Remote Patient Monitoring, Home Health, mHealth: The Policy and the Technology

Mario Gutierrez, CCHP
Garret Spargo, TTAC
Remote Patient Monitoring, Home Health, mHealth: The Policy and the Technology

• Welcome and Introductions
• Technology considerations:
  – Garret Spargo, Director, National Telehealth Technology Assessment Resource Center
• Policy considerations:
  – Mario Gutierrez, Executive Director, Center for Connected Health Policy, National Telehealth Policy Resource Center
• Hands-on session with various mHealth devices
TTAC Talks Tech
Hier Kuschke zur Zeit Ecke Friedrich-Behrensstraße... gut — bon — gemacht — komme sofort!
The Evolution of Mobile

The Evolution of Mobile
The Evolution of Mobile
The Evolution of Mobile
The Evolution of Mobile
The Evolution of Mobile
The Evolution of Mobile

iPhone (2007)
iPhone OS, iOS (1, 2, 3, 4, 5, 6, 7, 8)
The Evolution of Mobile

HTC Dream (2008)
Android v1 (2008)
1 (Alpha), 1.1 (Beta), Cupcake, Donut, Éclair, Froyo, Gingerbread, Honeycomb, Ice Cream Sandwich, Jelly Bean, KitKat, Lollipop
The Evolution of Mobile

1G (1979 – 56 Kbit/s)
2G (1991 – 150 Kbit/s)
3G (2001 – 1.4-3.1 Mbit/s)
4G LTE (2009 – 4-22 Mbit/s)
The Evolution of Mobile

Google Play
iTunes App Store
Windows Store
The Evolution of Mobile

Google Play

iTunes App Store

Windows Store

What is mHealth?
The Evolution of Mobile

- Google Play
- iTunes App Store
- Windows Store

What is Home Health?
The Evolution of Mobile

Google Play
iTunes App Store
Windows Store

What is Remote Patient Monitoring?
Definitions
Technology Overview
<Break>Take five</Break>
Technology Assessment Overview
TTAC’s Experience With mHealth
Hands-On, Q&A, Discussion, Etc.
Types (Domains) of Telehealth

• Hospitals & Specialties
  Specialists see and manage patients remotely

• Integrated Care
  Mental health and other specialists work in primary care settings (e.g., PCMH’s, ACO’s)

• Transitions & Monitoring
  Patients access care (or care accesses patients) where and when needed to avoid complications and higher levels of care

Value proposition varies across types
Types (Domains) of Telehealth

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**Technology requirements vary across types**
Types (Domains) of Technology

- **Live Videoconferencing (Synchronous)**
  Live, two-way interaction between a person and a provider using audiovisual telecommunications technology.

- **Store-and-Forward (Asynchronous)**
  Transmission of recorded health history through an electronic communications system to a practitioner, usually a specialist, who uses the information to evaluate the case or render a service outside of a real-time or live interaction.

- **Remote Patient Monitoring (RPM)**
  Personal health and medical data collection from an individual in one location via electronic communication technologies, which is transmitted to a provider in a different location for use in care and related support.

- **Mobile Health (mHealth)**
  Health care and public health practice and education supported by mobile communication devices such as cell phones, tablet computers, and PDAs. Applications can range from targeted text messages that promote health behavior to wide-scale alerts about disease outbreaks, to a name a few examples.
Videoconferencing

“Live, two-way interaction between a person and a provider using audiovisual telecommunications technology.”
Transmission of recorded health history through an electronic communications system to a practitioner, usually a specialist, who uses the information to evaluate the case or render a service outside of a real-time or live interaction.
Store-and-Forward – Concept

• “Asynchronous” to VTC’s “Synchronous”
  – Suffers from a bit of a branding problem
  – Medical email with tools for workflow management, patient management, and data capture
  – Workflows may vary depending on specialty and preferences
    • On-call or scheduled S&F time
Traditionally viewed as a cart-based solution
- PC, monitor, medical peripherals
- Custom software that transmitted and stored data
Store-and-Forward – Peripherals

- Scopes with Video Outputs
- Scopes with USB Outputs
- Electronic Stethoscopes
- Digital Cameras
- Scanners
- Vital Signs Monitors
- Blood Pressure Monitors
- Audiometers
- Electrocardiogram
- Memory Cards / Storage Media
Remote Patient Monitoring

