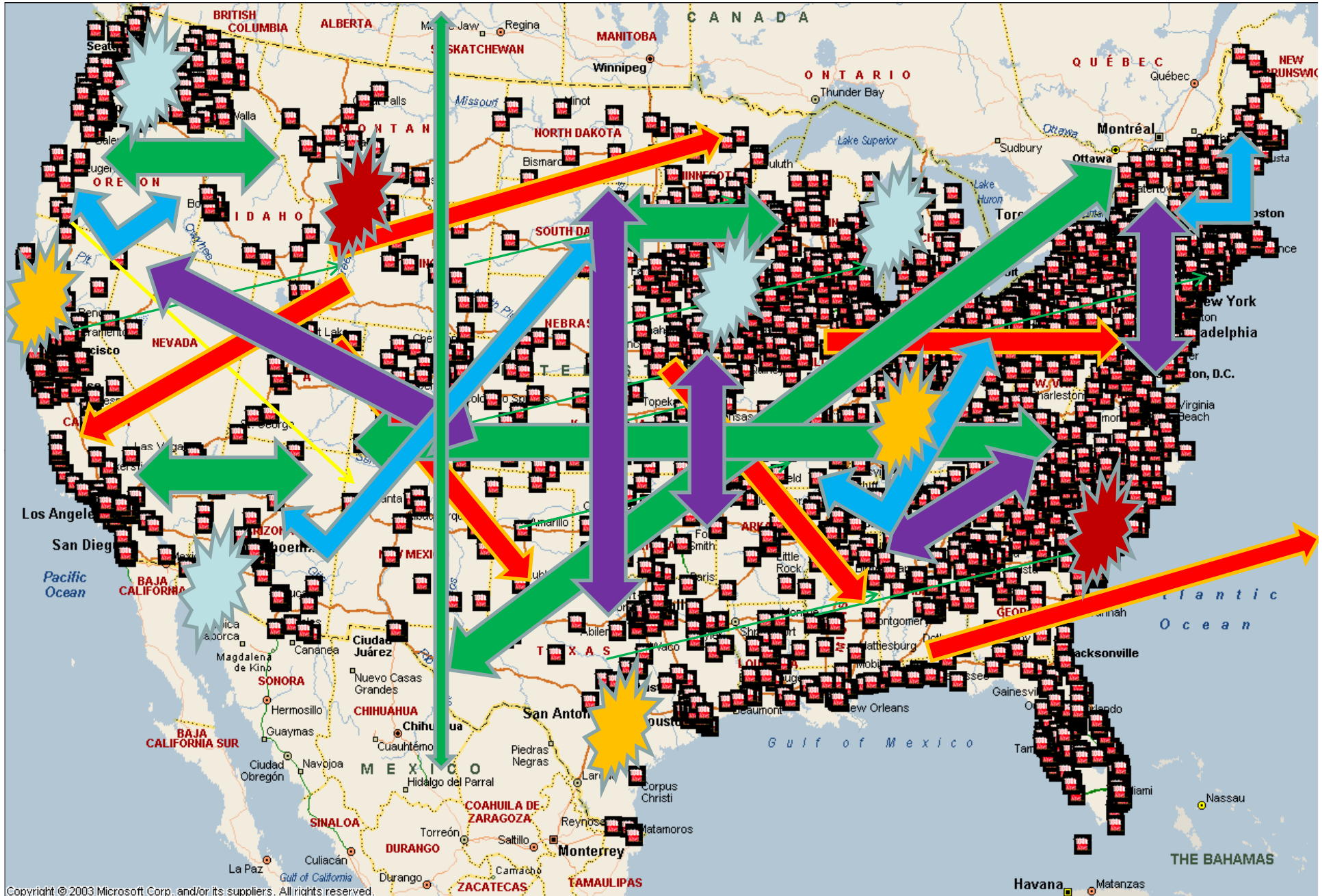
What Do the Best Do?

