HEALTH QUALITY COUNCILS

FUNDING AND RESEARCH PRIORITIES

D D Cochrane
Chair BCPSQC
November 4, 2011

Vision

A sustainable health care system built on a foundation of quality.

Mission

Provide system-wide leadership through collaboration with patients, the public and those working within the health system in a relentless pursuit of quality for our health care system.

Strategic Priorities

1. Fostering a Province-wide Perspective
2. Advancing Capability and Capacity for Improvement
3. Accelerating Improvement
4. Improving Transparency
5. Fostering our Quality Culture
6. Creating Value

BC PATIENT SAFETY
& QUALITY COUNCIL
Working Together. Accelerating Improvement.

Key Activities

1. Quality Academy –

   Improvement capability across multiple levels

2. Clinical Care Management

   Supporting implementation of evidence-based practice

3. Networks to support system change

   Health Quality Network

   Surgical Quality Action Network

4. NSQIP (22 sites across BC)

5. Patient & Public Engagement

BC PATIENT SAFETY
& QUALITY COUNCIL
Working Together. Accelerating Improvement.

Questions to Address:

1. *If you were given funding for one thing, what would be your priority?*

2. *What should be the next big piece of research in patient safety?*

What are the Priorities ?

1. Dependent on Funding
   - Accountability through measurement

2. Independent of Funding
   - Changing the cultural landscape of health care quality for the next generations
     - ➢ Assumptions of quality
     - ➢ Humanism in addition to the technology
       - Working together – team, system
     - ➢ Modernizing the social contract for the next generation of providers.

"**Medicine used to be simple, ineffective and relatively safe.**

Now it is complex, effective, and potentially dangerous."

Sir Cyril Chantler

Great Ormond Street Hospital

Kings College

London

We know that …

Every system is perfectly designed to get the results that it gets …

The current rate of improvement is not likely to achieve the change we want and need ….

If we want different results, we must change (transform) the system!

Maher & Plsek, 2009

BC PATIENT SAFETY
& QUALITY COUNCIL
Working Together. Accelerating Improvement.

We need a system that consists of:

- Delivery models that are patient-centered and cost effective

- Communication strategies to reach an increasingly diverse population

- Maintenance of health & treatment of disease

- Behavioral change strategies to help patients optimize their genetic endowment and health professionals integrate new knowledge

- Quality improvement practices to rapidly identify and mitigate sources of unacceptable variation in care

BC PATIENT SAFETY
& QUALITY COUNCIL
Working Together. Accelerating Improvement.

A system that considers:

- Integration of the full cycle of science to bring the new knowledge of basic research to rapid fruition through clinical, translational and community research

- Incorporation of implementation science to assess impact and guide us to optimal strategies for making individual behavior change, as well as organizational change

What is a System?

- An interdependent group of items, people, or processes working together towards a common purpose.

- Common purpose aligns the parts of the system, while interdependence considers the relationships and the interactions among them.

Systems

- Numerous Types: biological (heart), mechanical (clock), human/mechanical (riding bike); ecological (predator/prey); social systems (organizations, societies, friends); healthcare systems

- Made of Processes: starting your car (driving to work is a system); orientating an employee is a process (creating satisfied, happy, productive employees is a system)

- Simple, complicated, or complex

Simple, Complicated, Complex

Table 1
Simple, Complicated and Complex Problems

Following a Recipe	Sending a Rocket to the Moon	Raising a Child
The recipe is essential	Formulae are critical and necessary	Formulae have a limited application
Recipes are tested to assure easy replication	Sending one rocket increases assurance that the next will be OK	Raising one child provides experience but no assurance of success with the next
No particular expertise is required. But cooking expertise increases success rate	High levels of expertise in a variety of fields are necessary for success	Expertise can contribute but is neither necessary nor sufficient to assure success
Recipes produce standardized products	Rockets are similar in critical ways	Every child is unique and must be understood as an individual
The best recipes give good results every time	There is a high degree of certainty of outcome	Uncertainty of outcome remains
Optimistic approach to problem possible	Optimistic approach to problem possible	Optimistic approach to problem possible

Complicated and Complex Systems: What Would Successful Reform of Medicare Look Like? Zimmerman and Glouberman 2002

Complexity

'in complex systems (such as healthcare), <u>unpredictability</u> and paradox are ever present, and some things will remain <u>unknowable</u>....new conceptual frameworks that incorporate a dynamic, emergent, creative and intuitive view of the world must replace traditional "reduce and resolve" approaches to clinical care and service organization' (Plsek, 2001)

Properties of Complex Systems

- Adaptable elements
  - ➢ Individual components have the ability to change themselves and the environment

