



Accelerating Adoption of Telemedicine Solutions

Understanding the Barriers, Aligning the Stakeholders



Roadmap for the Discussion

The Promise of Telemedicine

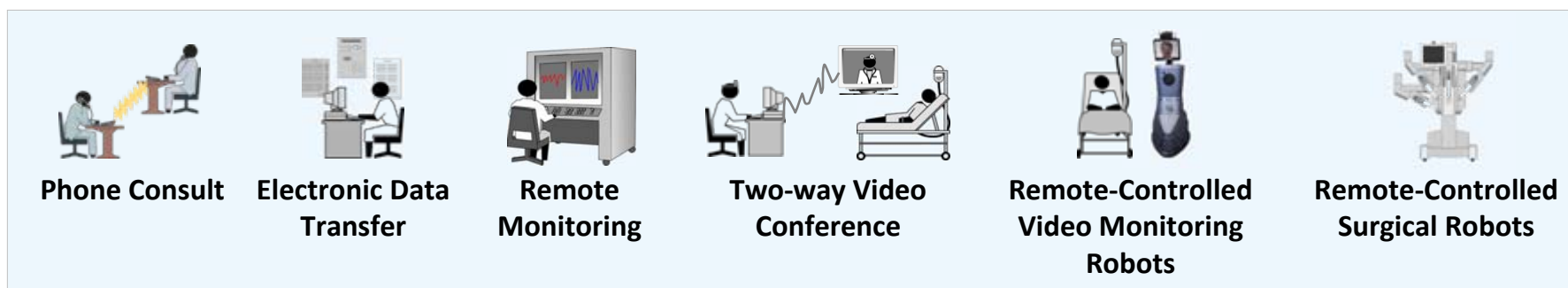
Barriers to Investment and Utilization

Driving Widespread Telemedicine Adoption



Enabling Innovation in Patient Care Management

Examples from the Continuum of Telemedicine Communications



Degree of Technological Advancement in Information Transfer

Sample Service Lines Employing Telemedicine

- * Cardiology
- * Cardiovascular Surgery
- * Dermatology
- * Emergency Medicine
- * Infectious Disease
- * Neonatology
- * Neurology
- * Neurosurgery
- * Obstetrics/Gynecology
- * Oncology
- * Orthopedics
- * Pediatrics
- * Plastic Surgery
- * Psychiatry
- * Pulmonology



Bridging the Gap in Healthcare Access

Care Delivery Challenges Addressed by Telemedicine



Rural Coverage

Challenge: Providing full care coverage in geographically remote areas



Extension Coverage

Challenge: Providing full, round-the clock coverage to maintain care quality standards



Expert Coverage

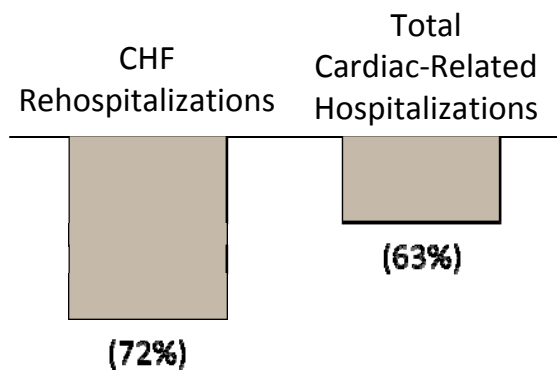
Challenge: Providing specialist coverage in the face of shortages and increasing costs



