Patient Engagement, The Mobile paradigm

David Weeks, VP Healthcare Sogeti USA

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Agenda

■ Introduction
■ **What** is Patient Engagement?
  – Mobility and Patient Engagement (PE)
■ **Why** Mobility works for Patient Engagement
  – Healthcare landscape for PE and Mobility
  – Some Best Practice solutions (demo)
■ **How** to go from here to there?
  – Follow a Plan, however small!
    ▶ Understand the Security and Compliance implications (FDA)
  – Healthcare PE Mobile Maturity Model ©
  – mHIMSS
    ▶ Roadmap material
  – Engage! Transforming Healthcare Through Digital Patient Engagement (HIMSS), Jan Oldenburg
Introduction

- Originally from UK
- Worked 17 years with EDS, in manufacturing and Healthcare
- Came to US in 2000
- Worked in Healthcare/ Insurance 12 years
  - Enterprise Architecture
  - Director BI, Applications
  - CTO, Innovation and Mobility program lead
  - CIO
- Currently responsible for Healthcare for Sogeti USA, part of Capgemini group
Patient Engagement and Mobility

WHAT
The new normal for Healthcare

- Consumer Empowerment/Choice
- Regulatory Requirements/Government intervention
- Change to HC delivery Model – FFS to ACO
- Healthcare Costs

Consumer Engagement

Adapted from mHiMSS Roadmap 2013.
Patient engagement using personal health IT tools comprises actions individuals take to obtain the greatest benefit from the health services available to them, using information technology capabilities that enables them to:

- Better understand their health and health conditions
- Obtain access to their own health data in real time or near real time
- Improve communications with their doctors and providers
- Take more responsibility for their own health and health outcomes
- Improve their experience of interacting with the health system
- Inform and educate their families and caregivers
- Get support about health and healthy behaviors from family, friends, caregivers and health professionals

(Definition from Transforming Healthcare through Digital Patient Engagement – Jan Oldenburg, FHIMSS)
So what are some mobile PE use cases?

FYI – When I say Mobile ‘App’, it could be Mobile Website, a Native ‘app’ or a hybrid solution.
## Mobile and Patient Engagement

<table>
<thead>
<tr>
<th>Some Use Case</th>
<th>New Mobile engagement paradigms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Health Insurance</td>
<td>Shopping, Comparison of options, Purchase and enrollment</td>
</tr>
<tr>
<td>Seek Healthcare Information</td>
<td>Symptom checker, disease and medical condition, Guide to appropriate care</td>
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<tr>
<td>Access Care</td>
<td>View ID Card, Appointments, Reminders</td>
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<tr>
<td>Receive Care</td>
<td>Payment estimator, Out-of-Pocket payment, Updated PHR, Condition info, Telemedicine</td>
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<tr>
<td>Select follow up care</td>
<td>Medication reminders, Connection to Care Manager</td>
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<tr>
<td>Manage personal Health and Wellness</td>
<td>Connectivity to Wellness devices</td>
</tr>
<tr>
<td>Manage Healthcare expenditures</td>
<td>FSA, HSA tracker</td>
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Patient Engagement and Mobility

WHY
Mobile First for Patient Engagement

- One billion consumers will have smartphones by 2016 (US – 257 million smartphones and 126 million tablets).
- Mobile apps (websites or apps) is an engagement tool in your patients pocket.
- Mobile is part of the “perfect storm” of Social, Mobile, Cloud and Big Data that can deliver capabilities directly in the context of daily lives and real-time workflows. Forrester Research, Feb 2012

- Lets see a non-Healthcare example
The Consumer/Patient is starting to become the center of attention.

Currently, there are about 97,000 mobile health applications available from a number of different app stores, with 15% of them dedicated to medical professionals instead of patients and popular consumers.

Most Hospital systems have some form of basic patient mobile app. Plus mobile access to patient record.

However capabilities are limited, often hard to find and difficult to use.

DEMO - iTriage, Carolinas, Wellmark
FDA regulation landscape - Mobile Apps

- **Mobile Medical Device (regulated)**
  - Displaying, storing or transmitting PHI, e.g. Mobile ECG viewer like Airstrip solution
  - Controlling connected medical device, e.g., app the controls a blood pressure cuff.
  - Interpretation of Medical Device data

- **Mobile Apps (may be regulated)**
  - Patient Education data viewers
  - Organization of PHI, such as lab results (e.g. iLog Lyme)

- **Mobile Apps (not regulated)**
  - Health/Wellness apps
  - Billing
  - On-line Appointments, Insurance transactions
  - Mobile EHRs or PHRs
Some examples of Mobile Medical Devices?