- Simple Rules
  - ➢ Complex outcomes can emerge from a few simple rules

- Nonlinearity
  - ➢ Small changes can have huge effects, and vice versa

Properties of Complex Systems

- Emergent behaviour, novelty
  - ➢ Continual creativity and change are the norm; not a static system

- Not predictable in detail
  - ➢ Exact forecasting is not possible

- Inherent order
  - ➢ Can come to order even without central control

Properties of Complex Systems

- Context and embeddedness
  - systems within systems;
  - interactions within and between systems are context dependant

- Co-evolution
  - Tension, paradox, uncertainty, and anxiety are common and lead to evolution

We design systems that:

- Dictates relationships among the parts

- Patterns are a "deterministic function of structure and processes"

- "emergent behaviors" are a failure of the system
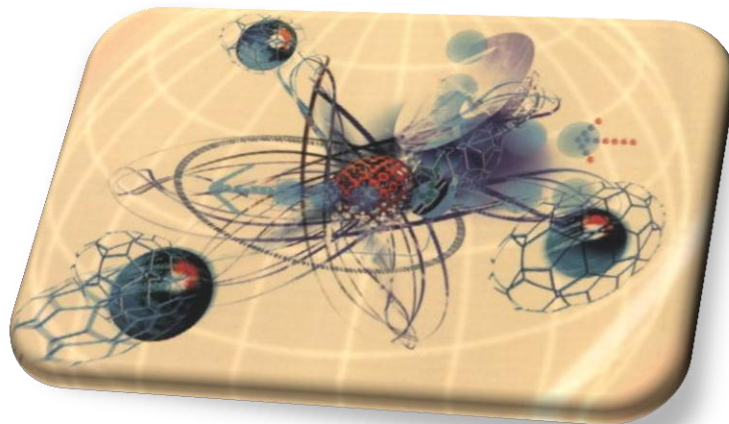
Plsek, 2003
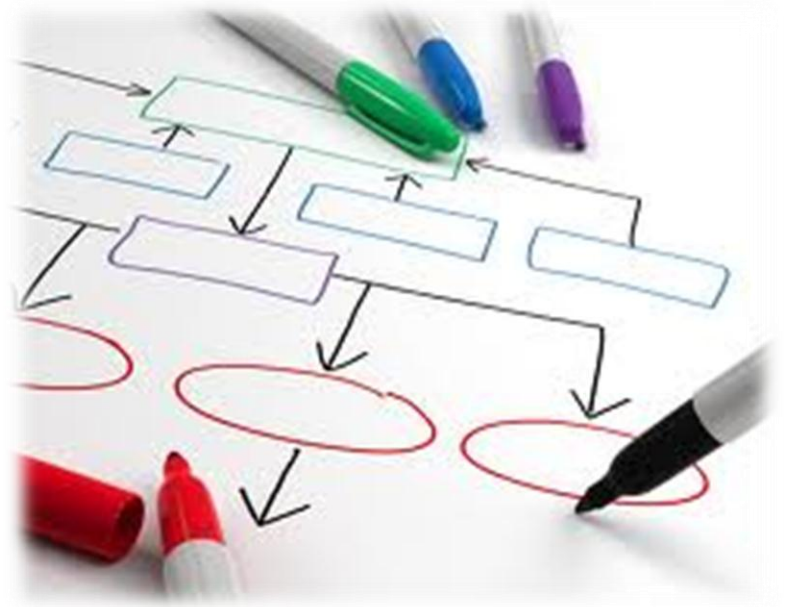
The Result in Health Care?

… from the unconscious application of this "machine" metaphor in a complex adaptive system

Stress Reduction Kit

Bang Head Here

Directions:
1. Place kit on FIRM surface.
2. Follow directions in circle of kit.
3. Repeat step 2 as necessary, or until unconscious.
4. If unconscious, cease stress reduction activity.

We need new eyes to leverage the opportunities and meet the current challenges in healthcare.

- We need to let go of some of the current culture of healthcare
- And our mental models of who and what is important and how the work should be done

Aschenberger, 2011

Defining a Quality Culture

"The way we do things around here …"

- Organizational culture emerges from that which is shared between colleagues in an organization, including shared beliefs, attitudes, values and norms of behavior

- Reflected by a common way of making sense of the organization that allows people to see situations and events in similar and distinctive ways

