

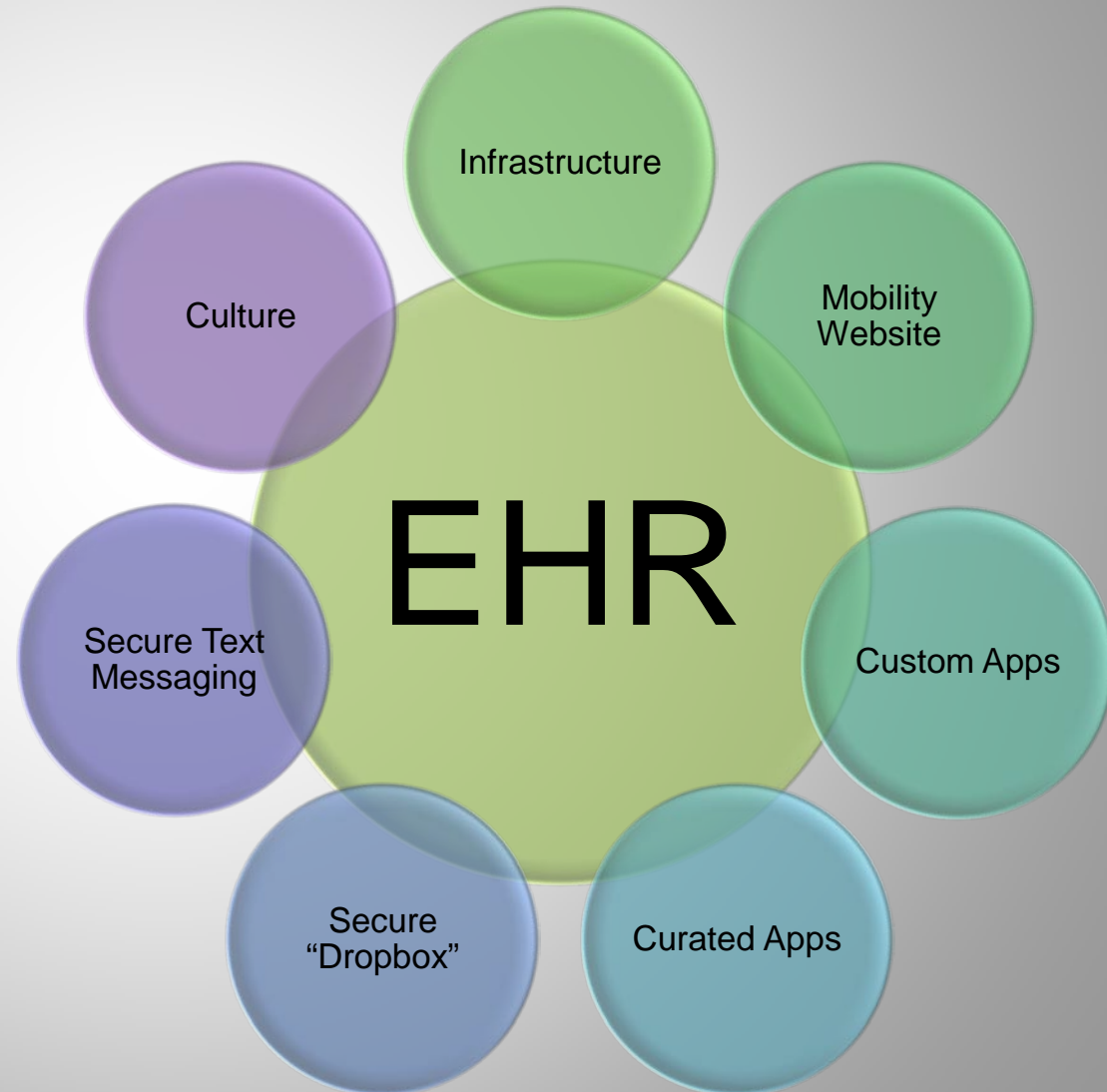


# Mobility: The Clinician's Perspective

Michael Docktor, MD  
Boston Children's Hospital  
September 13, 2013

# Mobility =

- Clinicians are more nimble, efficient and productive
- Patients and trainees are more engaged
- Clinicians become better educators
- Communications become seamless and intuitive



# Changing the culture



- Reevaluating existing policies
- Educating patients, families and clinicians
- Striking the balance between distraction and accessibility

# Education



MedWatcher was created in collaboration with the US Food and Drug Administration (FDA) Center for Devices and Radiologic Health (CDRH). Use MedWatcher to get news and official safety alerts for medical devices, as well as drugs and vaccines. MedWatcher is the only app that allows you to report bad side effects or adverse events directly to the FDA to make medical products safer for everyone.

