INTEGRATING AND MANAGING PATIENT-GENERATED INFORMATION

**Kathleen G. Charters,
PhD, RN, CPHIMS**
Nurse Consultant,
Clinical Information Systems

DISCLAIMER

- No financial disclosures

- The views expressed in this presentation are my own. They do not necessarily reflect the views of the Military Health System components (Air Force, Army, Navy or Defense Health Agency) or any other governmental agency.

VALUE AND IMPORTANCE OF AN INVENTION

- *That it will ever come into general use, notwithstanding its value, is extremely doubtful; because its beneficial application requires much time and gives a good bit of trouble both to the patient and the practitioner; because its hue and character are foreign and opposed to all our habits and associations.*

SURVEY

- Do you use:
- Smart phone
- Health and wellness app(s)
- Wireless scale
- Mobile health device(s)
- Personal Health Record (PHR)

OVERVIEW

- Patient-Generated Health Information
- Healthcare Team
- Provider Concerns
- Patient Expectations
- Patient Experience
- Way Forward
- Discussion

PATIENT-GENERATED HEALTH INFORMATION

- Self-Entered Information
  - Most work for patient
  - Highly motivated
  - May not be in a standard format

- Monitoring Device
  - Minimal work for patient
  - Wider usage
  - Most likely to be in a standard format

- May be Healthcare Team prescribed

EXAMPLES OF SELF-ENTERED INFORMATION

- Personal Health Record
  - My HealtheVet (government)
  - Microsoft HealthVault (public)
  - RelayHealth (commercial - licensed)
  - Included in modern EHR products (e.g., Cerner Health, Epic MyChart, Kaiser Permanente My Health Manager)

- Journaling (mobile device apps)
  - Day One
  - UP Food and Drink Log
  - MyFitnessPal Diary

HEALTHVAULT

HealthVault

Explore HealthVault   Discover apps & devices   Sign up or sign in →

Take control of your health.

Explore HealthVault →

What is HealthVault?

Microsoft HealthVault is a trusted place for people to gather, store, use, and share health information online. Learn more

| Organize your family's health information. | Be better prepared for doctor visits and unexpected emergencies. | Create a more complete picture of your health, with you at the center. | Achieve your fitness goals. |

MY HEALTHEVET

RELAYHEALTH

APPS FOR JOURNALING

Day One (Journal...
Bloom Built, LLC

UP by Jawbone
Jawbone

Calorie Counter &...
MyFitnessPal.com

Jawbone Up on iPhone
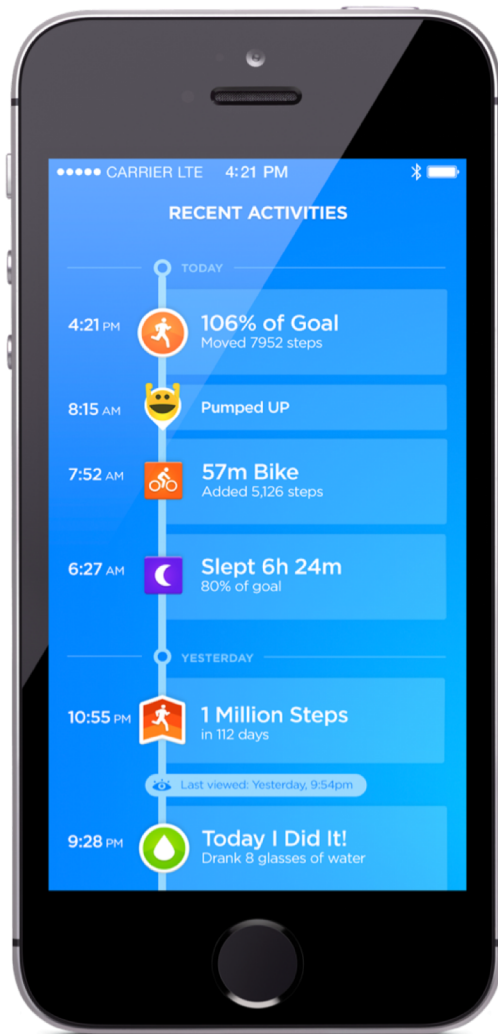
EXAMPLES OF MONITORING DEVICES

- Jawbone UP
  - Wristband
- Fitbit
  - Fitbit One (clip or lanyard)
  - Fitbit Flex (wristband)
  - Fitbit Aria (scale)
- Withings
  - Scales, activity trackers, sleep trackers, BP cuffs, pulse oximeters, light and sound environmental control for sleep
- iHealth
  - Scales, BP cuffs, pulse oximeters, glucometers

JAWBONE UP

Tracks steps, sleep, food, mood

FITBIT ONE

FITBIT ARIA

Fitbit Flex

FITBIT APPS

Lose It!
by FitNow, Inc.

