System-Level SDM: Challenges and Implementation

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Why focus on system-level SDM?
Why focus on system-level SDM?
At a minimum, achieving SDM requires:

1. The presentation of reasonable options
   - CLINICIAN WORK

2. The meaningful contribution of patients
   - PATIENT WORK

Creating a space that facilitates this work is key to implementing SDM
A Problematic Situation

Arising from a troubled human situation

Situational Resolution

At this point in time
Conversational Inquiry

Beginning from a Troubled Human Situation …

What is the situation that demands care?

- Problem formation
- Hypotheses development “options”
- Testing “trying on”
- Reason in care “this makes sense”

What is the care the situation demands?

…Towards Resolution in Care

- this is the problem
- this is what we will do
- this is how we will do it
- this is why we are doing it
What challenges do you expect in System-level SDM?
What is a decision aid?

Can you achieve SDM without implementing a decision aid?

Can you implement a decision aid without achieving SDM?
Consider the clinical management of cardiovascular risk...
**Feedback**

**Provider**

**Patient**

**Chronic Conditions:** Diabetes, Coronary Heart Disease, Cardiovascular Disease

**Age:** 53  **Gender:** F  **Date:** 6/15/2012  **10 Year CV Risk:** 17.8%

<table>
<thead>
<tr>
<th>Measure</th>
<th>LDL (mg/dL)</th>
<th>HDL</th>
<th>TRIG</th>
<th>BP1 (mm Hg)</th>
<th>BP2 (mm Hg)</th>
<th>A1c (%)</th>
<th>Cr (mg/dL)</th>
<th>eGFR (std)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>88</td>
<td>69</td>
<td>121</td>
<td>132/84</td>
<td>132/88</td>
<td>7.7</td>
<td>0.82</td>
<td>60.0</td>
</tr>
<tr>
<td>Date</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Goal</td>
<td>= 69 mg/dL</td>
<td></td>
<td></td>
<td>= 139/89</td>
<td></td>
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</tr>
</tbody>
</table>

**Lipids**

**Absolute CV Risk Reduction:** 3%

Current Lipid Meds: GEMFIBROZIL, ROSUVASTATIN

Safety Alerts:
- Combination lipid therapy for LDL lowering has not been proven to be more beneficial than statin therapy alone for most patients.
- The combination of gemfibrozil and statins is contraindicated.

Treatments to Consider:
- The patient's LDL is above goal. Consider intensifying statin therapy (increase dose of existing statin or prescribe a more potent statin).

**Blood Pressure**

**Absolute CV Risk Reduction:** 8%

Current BP Meds: METOPROLOL, LISINOPRIL

Treatments to Consider:
- The recommendations are based off a BP reading prior to today. Treatment recommendations do not take into account pharmacological action since that date.

**Glucose/A1c**

**Absolute CV Risk Reduction:** 0%

Current Blood Sugar Meds: GLIPIZIDE, METFORMIN

Comments:
- Urine protein screening is recommended annually. Consider ordering UMA/CR.

**BMI:** 30.6  **Priority:** 2  **Smoking:** YES  **Priority:** 1  **Aspirin or Blood Thinner Use:** YES

**Absolute CV Risk Reduction:** 5% (based on a 3 unit drop in BMI)

- Discuss advantages of reducing weight by 10-20 lbs. Weight loss programs may be helpful, and are available in the community or through HP Nutrition Services (952-967-5120) or by visiting www.healthpartners.com/public/healthv.

- Tobacco use is identified. Ask about interest in quitting. If interested, offer the following: 1) prescribe medication such as varenicline (Chantix), bupropion (Zyban), or nicotine replacement (e.g. nicotine patch, gum, lozenge, or inhaler). 2) Arrange counseling prospectively. Type "HealthPartners" under orders, or the patient may call 1-800-311-3052.

- Aspirin is recommended for patients with coronary heart disease.

The CV Wizard suggestions are based on electronically available data and are not intended to be a substitute for clinical judgment. Alternative actions to those that Wizard suggests may be indicated. Exercise independent clinical judgment, review allergies, and follow product labeling instructions before choosing Wizard prescribing suggestions.