itunes.apple.com



Great for educating patients - ArtStudio is the most comprehensive, sketching, painting and photo editing tool in the App Store. Completely redesigned from the ground up the new ArtStudio features a beautiful new user interface and a powerful new graphics engine to make creating works of art faster, easier, and more fun! Using advanced drawing algorithms this is the fastest and most precise version of ArtStudio to date. \$4.99

itunes.apple.com



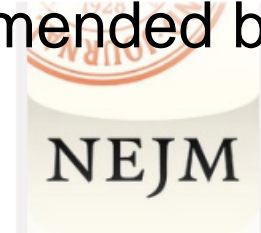
Drafts is the quick, easy way to capture and share text. In Drafts, text comes first - open the app and get a new, blank draft - ready to type. Don't get bogged down in a timeline just to tweet or post to Facebook. Don't tap your way through multiple screens to get down an email or SMS. Don't navigate folders, create files and name them just to jot down a note or create a todo. \$3.99

itunes.apple.com

- Recommended builds
- Apps

Powered by pediatricians, trusted by parents. ★ Get the peace of mind with health information from the experts at **HealthyChildren.org**, the American Academy of Pediatrics' official web site for parents. Also, quick tools to find a pediatrician. HealthyChildren.org is a pediatrician to help you get quick answers and access. Includes issues of HealthyChildren Magazine and content from the award-winning Web site covering a variety of health topics for all ages and stages of development.

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The NEJM iPad Edition is a rich issue experience that combines all content from the New England Journal of Medicine in print with key multimedia and unique features in an integrated, easy-to-navigate format. It's your day-to-day resource for trusted NEJM content. The app is free to download and all users can view a fully functional free issue and read Online First articles. Individual subscribers to NEJM and **NEJM.org** enjoy FREE access to iPad Edition issues associated with the term of their subs

itunes.apple.com



The CDC iPad application has been designed as a way for users to access health information at their fingertips.

itunes.apple.com



Epocrates Review drug prescribing and safety information for thousands of brand, generic, and OTC drugs

itunes.apple.com



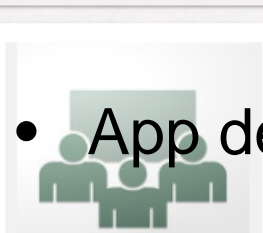
Medscape Medscape from WebMD (**medscape.com**) is the leading medical resource most used by physicians, medical students, nurses and other healthcare professionals for clinical information.

itunes.apple.com



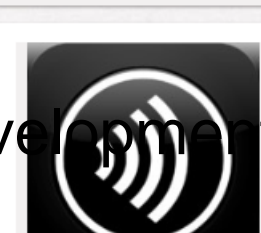
drawMD Pediatrics drawMD Pediatrics enhances doctor-patient communication by offering a new paradigm for explaining the complex issues surrounding the care of pediatric patients.

itunes.apple.com



Adobe® Connect™ Mobile for iOS Allow you to set up and join in BCH online meetings.

itunes.apple.com



Citrix Receiver to access BCH EMR

itunes.apple.com

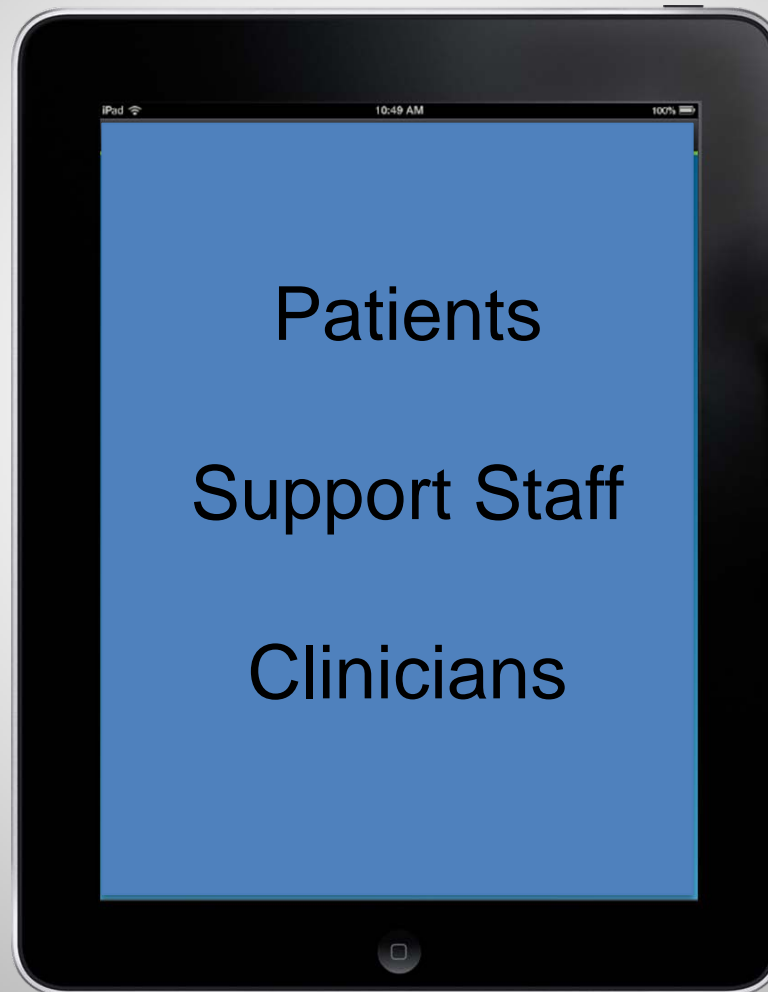


Units is a really useful app that lets you easily convert from various units into lots of others.

itunes.apple.com

- Accessories
- Community
- App development

# 3 Use Cases



# Patient - Kiosks

- Way finding
- Registration
- Photo booth
- Check in / out
- Payment
- Feedback



# Patient – Waiting Room / Inpatient

- Passport
  - Pre-visit planning
    - ROS
    - PROM
- Surveys
- Education
- Entertainment