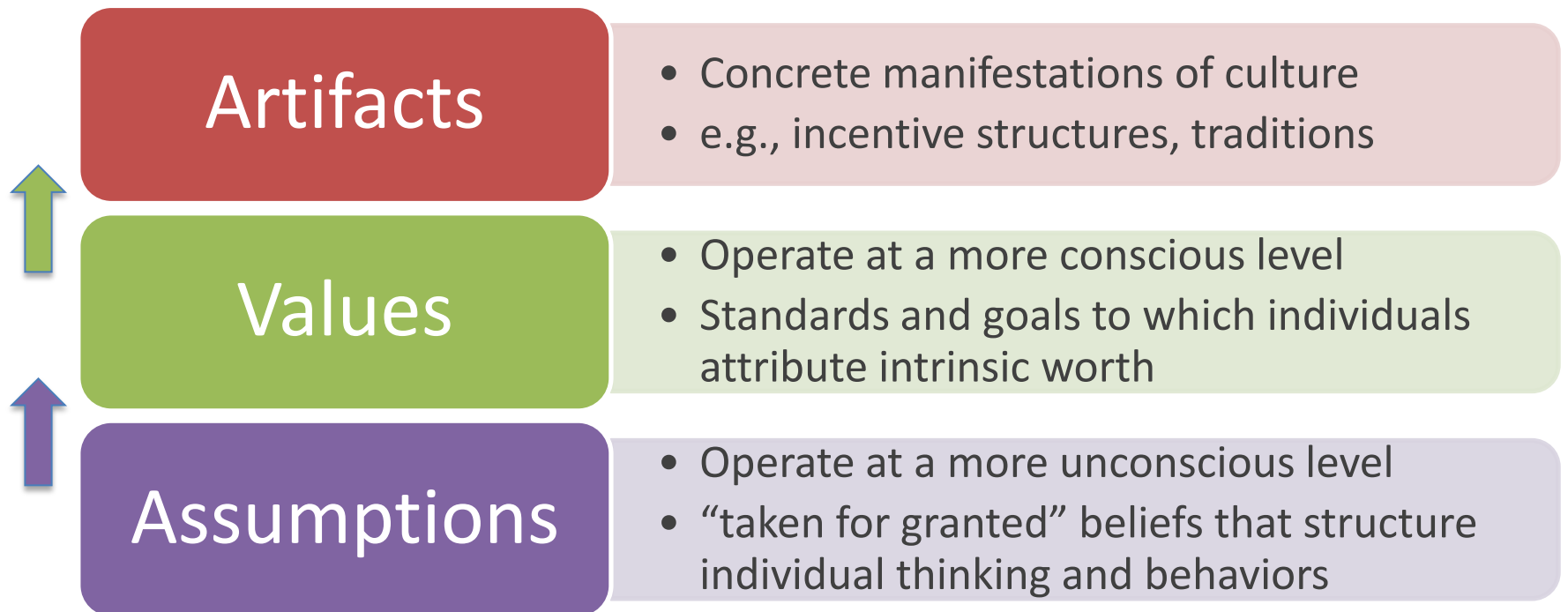- Way things are understood, judged and valued

Davies, Nutley and Mannion, 2000

BC PATIENT SAFETY
& QUALITY COUNCIL
Working Together. Accelerating Improvement.

Levels Within a Culture

Artifacts
- Concrete manifestations of culture
- e.g., incentive structures, traditions

Values
- Operate at a more conscious level
- Standards and goals to which individuals attribute intrinsic worth

Assumptions
- Operate at a more unconscious level
- "taken for granted" beliefs that structure individual thinking and behaviors

Davies, Nutley and Mannion, 2000

BC PATIENT SAFETY & QUALITY COUNCIL
Working Together. Accelerating Improvement.

Why is this Important?

- Artifacts of culture are more visible and may be more readily changed

- Deep-seated beliefs and values may prove to be more resistant to external influences

