

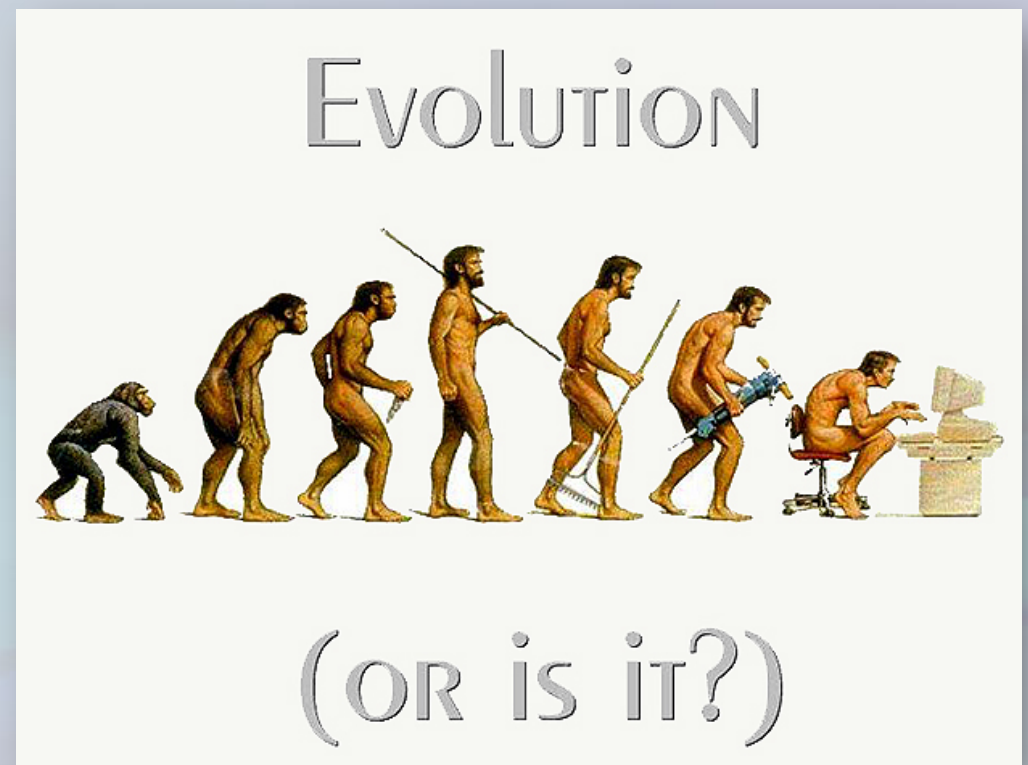
Rewiring Healthcare:

Starting the mHealth conversation

David Tapia, MBA, FACHE, FHIMSS

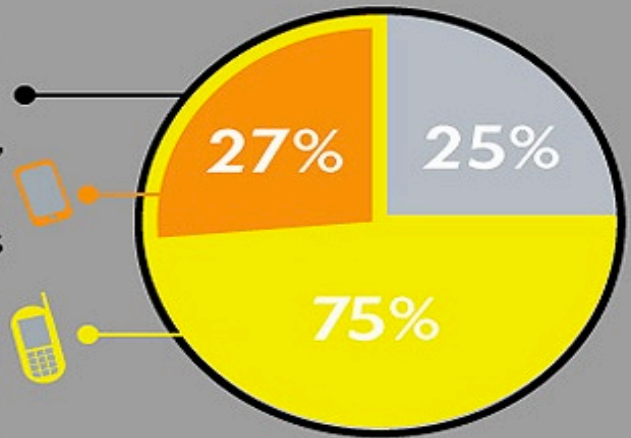
Evolution of Mobile Devices in healthcare

- Started with laptops and PDAs
- Netbooks became an inexpensive option
- Tablets, smartphones and mobile devices have emerged on the market



The future of Mobile device usage

Of the world's **4 billion** mobile phones in use, **1.08 billion** are smartphones and a whopping **3.05 billion** are SMS enabled
(950 million are not SMS enabled)



📱 How fast is mobile internet growing?

By 2014, mobile internet should take over desktop internet usage

Global Mobile vs. Desktop Internet User Projection, 2007 - 2015E





mHealth

healthcare mobile apps, devices & solutions

PRESENT



Smartphones ♥♥♥

are most popular among doctors after the stethoscope



62%

of physicians are now using tablets, with over half of them using it at the point-of-care.