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[2012061510070011]
Can you reduce your danger of heart attack and stroke?
Yes, you can! If you want to avoid a heart attack or stroke, talk to your doctor about what you can do about the things with the most ⚠️ signs. The things with the ✅ are ok.

<table>
<thead>
<tr>
<th>Bad Cholesterol - LDL Goal 99 mg/dl or less</th>
<th>Blood Pressure - BP Goal 139/89 mmHg or less</th>
<th>Blood Sugar - A1c Goal 7.9% or less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Your Status</td>
<td>Date</td>
</tr>
<tr>
<td>2</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>⚠️ ⚠️</td>
<td>⚠️</td>
<td>⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️ ⚠️</td>
</tr>
</tbody>
</table>

**Weight**

<table>
<thead>
<tr>
<th>Date</th>
<th>Your Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>385 #</td>
</tr>
</tbody>
</table>

**Smoking**

<table>
<thead>
<tr>
<th>Date</th>
<th>Your Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>QUIT</td>
</tr>
</tbody>
</table>

**Aspirin or Blood Thinner Use**

<table>
<thead>
<tr>
<th>Your Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
</tr>
</tbody>
</table>

Talk to your doctor about anything with one or more ⚠️ symbols. Take notes here about what you can do to improve your heart health:

For more information on health and wellness, visit: http://www.healthpartners.com/public/health/
CV Wizard

• Is this a useful tool?

• Is it a decision aid?

• Does it lead to SDM?

• Why or why not?
The Statin Choice Decision Aid

**Current Risk of having a heart attack**
Risk for 100 people like you who do not medicate for heart problems
- Over 10 years
  - 8 people will have a heart attack
  - 92 people will have no heart attack

**Future Risk of having a heart attack**
Risk for 100 people like you who do take standard dose statins
- Over 10 years
  - 6 people will have a heart attack
  - 92 people will have no heart attack
  - 2 people will be saved from a heart attack by taking medicine
Statin Choice

• Is this a useful tool?

• Is it a decision aid?

• Does it lead to SDM?

• Why or why not?
Information-giving, decision support tools, and even decision aids ≠ SDM

A useful decision aid makes it easier to do SDM.

A useful decision aid makes it easier to implement SDM.

First rule of SDM implementation: use a decision aid that is designed and proven to achieve SDM.
Case Study
The Statin Choice Decision Aid: 2014

EMR Link

EMR Documentation

stadindecisionaid.mayoclinic.org
The Statin Choice Decision Aid: 2014

Why isn’t everyone using our tool?!?!
Aim

To implement the Statin Choice Decision Aid (SCDA) within healthcare systems and evaluate the components of successful implementation and barriers to that success.
AIDED: implementation and scale-up

Assess (Baseline): Characterize each systems’ SDM knowledge & culture, implementation readiness – Qualitative interviews, Patient Collaborate Survey & Google Analytics of SCDA usage @ baseline

Innovate: Close partnership w/ IT & implementation team at each system

Develop: Social networks w/in each system, launched at implementation workshop

Engage: Social networks beyond each system

Devolve: Ongoing
Mixed Methods Assessment

- Google Analytics for SCDA Usage
- 2 follow-up clinician/implementation team surveys
- Qualitative interviews @ 6 months
- 2 follow-up Collaborate surveys of patients – cross-sectional sample @ each time point
System 1
“organic, we’re good”

- **Structure**: 86 PCPs spread over rural region; isolated
- **Culture**: teamwork, patient first, clinician-led
- **Priorities**: better integration, world-class care
- **Team**: personal familiarity, “friendly,” ex-CEO is “physician champion”
- **Perceived strengths**: IT, cultural fit with SDM
- **Perceived barriers**: “organic, we’re good; process, not so good,” CV wizard in place
System 2
“educate, that’s what we do”

• **Structure:** 84 PCP’s across region, integrated

• **Culture:** consumer/市场-driven; leadership-directed; hierarchical; tense; proud innovators