Davies, Nutley and Mannion, 2000

BC PATIENT SAFETY
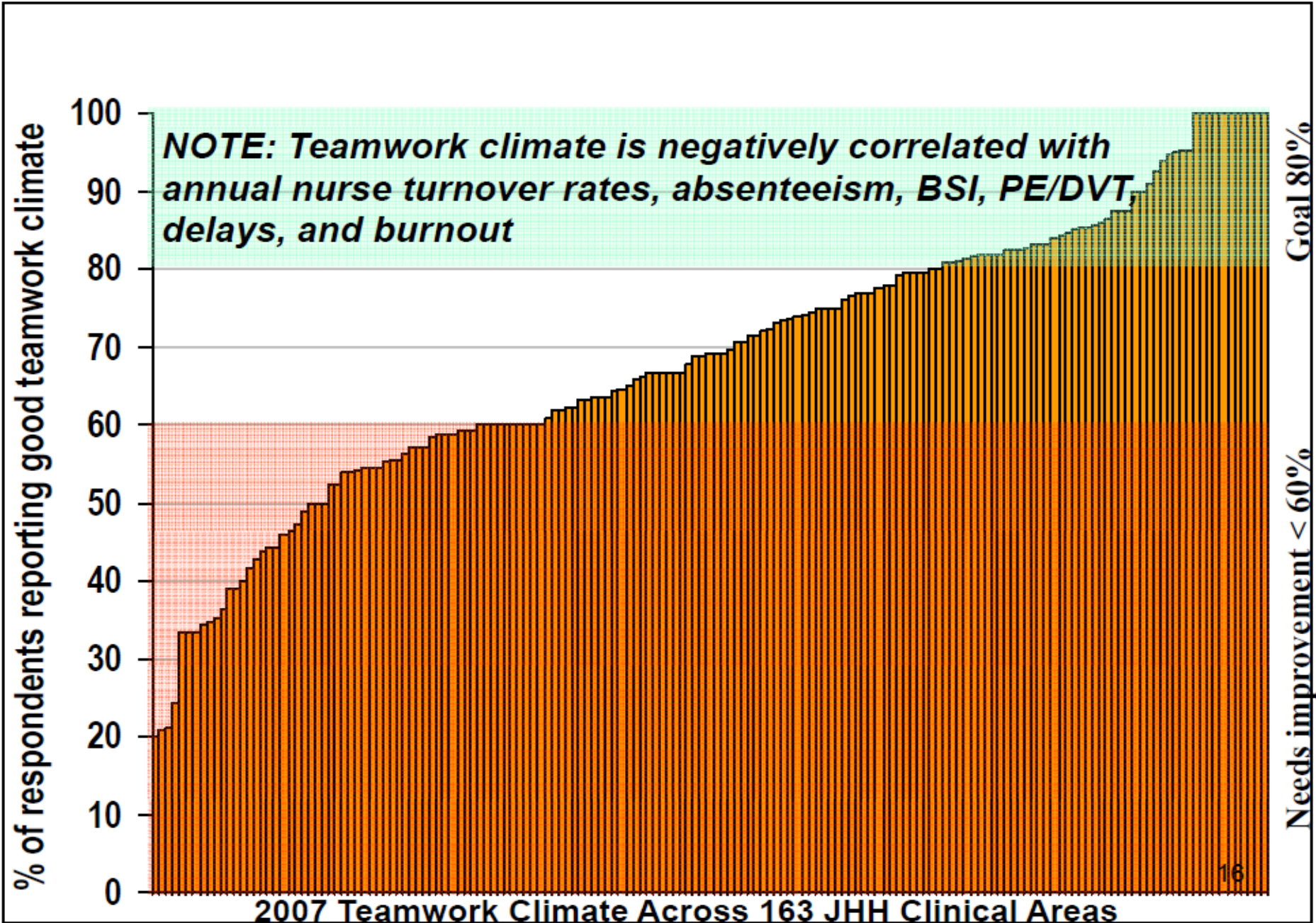& QUALITY COUNCIL
Working Together. Accelerating Improvement.
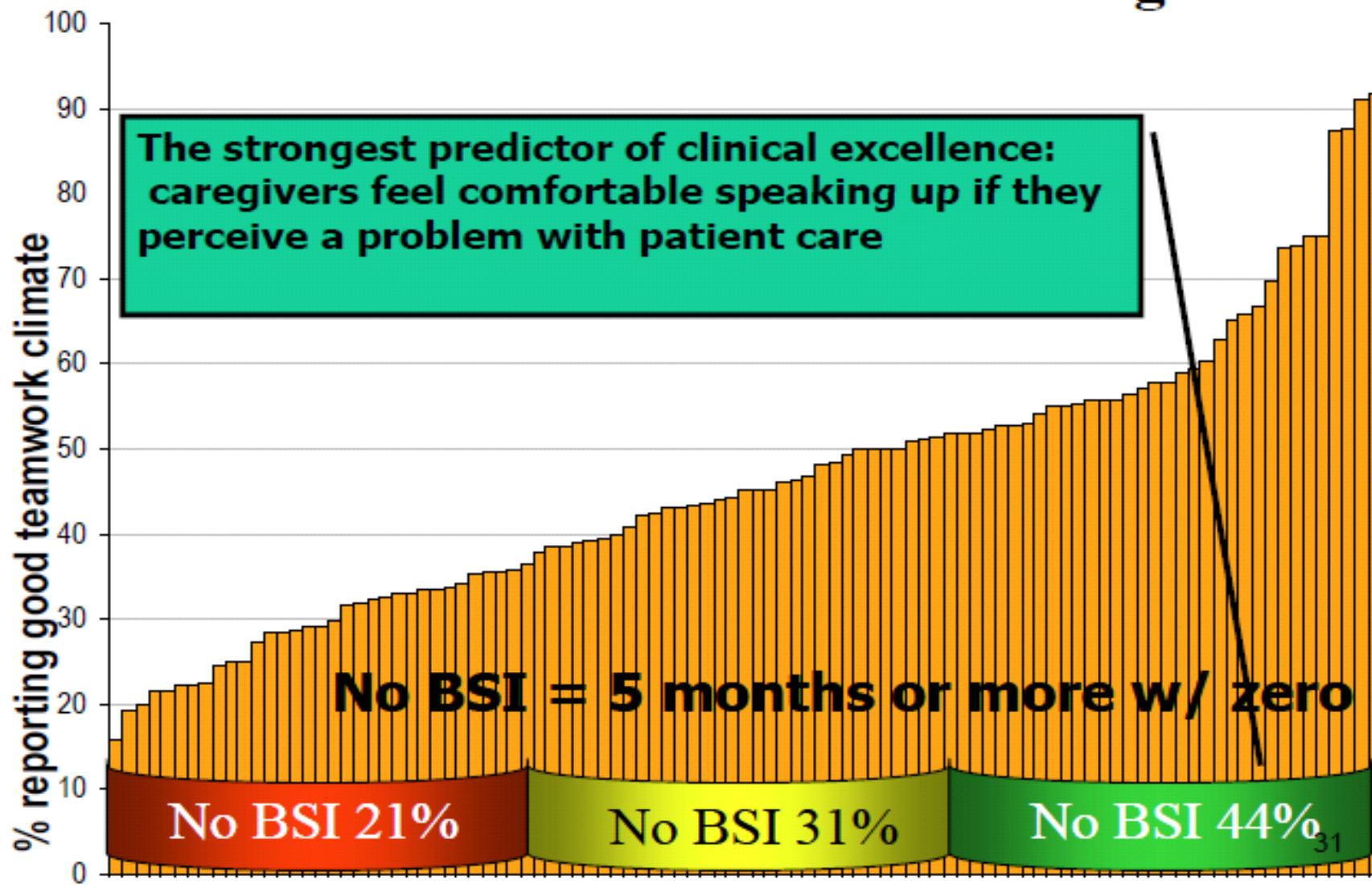
To add to the complexity …