“Personal health and medical data collection from an individual in one location via electronic communication technologies, which is transmitted to a provider in a different location for use in care and related support.”
Remote Patient Monitoring

• Synchronous or asynchronous
• Physician to physician or patient to clinician
• Often have built-in alerting
  – Synchronous connections
    • Medical devices stream to central monitoring station(s)
  – Asynchronous connections
    • Medical devices periodically send data to central monitoring system
Remote Patient Monitoring

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    • Medical devices stream to central monitoring station(s)
  - Asynchronous connections
    • Medical devices periodically send data to central monitoring system
• Base station at patient site
  – Wireless or cellular connection
• Peripheral devices
  – Blood Pressure
  – Scale
  – Glucometer
  – Spirometer
  – Pulse Oximeter
RPM - Software

• Patient-oriented
  – Interface for wellness questions
  – Dashboard for patients and caregivers

• Physician-oriented
  – Triage and review screen for patient population
  – Often reviewed by case manager, with cases of concern brought to attention of appropriate provider
Remote Patient Monitoring

• Challenges
  – Data management
  – Managing relationships between monitoring clinicians and on-site clinicians
  – Interoperability between RPM systems and EHRs
  – Patient compliance with asynchronous systems
  – Reimbursement
mHealth

What is ‘mHealth’?
To date, no standardized definition of mHealth has been established.
Mobile health (mHealth) is [...] the provision of health services and information via mobile technologies such as mobile phones and Personal Digital Assistants (PDAs).
mHealth is the use of mobile and wireless devices to improve health outcomes, healthcare services and health resources.
mHealth - mHealth Alliance

[...] medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, tablets, personal digital assistants (PDAs), and other wireless devices.
mHealth - TRCs

Health care and public health practice and education supported by mobile communication devices such as cell phones, tablet computers, and PDAs.
Sub-definitions, from Garret

“Delivery of healthcare services in any of three distinct use cases:
• Provider-Centric Data Capture
• Patient-Provider Communication
• Patient-Oriented Data Capture”
mHealth on Gartner Hype Cycle
• A rapidly growing market segment
  – Health and wellness trackers
  – Medical devices that talk to a phone
  – Programs that offer patient education via SMS or multimedia messaging
  – Epidemiology and disease tracking
  – Mobile applications that interface with videoconferencing systems or S&F software
mHealth - Components

- Basic components
  - Mobile phone
  - Software “app” for phone
  - Peripheral medical devices
  - Centralized server for storing and sharing data
mHealth

• Challenges
  – Interoperability
  – Variable quality of the software applications
  – Questions of privacy and security
  – Patient engagement
The technology is changing
- Staying on top of the right technology is hard
- Selecting the right technology is critical

The healthcare environment is changing
- EHRs, mobile devices, and broadband
- New models of care, new models of payment

The necessary skills are changing
- Technophobia is not a long-term strategy for most
mHealth, Home Health, or RPM?

• The lines are getting increasingly blurred
  – What can’t you do on a mobile phone?
• The rise of the “API”
  – Application Programming Interface
• One app to rule them all?
  – The growing battle for consumer health
• Three basic components
  – Hardware, software, servers
The Technology – Hardware

Basic / Feature / Smart Phones
Base Stations
Peripherals
The Technology – Base Stations
The Technology – Peripherals
The Technology – Software

App Stores
Application Programming Interfaces
Videoconferencing, portals, logging
The Technology – Servers

Patient data storage / access
Provider access
The Programs – SMS “Texting”

Educational, encouraging, challenging
Targeting behavioral change
Minimal technological requirements
Questions of HIPAA
The Programs – Data Collection

Activity trackers & calorie counters
Medical device interfaces
Electronic logs
The Programs – Support Apps

Extension of data collection
Shares results, informs of non-compliance
Provides information about conditions
The Literature