# Patient - @ Home

- Education
- Custom apps
- Hospital Appstore - Rx Apps
- iBooks
- Patient Portal App





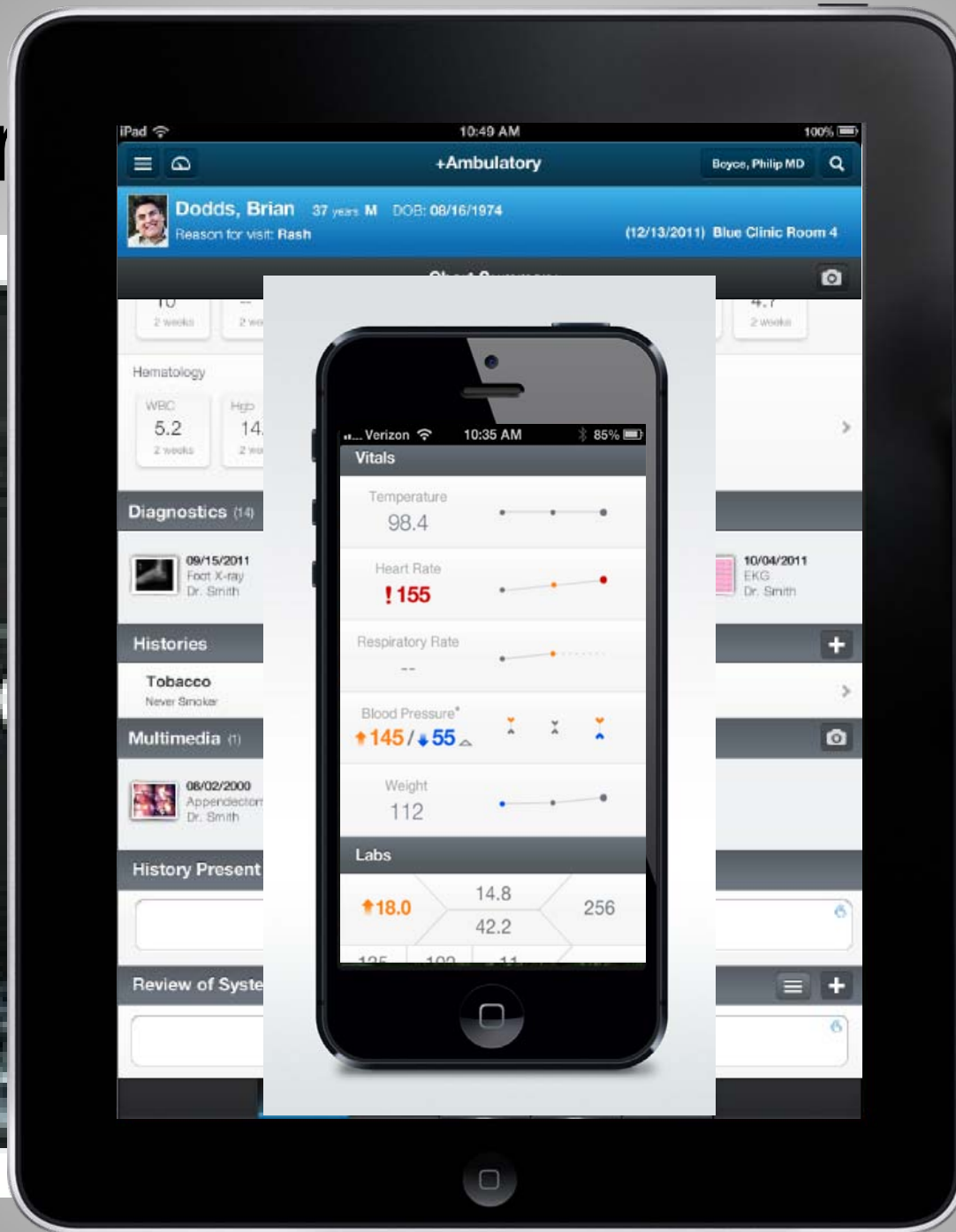
# Support Staff

- Efficiency of rooming patients
- Secure messaging
- Check in/out
- Medication Reconciliation



A

ng



# Clinician - Ambulatory Use Case

- Pre-visit planning (educating the MD)
- Search
- Reviewing and educating
- Study and Streamline
- Communicate
- Collaborate / Educate
- After-visit Summary



## **Standardized, App-Based Disinfection of iPads in a Clinical and Nonclinical Setting: Comparative Analysis.**

Albrecht UV, von Jan U, Sedlacek L, Groos S, Suerbaum S, Vonberg RP.

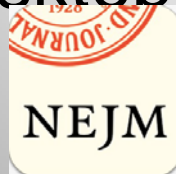
PL Reichertz Institute for Medical Informatics, Hannover Medical School, Hannover, Germany. albrecht.urs-vito@mh-hannover.de.