- Diversity of cultures between:
  - professional groups
  - "geographic areas" (e.g., ICU, OR, pediatrics)
  - Levels of the organization (e.g., executive vs front-line)
  - Gender, ethnicity, generation
- Rivalry and competition between health care's "tribes"
- Different "sub-cultures" may be more or less open to change
  - Attributes of the sub-cultures may be shared or conflicting or a mix of both
- Outside cultural influences exists
- Organizational culture can conflict with values and beliefs of organizational members

BC PATIENT SAFETY
& QUALITY COUNCIL
Working Together. Accelerating Improvement.

NOTE: Teamwork climate is negatively correlated with annual nurse turnover rates, absenteeism, BSI, PE/DVT, delays, and burnout

% of respondents reporting good teamwork climate

Goal 80%

Needs improvement < 60%

2007 Teamwork Climate Across 163 JHH Clinical Areas

16

2004 Teamwork Climate Across Michigan ICUs

The strongest predictor of clinical excellence: caregivers feel comfortable speaking up if they perceive a problem with patient care

No BSI = 5 months or more w/ zero

No BSI 21%   No BSI 31%   No BSI 44%

% reporting good teamwork climate

Source: B. Sexton, Canada's Forum on quality Improvement and Patient Safety, 2009. www.patientsafetyinstitute.ca

Psychological Safety

- Belief that you will not be punished or humiliated for speaking up with ideas, questions, concerns or mistakes

- A shared sense of psychological safety is a critical element of an effective learning system

- Associated leadership behaviours:
  - Actively invite input
  - Accessible
  - Acknowledge limits of their own knowledge
  - "Go first", particularly in displays of fallibility

Lower the psychological costs of voice and raise the psychological costs of silence.

A. Edmondson, 1999; Sexton, 1999

BC PATIENT SAFETY & QUALITY COUNCIL
Working Together. Accelerating Improvement.

Components of a Quality and Safety Culture

- Teamwork

- Collaboration

- Communication

- Shared values of quality and safety

- Trust

- Openness

- Transparency

Sexton & Thomas, 2004

BC PATIENT SAFETY
& QUALITY COUNCIL
Working Together. Accelerating Improvement.

Risk in Complex Socio-Technical Systems

- The conditions for successful functioning are created by the interaction between social and technical factors.

- Risks cannot be assigned to identifiable parts of the systems' structure.

