



Improving Community Health
Through Technology

Definition of Telehealth

- Telehealth is the delivery of health-related services and information via telecommunications technologies. Telehealth could be as simple as two health professionals discussing a case over the telephone or as sophisticated as doing robotic surgery between facilities at different ends of the globe.



Clinical Uses of Telehealth Technologies

- Transmission of medical images for diagnosis (often referred to as store and forward telehealth)
- Groups or individuals exchanging health services or education live via videoconference (real-time telehealth)
- Transmission of medical data for diagnosis or disease management (sometimes referred to as remote monitoring)
- Advice on prevention of diseases and promotion of good health by patient monitoring and follow up.
- Health advice by telephone in emergent cases (referred to as teletriage)

Telehealth Modes

- Store-and-forward telehealth
- Real-time telehealth
- Remote patient monitoring



Store-and-forward Telehealth

- Digital Images
- Video
- Audio
- Observations of Daily Living
- Clinical Data



Captured and "stored" on the client computer or mobile device; then at a convenient time they are transmitted securely ("forwarded") to a clinic at another location where they are studied by relevant specialists.

Real-time Telehealth

- Personal Emergency Response (PERS Systems)
- Physician Video Visits







Remote Patient Monitoring

Remote patient monitoring (RPM) is a technology to enable monitoring of patients outside of conventional clinical settings (e.g. in the home), which may increase access to care and decrease healthcare delivery costs.

Disease management is defined as "a system of coordinated healthcare interventions and communications for populations with conditions in which patient self-care efforts are significant.



Market Analysis

Competitor	Device Acquisition & Maintenance	Patient Fulfillment	Patient Installation	Triage & Monitoring	Other Services
 BOSCH	NA	NA	<i>Via 3rd Party Partner</i>	<i>Via 3rd Party Partner</i>	NA
 CARDIOCOM	Yes	Yes <i>(Drop Ship)</i>	NA	Yes	Enrollment Outreach/ Recruiting, Workflow Optimization & Consulting
 Care Innovations <small>an Intel-GE company</small>	<i>Via 3rd Party Partner</i>	<i>Via 3rd Party Partner</i>	NA	<i>Via 3rd Party Partner</i>	Health coaching (diet/lifestyle)
Honeywell	Yes	Yes	Yes	Yes	Clinical Training
 MedApps <small>MOBILE HEALTH MONITORING</small>	<i>Via 3rd Party Partner</i>	<i>Via 3rd Party Partner</i>	<i>Via 3rd Party Partner</i>	<i>Via 3rd Party Partner</i>	System/Data Integration
PHILIPS <small>sense and simplicity</small>	Yes	<i>Via PERs Provider</i>	Yes	NA <i>(Previously Offered Service)</i>	NA

