What Will the CFO Say?

Financial Considerations in Reducing Readmissions

Wendy Everett, ScD.
President

New England Healthcare Institute

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New England Healthcare Institute

Fred Telling, PhD
Pfizer

Henri Termeer
Genzyme

Joe Martin, MD, PhD
Harvard Medical School

Sam Thier, MD
Partners HealthCare

Charlie Baker
Harvard Pilgrim Health Care

Formed in 2002, The New England Healthcare Institute (NEHI) is a national health care policy organization that aims to:

- ***enable medical innovation***
- ***increase efficient care***
- ***promote disease prevention and wellness***

RESEARCH + COLLABORATION = TRANSFORMATION

NEHI 2009 Policy Agenda

Foster Medical Innovation

Telemedicine & Chronic Disease (*FAST*)
Computerized Physician Order Entry
Tele-ICU
Comparative Effectiveness Research & Innovation

Improve Quality & Efficiency

Emergency Department Overuse
Primary Care Redesign
Physician Guideline Adoption
Patient Medication Adherence

Prevent Chronic Disease & Promote Wellness

Healthy People/Healthy Economy

Readmissions Impact Cost and Quality

The NEW ENGLAND JOURNAL of MEDICINE

Rehospitalizations among Patients in the Medicare Fee-for-Service Program

NEJM April 2 2009

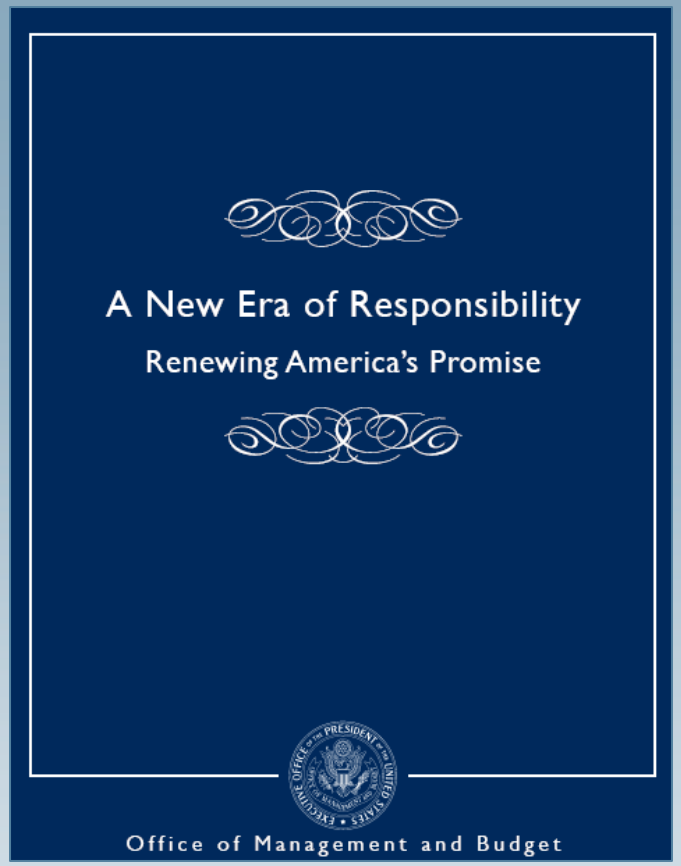
20 percent of Medicare patients who have been discharged from a hospital are rehospitalized within 30 days.

Medpac June 2008

27 percent of 30-day readmissions are potentially preventable.