- iPads are dirty
- Cleaning iPads is a good idea and works
- No disinfectants are approved by Apple®



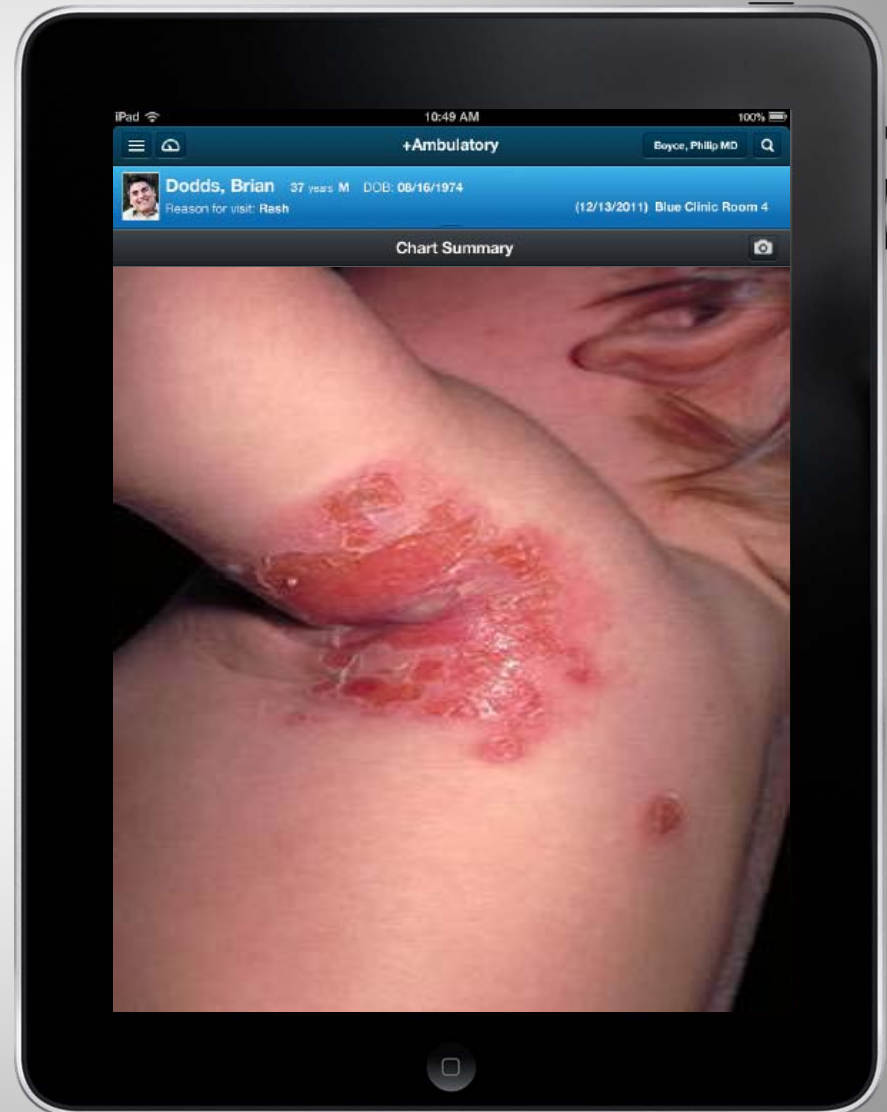
# Pre-visit planning

- Review EHR
- Pertinent communications
- Literature searching
- Remote desktop



# Document with your workflow

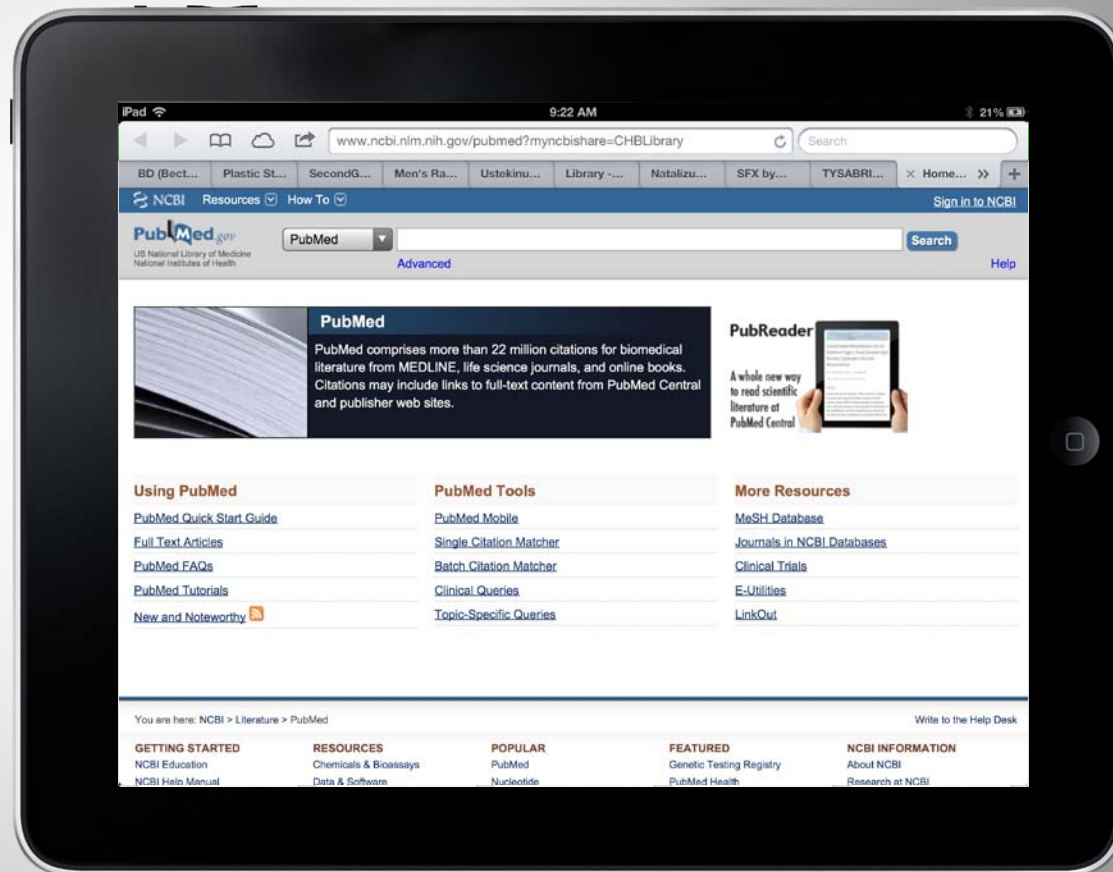
- Dictate in real-time
- Document images
  - Track clinical changes
  - Easily integrate in EMR
- Generate AVS while documenting