• **Priorities:** access/市场 share, innovation, patient activation

• **Team:** mechanical, business-like, unengaged

• **Perceived strengths:** history of implementation successes, process in place, resources committed, strong IT, learning environment

• **Perceived barriers:** poor cultural fit, disengaged team, low priority
System 3
“we’re changing to something bigger”

- **Structure**: 32 PCPs at single referral site
- **Culture**: growing into regional referral center; independent; developing identity
- **Priorities**: improving patient engagement, capacity and access, image
- **Team**: engaged physician champion, never worked together
- **Perceived strengths**: small, intimate
- **Perceived barriers**: EMR, independent and paternalistic physicians
What do you think happened?
System 1
“organic, we’re good”

- IT was strength; achieved full integration in Epic, but took time
- Had no process for education after go live; no communication to outlying clinics
- Team did not meet regularly; little front-line engagement
System 2
“educate, that’s what we do”

- Reluctant participants at leadership level, but had legacy system and process that was very effective.
- IT integration followed by instructional video, provider meetings, “at the elbow support.”
System 3
“we’re changing to something bigger”

- Highly motivated team; prioritized intervention into routine well visits. Small size made saturation easier.

- Leadership highly engaged, competitive; promoted internally through communications team.

- Failure to achieve IT integration had opportunity costs that might not have been acceptable in more mature organization.
## Clinician SCDA Responses by Round

<table>
<thead>
<tr>
<th>What is your level of exposure to SCDA</th>
<th>Baseline (Round 1)</th>
<th>6 Month (Round 2)</th>
<th>18 Months (Round 3)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System 1</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.07</td>
</tr>
<tr>
<td>Never heard of it</td>
<td>23 (46.0%)</td>
<td>8 (21.6%)</td>
<td>12 (21.8%)</td>
<td></td>
</tr>
<tr>
<td>Heard of it, no use</td>
<td>13 (26.0%)</td>
<td>13 (35.1%)</td>
<td>18 (32.7%)</td>
<td></td>
</tr>
<tr>
<td><strong>Use it some or routinely</strong></td>
<td>14 (28.0%)</td>
<td>16 (43.2%)</td>
<td>25 (45.5%)</td>
<td></td>
</tr>
<tr>
<td><strong>System 2</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.002</td>
</tr>
<tr>
<td>Never heard of it</td>
<td>11 (26.2%)</td>
<td>6 (21.4%)</td>
<td>5 (11.6%)</td>
<td></td>
</tr>
<tr>
<td>Heard of it, no use</td>
<td>17 (40.5%)</td>
<td>3 (10.7%)</td>
<td>7 (16.3%)</td>
<td></td>
</tr>
<tr>
<td><strong>Use it some or routinely</strong></td>
<td>14 (33.3%)</td>
<td>19 (67.9%)</td>
<td>31 (72.1%)</td>
<td></td>
</tr>
<tr>
<td><strong>System 3</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.0003</td>
</tr>
<tr>
<td>Never heard of it</td>
<td>3 (23.1%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td></td>
</tr>
<tr>
<td>Heard of it, no use</td>
<td>2 (15.4%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td></td>
</tr>
<tr>
<td><strong>Use it some or routinely</strong></td>
<td>8 (61.5%)</td>
<td>13 (100%)</td>
<td>17 (100%)</td>
<td></td>
</tr>
</tbody>
</table>

a – Responses out of those that had heard of or used SCDA
# Clinician SDM Responses by Round

<table>
<thead>
<tr>
<th></th>
<th>Baseline (Round 1)</th>
<th>6 Month (Round 2)</th>
<th>18 Months (Round 3)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System 1: N (%)</strong></td>
<td>50 (58%)</td>
<td>37 (43%)</td>
<td>55 (64%)</td>
<td></td>
</tr>
<tr>
<td><strong>System 2: N (%)</strong></td>
<td>42 (50%)</td>
<td>28 (33%)</td>
<td>43 (51%)</td>
<td></td>
</tr>
<tr>
<td><strong>System 3: N (%)</strong></td>
<td>13 (50%)</td>
<td>13 (50%)</td>
<td>17 (65%)</td>
<td></td>
</tr>
</tbody>
</table>