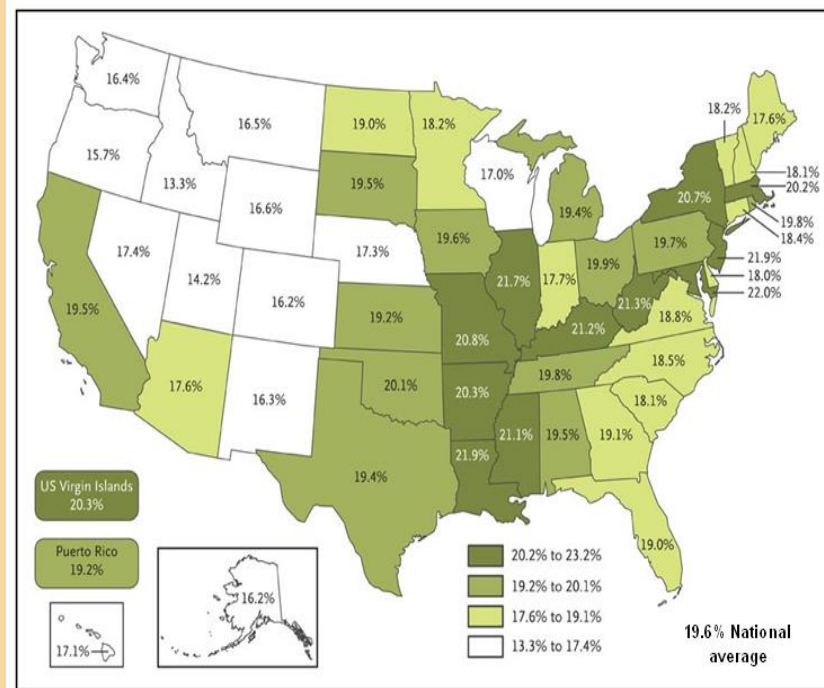
The Problem: Impacting Healthcare Costs

	CHF	COPD
<u>Patient Admissions:</u>	1,090,000	630,000
Medicare 37%	403,000	233,000
Private 35%	381,500	220,000
Medicaid 20%	218,000	126,000
Uninsured 8%	87,200	50,400
<u>Average LOS:</u>	5 days	4.8 days
<u>Average charge per day/LOS:</u>	\$4,046 / \$20,230	\$3,728 / \$17,894
<u>Gain (loss) per day/LOS:</u>		
Medicare	(\$1,068) / (\$5,340)	(\$1,185) / (\$5,688)
Private	\$2,494 / \$12,470	\$2,507 / \$12,033
Medicaid	(\$ 890) / (\$4,450)	(\$ 820) / (\$3,936)
Uninsured	(\$4,046) / (\$20,230)	(\$3,728) / (\$17,894)

Source: MEDPAR inpatient hospital data, 2006



The **NEW ENGLAND**
JOURNAL of MEDICINE



“26.9% of all CHF Medicare hospitalizations and 22.6% of COPD Medicare hospitalizations are early readmissions within 30 days of discharge.”

New England Journal of Medicine April 2009



Oregon Medicaid Analysis

Based on Henry J. Kaiser Family Foundation website

www.statehealthfacts.org 2010 Data:



Total Estimated Savings

- 50% of Current Costs of Hospital Readmissions with the inclusion of the cost of Remote Patient Monitoring



Reimbursement by State

Forty-four states have some form of reimbursement for telehealth in their public program. The six states that **do not** are:

- Connecticut
- Iowa
- Massachusetts
- New Hampshire
- New Jersey
- Rhode Island



The District of Columbia also currently does not reimburse for telehealth in their public program.

Again, the sources used were state laws and provider manuals. Some of these states employ managed care plans in their Medicaid program like New Jersey and Massachusetts. We did not look into whether those plans may offer some sort of telehealth reimbursement.

Remote Patient Monitoring

Only seven states have some form of reimbursement for RPM in their Medicaid Health programs. These states are:

- Alaska
- Colorado
- Kansas
- Minnesota
- New York
- Utah
- Washington

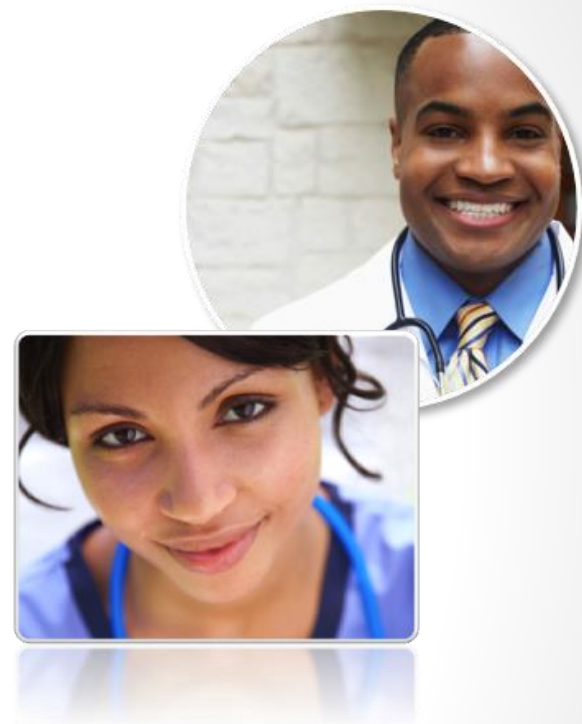


While three states reimburse through programs in their Department of Aging Services:

