

**Healthcare Leaders' Dialogue Conference**

**Best Practices for  
Healthcare System Design**

**Ted Ball**  
**Quantum Transformation Technologies**

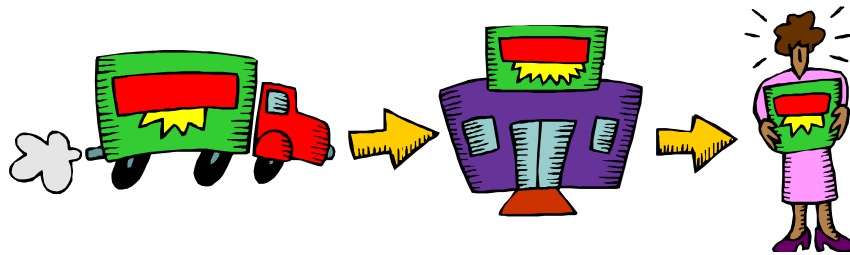


**Healthcare Reform in Ontario:**

- From Frank Miller to George Smitherman – 25 years of healthcare reform initiatives/strategies.
- Been here/done that.
- Financial imperatives: *sustainability at risk!*
- Paradox: *“Our society will get sicker if we invest any more in healthcare services”.*

## Key Assumption:

“Systems are perfectly designed to produce the results achieved.”



## Results Achieved:

- Growing dissatisfaction from patients/ clients/ residents/ families/ taxpayers.