### SDM Beliefs

<table>
<thead>
<tr>
<th></th>
<th>System 1: Mean (SD)</th>
<th>System 2: Mean (SD)</th>
<th>System 3: Mean (SD)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System 1: Mean (SD)</strong></td>
<td>23.7 (3.6)</td>
<td>22.6 (4.8)</td>
<td>24.0 (3.0)</td>
<td>0.13</td>
</tr>
<tr>
<td><strong>System 2: Mean (SD)</strong></td>
<td>22.6 (4.8)</td>
<td>24.9 (3.3)</td>
<td>24.5 (3.0)</td>
<td>0.86</td>
</tr>
<tr>
<td><strong>System 3: Mean (SD)</strong></td>
<td>24.0 (3.0)</td>
<td>24.3 (3.1)</td>
<td>23.8 (3.9)</td>
<td>0.86</td>
</tr>
</tbody>
</table>

**I believe SDM increases health care costs**

<table>
<thead>
<tr>
<th></th>
<th>System 1: Disagree/Strongly Disagree</th>
<th>System 2: Disagree/Strongly Disagree</th>
<th>System 3: Disagree/Strongly Disagree</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System 1</strong></td>
<td>30 (60.0%)</td>
<td>20 (48.8%)</td>
<td>7 (53.8%)</td>
<td>0.64</td>
</tr>
<tr>
<td><strong>System 2</strong></td>
<td>22 (59.5%)</td>
<td>17 (63.0%)</td>
<td>9 (69.2%)</td>
<td>0.66</td>
</tr>
<tr>
<td><strong>System 3</strong></td>
<td>30 (55.6%)</td>
<td>23 (56.1%)</td>
<td>10 (62.5%)</td>
<td>0.51</td>
</tr>
</tbody>
</table>

**I believe SDM improves patient outcomes**

<table>
<thead>
<tr>
<th></th>
<th>System 1: Agree/Strongly Agree</th>
<th>System 2: Agree/Strongly Agree</th>
<th>System 3: Agree/Strongly Agree</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System 1</strong></td>
<td>37 (74.0%)</td>
<td>28 (66.7%)</td>
<td>10 (76.9%)</td>
<td>0.22</td>
</tr>
<tr>
<td><strong>System 2</strong></td>
<td>31 (83.8%)</td>
<td>24 (88.9%)</td>
<td>8 (66.7%)</td>
<td>0.73</td>
</tr>
<tr>
<td><strong>System 3</strong></td>
<td>46 (83.6%)</td>
<td>32 (78.0%)</td>
<td>12 (70.6%)</td>
<td>0.22</td>
</tr>
</tbody>
</table>

**I believe that SDM is the typical way I make decision with patients**

<table>
<thead>
<tr>
<th></th>
<th>System 1: Agree/Strongly Agree</th>
<th>System 2: Agree/Strongly Agree</th>
<th>System 3: Agree/Strongly Agree</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System 1</strong></td>
<td>40 (80.0%)</td>
<td>31 (73.8%)</td>
<td>13 (100%)</td>
<td>0.19</td>
</tr>
<tr>
<td><strong>System 2</strong></td>
<td>33 (89.2%)</td>
<td>25 (92.6%)</td>
<td>10 (76.9%)</td>
<td>0.20</td>
</tr>
<tr>
<td><strong>System 3</strong></td>
<td>49 (89.1%)</td>
<td>39 (95.1%)</td>
<td>14 (82.4%)</td>
<td>0.005</td>
</tr>
</tbody>
</table>
CollaboRATE: Cross-sectional Survey of Patients @ 3 time points
Conclusions
What did we learn?: Implementation

- IT integration is technically straightforward, but delays with programmer bandwidth, vendors/privacy
- Culture is nice, process and communication is critical (especially in large systems)
- If you build it, they can come…but they won’t necessarily
- Education is straightforward and required, in-person follow-up ideal
What did we learn?: SDM

- Implementation of a single tool does not necessarily change SDM Culture for patients or clinicians
Discussion