71%

of nurses are using smartphones at work



40,000

medical apps now available for Tablets and Smartphones

247 mn

people have downloaded a health app



59%

of patients in emerging market use at least one mHealth application or service, compared with **35%** in the developed world

mHealth impact in Healthcare



The smartphone revolution is under-hyped, more people have access to phones than access to running water. We've never had anything like this before since the beginning of the planet.

(Marc Andreessen)

What is mHealth?

mHealth is “the delivery of healthcare services via mobile communication devices”

- **Foundation for the National Institutes of Health (FNIH)**
www.caroltorgan.com/mhealth-summit/

What's the goal of mhealth?

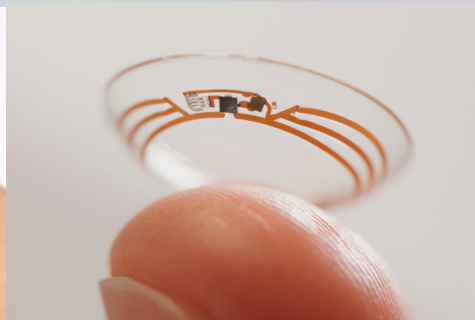
To improve the delivery of healthcare!

- Improve quality and access
- Care-coordination
- Lower rehospitalizations
- Improve outcomes
- Lower infection rates
- Monitor patient status in real time

...Unrealized possibilities!

Types of mHealth technology

- Tablets
- Smart phones
- Apps
- Wearables
- Implantables



Tablets

Maximize portable technology in the patient encounter

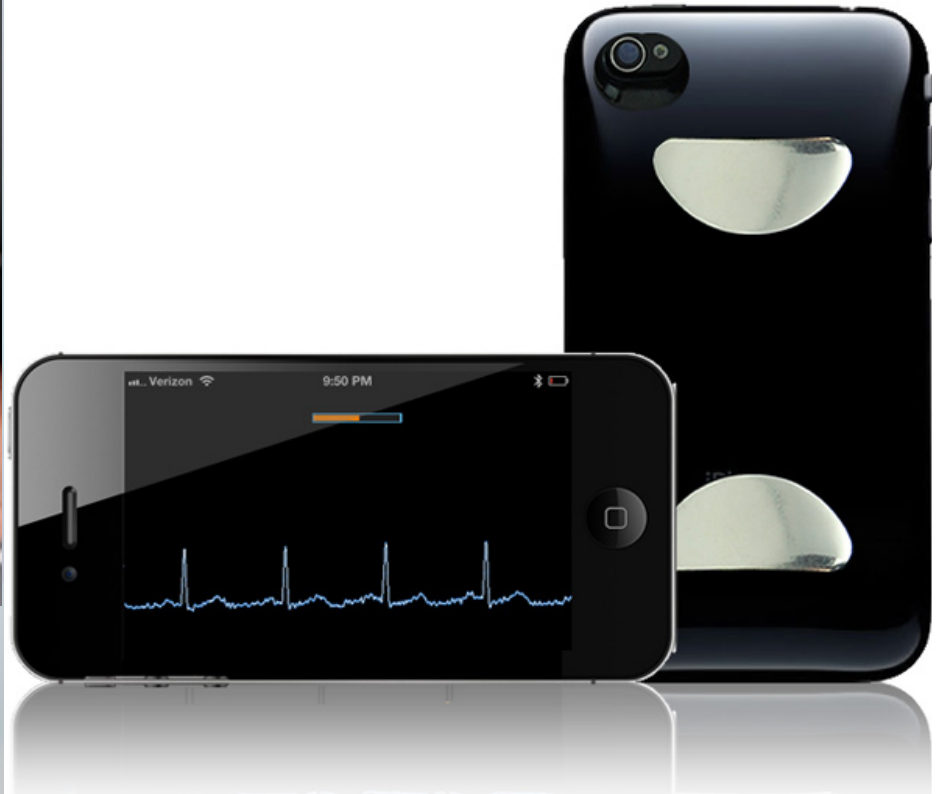
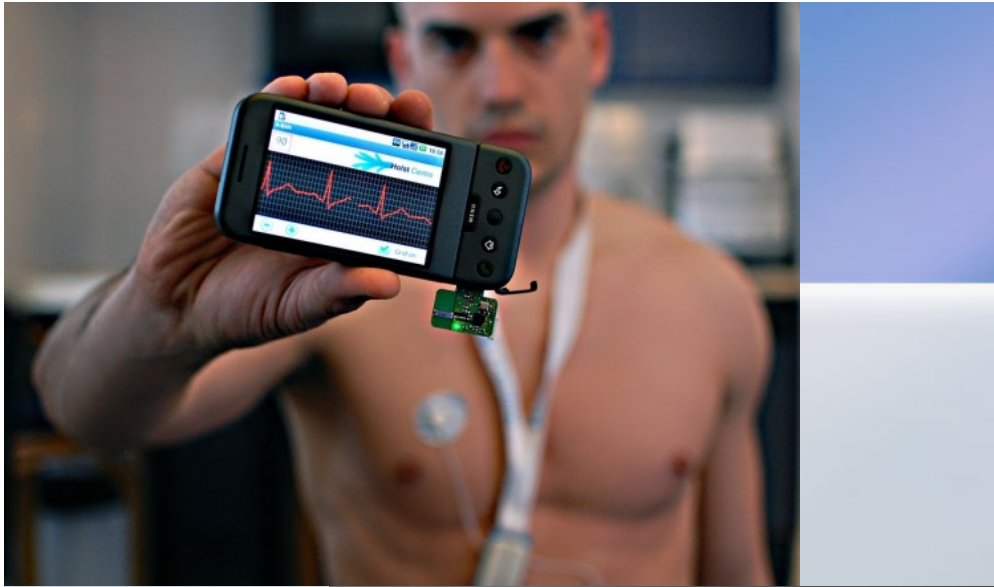
- Point of Care documentation
- Real-time care coordination
- Labs & Imaging
- Patient education
- Therapy benefits
- Access to past medical history
- Countless additional benefits



