

RESEARCH AGENDA:

GOALS	SCOPE	CHALLENGES	APPROACH
<p>Identify a set of problems that are manageable over 6 years</p>	<p>Research needs to pull the pieces together from existing models. Identify the gaps and project how to fill the gaps.</p>		
<p>To reduce the cost, increase quality and increase access</p>	<p>To leverage the open access policies to develop micro and macro models to improve healthcare delivery.</p> <p>To draw from existing reports that delineate expected contributions from systems engineering (e.g. institute of medicine)</p> <p>To infuse engineers in the healthcare services environments to work with healthcare providers.</p> <p>To combine qualitative and quantitative aspects in healthcare systems engineering research.</p>	<p>After identifying problems and priorities - most often nothing happens. Transitioning the research into an actionable approach</p> <p>Difficulty in scalability and transferability</p> <p>Fragmentation of the healthcare system</p> <p>Lack of understanding of what is system engineering by healthcare practitioners; and visa-versa</p> <p>Lack of understanding of who the players are.</p> <p>System engineers need to sit at the table with healthcare administrators and ISyE program administrators.</p> <p>Constant struggle and what is fundamental and applied research in the minds of faculty and peers.</p>	<p>Need to embrace a broader model of scholarship</p> <p>Micro and meta modeling</p> <p>Macro modeling will require research center / large teams (inclusive)</p> <p>Micro will require smaller groups or individuals</p> <p>To infuse systems engineering training, concepts and education in the educational program in health sciences and to infuse healthcare concepts and education into ISyE programs</p>



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Model “system” complexity. (initially at a manageable unit level)	<p>To develop models that capture the interactions and dynamics of the “unit of service” over an instant or period of time, e.g. encounter vs. cycle of care.</p> <p>To assure that these models are visual understandable by the various users and beneficiaries, e.g. patients, front line staff, health care providers and administrators</p>	<p>There are different perspectives for the different users</p> <p>Simulations must be understandable to the users and beneficiaries</p> <p>Lack of organized set of variables, factors and disturbances that affect the “system”.</p> <p>Relationships are unclear, fuzzy</p> <p>Organizational cultures vary, and individuals have different mindsets</p>	<p>Select a site or unit (or set of) to conduct a pilot.</p> <p>Use a similar “process/product” design analysis to develop the foundations of the relationships, interactions, requirements, needs etc.</p> <p>Develop simulators that make appropriate use of simulation, optimization and visualization</p>



SUMMARY: DAY 2

Met with Jose and group to review previous day's notes to solidify a foundation to build upon today.

The group in dealing with such a complex, organic, and dynamic issue only concentrated on the first 4 elements of the days goals.