- **Smart Heart** - With smartheart and a smartphone or tablet (iPhone, iPad, Android, etc.), you can perform a full hospital grade ECG.

- **Glooko logbook** – help diabetes patients better manage their glucose levels throughout the day with glucose meter and companion application.
Patient Engagement and Mobility

HOW TO GO FROM HERE TO THERE?
Approach

- Research
- Have a Plan
  - Seek first to Understand!
  - If you don’t know how the current process works, how can you improve it.
- Formally organize for Innovation
- Be pragmatic
Mobile Strategy Approach

1. User & Process Analyses
   - Define profiles of target audience, analyzing pain points, key needs, current solutions, engagement levers

2. Mobile Opportunities
   - Identify and define opportunities for mobile engagement and advantage to processes and Entities. Define conceptual features of top priority solutions

3. Gap Closure
   - Assess current capabilities and readiness identifying gaps and prioritization that must and should be addressed to deliver objectives. Address barriers and constraints.

4. Roadmap & Strategy
   - Define roadmap for realizing mobile solutions and implementations of standards, technologies and operational changes. Identify tactical "quick hit" changes and implementations, and longer term actions.

5. Business Case
   - Define financial benefit-cost proposition for mobile to close gaps and implement operational changes.

6. Mobile IT Capabilities
   - Gather and assess technology objectives. Compile an outside-in capability model of mobile technologies, standards, and practices (operating model) to enable and deliver the solutions

7. Process KPIs
   - Cluster and align solutions. Prioritize to enterprise & process objectives.
Using a Workshop Structure

A Workshop event is carefully designed to ensure it delivers its outcomes through a highly structured and proven process

Scan
- Allows participants to consider and assimilate large volumes of information prepared before the event, building a common understanding and arming participants with the knowledge they require to solve complex problems

Focus
- Enables participants to drill down into discrete problem areas they have identified and supports the design of solutions

Act
- Ensures the relevant action plans and next steps are in place to drive through solutions and that participants know what needs to be done to drive momentum following the event.
Mobile Opportunities

- Results documentation from focus interviews
- Needs of target segments and engagement opportunities
- Priorities of mobile solutions and alignment to Mobile Charter and objectives
- Showcase what is possible with subset prototype of mobile one or two opportunities

Technology & Capability Direction

- High level assessment of current technology architecture, processes and organizational readiness – gathered through VOC and as-is analysis, and interviews
- Future State direction on technologies and engagement capabilities
- Definition of gaps and closure strategy

Financial Justification

- Business benefits and investment models
- Model to track benefits and costs in the future to measure achievement of business case and enterprise advantage

Mobile Strategy & Roadmap

- Near-term implementation plan including milestones
- Long-range roadmap
- Risk and mitigation assessment

Change Management

- Stakeholder analysis
- Communication and mobilization
Patient Engagement and Mobility

SOME OTHER TOOLS TO HELP
<table>
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<tr>
<th>Functional Area</th>
<th>Capability level 1</th>
<th>Capability level 2</th>
<th>Capability level 3</th>
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</table>
| Health Information and Care Access      | Health Information & Treatment direction  
  ▪ Symptom information  
  ▪ Direct guidance to care            | Streamline care access  
  ▪ Insurance ID  
  ▪ Wait time and pre-treatment advice | Remote care options  
  ▪ On-line connectivity to physician  
  ▪ Integration to Provider systems   |
| Receiving Care                          | Find Hospital/ Care/ Doctor  
  ▪ GPS enabled mapping  
  ▪ Urgent care locations             | Integrated appointments  
  ▪ Real-time Appointments  
  ▪ Reminders (integrated with device) | Health Record updates  
  ▪ EHR integrated with PHR  
  ▪ ‘Care Aware’ appointment process |
| Engaged and Empowered Care              | Care Tracking  
  ▪ Treatment diary  
  ▪ Bluetooth enabled connectivity  | Integrated Ecosystem  
  ▪ Integrated to Health clubs  
  ▪ Prescription reminders  
  ▪ Financial Tracking               | Personal Wellness tracker  
  ▪ PHR  
  ▪ Security for sharing              |
| Health & Wellness and Community enablement | Provider Quality info  
  ▪ Provider quality ratings  
  ▪ Social network feeds              | Social and Community  
  ▪ Forums for sharing and caring     | Care team and Interoperability  
  ▪ Secure sharing of care plans  
  ▪ Collaboration                     |
Make use of what's out there
David.weeks@us.sogeti.com
http://www.us.sogeti.com/what-we-do/industries-healthcare.html

THANK YOU