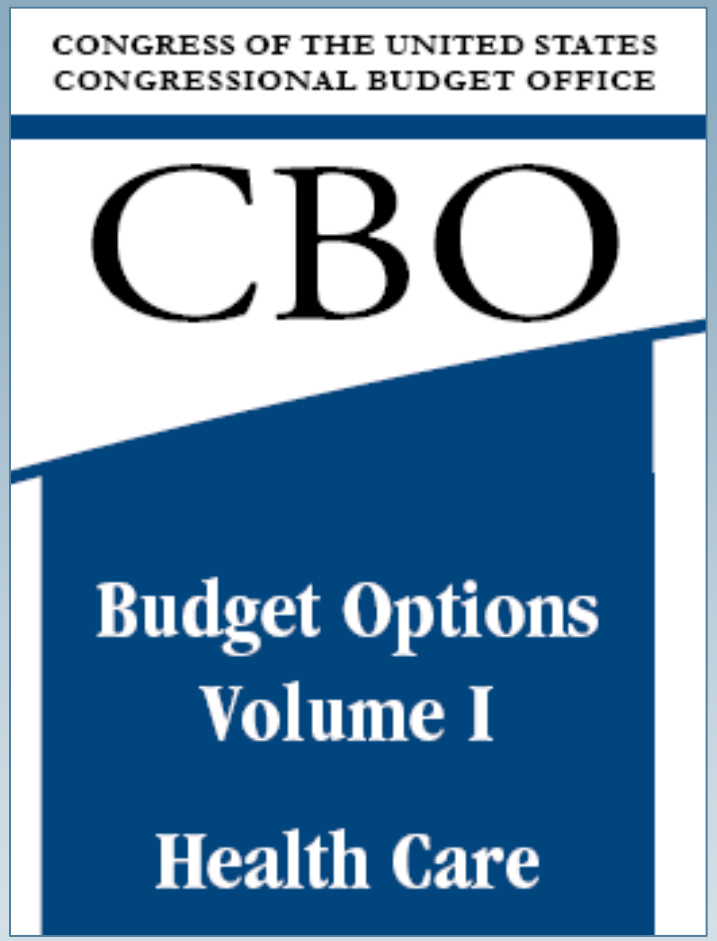
The total cost of potentially preventable 30-day readmissions was $12 Billion in 2005.

A Mandate for Improvement



CMS Centers for Medicare & Medicaid Services

A Mandate for Improvement



December 2008

Reduce payments to hospitals with risk-adjusted readmissions above:
The median or 75th percentile

Reducing payments by 20 percent to hospitals above the median:
Saves $10 Billion from 2010-2019

Reducing payments by 30 percent to hospitals over the 75th percentile:
Saves $8 Billion from 2010-2019

Valuable Innovation As a Solution

The Fast Assessment and Adoption of Significant Technologies (*FAST)* Initiative works to:

1 **Identify Innovative Solutions to Critical Issues**

2 **Evaluate Benefits and Barriers**

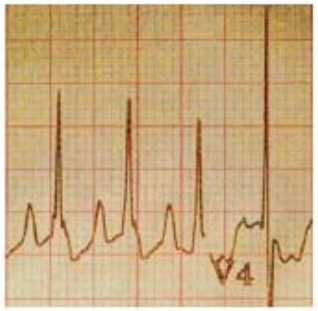
3 **Drive Policy Change to Promote Adoption**

Congestive Heart Failure: A National Problem

As of 2009:

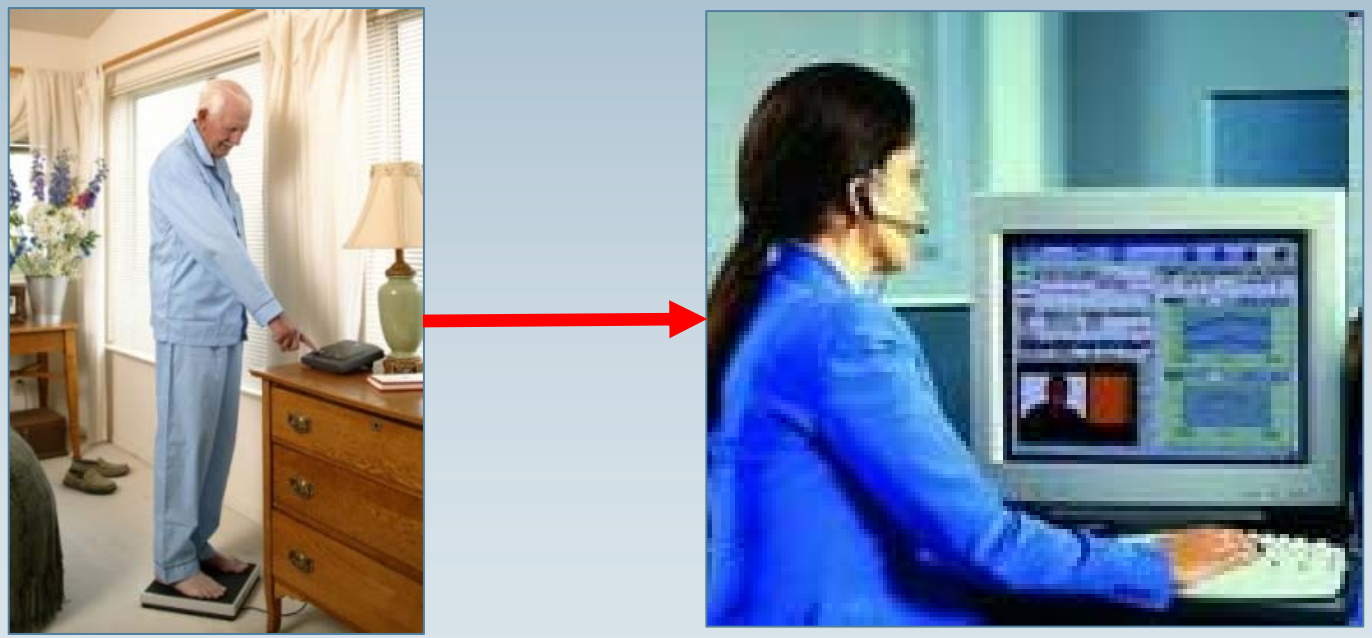
- **5.7 million** patients were living with heart failure in the U.S. with approximately 550,000 news cases every year
- Total annual estimated direct and indirect costs of CHF - **$37.2 billion**
- Hospital care represented **over 50 percent** (**$20.1 Billion)** of total heart failure costs annually
- Approximately **30 to 40 percent** of patients with heart failure are readmitted within six months of hospitalization

Source: American Heart Association, AAFP



Remote Physiological Monitoring: An Innovative Solution

- A device, technology and evidence-based care model all in one package
- Providers track early warning signs and intervene before a patient needs to be hospitalized



