Communicating Data to Patients through Health Information Technology:

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Excerpts from 21st Century Life

Mobile Banking

Global Positioning

Daily Weather Apps
Common Themes

✓ All are presentations of data.
✓ All represent windows on dynamic networks of trusted data exchange.
✓ Applications have been designed to communicate quickly, efficiently, and effectively.
✓ Interfaces have been engineered to prevent error & augment human capabilities.
✓ Apps adhere to rules for universal design; that is, they are usable across populations.
Characteristics of Medicine / Health 2.0

- New platforms will encourage participation / engagement
- Emphasis will be on situational awareness & “collective intelligence”
- Data will be the new “Intel Inside”
Health IT: Platforms for Evidence Implementation

So, how are we doing?
The Case of Hugo Campos
The Case of Hugo Campos

His doctor’s data experience

Full, unrestricted & convenient access.

5/3/2012
Office of the National Coordinator for Health Information Technology
The Case of Hugo Campos
Health Data Access Declared a Legal Right

Improving the Health Records Request Process for Patients
Insights from User Experience Research

“The Office of the National Coordinator for Health Information Technology

“Gimme My Damn Data”
Medicine 2.0
September 18, 2009
Data Deluge: Quickly stripping cognitive capacity of clinical teams and patients.

"Baton Dropping:" Communication is More than Presentation

**Root Cause Information for Delay in Treatment Events Reviewed by The Joint Commission**

<table>
<thead>
<tr>
<th>Event Category</th>
<th>Count</th>
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<tbody>
<tr>
<td>Communication</td>
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<tr>
<td>Assessment</td>
<td>753</td>
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<tr>
<td>Human Factors</td>
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<td>Physical Environment</td>
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<td>Medication Use</td>
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<td>Patient Rights</td>
<td>27</td>
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</table>

- Total number of *preventable* medical errors from all sources exceeds 17 million each year
- Joint Commission’s *Sentinel Database* reports 70% of all reported events had communication as root cause

Worst Communication is the One that Never Happened

Opportunities
The 21st Century Cures Act (Cures Act), signed into law on December 13, 2016, is designed to help accelerate medical product development and bring new innovations and advances to patients who need them faster and more efficiently.

Source: https://www.fda.gov
APIs: A Path to Putting Patients at the Center

April 24, 2018, 8:42 am / Don Rucker M.D. / National Coordinator for Health Information Technology

I remember when visiting a city required paper maps and often actual guidebooks. Today, I tap on a map app on my phone, enter my destination, and review options for getting from point A to point B. In recent years, these applications have expanded to integrate ride-sharing, bike-sharing, and public transit information. Map apps provide two key real-time data points to help me compare the different options: the time it will take to get to my destination and the cost.
Creating an Ecosystem for Communication

How Apple's Health Records could reshape patient engagement

Dignity Health's chief digital officer explains why he thinks Apple can succeed for population health and precision medicine efforts where other PHR launches have not.

By Mike Millard | April 18, 2018 | 09:46 AM

Three Advantages
• Data from system to device
• Strength of the App Store
• Ubiquitous, intuitive design
Creating the New Decision Architectures of Medicine

Patients & Caregivers: Engagement Improves Outcomes

Doctors & Care Teams


Healthcare System, Public Health, & Community

Researchers: Overview, Filter, Details on Demand

Why Data Visualization?
To Improve the Interface of Care: To Create a Platform for Evidence Implementation
To create engaging, universal design -- leaving no patient behind.
To help clinical teams work together more efficiently, reduce burden, and protect the joy of medicine.

Physician Burnout on the Rise, Healthcare Leaders Design Roadmap to Restore Joy in Medicine

September 15, 2016

Vocera Communications, Inc. announced today that innovative solutions are within reach to reverse the climbing rates of physician burnout in America, thanks to research by a think tank of leading physicians including the company’s Chief Medical Officer Bridget Duffy, MD.
To manage populations, not just individuals; to reduce friction in service.
To provide “deep support” for patients and their providers in the clinic and in their lives.