- Pennsylvania
- South Carolina
- South Dakota

Provider & Staff Benefits

- Customizable to meet specific disease/chronic management needs
- Complete, objective, clinical and subjective data is available upon request
- Allows for pre-emptive care, supporting adjustments to treatment plan or medication
- Reinforces education and compliance to treatment plan
- Breaks the cycle of emergency care and hospital re-admissions
- Supports documentation of time spent for care plan oversight



Patient / Family Benefits

- Acts as an educational tool to reinforce medication use diet restrictions
- Encourages patient self-management by reinforcing positive behavior and lifestyle changes
- Tracks and reinforces compliance with treatment plan
- Provides sense of security for users and families through daily monitoring
- Care provided based on their clinical need
- Facilitates patient engagement

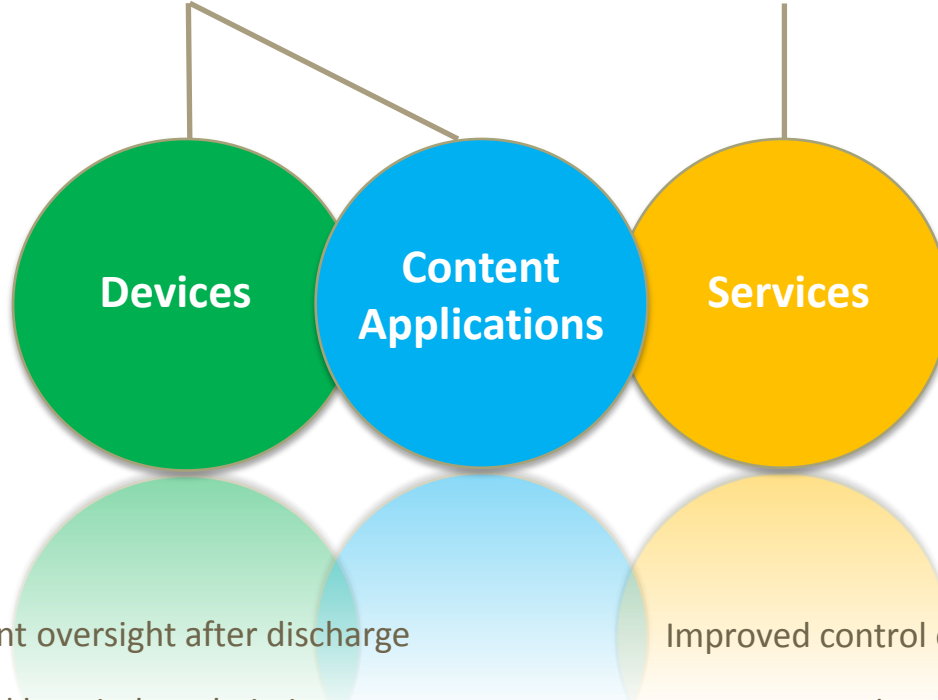


Partnership of Excellence

The *partnership of excellence* is:

- The use of an integrated telehealth product and platform combined with a
- Comprehensive call center to remotely manage the care of chronic and/or post acute patients.

Honeywell
HomMed



Improved remote patient oversight after discharge

- Helps control hospital readmission
- Ability to proactively direct patients to the optimal level of healthcare

Improved control of length of stay (LOS)

- When appropriate, discharge patient safely to post-acute setting

Conclusion

Remote Patient Monitoring can enable:

- Improved post-discharge patient oversight
- Improved patient outcomes
- Improved patient satisfaction
- Reduction in 30 day readmissions
- Reduction in ER visits
- Improved patient compliance
- Decrease cost of care



Questions?

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