# Search

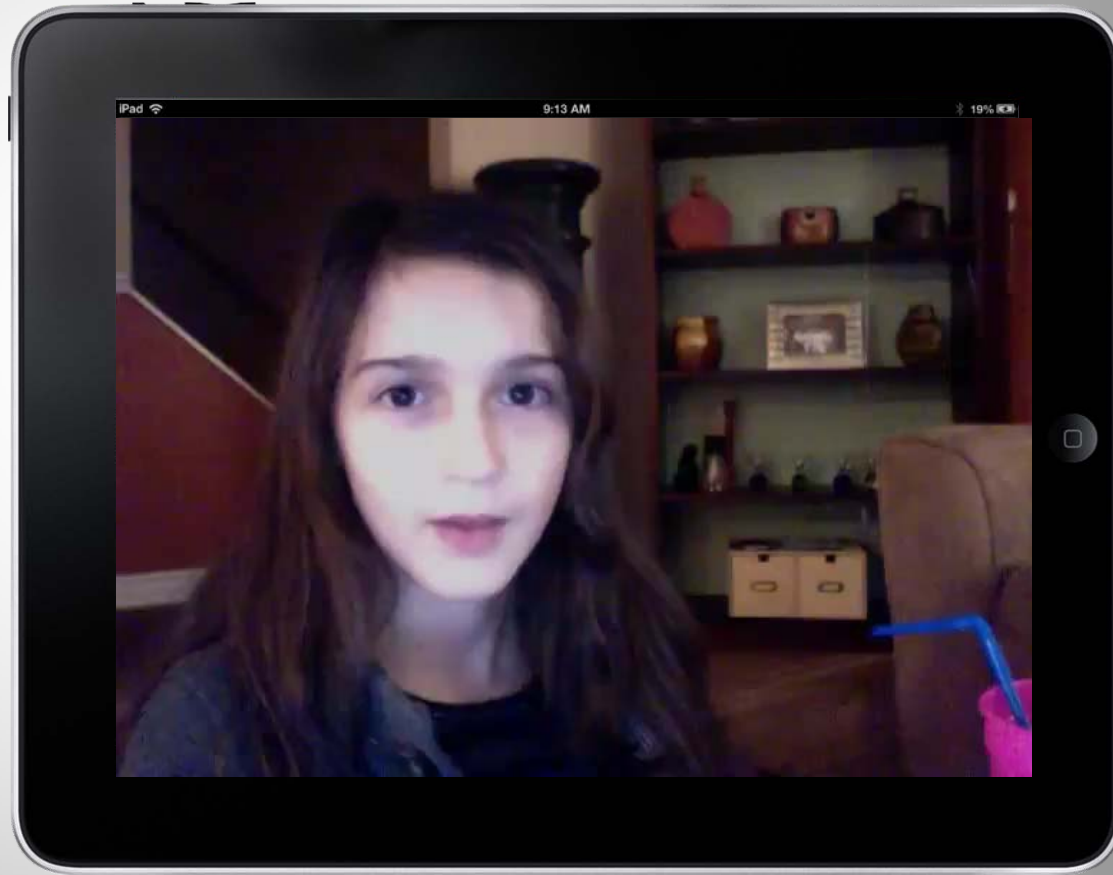
- The world at your fingertips:
  - Search engines
  - Medical reference apps
  - Maps
  - Journals
  - UpToDate
  - Medical Calculators
  - 30,000+ medical apps





# Review the Diagnosis & Plan

- Educate your patients
- Custom apps
- Videos
- iBooks
- Animation



# Study and Streamline

- Replace heavy binders
- Reduce risk of data breach
- Real-time data collection
- Simplify data entry @ POC
- Secure consent more easily and share with patient
- Save paper

A tablet displaying a digital consent form. The form is titled "CONSENT FOR TREATMENT, RELEASE OF INFORMATION AND PAYMENT AUTHORIZATION". It includes sections for patient information, consent, and acknowledgment of receipt of notice of privacy practices. The form is signed by Anna Hines. The tablet screen shows the form with a signature field at the bottom where the signature "Anna Hines" is written. The form is titled "CONSENT FOR TREATMENT, RELEASE OF INFORMATION AND PAYMENT AUTHORIZATION". It includes sections for patient information, consent, and acknowledgment of receipt of notice of privacy practices. The form is signed by Anna Hines. The tablet screen shows the form with a signature field at the bottom where the signature "Anna Hines" is written.

