The Learning Health System

- Penn Medicine is a learning health system with an emphasis in Precision Medicine
- A learning health system uses the integration of internally collected data and local experience along with external evidence to make systematic changes in clinical workflows to facilitate knowledge being put into clinical practice

Penn Center for Precision Medicine (PCPM)

- The Penn Center for Precision Medicine (PCPM) is focused on developing precision medicine efforts that can be translated into clinical care for patients at Penn Medicine
- The precision medicine paradigm is embedded into our institutional culture as a critical component of patient-centric care of the future (Penn Medicine’s Strategic Plan)

Lessons Learned in Strategic Planning for PCPM

- The importance of consensus building in a quaker organization
  - Matrix organizations require input and feedback from diverse members of the community
  - Leaders have different strengths and limitations
  - Determines the nature of the work where leaders excel and focus
  - It is essential to develop key priorities in the strategic plan
  - Without key priorities, it can be challenging to move specific initiatives to completion
  - The importance of establishing key performance metrics
  - High performers will work toward the metrics imposed on them
  - Success of a strategic plan is intimately linked to the performance metrics selected

Institute for Biomedical Informatics (IBI)

- The Institute for Biomedical Informatics (IBI) was created to develop, advance, and support interdisciplinary education, research, and infrastructure in biomedical informatics including clinical informatics and translational bioinformatics
- IBI includes ~75 faculty labs, 2 Centers, multiple education programs and 2 cores
- We envision a Penn ecosystem that fully captures the power of data, information, and knowledge to drive discoveries and improve the health of individuals, communities, and populations as part of the Penn Medicine learning health system

Strategic Planning

- Five key elements of a strategic plan
  1. Define your Vision
  2. Craft your Values
  3. Determine desired Outcomes
  4. Declare explicit Accountability
  5. Establish leading Metrics of success/performance indicators

- Methods used in strategic planning
  - Literature review (including leadership and management texts)
  - Town hall events
  - Small group and individual meetings with key stakeholders
  - Series of listening sessions with different groups of faculty, staff, and trainees

PCPM Missions

- Develop precision medicine technologies
- Turn technologies into clinical tools
- Communicate
- Educate
- Implement new tools into clinical practice

PCPM Workflows

- Discovery Accelerator
- Research Accelerator
- Clinical Accelerator
- Implementation: Free Pathway
- Implementation: COPD

Discussion & Future Directions

- The PCPM strategic plan was created and then submitted in December 2021
- The strategic plan for IBI will be developed over the next 12-18 months using the lessons learned through ELAM content, reading materials, and the PCPM strategic planning effort
- This will ensure that a robust, collaborative, and innovative strategic plan for IBI will be developed that will synergize with the strategic plan developed for the PCPM
- These efforts will advance Penn Medicine as a learning health system
Project Title: Strategic Planning for the Learning Health System: Lessons Learned at Penn Medicine

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Topic Category: Administration

Background, Significance of project: Penn Medicine is a learning health system with an emphasis in Precision Medicine. A learning health system uses the integration of internally collected data and local experience along with external evidence to make systematic changes to facilitate knowledge being put into clinical practice. The Penn Center for Precision Medicine (PCPM) is focused on developing precision medicine efforts that can be translated into clinical care for patients at Penn Medicine. The Institute for Biomedical Informatics (IBI) was created to develop, advance, and support interdisciplinary education, research, and infrastructure in biomedical informatics including clinical informatics and translational bioinformatics. These two Penn Medicine entities work collaboratively along with other entities at Penn Medicine to advance the learning health system.

Purpose/Objectives: The goal of this project was to develop a strategic plan for the Penn Center for Precision Medicine (PCPM). Subsequently, a strategic planning effort also needed to be initiated for the Institute for Biomedical Informatics (IBI). As such, two strategic planning efforts ensued during the timeline of this project.

Methods/Approach/Evaluation Strategy: To create a 5-year strategic plan for PCPM, we engaged in a series of meetings within the leadership and membership of PCPM followed by a series of meetings with stakeholders across Penn Medicine. Because of the cross-cutting nature of PCPM, it was important to collect input to incorporate into the strategic plan from across Penn Medicine. Simultaneously, I interviewed for a position as Director of the Institute for Biomedical Informatics (IBI); I was later selected by the search committee for the position. This precipitated the initiation of a strategic planning process for IBI. I employed the lessons learned through the development of the PCPM strategic plan to kick-off strategic planning for IBI.

The specific methods implemented include a literature review (including leadership and management texts), town hall events, small group and individual meetings with key stakeholders, and a series of listening sessions with different groups of faculty, staff, and trainees. Next, the emerging content regarding vision, values, outcomes, accountability, and metrics of success are integrated in a strategic planning document. Finally, this document is reviewed by all priority stakeholders before it is finalized and submitted to leadership.

Outcomes/Results: Through the strategic planning processes, multiple lessons were learned. First, I learned the importance of consensus building in a quaker organization, like Penn Medicine. We are a matrix organization which requires input and feedback from diverse members of the community. Next, I learned that leaders have different strengths and limitations; these factors determine the nature of the work where they excel and focus the majority of their efforts. Third, I learned that it is essential to develop key priorities in the strategic plan. Without key priorities, it can be challenging to move specific initiatives to completion. Finally, I learned the importance of establishing key performance metrics; high performers will work toward the metrics imposed on them. Success of a strategic plan is intimately linked to the performance metrics selected.

Discussion/Conclusion with Statement of Impact/Potential Impact: The PCPM strategic plan was created and then submitted in December 2021. The strategic plan for IBI will be developed over the next 12-18 months using the lessons learned through ELAM content, reading materials, and the PCPM strategic planning effort. This will ensure that a robust, collaborative, and innovative strategic plan for IBI will be developed that will synergize with the strategic plan developed for the PCPM. In combination, these efforts will advance Penn Medicine as a learning health system.