Population Health Colloquium
A Consumer-Oriented Perspective to Achieving Population Health

March 28, 2017
Agenda

• Patients are becoming consumers
  > engagement matters to providers and consumers

• What’s a Person First Approach?
• Why do we behave the way we do?
• How to think about different generations
• You can improve health outcomes using population health approaches
What are the issues facing doctors and patients?

- POPULATION HEALTH
- CHOLESTEROL
- FITNESS
- pain
- asthma
- diabetes
- sleep
- stress
- CARDIOVASCULAR DISEASE
- TOBACCO USE
- blood pressure
- NUTRITION
- musculoskeletal
- TELEMEDICINE
- Apps & trackers
- Lab Results
- depression
- alcohol use
- resiliency
- ACCOUNTABLE CARE
- PATIENT RETENTION
- PATIENT ATTRACTION
- Quality Ratings
- back
- weight
Transformation towards a sustainable healthcare system

Frame Of Mind

Financial Structure

Information Exchange
The future of population health requires behavior change: Providers and Patients

### Million Hearts® 2022 Priorities

<table>
<thead>
<tr>
<th>Keeping People Healthy</th>
<th>Optimizing Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce Sodium Intake</td>
<td>Improve ABCS*</td>
</tr>
<tr>
<td>Decrease Tobacco Use</td>
<td>Increase Use of Cardiac Rehab</td>
</tr>
<tr>
<td>Increase Physical Activity</td>
<td>Engage Patients in Heart-healthy Behaviors</td>
</tr>
</tbody>
</table>

**Improving Outcomes for Priority Populations**

- Blacks/African-Americans
  - 35-64 year olds
- People who have had a heart attack or stroke
- People with mental illness or substance use disorders

*Aspirin, Blood pressure control, Cholesterol management, Smoking cessation
Consumerism is changing health care
Providers and patients: changing engagement preferences

Figure 1: More mobile, more accessible, more connected

- **Consumers**
  - 60% willing to have a video visit with a physician through a mobile device
  - 21% have used a mobile device to order a refill of a prescription
  - 88% willing to share personal data with their doctor to find new treatments
  - 67% “very satisfied” with experience at a retail clinic

- **Clinicians**
  - 81% say mobile access to medical information helps coordinate patient care
  - 38% use email to stay connected with their chronic disease patients
  - 58% would rather provide a portion of care virtually
  - 74% say non-traditional venues (e.g., retail clinics) improve access to care

## Who owns a smartphone?

<table>
<thead>
<tr>
<th>Sex</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>83</td>
<td>78</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>78</td>
<td>80</td>
<td>75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th>18-29</th>
<th>30-49</th>
<th>50-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>94</td>
<td>93</td>
<td>68</td>
<td>35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Household Income</th>
<th>&lt;$30K</th>
<th>$30K-$49,999</th>
<th>$50K-$74,999</th>
<th>$75+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>61</td>
<td>81</td>
<td>89</td>
<td>95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Level</th>
<th>&lt; High school</th>
<th>High school</th>
<th>Some college</th>
<th>College+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>48</td>
<td>66</td>
<td>87</td>
<td>94</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community Type</th>
<th>Urban</th>
<th>Suburban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>84</td>
<td>82</td>
<td>61</td>
</tr>
</tbody>
</table>
We systematically design for consumer engagement and behavior change—by starting with the person.

We start with the individual’s priority. We use choice. We address the needs of cross-generational workforces.

- Better experience
- More meaningful engagement
- Demonstrated outcomes

RedBrick Health
Person First
People are different—meet them where they are
A person-first approach recognizes differences, offers relevant choices, gets results

**PERSONA RESEARCH**

<table>
<thead>
<tr>
<th></th>
<th>Phone Coaching</th>
<th>Digital Apps</th>
<th>Tracking Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 50</td>
<td>25-64</td>
<td></td>
<td>Under 40</td>
</tr>
<tr>
<td>Blue collar or service</td>
<td>Professional service</td>
<td>Professional service</td>
<td></td>
</tr>
<tr>
<td>Lower income and rural</td>
<td>Mid to upper income, suburban</td>
<td>Upper income, suburban</td>
<td></td>
</tr>
</tbody>
</table>

**OUTCOMES RESEARCH**

Effectiveness of RedBrick Program Modalities in Reducing Risk

- Activity Tracking
- RedBrick Journeys
- RedBrick Phone Coaching

<table>
<thead>
<tr>
<th></th>
<th>Activity Tracking</th>
<th>RedBrick Journeys</th>
<th>RedBrick Phone Coaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% Weight Loss</td>
<td>18%</td>
<td>33%</td>
<td>40%</td>
</tr>
<tr>
<td>Categorical Reduction in Blood Pressure</td>
<td>20%</td>
<td>34%</td>
<td>41%</td>
</tr>
<tr>
<td>≥10% Reduction in non-HDL Cholesterol</td>
<td>20%</td>
<td>31%</td>
<td>41%</td>
</tr>
</tbody>
</table>
# How do we facilitate engagement? The RedBrick Behavior Change Framework™