Smartphones

Smartphones are ubiquitous in healthcare

- Care coordination
- External device connection for testing and diagnostics
 - Blood pressure monitoring
 - Blood glucose levels
- Use of smart apps



mHealth Apps

mHealth Apps have a wide range in scope

- Online apps or on a device
- Health & wellness
- Diagnostic and testing
- Patient education
- Labs & Imaging
- Social Media integration

Search Epocrates®

Drugs Interaction Check Pill ID

Notifications App Directory Resource Centers

Essential Points® Tables Calculators

EPOCRATES®

AT&T 3:57 PM 90%

iTriage

Search symptoms, diseases and pro...

Symptoms Doctors Facilities

Diseases Medications Procedures

My iTriage Hotlines About

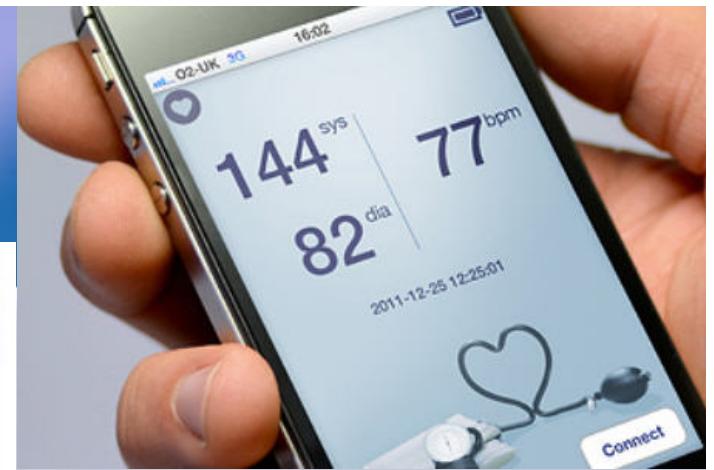
AT&T 2:16 PM 92%

Home Symptoms

Search Symptoms

See All Symptoms

♀ Gender Rotate



docBeat

Secure Messaging for Healthcare

Activity Steps Floors Calories

Steps: 15,832 (Goal Met)

Calories burned: 20,010 (of 38,000)

Floors: 1.2 (of 4.4)

Active vs Sedentary: Sluggish

Activity levels: actividad alta (0h 20m), actividad media (1h 2m), actividad ligera (1h 38m)

Distance (miles): 36 (Overview)

