ICD-Pieces: Top Barriers/Challenges and Recent Generalizable Lessons

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Hypothesis

PIECES (Information Technology) → Practice Facilitators → Primary Care Practices

Improved Outcomes for Patients with CKD, Diabetes, and HTN

Reduced:
1. Hospitalizations
2. ED Visits
3. Readmissions
4. CV Events / Deaths
## Barriers Scorecard

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Level of Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment and engagement of patients/subjects</td>
<td>X</td>
</tr>
<tr>
<td>Engagement of clinicians and Health Systems</td>
<td>X</td>
</tr>
<tr>
<td>Data collection and merging datasets</td>
<td>X</td>
</tr>
<tr>
<td>Regulatory issues (IRBs and consent)</td>
<td>X</td>
</tr>
<tr>
<td>Stability of control intervention</td>
<td>X</td>
</tr>
<tr>
<td>Implementing/Delivering Intervention Across Healthcare Organizations</td>
<td>X</td>
</tr>
</tbody>
</table>

1 = little difficulty  
5 = extreme difficulty
ICD-Pieces Top (Recent) Barriers

1. Personnel turnover
2. Measuring fidelity study intervention
3. Data sharing and transmission
Personnel turnover: Multiple sites and many levels

UT Southwestern Medical Center

PCCI

Parkland
Texas Health Resources
ProHealth Physicians
U.S. Department of Veterans Affairs

Public Safety Net
Private Nonprofit
Private ACO
Government Hospital
Measuring study fidelity – what to measure?

Randomization Clinical Practices
• Pieces +PF vs. Usual Care

Patients Identified
• Pieces algorithm (Cloud) vs. Local VA
• PF RN, Pharm Ds, Population Nurse(s)
• Patient Registries / Lists

Primary Care Team Notified
• Pre-visit Planning
• Best Practice Alerts (BPAs)
• Messaging

Clinical Decision Support Implemented
• Education Aides
• Best Practice Protocols

Monitoring Performance/Clinical Measures
• Track Performance / Outliers
• Reports ➔ Aid tools

Ascertain Outcomes
• DFW Hospital Council
• Claims Data
• Electronic Health Records
Data Transmission—Data Resides in Health Systems

- Data Requested
- Query Pieces Database
- Request Sent to Each Site
- Final Data Cleaning / Validation and Submission
- Data Compiled and Cleaned
- Data Sent to Pieces

Institutions involved:
- National Institutes of Health (NIH)
- Duke Clinical Research Institute
- UT Southwestern Medical Center
- PCCI
- U.S. Department of Veterans Affairs
- ProHealth Physicians
- Parkland
- Texas Health Resources
Recent Generalizable Lesson(s)

1. Implementation ePCT Health System interactions—new team members Contingency plans- Reserve clusters/ manual reviews

2. Keep focus on measuring outcomes Cross check sources for adjudication
   - Health System databases
   - Claims data
   - Regional and national registries