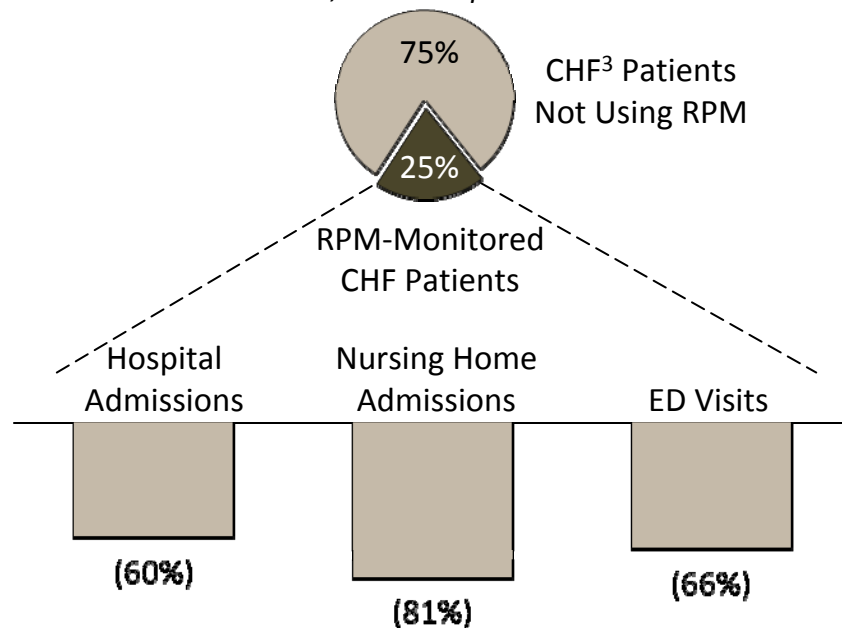
Better Outcomes, Lower Cost

Results from Two Distinct Studies

Rate of Hospitalizations After In-Home Monitoring
Study of 4 New England Hospitals



Effect of RPM¹ on Admissions Rates
n=1,401 VHA² patients



¹Remote patient management.

²Veterans Health Administration.

³Congestive heart failure.



Remote Capabilities Can Improve Care Quality, Efficiency

Benefits of Using Telemedicine

1. Increases patient access to quality care, ultimately improving outcomes
2. Streamlines patient care, often reducing mortality and complication rates
3. Avoids costly, potentially risky transfers to other facilities
4. Avoids unnecessary admissions, diagnostic testing
5. Expands referral network to include providers in rural areas
6. Secures greater return on existing service offerings
7. Raises investment value by leveraging infrastructure for multiple uses



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Barrier #1: Financial Constraints

Significant Upfront and Ongoing Costs



Infrastructure

Start up costs compounded by inadequate/incompatible technology at remote sites



Labor

Supporting telemedicine program requires dedicated staff at host and remote facilities



Broadband Service

Monthly charges for secure broadband service for sharing patient data, images, video



Lack of Adequate Reimbursement Hampering Investment

Telemedicine Payer Climate

I. Private Payers

- Private payer reimbursement highly variable by state and private payer
- Only 57% of telemedicine programs providing billable services received reimbursement from private payers in 2005

II. Medicaid

- Highly variable by state, with state telemedicine reimbursement programs highly restrictive
- Only 27 states currently permit Medicaid coverage of certain telemedicine services

III. Medicare

- For physician and institution to receive reimbursement, patient must be in rural health professional shortage area or outside of MSA
- Only select telemedicine services reimbursed by Medicare



Barrier #2: Legal Issues

Risk of Prosecution Detering Rapid Adoption



HIPAA¹

Concerns for security of patient information transmitted between providers



Physician Licensing

Physician practice regulations restrict ability to consult across state lines



Malpractice

Physician liability for providing “incomplete” (not face-to-face) examinations

¹Health Information Portability and Accountability Act.



Barrier #3: Cultural Change

Primary Reasons for Physician Reluctance to Adopt Technology

1. **Disruption to Workflow:** Physician practice patterns disrupted by new care protocols, patient-physician interaction channels
2. **Discomfort with Technology:** Most providers and clinicians have little experience with emerging telemedicine platforms
3. **Shift in Clinician Role:** Increased reliance on other non-clinical care providers reduces physician control over patient care
4. **Reduced Human Contact:** Physicians uncomfortable interacting with patients in a virtual environment



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Forces Aligning to Drive Greater Telemedicine Adoption



Federal Stimulus Grants

Funding for deployment of broadband infrastructure in un-served and under-served areas



30-Day Readmission Rate

Focus on reducing readmissions forcing hospitals to manage post-discharge care



Health Reform Agenda

Potential shift toward bundled payments will drive continuity of care management



Recommendations for Accelerating Telemedicine Adoption

#1: Hospitals Need More Than Upfront Investment Funding

- 1. Expand Reimbursement for All Telemedicine Services**
- 2. Establish Outcome-Based Incentives to Compensate Hospitals for Lost Revenues**
- 3. Extend Coverage with Evidence Development (CED) for Emerging Telemedicine Solutions**



Recommendations for Accelerating Telemedicine Adoption

#2: Establish Standards to Minimize Variations, Risk

- 1. Establish standards for secure physician-physician and physician-patient interactions, data exchange**
- 2. Clearly define care protocols for clinical encounters, including privacy policies for virtual interactions**
- 3. Standardize physician licensing requirements with respect to telemedicine services across States**