Sync your meals from Lose It! to Fitbit and extend Lose It! food budget by activities from your Fitbit tracker.

Learn more ›

MyFitnessPal
by MyFitnessPal, LLC.

Sync your meals and activities to Fitbit and adjust your daily net calorie goal on MyFitnessPal by the data measured by your tracker.

Learn more ›

SparkPeople™
by SparkPeople, Inc.

Link Fitbit to your SparkPeople account and you can dynamically share and sync data – including weight, fitness and sleep – to your SparkPeople profile.

Learn more ›

Balance Rewards
by Walgreens

Sync a Fitbit One, Ultra or Zip tracker to Steps with Balance Rewards to earn points for walking, running and tracking your weight.

Learn more ›

Microsoft HealthVault
by Microsoft

Link your accounts now to share your Fitbit body data with HealthVault.

Learn more ›

Digifit
by Digifit, Inc.

Link Fitbit and Digifit, and your workouts are "automagically" posted to your Fitbit account and Fitbit activity to My.Digifit.com.

Learn more ›

MapMyRun
by MapMyFitness, Inc.

Set goals, track your performance and succeed! Link your account to easily share Fitbit activity with MapMyRun.

Learn more ›

TactioHealth™
by Tactio Health Group

TactioHealth is multi-user health tracking app that tracks Weight, Body Fat, Steps, BP, Cholesterol, Glucose, and Nutrition on your iOS or Android.

Learn more ›

Endomondo
by Endomondo

Community based on the free GPS tracking of sports. It's fun, it's social and it's motivating.

Learn more ›

WITHINGS PULSE O2

Withings Blood Pressure Cuff

Withings Activité

Withings Aura

iHealth
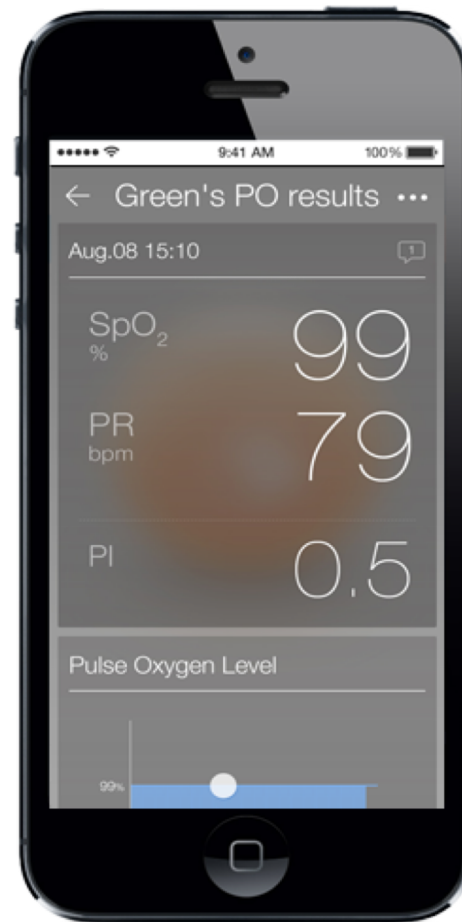
HEALTHCARE TEAM

- Information Prescription
- Secure Messaging
- Telehealth
- Patient Delegation to allow access to Protected Health Information (PHI)
- Patient and informal caregiver as members of the Healthcare Team
- Patient request to have Electronic Health Record (EHR) generated Consolidated-Clinical Document Architecture (C-CDA) sent by Direct protocol to PHR – meets Meaningful Use Stage 2
  - For example, see HealthVault letter

Secure Messaging

PLEASE DO NOT REPLY TO THIS EMAIL. REPLIES TO THIS MESSAGE ARE ROUTED TO AN UNMONITORED MAILBOX.