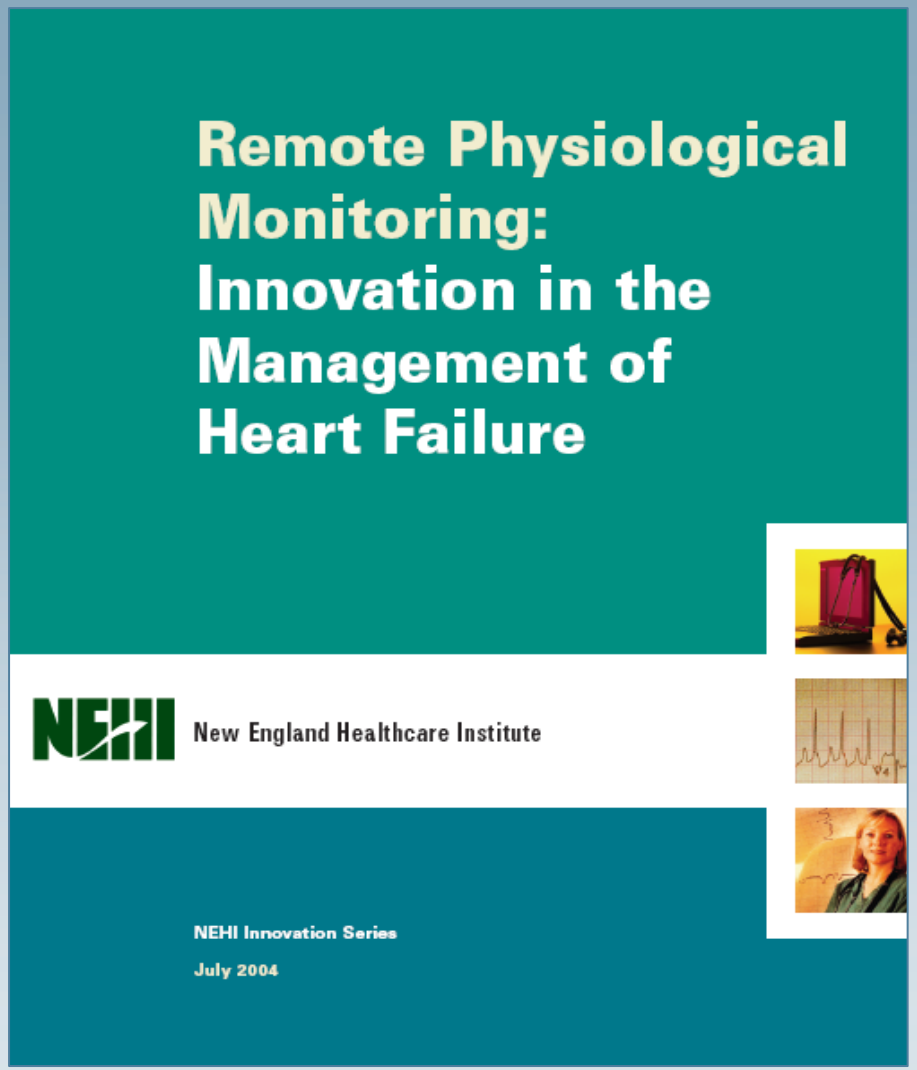
Value Derives From Targeted Use

- Blanket use of RPM for all CHF patients will **not** result in savings
- 70 percent of CHF patients have mild disease (Class I and Class II) and do not need RPM
- However, CHF patients with advanced disease (Classes III and IV) are at high risk for re-admission
- This subset of patients will see significant benefits from RPM

CHF Class	% Population
Class I	40%
Class II	30%
Class III	20%
Class IV	10%

Source: *NEHI*

NEHI RPM Research: 2004



NEHI RPM Research Findings: 2004

Heart Failure Care Comparison – RPM vs. Standard Care Treatment of 100 Patients for Six-Months Following Hospital Discharge (Classes 3 and 4 Only)				
Study Measure	**Standard Care**	**RPM**	**Difference**	**Percent Difference**
Rehospitalizations per 100 Patients	**75.3**	**51.4**	**- 24.0**	**- 32 %**
Health Care Costs per 100 Patients	**$759,249**	**$573,084**	**- $186,165**	**- 25 %**