- mHealth and Pediatric Chronic Conditions (2014)
- A mHealth Application for Chronic Wound Care: Findings of a User Trial (2013)
- A Data Encryption Solution for Mobile Health Apps in Cooperation Environments (2013)
- Comparison of Traditional Versus Mobile App Self-Monitoring of Physical Activity and Dietary Intake Among Overweight Adults Participating in an mHealth Weight Loss Program (2013)
- Contemporary Vascular Smartphone Medical Applications (2013)
- Development and Evaluation of Tools for Measuring the Quality of Experience (QoE) in mHealth Applications (2013)
- Hispanic Migrant Farm Workers’ Attitudes Toward Mobile Phone-Based Mapping mHealth Research: A Decade of Evolution (2013)
- Older Adults are Mobile Too! Identifying the Barriers and Facilitators to Older Adults’ Use of mHealth for Pain Management (2013)
The Literature

- Patient Apps for Improved Healthcare: From Novelty to Mainstream (2013)
- Telehealth for Management of Chronic Health Conditions (2013)
- Understanding Determinants of Consumer Mobile Health Usage Intentions (2013)
- A Mobile Health Intervention for Inner City Patients with Poorly Controlled Diabetes: Proof-of-Concept of the TExT-MED Program (2012)
- Advancing the Science of mHealth (2012)
- Design of an mHealth App for the Self-Management of Adolescent Type 1 Diabetes: A Pilot Study (2012)
- Lessons From a Community-Based mHealth Diabetes Self-Management Program: “It’s Not Just About the Cell Phone” (2012)
- Designing Interventions to Overcome Poor Numeracy and Improve Medication Adherence in Chronic Illness, Including HIV / Aids (2011)
The Lessons – Culture is Key

Target patients with appropriate mHealth app
Meet them where they are
The Lessons – Devices Differ

BYOD, Version 2.0
Patients have very different phones
Form factors and functions vary
The Lessons – No Silver Bullets

You can lead a horse to water ...
The problem of compliance
The Lessons – Build Relationships

Not technology for technology’s sake
Supplement, don’t replace relationships
The Lessons – Quantity != Quality

Need actionable context
Who needs what, and when?
The Challenges – Too Many Apps

Patients are overwhelmed
Providers are overwhelmed
Quality is variable across applications
The Challenges – Certification

What measures do we certify against?
Who determines the necessary measures?
Who ensures the certifying body does it right?
Organizations struggle with cohesive plan
Not all applications meet all needs
Diagnosis: Pilotitis
The Challenges – Privacy & Security

[I am not a lawyer]
Who has access to the data?
How is it protected?
The Challenges – Data

Quantity
Interoperability
Workflows
Training
The Challenges – Reimbursement

Who pays for devices?
Connectivity?
Apps?
The Potential

Increase patient compliance
Kick-start data interoperability
Measurably improve patient wellness
<Break>
</Break>
The Problem of 1-10-100-1000

The cost of finding a defect:
1 – During design
10 – During development
100 – During testing
1000 – After deployment
The Problem of 1-10-100-1000

The cost of the wrong technology:
1 – During planning
10 – During assessment
100 – During staging
1000 – After deployment
What is the cost of ‘1000’?
What is a Thousand?

- Doing it Again
- Equipment Purchases
- Staff and Training
- Planning and Deployment
- Lost Confidence
The Problem of Equipment Complexity

- Implementing technology can be risky
- Structured technology assessment can reduce risk
The Problem of Solution Complexity

- Risk increases as solutions and systems become more complex
The Problem of System(s) Complexity

- Telehealth goes mainstream
- More moving parts than ever before

Integration Complexity

Risk to Program

Purchase Quantity (or Sites)

- Multi-Modal Carts
- Videoconferencing Carts
- Store-and-Forward Carts
- Desktop Solutions
- mHealth Platforms

Legacy Systems

Scheduling

EHRs & HIEs

Telehealth Apps
Assessment Process Overview

- Establish Requirements
- Review the Market
- Procure the Devices
- Plan the Tests
- Test the Plan
- Select a Device
- Deploy and Support
Establish Requirements

• Gather input from all stakeholders
• Create shared meaning around the requirements
• Think through a wide range of requirement types:
  – Functionality
  – Portability
  – Interoperability of Interfaces
  – Interoperability of Data
  – Usability

*If this is all you do, you will be ahead of those who just head to the market immediately.*
Review the Market

• Use online resources – Google, Bing, Amazon, etc.
• Phone a friend – TRCs, Grantees, TTAC
• Talk to organizations that have existing programs
• Contact manufacturers and vendors

If you find yourself doing this before you have a firm grasp on requirements, go back a step.
Procure the Devices