- Collapsing confidence of the public – who want the system they paid for!



## Existing Design/ Current Results:

- Fragmented, disjointed designs between each of the hand-off points leads to a confusing and bumpy patient/ client/ resident/ customer journey.
- Consumers want a “*seamless customer experience*”.
- “Gaps” in services.
- People fall through the cracks.



## Existing Design/Current Results:

- Decline in patient/ customer/ client satisfaction rates/public confidence – as well as staff/physician satisfaction rates.
- Deficits/waste/inefficiencies.
- Quality, not money, will dominate the emerging agenda.



Emerging  
Public  
Agenda

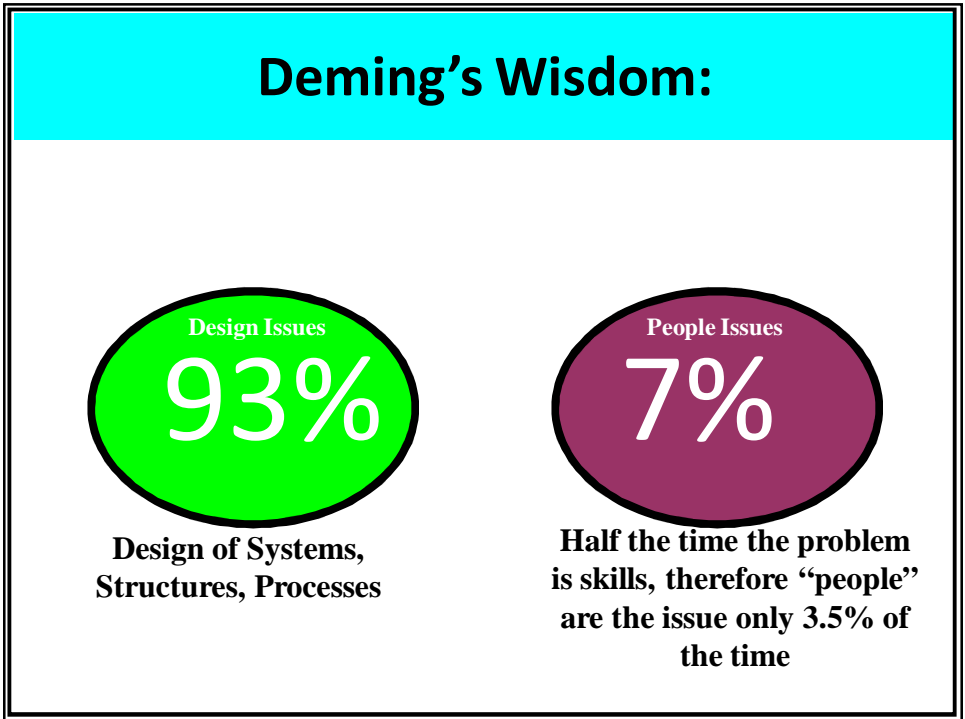
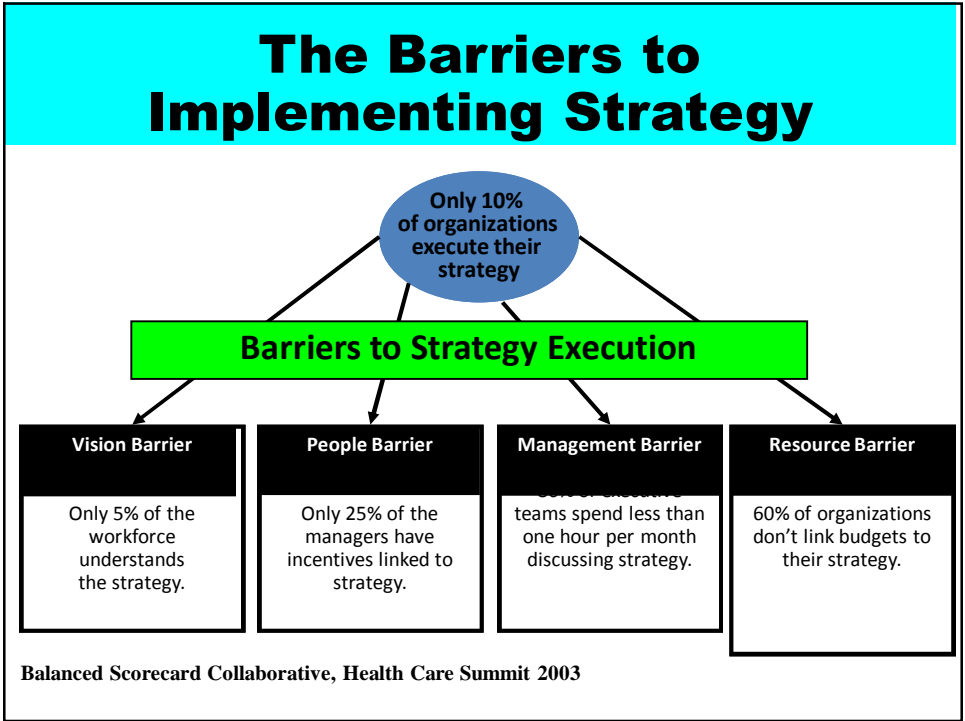
## Current Results:

- 25,500 preventable deaths annually in Canadian hospitals.
- Equals (=) two jumbo jets crashing weekly for a year.
- Today, 1 in 13 patients will be harmed in Canadian hospitals (community care research pending).

## Lessons Learned From Large-Scale Change:

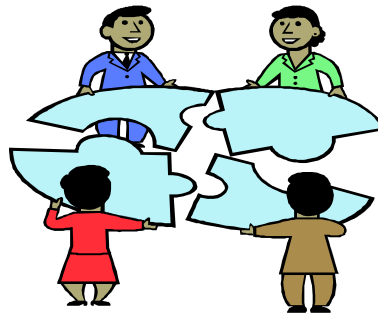


**TQM/CQI/Re-engineering/Process redesign,  
organizational transformation.**



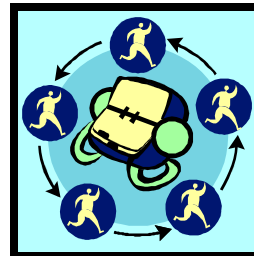
## Fixes-that-Fail:

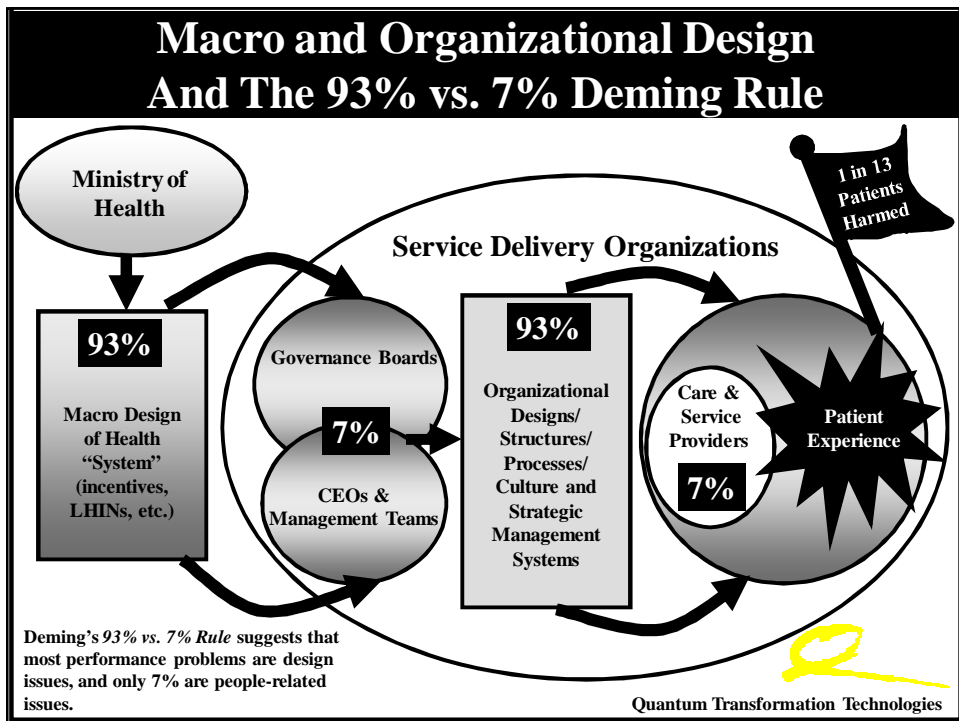
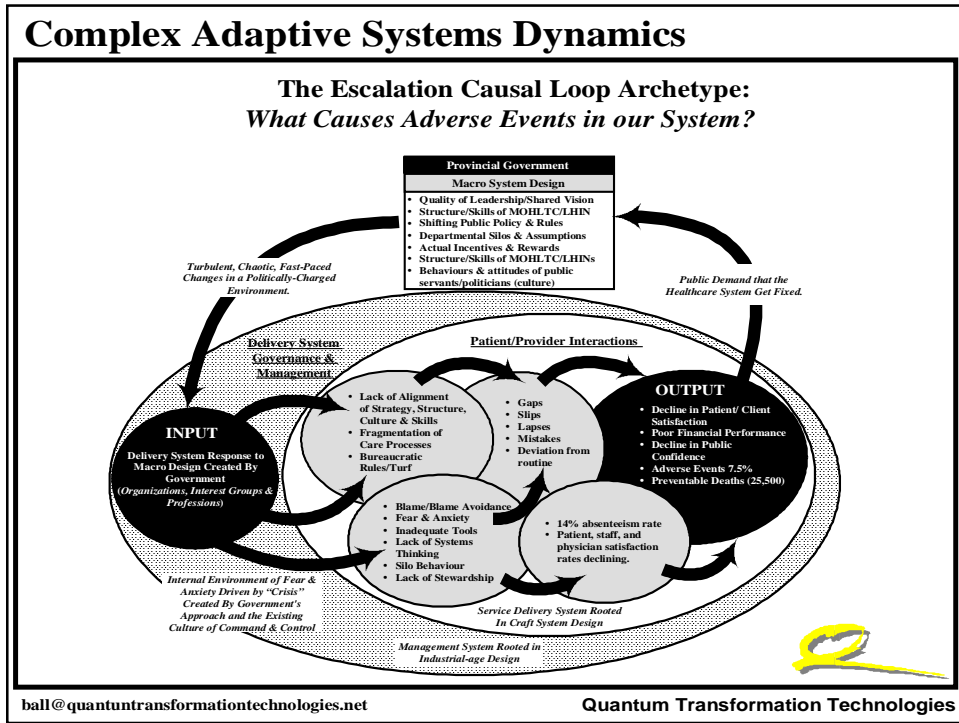
- 25 years of “fixes-that-fail”.
- Will we fix it this time?



## System Design:

- System design at the macro, network and organizational level is the key.
  - *Macro redesign (Provincial).*
  - *System redesign (LHIN).*
  - *Organizational Redesign (BSC).*
  - *Process redesign (staff/physicians).*





## Healthcare Leaders' Dialogue Conference

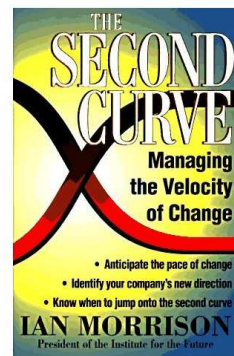
# First Curve & Second Curve Health System Designs

Ted Ball  
Quantum Transformation Technologies



## Complex Adaptive Systems:

- Ian Morrison introduced the concept of evolving complex systems & second curve designs.
- Work with Dr. Marty Merry re: the 2<sup>nd</sup> Curve.



