A Perspective from Systems Analysis, Change and Implementation

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Landscape

- Need for Systematic Reform

- High Complexity – dynamic, non-linear, chaotic!!?

- Multiple Stakeholders, multiple objectives

- Conflicting objectives
  - Quality   - Cost   - Multiple levels of care
  - Sustainability   - Accessibility   - Theory vs. Practice

- Some collaboration among engineering, social scientists, healthcare providers

- Certainly lots of preliminary interest!!!

Much research tends to:

- Focus on specific segments of the system in a particular organization at a particular time

- Be piecemeal, no systems approach

- Lack context

- Have unmet data needs

- Be doubtful regarding implementation, scalability, transferability

- Lack significant policy implications

- Lack a "National Owner" with a clear vision

Cont.:

- Lack the integration of quantitative/modeling, qualitative aspects that characterizes a human driven system

- Overemphasize IT as the end, instead of being a means or mechanism to achieve the desired aims/objectives

- Miss working on the intersections of the disciplines that can contribute; even in the confines of traditional IE we see the "separation" between the quantitative and qualitative researchers

Unanswered/Unclear…?

- Do we know what are we looking for?
- Is it first about the tools or techniques, or is it about the need, the design, the needs and complexity?
- Even if there was a clear vision,
  - do we go after the tools or do we go after the vision, work on it, discover the "fundamental structural" problems, initially with current science and tools, to do more systematic work and discover the new tools needed?

Cont.:

- How do we really go about implementing change?
  - Is it top-down, bottom-up, right to left, multiple directions?
  - How do we consider the effectiveness of excellent managers/leaders, health care administrators?
- To what extent do we need a "National Forcing Function" that drives the effort to really re-engineer/re-design the health care sector?

Forecasting is a "Tricky" Business

- "Humans will not fly for another 50 years"
  Wilbur Wright, 1901
- "I envision a world market of about five (5) computers"
  Thomas Watson, 1943
- "No one needs to have a personal computer at home"

  Kenneth Olsen, 1977
- "640K will be enough memory for everyone"
  Bill Gates, 1981
- "This ship is so strong an iceberg couldn't sink it"
  Leonardo de Caprio on the Titanic, 1998

The Road Ahead

- Need to engage more in the "design" process for health care
- Inclusion of multiple stakeholders and multiple levels (e.g., ~ networks within networks)
- IT is necessary technological and as a means to more quickly capture necessary data needs for all stakeholders, i.e., patients, providers, businesses, insurers, government, researchers, … others)
- Multiplicity of change/implementation strategies need to be tested

Cont.:

- A more systematic/holistic view, considering "bottom-up integration," and "top-down decomposition" is needed to design, analyze, model, synthesize possibilities

- Integrate quantitative and qualitative factors

- Interdisciplinary education & collaboration is a must!

  – Can "bilingual", "multilingual" individuals be educated for the future of the "ideal" health care?

  – Can they effectively collaborate in research, practice, and implementation?