• Manufacturers and vendors can be very useful
  – Loaners are a great thing!
• Buy and borrow what you need
• Keep it all organized
• Try to get devices in at the same time

Your budget and time may not allow this – consider finding a way to get access to the devices at a store, conference, or from another telehealth program.
Plan the Test

- Quantity your requirements
- Develop methods to test against the requirements
- Planning and testing can be iterative

This does not need to be an all-inclusive, massive test suite – determine what you are really looking for with these tests.
Test the Plan

• Test independently or in a group setting
  – Independent tests can prevent “group think”
  – Collaboration can foster new discussions
• Document EVERYTHING
• Be consistent
• Update the test as needed

Have the right people involved at the right time – you can save a lot of frustration and repeated (or unnecessary) effort if the equipment is evaluated by the correct people.
Select a Device

• Get the reviewers together
• Discuss the scores – clarify discrepancies
• Consider bringing in the initial requirements team
• Be prepared for a second review of top devices
• Make a decision and share your results

This will happen regardless of how many of the previous steps you have taken – your exact process here will vary depending on your other efforts.
Deploy and Support

• Device Staging
• Configurations
• Spares
• Warranties

• Customer Support
• Troubleshooting
• Training
• Replacing Equipment

This requires its own plan, process, and work that will likely be somewhat unique to each technology, organization, and deployment size.
What Have You Done?! 

Daily** Assessments
Two Platforms
8 Months & 22 Days of Data
Jan 6, 2014

7h14 of sleep

90%

22mn to fall asleep

2 woke up

awake: 45mn
light: 3h20
deep: 3h54

7h59 in bed
**Nutrient Details**

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<th>Goal</th>
<th>Left</th>
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<td>84</td>
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<tr>
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<td>28</td>
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<tr>
<td>Polyunsaturated (g)</td>
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<td>-4</td>
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<tr>
<td>Monounsaturated (g)</td>
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<td>-3</td>
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<td>Trans (g)</td>
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<tr>
<td>Sodium (mg)</td>
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<td>2300</td>
<td>894</td>
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<tr>
<td>Potassium (mg)</td>
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<td>Total Carbs (g)</td>
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<td>Dietary Fiber (g)</td>
<td>23</td>
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<tr>
<td>Sugars (g)</td>
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<tr>
<td>Protein (g)</td>
<td>105</td>
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<td>100%</td>
<td>-4%</td>
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<td>Vitamin C</td>
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<td>100%</td>
<td>-75%</td>
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<tr>
<td>Calcium</td>
<td>29%</td>
<td>100%</td>
<td>71%</td>
</tr>
<tr>
<td>Iron</td>
<td>216%</td>
<td>100%</td>
<td>-116%</td>
</tr>
</tbody>
</table>
Defining the Asterisk

Patients Suck at Compliance
I Am a Patient
Ergo ...
My Experience – The Drop-Off

Lack of Context, Loss of Power, Laziness
“Why am I doing this?”
The Literature – The Drop Off

Compliance when new and shiny
Difficulty in keeping patients “engaged”
The need for support and context
mHealth is only as good as its implementation – what are you doing, and why are you doing it?
So What?

Technology cannot drive the process here, it must be brought into alignment with needs, capacity, and workflows.
So What?

We need to select the right technologies for the right patients – technology assessment is not optional.
The Resources - TTAC

gspargo@anthc.org
(907) 729-4704
www.telehealthtechnology.org
TelehealthResourceCenters.org

[Map of the United States with various telehealth resource center logos and regions highlighted in different colors.]

2 National Resource Centers

12 Regional Resource Centers
The Resources - Other

imedicalapps.com
mobihealthnews.com
IMS Institute for Healthcare Informatics
American Telemedicine Association
Any Questions?
gspargo@anthc.org
(907) 729-4704
www.telehealthtechnology.org
Remote Monitoring & M-Health
The Policy Environment

Mario Gutierrez
Executive Director, Center for Connected Health Policy
California Telehealth Resource Center Workshop
April 8, 2015

www.cchpca.org
Our History:
Created with a 3 year CHCF grant in 2008

- Telehealth Model Statute led to passage of AB415 in 2011

Our Values:
- We seek to advance state and national telehealth policy that promote improvements in health systems &

  health equity for all
HRSA/OAT Grant 2012-2016: National Telehealth Policy Resource Center

- A one-stop shop for accurate, up-to-date information on telehealth policy and legal issues
- Provides technical support to twelve national telehealth resources centers
- Monitors state and federal legislation related to telehealth
What Is Telehealth?