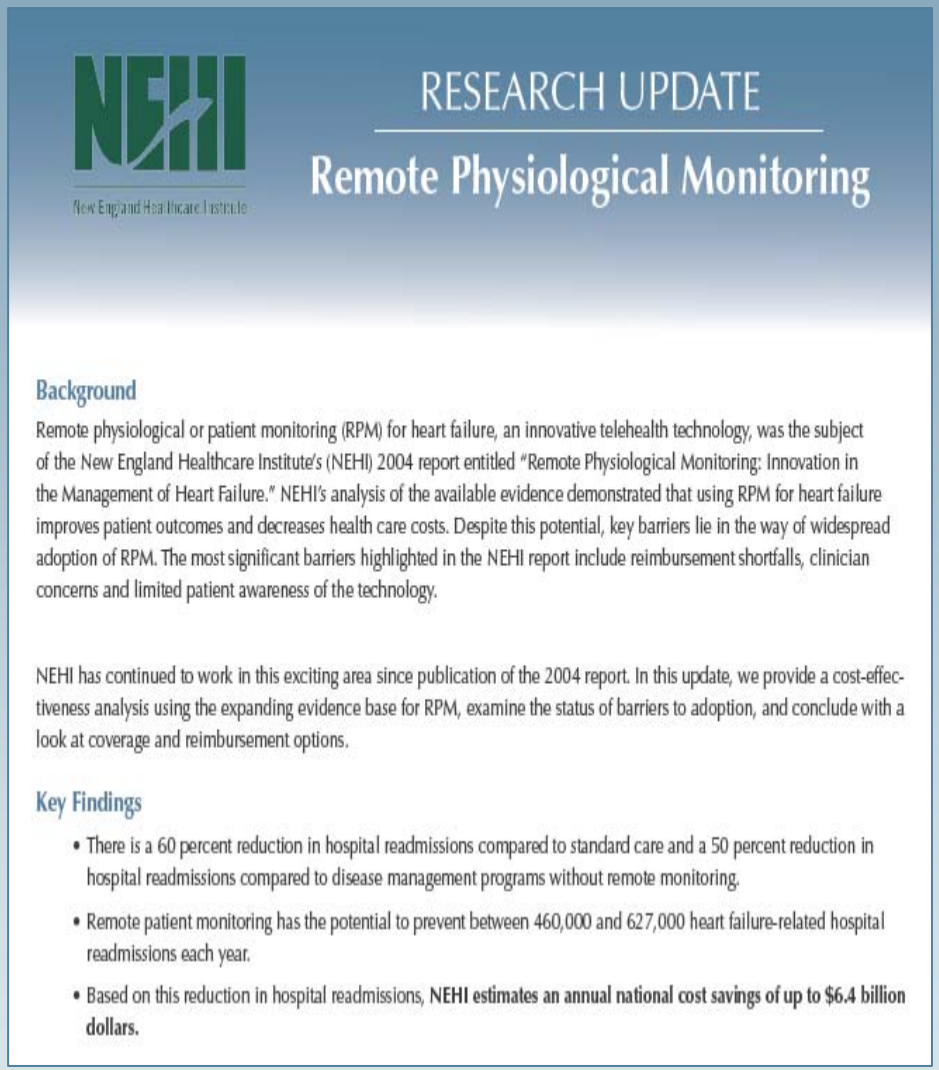
Source: *NEHI*

Cost of 1 Heart Failure Related Hospitalization:

$9,700

Source: *AHRQ, 2001*

NEHI RPM Research Update: 2008



New England Healthcare Institute

RESEARCH UPDATE

Remote Physiological Monitoring

Background

Remote physiological or patient monitoring (RPM) for heart failure, an innovative telehealth technology, was the subject of the New England Healthcare Institute's (NEHI) 2004 report entitled "Remote Physiological Monitoring: Innovation in the Management of Heart Failure." NEHI's analysis of the available evidence demonstrated that using RPM for heart failure improves patient outcomes and decreases health care costs. Despite this potential, key barriers lie in the way of widespread adoption of RPM. The most significant barriers highlighted in the NEHI report include reimbursement shortfalls, clinician concerns and limited patient awareness of the technology.

NEHI has continued to work in this exciting area since publication of the 2004 report. In this update, we provide a cost-effectiveness analysis using the expanding evidence base for RPM, examine the status of barriers to adoption, and conclude with a look at coverage and reimbursement options.

Key Findings

- There is a 60 percent reduction in hospital readmissions compared to standard care and a 50 percent reduction in hospital readmissions compared to disease management programs without remote monitoring.
- Remote patient monitoring has the potential to prevent between 460,000 and 627,000 heart failure-related hospital readmissions each year.
- Based on this reduction in hospital readmissions, **NEHI estimates an annual national cost savings of up to $6.4 billion dollars.**

NEHI RPM Research Update: Key Findings

How Much Does RPM Cost?