- Risks must be seen in relation to the systems' functions.

BC PATIENT SAFETY & QUALITY COUNCIL
Working Together. Accelerating Improvement.

Non-Linearity

- Past focus: "quality control/assurance"
  - Ensure that the system meets pre-specified criteria
  - Minimize performance variability
    - policies, rules and protocols

- New understanding:
  - process of "producing" healthcare is neither linear nor fixed, quality control/assurance alone is not sufficient.
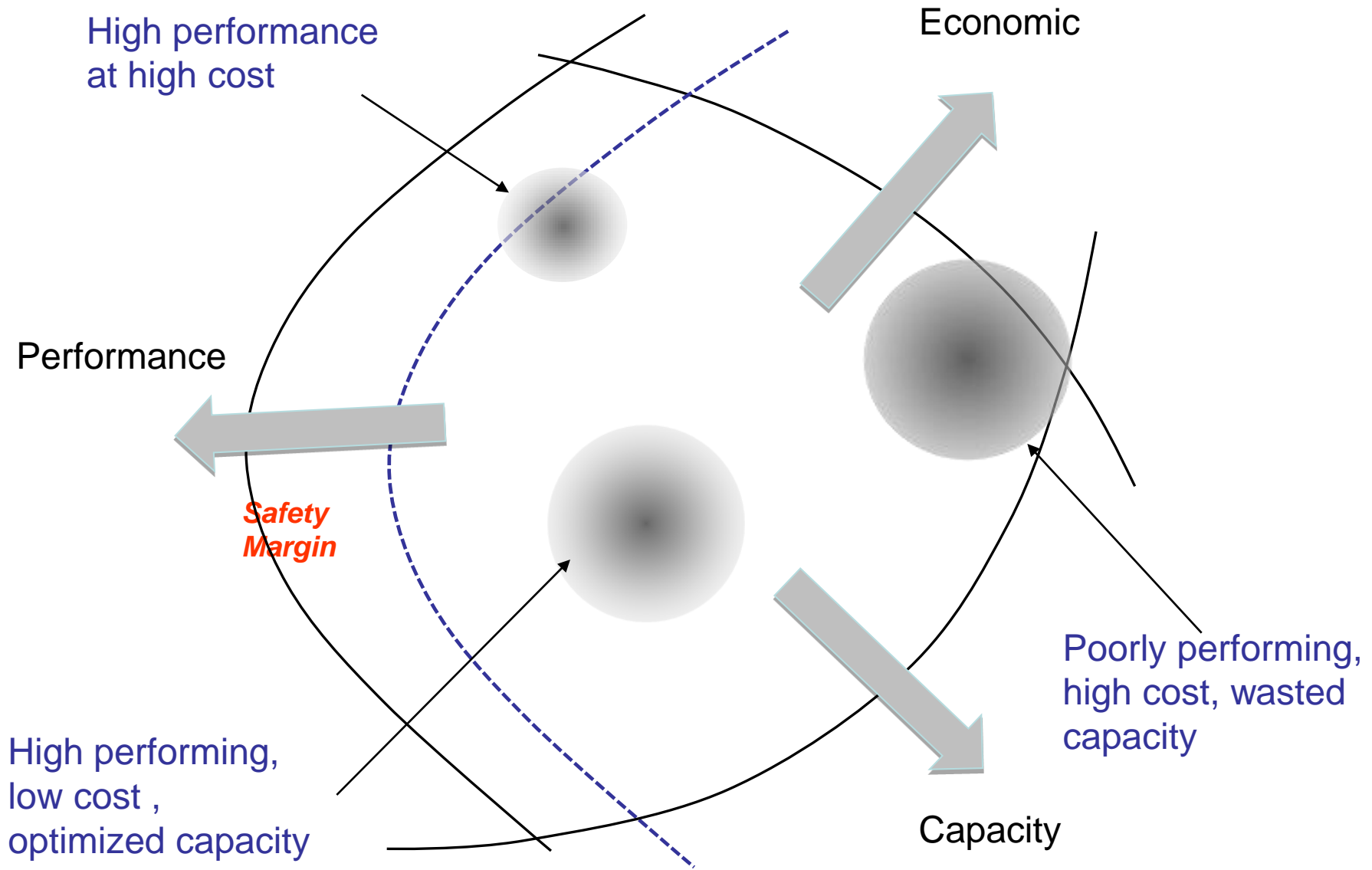
Sheps & Cardiff, 2009

Source: Wrae Hill, IHA, 2011

BC PATIENT SAFETY & QUALITY COUNCIL
Working Together. Accelerating Improvement.