You have received a message from your doctor's online office. To view your message, click this link:

https://app.relayhealth.com/welcome.aspx

If your email service has disabled this link, copy and paste it into your browser's address field

You can ignore this notification if you have checked your messages since Jul 11, 2014 01:08 PM EST.

(Please note: replies to this e-mail notification do not go to your doctor. Please contact your doctor's office if you have any questions.)

PROVIDER CONCERNS

- Fear of being overwhelmed
- Fear of being held accountable for information provided
- Ethics of modifying the patient's voice

Patient Expectations

- Patient-Centered means patient-centered
- Communication is bi-directional/multi-directional
- Participation in decision-making
- Participation in goal setting
- Making the plan work in the white space of life outside of the healthcare delivery system
- Control of what information is shared and with whom
  - Opt In
  - Opt Out

PATIENT EXPERIENCE

- As Is
  - Frustration with lack of integration of healthcare
- Tools to facilitate healthy living
- Tools to facilitate communication of health information
  - Direct messaging protocol
  - Health Information Exchange (HIE)
 - Interoperability

WAY FORWARD

- Mobile electronics will play a major role in the future of healthcare
  - Devices designed to track activity, food consumption and weight, sleep
  - Devices designed to track blood pressure, pulse, oxygenation, blood sugar, medications, etc.
  - Interactive alerts
- Apple will introduce a Health app in the forthcoming iOS 8 for iPhones and iPads
  - Dashboard

iOS 8 Health App Dashboard
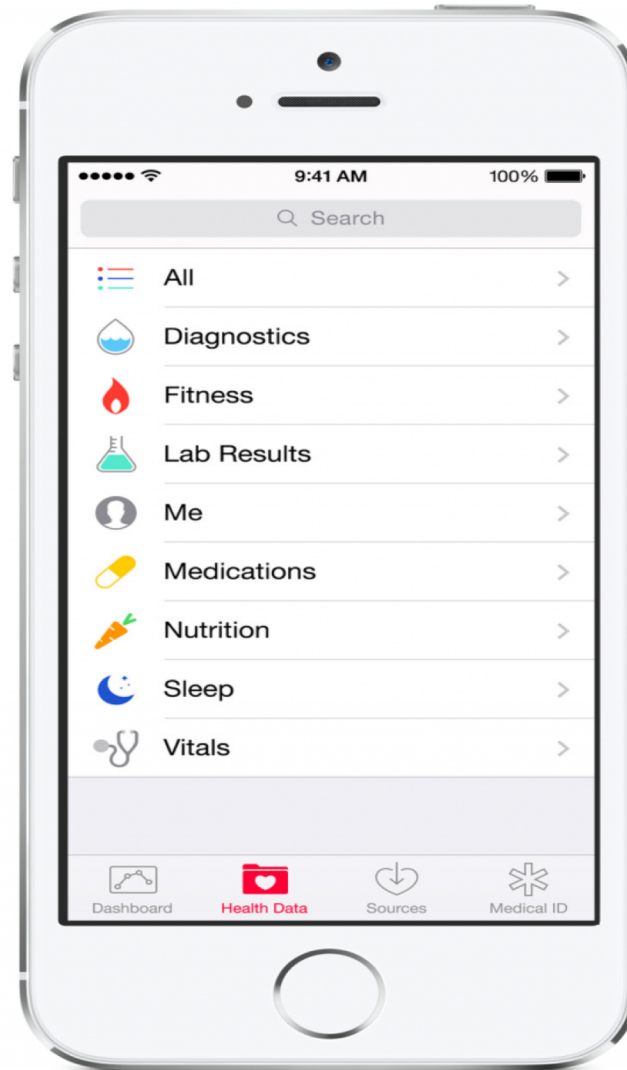
DISCUSSION

- Searching for answers to the following questions:
- Given the patient's capability to collect their own health data, should you encourage patient's to do this?
- Will the Healthcare Team look at the data?
- Should this data be incorporated into the medico-legal health record?
- If yes, in what way?
  - A summary
  - Annotated
  - Edited
- How will this change nursing practice?