- They are crystal clear on their “theory of change”
- They take a network view (ecosystems)
- They celebrate regularly
- They keep the patient at the heart of their work



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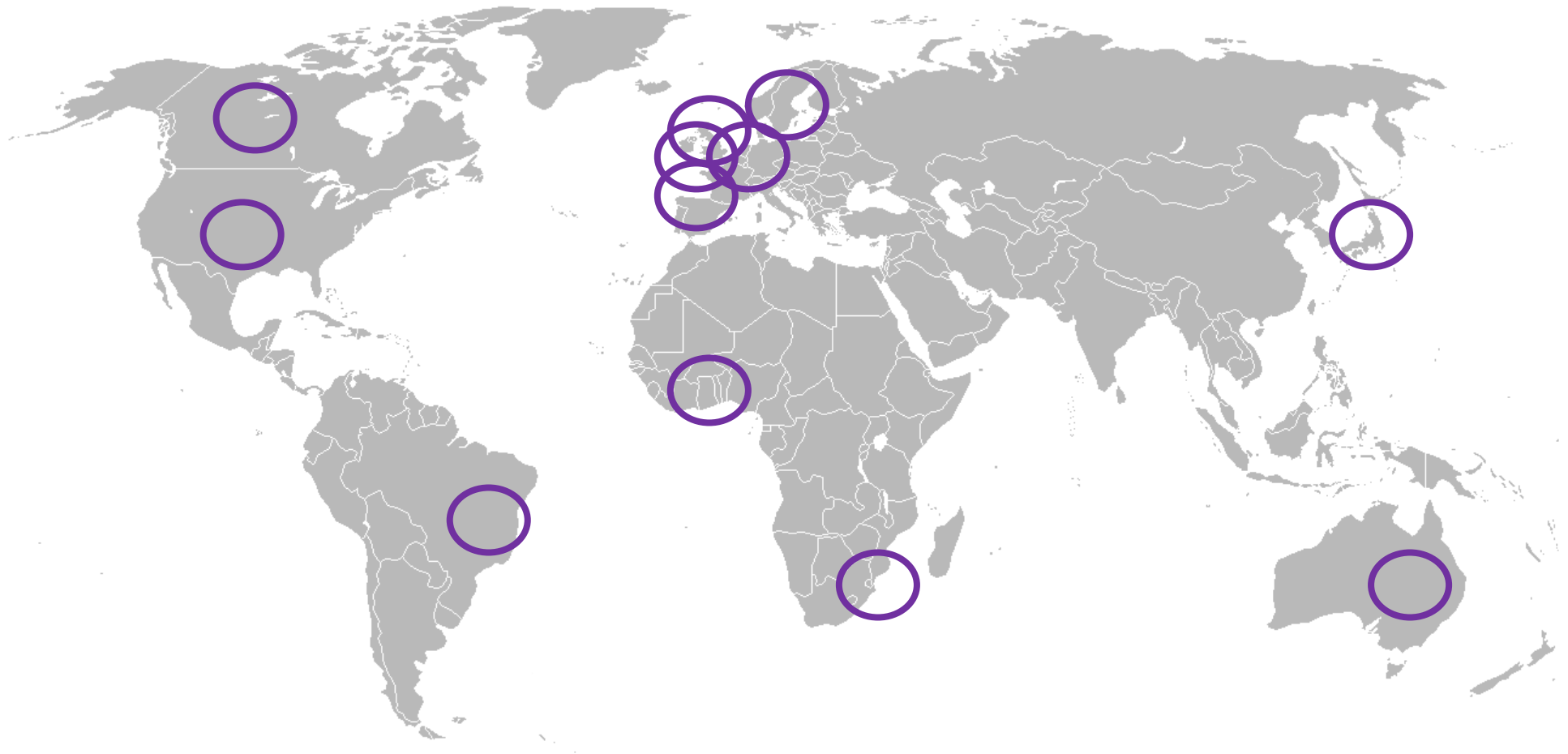
Havana Matanzas
IMPROVEMENT