Constraint and complexity in health care

- Competing demands (financial and clinical) frequently push performance goals
- Rapid introduction of new, complex technology (e.g., "Smart" Infusion Pumps)
- Many discontinuities and transitions in care
    - multiple care providers caring for the same patient and often in multiple settings – emergency department to operating room to surgical ward—each unit managed independently)
- Strong autonomous and semi-autonomous professional cultures with concomitant power struggles
- Rapid turnover in staff
- Continual influx of new patients, each with their own inherent biological variability and in many instances language and cultural differences.

Source: Wrae Hill, IHA, 2011

BC PATIENT SAFETY & QUALITY COUNCIL
Working Together. Accelerating Improvement.

High performance
at high cost

Economic

Performance

*Safety
Margin*

High performing,
low cost ,
optimized capacity

Poorly performing,
high cost, wasted
capacity

Capacity

Managing Efficiency Thoroughness Tradeoffs

Rasmussen / Cook (2005) remind us that success lies with being able to balance economic, workload & safety pressures… safety is never the only goal.

The "New View" paradigm supports us to understand how clinicians manage efficiency –thoroughness tradeoffs.
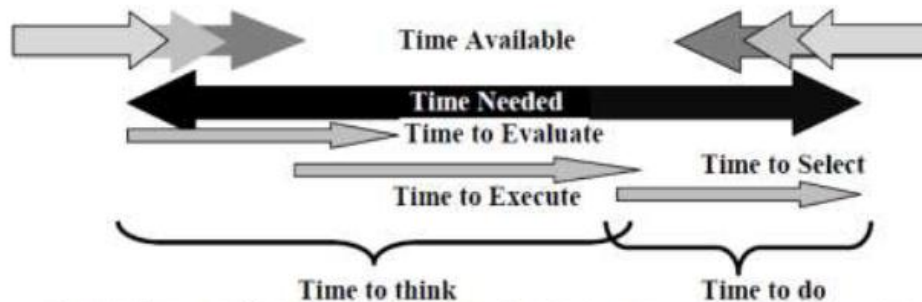
(Hollnagel, 2009)

Fig 2.2: from (Hollnagel 2009 p.27) Overlapping representation of action steps

Source: Wrae Hill, IHA, 2011

CBCnews | Canada

| Home | World | Canada | Politics | Business | Health | Arts & Entertainment | Technology & Science | Community | Weather | Video |

Canada ▸ BC ▸ News   Events   Weather   Programs   Video   Audio   Contact Us

Contaminated surgery tool scare in Kamloops

| Last Updated: Friday, February 19, 2010 | 3:28 PM PT CBC News

Elective surgeries will resume at Royal Inland Hospital in Kamloops, B.C., on Monday after being cancelled earlier this week when contaminated surgical tools were found in operating rooms.

Only emergency surgeries continued this week at Kamloops' Royal Inland Hospital due to concerns about contaminated surgical instruments. (CBC)

Surgical instruments that were about to be used in operations and were supposed to be sterilized were found to still have bone fragments and surgical cement on them from previous surgeries.

The contaminated instruments were a bone-saw jig, drill bit and surgical tray that had been brought into the operating room, but weren't used, said Interior Health Authorty CEO Dr. Robert Halpenny.

About 250 elective surgeries were cancelled due to the discovery.

Unions blame funding lack

Part of the reason for the mistake was an over-burdened surgery department, according to a spokeswoman for the Hospital Employees Union.

"There's three sets [of surgical tools] in the department for hip and knee operations, and there might be as many as eight of those kind of surgeries scheduled in a day," said Olive Dempsey. "You can just imagine what kind of pressure that puts on the department to reprocess those surgical sets, and get them back up."

The B.C. Nurses Union agreed.

"They put in funding to increase the number of surgeries but they haven't put in correlating funding to increase support in the sterilization department," said regional union representative Deb Ducharme.

Ducharme said nurses have been noticing the sterilization problems for

Facebook	0
Twitter	0
+1	0
Share	0
Email	

Internal Links

- B.C. health authorities cut costs to meet budgets
- Olympics a smokescreen for cancelled surgeries: B.C. NDP
- Surgeries cancelled, patients left in hallways at B.C. hospital: surgeon

Stay Connected with CBC News

Mobile   Facebook   Podcasts   Twitter   Alerts   Newsletter

Latest British Columbia News Headlines

- Occupy Vancouver protest costs city $500K so far
- George W. Bush draws protesters at B.C. appearance 310
- B.C.'s Libyans celebrate Gadhafi's death 7
- No strike at Whitecaps game, BC Place union says 21
- Concussions prompt former NHLer Kris Chucko to retire