Telehealth is a **means** for enhancing health care, public health, and health education delivery and support at a distance using telecommunication technologies.
A doctor's diagnosis "by radio" on the cover of the February, 1925 issue of Science and Invention magazine
Remote Patient Monitoring

In-Patient Care
- Emergency departments, intensive care units
- Skilled nursing facilities

At-Home
- Management of patients with chronic conditions
- Keeping people healthy and at home and on the go
Mobile Health

- Health care, public health, and health education & personal health monitoring

- Supported by mobile phones, tablet computers, and other mobile communication devices

- Can be targeted (promoting healthy behavior and disease management) to wide-scale (disease outbreak alerts)
Remote Monitoring & M-Health

Healthy Living

End of Life

Acute Care, ICU

Chronic Conditions

Aging
Voice and Facial Recognition

Real Time language interpretation
Cue provides molecular diagnostic capability in the home.

Apple Watch will display blood glucose levels from the Continuous Glucose Monitor.
BERKELEY “TRICORDER”
Remote monitoring of multiple health functions in an unobtrusive, wearable wireless device

- Combines accelerometer, ECG, stethoscope, pulse-oximeter, myography, and other functions
- Bluetooth radio with connectivity to PC and telephone
- 2 GB data storage capacity: two days of continuous monitoring
FDA-Approved Digestible Microchip Monitoring Rx Adherence
FEDERAL & STATE POLICIES

KNOW THE RULES OF THE GAME BEFORE YOU CAN PLAY
FEDERAL MEDICARE TELEHEALTH POLICY: OUTDATED!

- Reimbursement is available for only a limited number of Medicare Part B services

- Reimbursement limited to **live video** only substituting for in-person encounter

- Can only occur when the originating site is in:
  - a Health Professional Shortage Area (HPSA),
  - a county outside of any Metropolitan Statistical Area (MSA), or
  - an AK/HI demonstration project
2014 Federal Bills with RPM Components

• S 596
  – Creates a pilot program to provide budget neutral incentives for home health agencies to use RPM to improve outcomes and reduce Medicare expenditures

• HR 3306
  – Adds telehealth and remote patient monitoring to the National Pilot Program on Payment Bundling
  – Allows ACOs to include telehealth and remote patient monitoring
  – Adds RPM utilization as a condition for the Secretary to contract with State Medicaid agencies that provide coordinated care through health homes to individuals with chronic conditions
  – For contracts to create medical homes, the Medical Home must have a plan for using HIT including use of RPM. Medicare telehealth restrictions would not apply
2014 Federal Bills with RPM Components

- HR 5380 Telehealth Promotion Act of 2014 (Thompson D-CA)
  - Medicare
    - Proposes no distinction between in-person and telehealth-delivered care
    - Expands list of eligible providers
    - Expands list of eligible sites beyond traditional medical office, to include home.
    - Removes limitation on store-and-forward reimbursement and remote patient monitoring
  - Removes current geographical limitations
- HR 3303 (Blackburn) – Sensible Oversight for Technology Which Advances Regulatory Efficiency Act of 2013
  - Defines software that can be regulated by the FDA
Federal Landscape 2015

FEDERAL LEGISLATION

• Proposed draft bill 21st Century CURE Bill in House Energy & Commerce Committee includes provisions for Medicare to waive some telehealth restrictions if certain conditions met.

• Previous Congressional Session bills that may be reintroduced:
  
  HR 5380 (Thompson, Harper & Welch)
  For Medicare, phased in increase of eligible geographic locations; adding home as eligible site; reimbursing for RPM; reimbursing for Store & Forward

  HR 3306 (Harper, Nunes, Thompson & Welch) & S 2662
  For Medicare, expands list of eligible originating sites including the home; expansion of S&F to CAHs & sole community hospitals; for liability and licensing purposes services furnished at the provider’s location; allows for the use of RPM under certain conditions.
• Movement toward Accountable Care Organizations as part of the ACA
• President Obama sets goal of 90% of Medicare payments tied to VALUE---not fee for service
• CMS approves more Medicare tele-psych codes for reimbursement
• New code for “non-face to face chronic care management & coordination
New Chronic Care Management Code

