How I Started In Quality Improvement

Richard E Sharpe, Jr, MD, MBA
Breast Radiologist
Sharpe.Richard@Mayo.edu

September 22, 2021
Objectives

• Describe my quality improvement journey
• Articulate a few ideas for developing a QI career
• Identify resources for those interested in quality improvement
Early QI germination

College ambulance service:

- **Problem**: It was hard to restock an ambulance that had 200 different items, some of which were potentially life saving.

- **Solution**: Implemented equipment management system.
We ordered many tests, cost and value was unknown.
- Asked questions about the system, affordability, quality, value, etc.
- Was directed to a summer healthcare economics course at the business school.
- Realized I had an interest not just in providing care but also in designing the system around care.
- Enrolled in the combined MD MBA program.
- My 2008 class graduated 4 MD MBA students.

<table>
<thead>
<tr>
<th>Country</th>
<th>Healthcare Costs per Capita (Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$11,072</td>
</tr>
<tr>
<td>Switzerland</td>
<td>$7,732</td>
</tr>
<tr>
<td>Germany</td>
<td>$6,646</td>
</tr>
<tr>
<td>Sweden</td>
<td>$5,782</td>
</tr>
<tr>
<td>Netherlands</td>
<td>$5,765</td>
</tr>
<tr>
<td>Average</td>
<td>$5,496</td>
</tr>
<tr>
<td>Belgium</td>
<td>$5,428</td>
</tr>
<tr>
<td>Canada</td>
<td>$5,418</td>
</tr>
<tr>
<td>France</td>
<td>$5,376</td>
</tr>
<tr>
<td>Australia</td>
<td>$5,187</td>
</tr>
<tr>
<td>Japan</td>
<td>$4,823</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>$4,653</td>
</tr>
<tr>
<td>Italy</td>
<td>$3,649</td>
</tr>
</tbody>
</table>

U.S. per capita healthcare spending is almost twice the average of other wealthy countries.

Question the status quo. Strive to create value.
Medical school: QI roots expand

• We ordered many tests, cost and value was unknown.
• Asked questions about the system, affordability, quality, value, etc.
• Was directed to a summer healthcare economics course at the business school
• Realized I had an interest not just in providing care but also in designing the system around care
• Enrolled in the combined MD MBA program.
• My 2008 class graduated 4 MD MBA students.

Question the status quo. Strive to create value.
QI leaves emerge

My first QI project, although I didn’t know it at the time

• Find a mentor
• Evaluated the quality of reporting of a series of articles.
• Helped me understand the importance of being thorough in planning and reporting quality projects

Conclusion: The series of articles reviewed is deficient in reporting items to assess their internal and external validity. Resources spent yearly treating these patients may be misguided. Researchers should apply the STARD recommendations to improve the accuracy and completeness of reporting of studies of diagnostic accuracy.
Residency: QI flower buds

- Residency strengths: IT, education
- **Problems**: Trainees often didn’t know their reports had been edited, didn’t learn from those experiences, and other trainees were unable to learn as well.
- **Solution**: Created a system to visualize report changes, log discrepancies, and make them available to all trainees.

Focus on problems people care about. Learn IT. Leverage local resources. Solve problems.
QI flower grows: 1st attending position

- Started first attending position.
- Attended a peer review meeting uninvited. Wasn’t asked to leave.
- Kept suggesting changes to improve the practice and spread learnings.
- 3 meetings later was asked to lead quality and peer review.
- Created peer learning, a new transparent way of identifying QI opportunities, then using them to learn and improve the practice.
- ACR has recently approved peer learning as an alternative to peer review.

Choose a team that values improvement.
Show up. Be brave.
Think differently.
QI flower grows: reduce sleepless nights

• Problem:
  • Most women spent > 1 month awaiting results of their evaluation for breast cancer.

• Solution:
  • Socialize the problem
  • Obtain data and create patient centered metric your team can relate to and wants to improve:
    # Sleepless nights.
  • Ideate improvements
  • Implement changes
  • Track gains
  • Repeat

Focus on the patient.
Align enterprise: QI flower matures

- Appointed Chair of the Kaiser Permanente Interregional Radiology Clinical Practice Group

**Problem:**
- Imaging care varied across the 9 states we operated. Some care must have been lower quality.

**Solution:**
- Created practice parameters to standardize management of common conditions.
- Create electronic safety net to ensure appropriate follow up.

**Align with organizational priorities.**
Standardize high quality care across the enterprise.
Suggestions to develop a QI career:

• **Learn!**
  • Read quality articles
  • Join quality listserves: LCIR google group
  • Take courses at radiology meetings, in person/online
  • Earn a certificate (ACR Radiology Leadership Institute, RSNA Advanced Level Quality)
  • Earn a degree: MBA, MPH, MMM, MSc, others

• **Practice!**
  • Join a team that values practice improvement
  • Join a quality project
  • **Identify a quality improvement opportunity, recruit a team to improve it!**
  • Formal vs less formal approaches

• **Align!**
  • Align your improvement efforts with your organization’s goals and priorities
  • Team will better understand the impetus for change.
  • Resources will be more available.
  • Quantify current state, document gains as improvement is implemented.
Summary: Your patients need you. Improve systems to provide better care.

- Show up
- Find a mentor
- Be brave
- Think differently
- Learn IT
- Question the status quo
- Create value
- Focus on problems people care about
- Leverage local resources
- Create patient centered metrics that your team can relate to and wants to improve
- Align with organizational priorities
- Standardize high quality care across the enterprise.
How I started in quality improvement

Richard E Sharpe, Jr, MD, MBA
Breast Radiologist
Sharpe.Richard@Mayo.edu
How I started in quality improvement

Richard E Sharpe, Jr, MD, MBA
Breast Radiologist
Sharpe.Richard@Mayo.edu
How I started in quality improvement

Richard E Sharpe, Jr, MD, MBA
Breast Radiologist
Sharpe.Richard@Mayo.edu
How I started in quality improvement

Richard E Sharpe, Jr, MD, MBA
Breast Radiologist
Sharpe.Richard@Mayo.edu
Heavy lift projects: Flower maturing

Create care value streams across multiple disciplines to ensure consistent high quality care.

• Problem:
  • Some imaging studies need follow up, yet those studies are not always performed

• Solution:
  • Bring together leaders in multiple specialties, radiologists, QI experts, data analysts, software engineers, nursing staff to create an electronic safety net.