## First Curve Healthcare System Designs, Systems & Processes

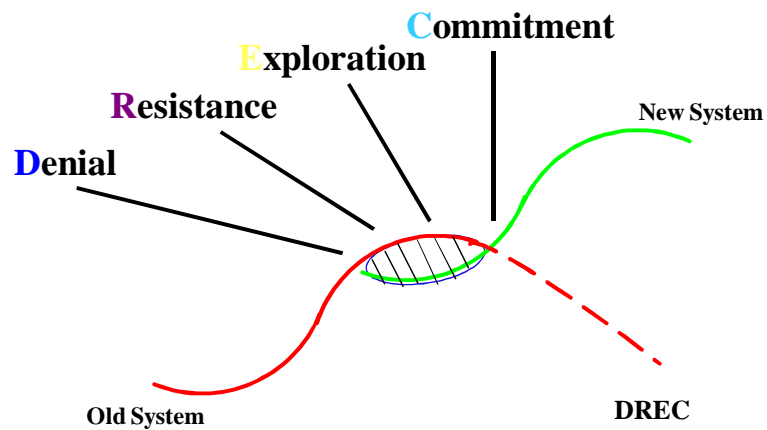
- *First Curve* healthcare systems are characterized by the craft industry model and early stage industrial organizational designs.
- Today, the health sector's traditional practices and key assumptions don't fit with the realities of knowledge-based professionals who require integrated

## First Curve Healthcare System Designs, Systems & Processes

- Clinicians are viewed as autonomous craft persons -- and therefore individually responsible for patient safety & quality-of-care.
- This perspective disavows the clinician as part of a complex interdependent system of care managed by many people in a variety of clinical and non-clinical roles. (i.e. "the

## Bifurcation:

Where in the DREC are we?



## Exercise #3: Table Dialogue

- What leveraged actions could propel us from 1st to 2<sup>nd</sup> curve systems?
  - "Biggest bang for the buck".
  - "Maximum impact for least effort".
  - "Highest ROI".

Healthcare System Designs Assumptions & Beliefs	
First Curve Current Realities	Second Curve Emerging Vision
Acute care is the "hub of the system".	Primary health is the "hub of the system".
The delivery system is designed to meet the needs of healthcare providers.	The delivery system is designed to be customer-driven -- while incorporating the needs of all caregivers along the continuum.
The systems, structures and processes have evolved overtime and have been cobbled together with unaligned assumptions in each silo. Lack of alignment and perverse incentives produce chaos in the system.	Systems, structures and processes are aligned and intentionally designed to achieve the outcomes required. Organizational alignment produces synergy within organizations and across the delivery system.
System is fragmented. Patient finds for her or himself, moving from silo to silo.	System is seamless. Coordinates needs of complex patients, using case managers for those that are especially difficult.
Sickness-focused. Episodic/Individual.	Health status & outcomes-focused. Systemic/Population-based.
The system is designed to provide care and services to individuals (a diabetic, for example).	The system is designed to meet the needs of defined populations (diabetics for example) while retaining responsiveness to individual needs.
Designed to facilitate freedom, independence and autonomy of professionals.	Designed to facilitate the best combination of independent and interdependent professionals.
Systems, structures and processes are designed to control and regulate the people working in the system.	Structures, systems and processes are designed to facilitate collaboration, co-ordination and teamwork.
Hierarchical, command & control systems/structures/processes/culture creates toxic work environments.	Systems, structures and processes are designed to achieve the right balance of empowerment and accountability. High staff satisfaction rates.
"Accountability" means blame. Blame causes cover-up. Constant cover-ups means we don't address design flaws in our systems, structures and processes.	"Accountability for Outcomes" is clear for every manager and Medical Chief. "Learning from our best mistakes" means continuous improvement.
Systems, structures and processes are designed to find out "who is to blame?"	Systems, structures and processes are designed to provide the support people need to achieve the outcomes for which they are accountable.
Information is centralized and hierarchical. Physician is supreme source of knowledge and dictator of therapy.	Information is dispersed. All caregivers and patients have direct access. Physician is integrator and facilitator of choices.
Medical record is fragmented and idiosyncratic to a particular silo. Individual caregivers work off entirely unconnected, often contradictory scripts.	Medical record is electronic and instantly updated and available for all relevant caregivers, all caregivers read from precisely the same script.
Tight centralized control and influence over the delivery system by unaccountable public servants.	Assumption that people are competent when accountabilities are clear and the supports required are in place.
Assumption that performance problems result from lazy, unmotivated and uncaring people that need to be carefully monitored and controlled.	Knowledge that poorly designed systems, structures and processes leave people feeling powerless and uncaring. 93% of time performance issues are system design issues.
Designed to encourage political behavior/power games.	Designed to produce collaborative behaviour and teamwork.
Behaviours characterized by fear and anxiety. Little trust.	Behaviours characterized by creativity and innovation. Lots of trust -- and a real sense of purpose.
Bosses are "in control" of "subordinates".	Leaders are in stewardship ("in service") to those around them.
Solutions to problems translates to retraining or censoring people.	Solution to problems translates to redesigning systems and providing people with the learning support they need.