• 2015 Medicare Physician Fee Schedule Final Rule: Non face-to-face services
  – Now pays for chronic care management code
  – Telehealth limitations do not apply
    • At least 20 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month, with the following elements:
      – Multiple chronic conditions expected to last at least 12 months or until death
      – Chronic conditions place the patient at significant risk of death, acute exacerbation/decompensation or functional decline
      – Comprehensive care plan established, implemented, revised or monitored.
New Chronic Care Management Code (Con’t)

• Examples of **non face-to-face** care management services
  – Performing medication reconciliation and overseeing the beneficiary’s self management of medication
  – Ensuring receipt of all recommended preventive services
  – Monitoring the beneficiary’s condition (physical, mental, social)
    • A provider can be reimbursed for the time spent reviewing the reported data.
Next Generation ACO

• Greater access to home visits, telehealth services, and skilled nursing facilities;
• “benefit enhancements” allow circumvention of Medicare rules that go beyond benefits of Medicare Advantage -Alternative Payment Model
• Would allow ACOs to utilize the technology regardless of a patient’s geographic location.
Other Federal Activities

- Federal Communications Commission - Net Neutrality & Protecting Connected Care
- Federation of State Medical Boards – Licensing Compact/Interstate Licensure
- Federal Drug Administration issues guidelines for mobile health software
Telehealth State-by-State Policies, Laws, & Regulations

- A **one-stop shop** for accurate, up-to-date information on telehealth policy and legal issues

- Includes **interactive policy map** of current telehealth laws, regulations, state Medicaid policies, and pending legislation for all 50 states and DC

www.cchpca.org
CURRENT STATE TELEHEALTH POLICIES

**Definition**
- 43 states have a definition for “telemedicine”
- 28 states & DC have a definition for “telehealth”
- 2 states have no definition for either

**Reimbursement**
- 46 states & DC reimburse for live video
- **14 states reimburse for remote patient monitoring**
- 9 states reimburse for store-and-forward
- 24 states and DC have telehealth private payer parity laws

**Provider/Location Restrictions**
- Most common reimbursements: consultations, mental health, and radiology
- Most common providers reimbursed: physicians and nurses

*As of Feb. 2015*
Medicaid RPM Reimbursement...BUT!

- Fourteen state Medicaid programs reimburse in some way for RPM.

* MA: Under managed care

As of Dec 2014
• Ten states limit reimbursement to home health agencies or skilled nursing facilities.
Telehealth Policies in CA
AB 415: Calif Telehealth Advancement Act Of 2011

- Replaced obsolete legal definition of “telemedicine” with “telehealth”
- Removed most policy barriers to telehealth use and reimbursement

“Telehealth means the mode of delivering health care services and public health via information and communication technologies to facilitate the diagnosis, consultation, treatment, education, care management, and self-management of a patient's health care while the patient is at the originating site and the health care provider is at a distant site. Telehealth facilitates patient self-management and caregiver support for patients and includes synchronous interactions and asynchronous store and forward transfers.”

– California Business and Professions Code Sec. 2290.5
AB 415: EXPANDS LOCATIONS FOR TELEHEALTH

- Rural and Urban Primary Care Clinics
- Hospitals, Emergency Rooms, Intensive Care Units
- Home Bound Patients, Skilled Nursing, and Sub-Acute Facilities
- Schools, Community Sports Events
- Regional Centers, Cancer Centers
- Prisons/Jails/Youth Authorities
- Emergency Medical Services, Disaster Sites
Medi-Cal Reimbursement for Remote Patient Monitoring
Calif Policy Landscape 2015

RECENT STATE LEGISLATION
• AB 809 (Logue)
  • Oral informed consent
• AB 1174 (Bocenegra)
  • Store & Forward tele-dental

DEPARTMENT OF HEALTH CARE SERVICES
• Continue work with DHCS on implementation of AB 415 & other new legislation
• Medi-Cal Managed Care implementation – What role can telehealth play to ensure timely access and choice?
• 1115 Waiver
• Expanded role for FQHC’s in Medical Home concept and value-based care and reimbursement
• CA licensed physicians providing care from out of state

OTHER STATE GROUPS
• Covered California
• California Telehealth Policy Coalition
• OSHPD
Key Policy Challenges

