THE HEALTH INDUSTRY FORUM

Developing CER that Impacts on Medical Practice

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OVERVIEW

• What PCORI wants
• The practical challenges to fulfilling the PCORI mission and vision
• Are there solutions that address the needs of providers and patients?
PCORI MISSION

PCORI helps people make informed healthcare decisions, and improves healthcare delivery and outcomes, by producing and promoting high-integrity, evidence based information that comes from research guided by patients, caregivers, and the broader healthcare community.

Implies the need for better evidence and a process to make the evidence usable for patients.
PATIENT PERSPECTIVE

• Given my health, personal characteristics, and preferences, what should I expect?
• What are the benefits and harms of my options?
• What can I do to improve outcomes that are most important to me?
• How can the healthcare system help me with my preferences and outcomes?
The Problem...
TOO MUCH TO DO, TOO LITTLE TIME

The Data Problem:
- A lot to ask
- Poor hx documentation
- Miscommunication
- Not enough time

The Knowledge Problem:
- Knowledge advances
- Learning does not
- Knowledge is not accessible or operational

The Decision Problem:
- Knowledge is dated
- Data are incomplete
- Patient is left out

The Documentation Problem:
- Takes time
- Done after-the-fact
- Inadequate for billing and quality

Why are you here today, Mrs. Smith?
How long has this been going on?
Why were you hospitalized?

Gather data  Apply evidence  Make a decision  Document & code

QUALITY HALF THE TIME

<table>
<thead>
<tr>
<th>Type of Care</th>
<th>Overall</th>
<th>Acute</th>
<th>Chronic</th>
<th>Preventive</th>
<th>Diagnosis</th>
<th>Follow-Up</th>
<th>Screening</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care</td>
<td>54.9</td>
<td>53.5</td>
<td>56.1</td>
<td>54.9</td>
<td>55.7</td>
<td>58.5</td>
<td>52.2</td>
<td>57.5</td>
</tr>
</tbody>
</table>
IF YOUR ONLY TOOL IS A HAMMER, EVERYTHING LOOKS LIKE A …
Effective Use of Knowledge

• Requires more than simply learning knowledge

• Numerous other contextual and iterative cognitive processes
  – Understanding context
  – Gathering the right data
  – Accessing the right knowledge
  – Applying knowledge to data
  – Interpreting options
  – Communicating options
THERE IS A LOT WE CAN LEARN FROM OTHER INFORMATION SERVICE BUSINESSES
## CREATING VALUE

<table>
<thead>
<tr>
<th>Method</th>
<th>Product Design Principles/Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same service, lower cost</td>
<td>- Automate processes</td>
</tr>
<tr>
<td></td>
<td>- Increase throughput (e.g., per clinic, per provider)</td>
</tr>
<tr>
<td></td>
<td>- Lower fixed costs (re-purpose waiting room)</td>
</tr>
<tr>
<td></td>
<td>- Task completed by the qualified lowest skilled worker</td>
</tr>
<tr>
<td>Product Design Option</td>
<td>Who Wins?</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>- Automate processes</td>
<td>Pr, Pt</td>
</tr>
<tr>
<td>- Increase throughput</td>
<td>Pr, Pt</td>
</tr>
<tr>
<td>- Lower fixed costs</td>
<td>Pr</td>
</tr>
<tr>
<td>- Higher level of service in same visit</td>
<td>Pr, Pt</td>
</tr>
<tr>
<td>- Offload work to patient/lowest skilled worker</td>
<td>Pt, Pr</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>- Error checking (orders, meds)</td>
<td>Pt, Pr, Pa</td>
</tr>
<tr>
<td>- Identify and eliminate care gaps</td>
<td>Pt, Pr, Pa</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>- Predictive model for early disease detection</td>
<td>Pr, Pt, Pa</td>
</tr>
<tr>
<td>- Primary prevention management</td>
<td>Pr</td>
</tr>
<tr>
<td>- Prevention management of chronic disease</td>
<td>Pt</td>
</tr>
<tr>
<td>- Shared decision making</td>
<td>Pa, Pt</td>
</tr>
<tr>
<td>- Tailored patient education</td>
<td>Pt, Pa</td>
</tr>
<tr>
<td></td>
<td>Pt, Pa</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>

**Footnotes:**

- Pr – Provider, Pt – Patient, Pa – Payer
One approach to re-engineering healthcare
First, get structured information.

The Data Solution:
- Put the patient to work
- Data that are:
  - High quality
  - Actionable
  - Retrievable
Second, apply data to knowledge.

The Knowledge Solution:
- Knowledge that is:
  - Codified
  - Current
  - Actionable
  - Accessible

- Time = 0
- Gather data
- Apply evidence
- Make a decision
- Document & code
- Time = 15 mins

Actionable clinical intelligence
Third, display data, knowledge, & interactive tools.

The Decision Solution:
- View options, risks, benefits with patient
- Discuss what is best
- Decide on actions
- Written patient plan

Time = 0
- Gather data

Time = 15 mins
- Apply evidence
- Make a decision
- Document & code
Fourth, automate the documentation.

The Documentation Solution:
- Automate:
- Progress note
- Document quality
- Document work done

Time = 0
- Gather data

Time = 15 mins
- Gather data
- Apply evidence
- Make a decision
- Document & code
Fifth, make the limited time more efficient.

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>% increase</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RVUs / visit</td>
<td>1.40</td>
<td>1.76</td>
<td>26%</td>
<td>0.03</td>
</tr>
<tr>
<td>Net Revenue / visit</td>
<td>$74.10</td>
<td>$93.33</td>
<td>26%</td>
<td>0.03</td>
</tr>
</tbody>
</table>

- Data from our specialty care application showed significant increases in productivity
- Neurology practice to have mid-levels manage patients with headache care application

**The Time Squeeze Solution:**
- More done in less time
- Better quality
- Better coding
If We Build It Will They Come?

• It depends!
• What does not work?
  • Research supported solutions that engage patients, improve outcomes, and do not work in practice
  • Mandated solutions and reimbursement models
• What is likely to work?
  • Solutions that engage patients and improve outcomes
  • Solutions that are business sensible to providers
  • Solutions that make the best care the easiest care to deliver
SOLUTIONS FROM THE PATIENT PERSPECTIVE

PCORI QUESTION

- Given my health, personal characteristics, and preferences, what should I expect?
- What are benefits and harms of my options?
- What can I do to improve outcomes that are most important to me?
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EXAMPLE OF PRACTICE BASED SOLUTION

- Use sophisticated, user friendly questionnaires to gather all relevant data
- Process data & display risk profile, options, & benefits
- Visual display of patient choices & other content for shared discussion
- Goal setting & continuous care management