

WHAT IS: *What we know and don't know*

What we know:

- ❖ We know how to identify and fix
- ❖ Healthcare is quick to adapt technologies
- ❖ Often endeavors go sideways especially as things evolve
- ❖ Those with the least power have the most incentive for change
- ❖ Those with the most power are incentives to keep status quo
- ❖ Management control issues within the healthcare society

What we don't know:

- ❖ We need to know more about prevention
- ❖ Health care is slow in adapting efficiencies.
- ❖ Who are the stakeholders who do not want change?
- ❖ Most providers don't understand the value that systems engineers provide
- ❖ Systems engineers don't understand the nuances of health care delivery
- ❖ Predictive models are rudimentary yet we have a huge resource of studies
- ❖ Need for leadership
- ❖ Understanding the evolving system, it's social dynamics
- ❖ Need to create predictive models

WHAT IS: *What is the resistance to change*

Resistance/Disrupting Innovation:

- ❖ Politics and Economics is resistance to change
- ❖ We know that the problems are but we don't know the solutions - due to lack of understanding of a huge resource of studies
- ❖ Engineers do a better job in stating their needs as for NSF funding
- ❖ Need to consider the interdependence the dynamics between free market enterprise nature of the industry and organic dynamics of provider systems– vested interest is not balanced within an organic and evolving industry
- ❖ We know the problems but implementation needs to take to account engineers
- ❖ Providers in large do not know what industrial engineers do
- ❖ Bilateral connection is essential – education exposure to foster cross cultural literacy
- ❖ Why are we not invited into the system of the interlocutor?
- ❖ Incentives support the status quo
- ❖ From a purely systems prospective - role of the funding agencies should also be to fund high risk high potential endeavors.

HOW DO WE GET THERE: *Preliminary Direction*

- ❖ Incentives for research skew to high innovation we need a balance for low tech interventions are more community based and prevention focused. Example: childhood obesity
- ❖ Designing complex systems: there are many models out there but there is a need for leadership to bring things into order within given systems
- ❖ Making research agendas as a system change - crafting the research agenda for systems change
- ❖ Bring into the table methodologies from social sciences
- ❖ Collaboration among engineers, providers and consumers is necessary. Successful collaborations will require alignment of incentives a “win-win-win” approach.
- ❖ Defining medical meaningfulness
- ❖ Framing the issues in order that all parties have a vested interest for change
- ❖ Consumers (demand) vs. Suppliers
- ❖ How do we do business cases... How do we show implementation capabilities
- ❖ Need to influence education K-30... Can we create multi lingual individual



SUMMARY: DAY 1

Group had a lively conversation. An exchange of issues to build a common understanding. Group often had multiple conversations at one time. The group dynamic was on orientation phase. Previous slides reflect what was captured during the discussion that bounced between elements that needed collecting.

The following day we had an 8am meeting to go over these notes.