FEDERAL LEVEL
• Medicare program
  • Reimbursement
  • Limitations – location, services, providers
• Cross-state licensing
• Open Internet/Net neutrality
• mHealth
• DEA/prescribing

STATE LEVEL
• Medi-Cal – Fee-for-Service to Value-based Managed Care
• Continued lag in telehealth education – consumers, payers, providers, interest groups

OTHER ISSUES
• Providing the evidence to policy and decision makers
• Continued pressure on the safety-net under alternative payment model
• Health access disparities – the have’s and have not’
• Interoperability continues to be the biggest barrier to seamless care systems with HIE
• Rapidly evolving field of Connected Health and Virtual Care
WHY YOU SHOULD CARE ABOUT TELEHEALTH
The Changing Healthcare Landscape: 2015

- Rising health care costs: $3 trillion/year
- Aging/sicker population
- Primary care/specialist shortage
- More newly insured with Obamacare
Federal And State Policy: Volume-to-Value

**Volume-based**
- Pay for service (volumes)
- Cost-based reimbursement
- Hospital/physician independence
- Inpatient focus
- Stand-alone care systems
- Illness care

**Value-based**
- Pay for results (quality/efficiency)
- Shared risk
- Partnerships and collaborations
- Continuum of care
- Community health improvement (HIT)
- Wellness care
Triple Aim
Better health
Better care  Lower cost
Solutions in coordinated action

Policymakers, Consumers, Payers, Tech Companies & Providers
Working Together For The Common Good
• Published in a peer reviewed journal no earlier than 2007
• Study must be US-based
• There must be a minimum of a sample size of 50 in the study (if a comparison group is used, at least 30 in both the control and test groups)
• The study period must be no less than 6 months
• The study is designed focus on one or more of the Triple Aim goals of outcomes, quality or cost
• Studies that only used interventions consisting of telephone, mobile apps or health education systems were excluded
• Databases – PubMed & EBESCO
RPM Studies and Triple Aim

• HEALTH OUTCOMES:
  
  *Home Health Care With Telemonitoring Improves Health Status for Older Adults With Heart Failure*
  

• QUALITY OF CARE:
  
  *Clinical Effectiveness, Access to, and Satisfaction with Care Using a Tele-homecare Substitution Intervention: A Randomized Controlled Trial*
  

  *Effect of Telecare Management on Pain and Depression in Patients With Cancer A Randomized Trial*
  
Virtual Care Anywhere

- 75 million Virtual Medical Visits in N. America-2014
  - Deloitte
Out of the “Box” of Health Care
Mercy-St. Louis Virtual Care Center
A Planned Hospital Without Beds
Connected Health is Essential to the Future of Health Care

Advances in telecommunications technologies can help redistribute health care expertise to where and when it is needed, and create greater value.
Technology and Primary Care

• Deloitte estimates that 75 million virtual visits will have occurred in North America during 2014
• Virtual Practice Project-Mass. General
• Kaiser Permanente
  – 10.5 million by 2013 in Kaiser Permanente Northern California & over half nationally by 2017
  – Partnered with Target Stores in CA for Virtual Visits
Better response times: Whether physicians are in the room, down the hall or down the street, alerting them to potential patient issues ensures that the right care can be administered quickly and efficiently.

Improved decision-making: By aggregating data from multiple sources, mobile technologies give physicians a complete picture of the patient so they can make the best care decisions for each patient, reducing errors and improving outcomes.
• **More patient interactions**: Mobile capabilities actually increase the number physicians can make with patients by when they are not able to be physically in

• **Better patient interactions**: Efficiencies from mobile technologies free physicians time at the bedside. They can use this more with patients – offering the one–on–core to medicine.
US Healthcare Practitioners Who Currently Provide or Plan to Provide Telemedicine Services*, Oct 2014

*healthcare services via telephone, video or webcam visits Note: n=759; Source: Academy of Integrative Health & Medicine (AIHM) survey as cited in press release, Nov 11, 2014

- 33% Yes
- 29% No-but planning to in the next few years
- 38% No immediate plans
Even if you’re on the right track... You’ll get run over if you stand still!
Thank You!
Making Change Happen

Health Systems

Policy

Private Payers

Technology Changes

Evidenced-based Research

Consumer Demand