Martin D. Merry, M.D. & Quantum Learning Systems

Healthcare System Designs Assumptions & Beliefs	
First Curve Current Realities	Second Curve Emerging Vision
The system requires compliance from people.	The system seeks commitment from people.
Goal is to maximize resources for your silo.	Goal is to allocate resources appropriately within the system.
Huge resources are consumed in reimbursing inefficient systems. 30% of all work is rework.	Huge resources are freed up for innovation and quality improvement. People & resources are leveraged.
Traditional budgeting processes are political, inflexible, linear and absorb up to 30% of senior executive's time, and 20% of middle managers efforts.	Strategic budgeting allocates resources based on evidence to achieve the outcomes and targets set by management and approved by the Board. Management time on the budget process cut by 50%.
Resources are allocated centrally based on politics in silos.	Evidence-based allocation of resources. Strategic budgeting.
Assumption: "First, do no harm." Provider intentions impeccable.	Assumption: Humans are inherently fallible. Harm occurs despite providers' best intentions.
Reality: Human error generates harm with threat of punishment as a deterrent.	Reality: System accepts human error as inevitable. Designs error proofing.
Mistakes are inevitable, but to be avoided; move on quickly if they occur. These are "undiscussables".	Mistakes are our most valuable source of learning. Learning from our "best mistakes".
Hospital accidents are common. Medical error, death and injury headlines are regular, predictable occurrences.	Hospital accidents are rare, with medical error death equivalent to airline and nuclear power plant performance.
Complexity makes it easy to do things wrong, hard to do things right (Institute of Medicine).	Well-designed workplace systems, structures and processes make it easy to do things right and hard to do things wrong.
Ultimate definition of quality endlessly debated, thus avoiding adequate measurement, management and improvement.	Consensus exists regarding a variety of key measures -- including access to care, clinical outcomes, functionality, satisfaction and value received.
Quality can be improved by responding to each event and dealing with the "problem people". There is a silo for quality.	Quality is achieved by designing error proofing at the interface of people and processes. Everyone is in charge of quality.
Quality capability is seen almost solely in terms of professional skills -- with virtual blindness to the importance of support systems.	Understands that care fully designed quality infrastructure is absolutely essential to reduce risk and optimize skills of professionals.
Quality improvement efforts are undertaken by silos in charge of quality monitoring.	Quality emanates from the careful design of clinical and operating processes and the coordinated skills of caregivers, patients and community stakeholders.
When major TQM/CQI efforts are undertaken with vigor, the existing system can reach 3 to 4 Sigma on quality. (3.5% to 7.5% error rates)	Transformed organizations, systems, people can reach 6 Sigma and beyond -- to a 3rd curve of healthcare system design. (3.4 defects per million and better)
CEOs manage an organization within a network of healthcare services. Managers in silos talk past each other. Despite the rhetoric of co-operation, the rewards and incentives are for "winners" and "losers" and for those who play politics.	CEOs participate in facilitating a network of healthcare delivery organizations and provide strategic management and leadership to their own organizations. Silo managers integrate their planning and system design efforts. They are rewarded for achieving integration and for excellence in management.
Governance represents the self-interests of the organization.	Governance represents the "owners": the citizens/community.
The system is designed to be complicated.	The system's complexities and self-organizing potential is realized in a natural complex adaptive system.

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