Watch   Listen   **Most Recent**

Kelownacrow wrote: Posted 2010/02/20 at 12:20 AM ET

Well well....Lots of interesting posts from those that only can speculate but are not on the front lines so actually don't know the facts...**I am a sterile processing tech**. I have toured Kamloops hospital and know some of the staff, I have had the pleasure of working along side a few of them. Let me explain to you where I stand... . I have been a tech for 13 yrs The work load and the time frame we are required to get the stuff through is incredible...blow your hair back dam crazy work load to say the least. management says "oh take your time do a good job" but in the mean while you have hundreds, I mean HUNDREDS of instruments, bed pans, urinals, carts, coming to us constantly on your shift you have seconds to inspect, soak, sonic, wash before they are screaming they need it on the other side.....hurry, move it, stat, are normal in your shift. They will book say 8 of a particular surgery and have 4 of the many instruments required to perform the surgery?? so guess what that means....Yes Mrs Smith is on her way in hurry . Hurry we need it stat (that favorite word again) you say but its not......... What is the answer, we need more staff the pressure and work load are huge. We are legally and morally responsibly for all the work we do. Every piece of work we put through we have to sign and initial as a legal document. So any staff involved are definitely being held responsible for any wrong doings. With a total of 50 to 60 surgeries in a day and each can include dozens & dozens of instruments for each one. That is only the O.R. we service the whole hospital any item, that is re used comes to us, bed pan, urinal, basin, linen, gowns, monitors, you reuse it we get it....
Come walk in our shoes for a day.

Old School vs. New School Safety Management

Focus on Failures vs. Study Success & Failure

Safety = Reduced number of adverse events.

Focus is on what goes wrong. Look for failures and malfunctions. Try to eliminate causes and improve barriers.

Safety and core business compete for resources. Learning only uses a fraction of the data available

$10^{-4} := 1$ failure in 10.000 events
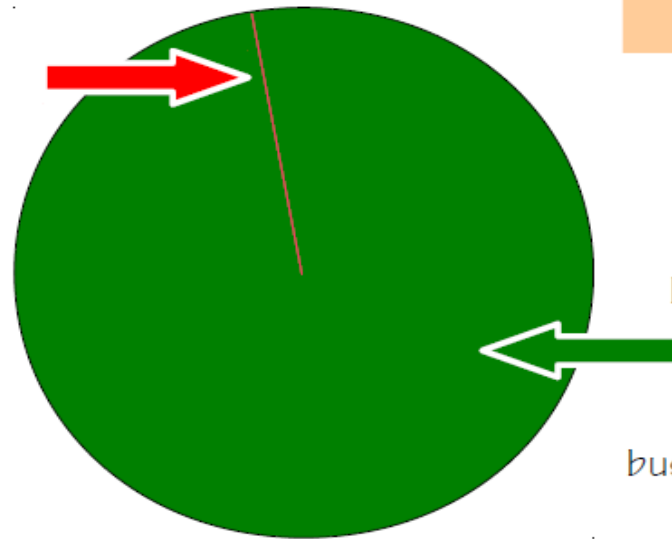
$1 - 10^{-4} := 9.999$ non-failures in 10.000 events

Safety = Ability to succeed under varying conditions.

Focus is on what goes right. Use that to understand normal performance, to do better and to be safer.

Safety and core business help each other. Learning uses most of the data available

Resilience

The intrinsic ability of a system to adjust its functioning, prior to or following changes and disturbances, so that it can sustain operations even after a major mishap or in the presence of continuous stress.

1) To respond, quickly and efficiently, to regular disturbances and threats,

2) To continuously monitor for irregular disturbances and threats, and to revise the basis for the monitoring when needed

3) To anticipate future changes in the environment that may affect the system's ability to function, and the willingness to prepare against these changes even if the outcome is uncertain.

(Resilience Engineering Network 2009)

Source: Wrae Hill, IHA, 2011

Summary

'In complex systems (such as healthcare), unpredictability and paradox are ever present, and some things will remain unknowable....new conceptual frameworks that incorporate a dynamic, emergent, creative and intuitive view of the world must replace traditional "reduce and resolve" approaches to clinical care and service organization'

Plsek, 2001; Dekker, 2007

Questions to Address:

1. *If you were given funding for one thing, what would be your priority?*

2. *What should be the next big piece of research in patient safety?*

BC PATIENT SAFETY
& QUALITY COUNCIL
Working Together. Accelerating Improvement.

What should be the next research focus ?

1. Learning to support safe care
    –   Focus on successes rather than failures
            Asset-based vs Deficit-based thinking

2. Designing to support transformative change
    –   Cultural
    –   Educational (Capability and Capacity)

3. Social contracts for quality in health care
    –   How, what components, measures and cost

Thank You