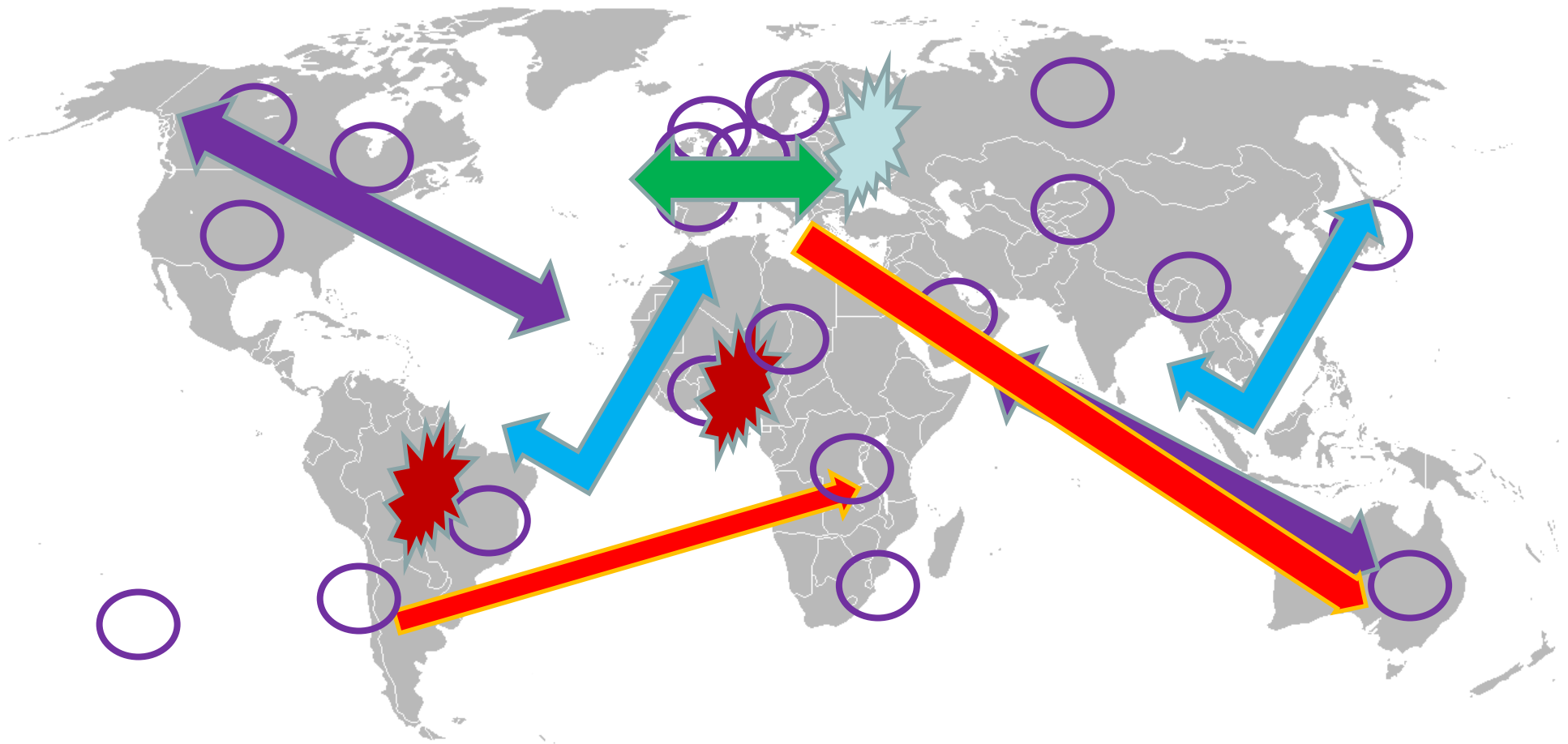
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IMPROVEMENT

An International Movement of Movements?

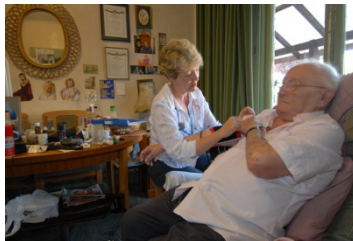


An International Network of Networks?



What Do the Best Do?

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- They celebrate regularly
- They keep the patient at the heart of their work



TE FOR
HEALTHCARE
IMPROVEMENT

Why Optimism?

- We need a detailed, hopeful vision.
- Incredible care-givers and innovators across the world.
- Our families are aging, getting sick, managing chronic disease (this is *very* personal...)
- Because this is not boiling the ocean...it is hard work but it is possible.

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