## RedBrick Behavior Change Framework

<table>
<thead>
<tr>
<th><strong>Motivation</strong></th>
<th><strong>Ability</strong></th>
<th><strong>Trigger</strong></th>
<th>Integration of Behavior Change Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSONAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engage intrinsic motivators</td>
<td>Break goals into small steps</td>
<td>Simple tailored reminders</td>
<td>Fogg Behavior Model</td>
</tr>
<tr>
<td>SOCIAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engage support</td>
<td>Work together</td>
<td>Social reminders</td>
<td>Behavioral Economics</td>
</tr>
<tr>
<td>STRUCTURAL AND FINANCIAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Align incentives</td>
<td>Change environment</td>
<td>Link to environment</td>
<td>Self-Efficacy</td>
</tr>
</tbody>
</table>

- **MOTIVATION**
  - Engage intrinsic motivators
  - Align incentives

- **ABILITY**
  - Break goals into small steps
  - Change environment

- **TRIGGER**
  - Simple tailored reminders
  - Social reminders

- **Integration of Behavior Change Strategies**
  - Fogg Behavior Model
  - Behavioral Economics
  - Self-Efficacy
  - Cialdini Ethical Influence
  - Cognitive Behavior Model
  - Motivational Interviewing
  - Transtheoretical Model
  - Christakis Social Connectivity
  - Mental Contrasting
  - Game Mechanics
People will engage in ways they prefer

80% of coaching participants choose to start here

The result

Nearly 3x more condition relevant coaching engagement

More than 4x increase in total coaching engagement

Evidence-based whole-person coaching model

Notes
Personal Accountability Matters
Collaboration with a health concierge can make a big difference

**Patient Engagement at 30 Days**
- Without NSC Call
- With NSC Call

**Patient Engagement at 180 Days**
- Without NSC Call
- With NSC Call

**Patient Engagement**
- Without NSC Call
- With NSC Call

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**Personal Accountability Matters**
Collaboration with a health concierge can make a big difference.
Offer choices in how to change behaviors

Effectiveness of Well-being Programs
Modalities In Reducing Risk for Cohort

- Tracking devices
- Digital Apps
- Phone Coaching

≥5% Weight Loss: 16%, 16%, 13%
Categorical Reduction in Blood Pressure: 60%, 57%, 62%
>10% Reduction in Non-HDL Cholesterol: 52%, 57%, 63%

Baseline measurements: Weight loss BMI ≥30; blood pressure ≥120/80; cholesterol non-HDL Cholesterol ≥160 mg/dL

Data Source: November 2014 Cohort Report
Engagement drives change

Obese participants (30+ BMI) who engage in digital coaching apps were more likely to achieve clinically meaningful weight loss (5% or more) than non-participants.

<table>
<thead>
<tr>
<th>Started Any Program</th>
<th>Started Weight Program</th>
<th>Completed Any Program</th>
<th>Completed Weight Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>23%</td>
<td>27%</td>
<td>37%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Source: Cohort analysis of 84,400 repeat health screening participants 2012-2014. All differences significant at p<.001. Clinically meaningful weight loss defined as a loss of ≥ 5% of initial body weight within one year.
What happens when populations get engaged?

<table>
<thead>
<tr>
<th>2-YEAR REPEAT PARTICIPANT COHORT</th>
<th>N = AT HIGH RISK YEAR 1</th>
<th>AVERAGE AGE</th>
<th>% FEMALE</th>
<th>YEAR 2 RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>IMPROVED</td>
</tr>
<tr>
<td>Nutrition</td>
<td>4,119</td>
<td>44</td>
<td>57%</td>
<td>35%</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>4,716</td>
<td>44</td>
<td>58%</td>
<td>39%</td>
</tr>
<tr>
<td>Stress Coping/Resiliency</td>
<td>3,202</td>
<td>43</td>
<td>60%</td>
<td>37%</td>
</tr>
<tr>
<td>Tobacco</td>
<td>334</td>
<td>47</td>
<td>44%</td>
<td>16%</td>
</tr>
<tr>
<td>BMI</td>
<td>226</td>
<td>47</td>
<td>57%</td>
<td>22%</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>146</td>
<td>48</td>
<td>45%</td>
<td>60%</td>
</tr>
<tr>
<td>Non-HDL Cholesterol</td>
<td>133</td>
<td>48</td>
<td>49%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Cohort does not reflect program participation. Data Source: RBH Outcomes Analysis.
What we’ve learned about consumer engagement

• Doing anything is better than nothing
• The more specific the better
• More is better than less
In summary: Change is hard

“Hard work pays off in the future... laziness pays off now.”

famous philosopher & comedian Steven Wright
What might a new model of engagement look like

Care manager reaches out to patients in need, provides support and adjusts care program(s) based on novel, real-time insights.

Interactive, personalized Care Program delivered to patients via smartphone or tablet.

Mobile platform prioritizes patients based on clinical need to facilitate an efficient, effective workflow.

Patients engage with Care Program, read educational content, and record health status via mobile app.
To sum it up: What drives results?

• Accept people where they are, set small goals
• Offer choices (modalities, activities, resources)
• Listen for change talk
• Create a pattern of success, prepare for obstacles
• Encourage social and environmental support (influences)
• Support self-management efforts
• Tell good stories!
Questions?

“We’d now like to open the floor to shorter speeches disguised as questions.”
Thank you!

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