Today's Badges: 55,000 (daily step)

Weight: 14 st 20 lbs

Leaderboard

FRIENDS GROUPS

ALL TIME YEAR MONTH WEEK TODAY

Linzi 15,648 steps

You 108,922 steps

John 46,548 steps

Catherine 74,895 steps

Dan 96,248 steps

COMPARE SEE ALL FRIENDS > SEE FULL LEADERBOARD >

HealthMap
Global health, local information

Username or Email *****

Search disease or location go Advanced Search

Outbreak Missing?
Add it to the map

Click Views

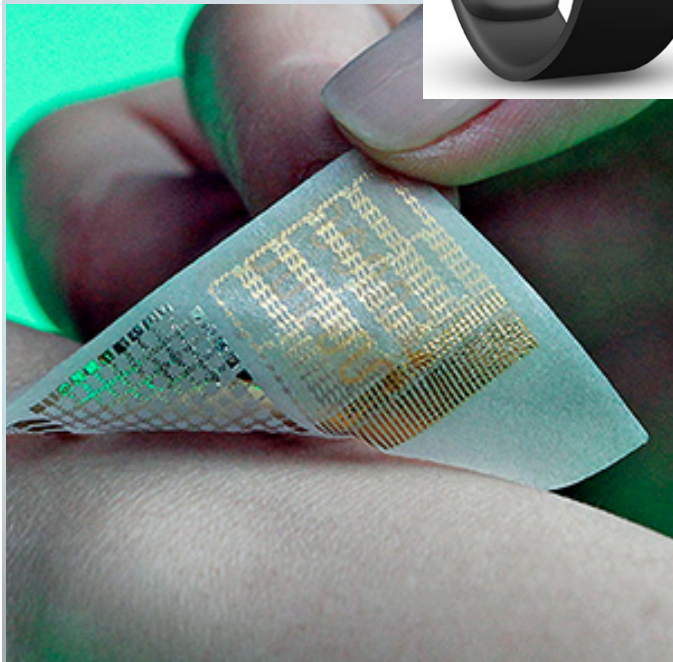
Wearables

Most popular in the personal fitness space

- Track and trend activity levels
- Sense & analyze information from substances emitted from transdermal source.
- Use social media to enhance user accountability. “Peer pressure” effect



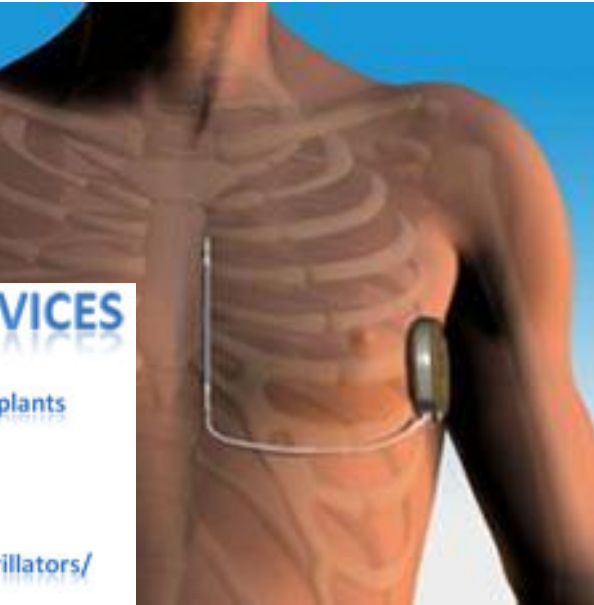
Mashable



Implantables

Implantables have been around but are being redefined!

- Possible vision correction & enhancement
- Vital sign or blood glucose monitoring
- Relay information back to Nurse Case Managers or Physician
- Lots of diagnostic & monitoring potential