# Communicate

- HIPAA-compliant text messaging
- Two way communication
- Reduce pages / ASCOM
- Send text, images, files
- Communicate 1:1 and in groups / careteams



# Collaborate & Educate

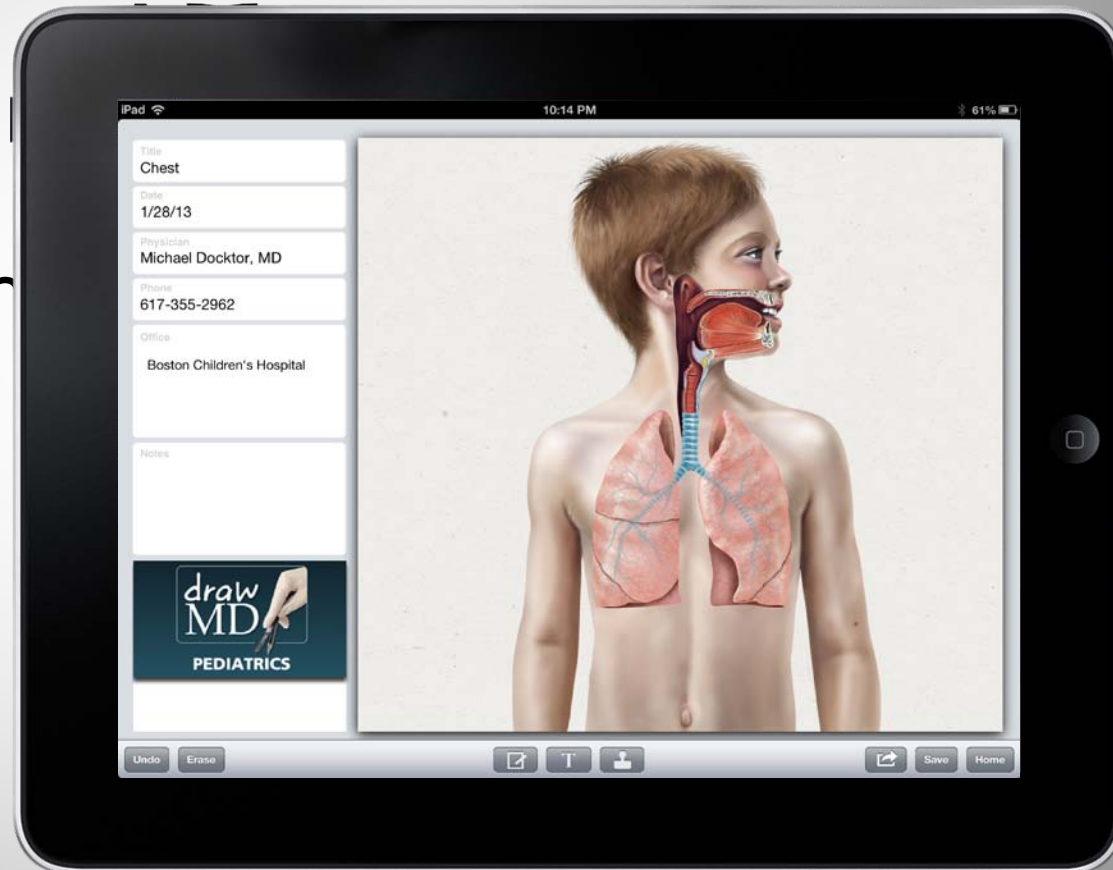
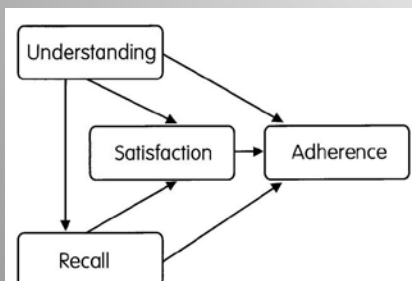
- Secure social networks
- Shared cloud drives
- Presentation apps



# After Visit Summary

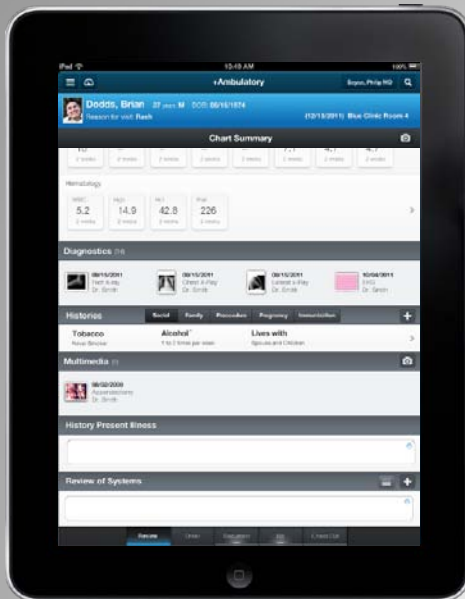
- Explain difficult topics
- Pictures are worth 1,000+ words

Ley's Model





## PowerChart



## Cerner eSignature

The screenshot shows the Cerner eSignature mobile application interface. It displays a 'Form 1 of 5' for 'Anna Hines'. The form contains a 'CONSENT FOR TREATMENT, RELEASE OF INFORMATION AND PAYMENT AUTHORIZATION' section. Below this, there is a 'Signature' section with a handwritten signature of 'Anna Hines'. The interface is clean and organized, with a blue header and white background.

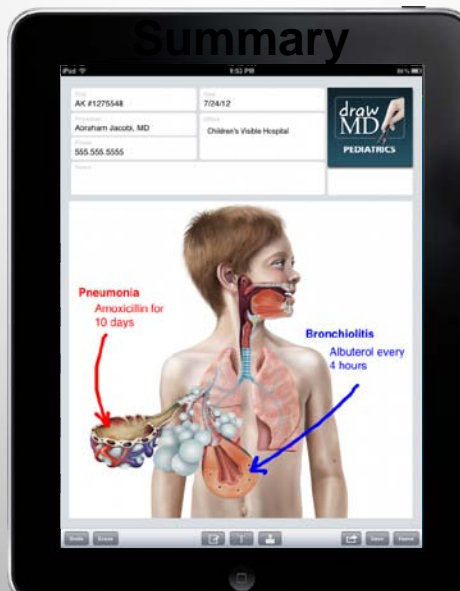
## Secure Messaging



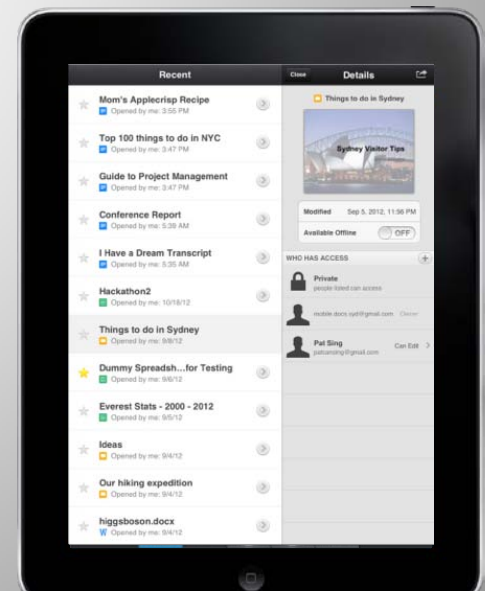
## Research / PROM



## After Visit Summary



## Collaboration

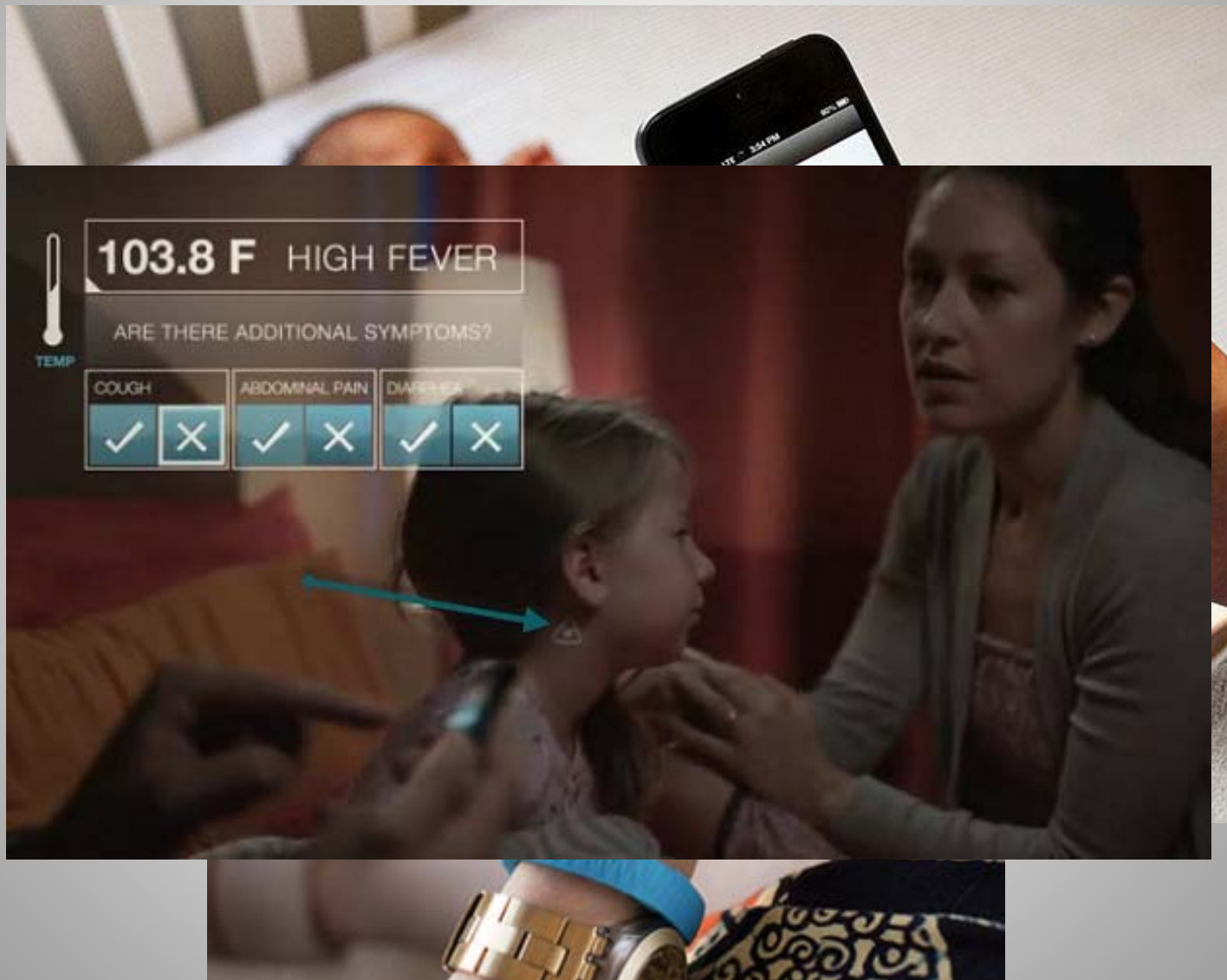


# Resources for Clinicians

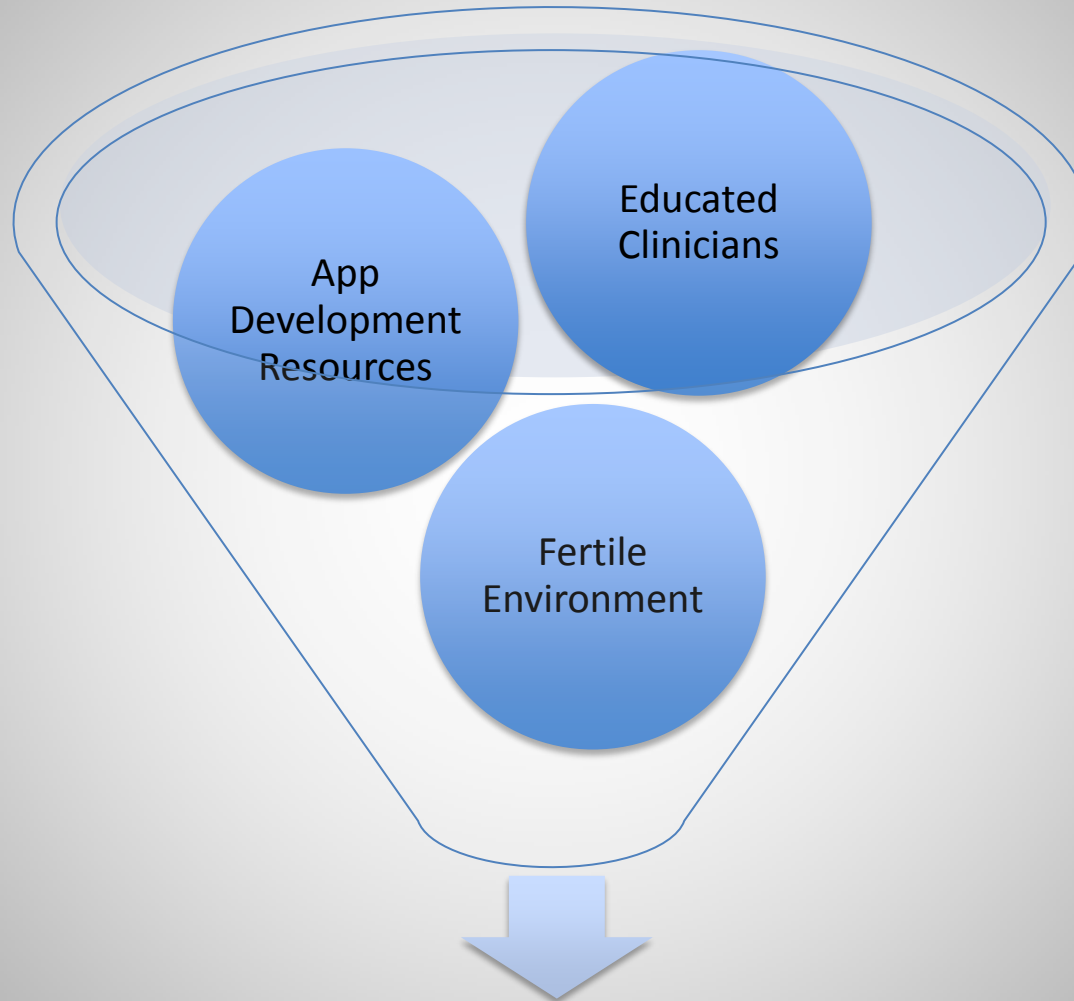
- BCH Mobility ***Pinterest***
  - <http://pinterest.com/mpseducation/boards/>
- BCH Mobility ***Flipboard***
  - <http://flip.it/5z6JE>
- iMedicalApps
  - <http://www.imedicalapps.com>



# The Future



# The Potential



mHealth Apps



- Creating innovative solutions to improve the health and happiness of children and their families
- 100 of the best and brightest engineers, designers, entrepreneurs, & clinicians
- Sourcing ideas from the Children's community

Thank you