WIRELESS IMPLANTABLE MEDICAL DEVICES

Deep Brain Neurostimulators



Cochlear Implants



Gastric Stimulators



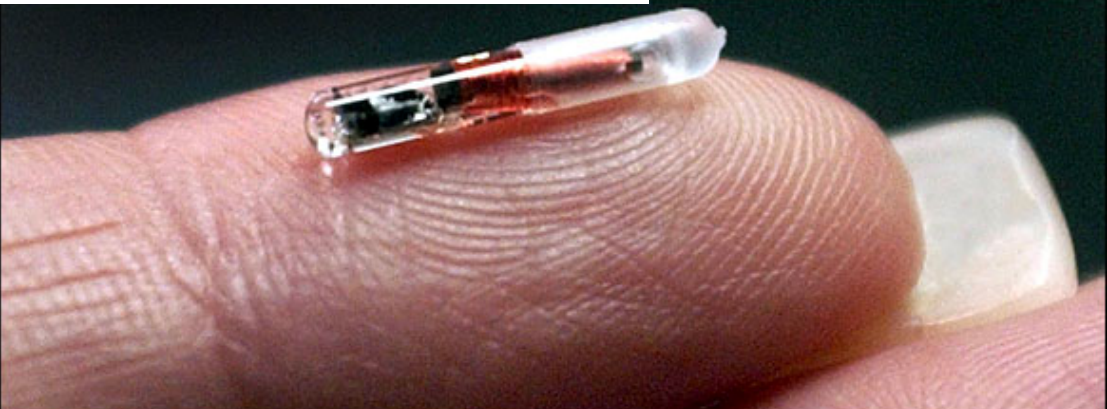
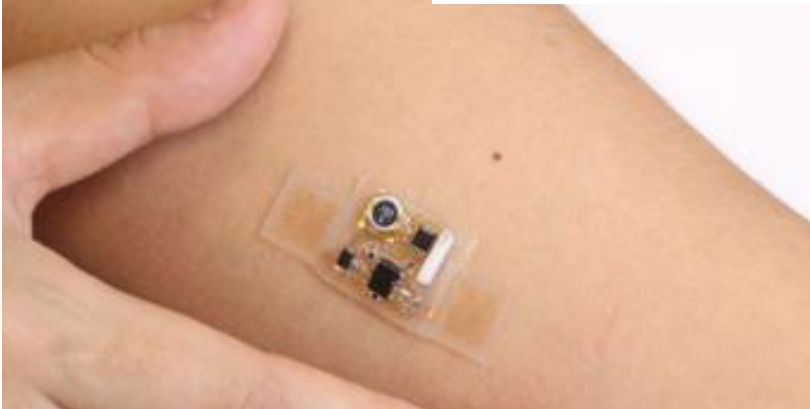
Cardiac Defibrillators/Pacemakers



Foot Drop Implants



Insulin Pumps





mHealth is key to
Consumer driven
healthcare



techradar.

 EXEGETE
HEALTHCARE
INTERNATIONAL

A person's hands are visible at the bottom corners, holding a dark, ornate, rectangular frame. The frame is positioned against a background of a sunset sky with soft, glowing clouds. The word "reframing" is written in a bold, black, sans-serif font in the center of the frame's opening.

reframing

mHealth as part of a Technology Strategy

Technology is not the panacea for the healthcare industry...but it is part of the solution!

mHealth as part of a Technology Strategy

CIO creates technology strategy

- Align with Strategic Plan
- Balance clinical delivery needs with tech needs
- Clinician input is essential
- Evaluate **value added** mHealth options

mHealth as part of a Technology Strategy

Things to consider when evaluating mHealth solutions:

- Examine mobile strategy and potential for interoperability with EHR and enterprise systems.
- Build a patient-centric model
- Understand your care delivery model and if the solution is feasible

-adapted from FierceMobile Healthcare

3 things CMOs should consider before taking mHealth "plunge"

<http://www.fiercemobilehealthcare.com/story/3-things-cmos-should-consider-taking-mhealth-plunge/2013-07-15>



mHimSS™

ROADMAP



#mhimssroadmap



mHIMSS Roadmap

Guide to professionals and HCOs on the adoption of mobile and mHealth devices.

6 sections

- New Care Models
- Technology
- Reimbursement, Payment Models & ROI
- Legal & Policy
- Standards & Interoperability
- Privacy & Security

mHIMSS Roadmap

- One of the most comprehensive guides available in the industry.
- Essential tool for decision makers to consider using when adopting mHealth technology in their organization.

Download here: <http://www.himss.org/mobilehealthit/roadmap>

Thank you! Questions?

Contact Us!

David Tapia, MBA, FACHE, FHIMSS

Managing Partner

Exegete Healthcare International, LLC.

www.exegetehealthcare.com

m 210.391.3461 | f 210.558.7780

DaveTapia@exegetehealthcare.com