Annual Costs Per Patient	
Technology Source: *NEHI*	**$2050**
Disease Management Program Source: *Chan et. al. 2008*	**$750**
Total Cost of RPM	**$2800**

Cost of 1 Heart Failure Related Hospitalization: $10,200

Source: *AHRQ, 2006*

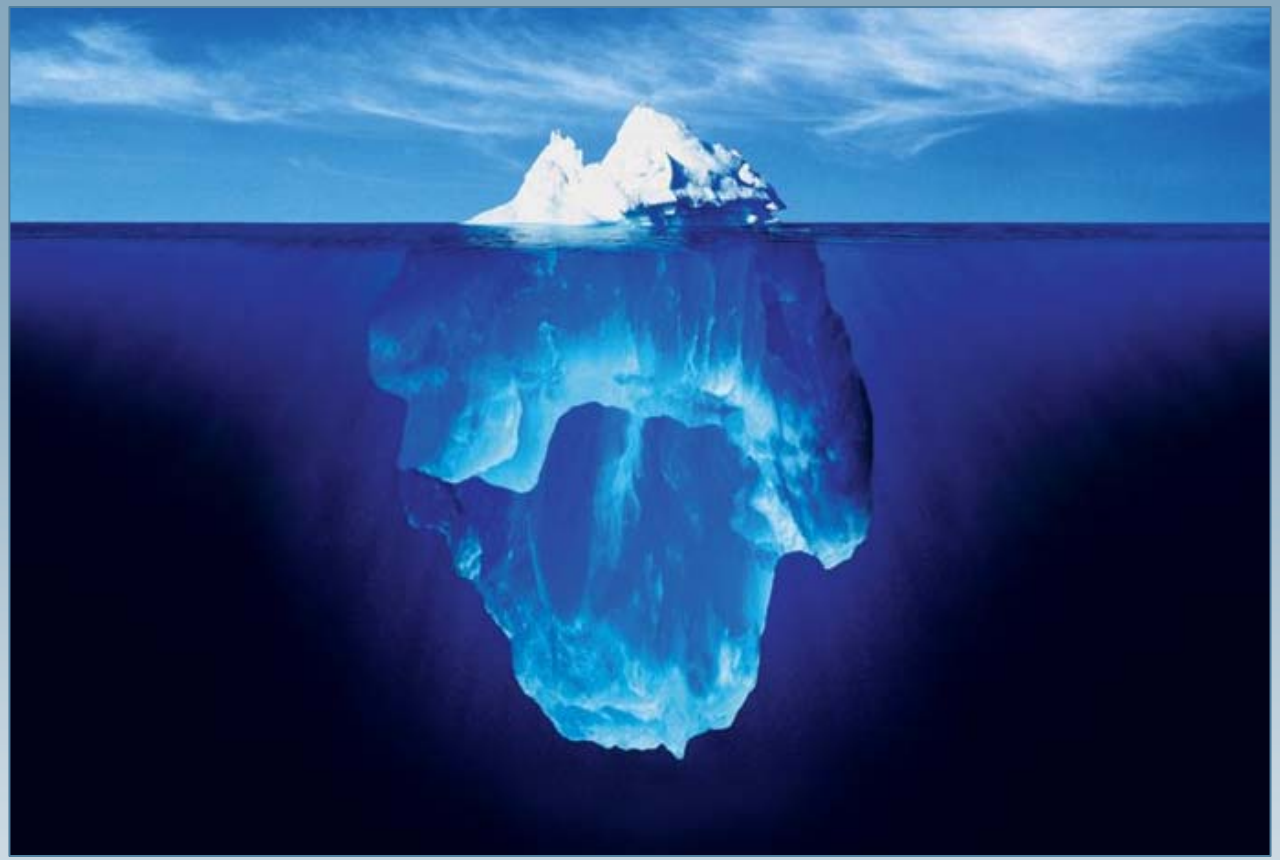
RPM Research Update: Key Findings

How Much Does RPM Save?

Annual Impact on Hospital Readmissions **(Classes 3 and 4 Only)**	**Remote Physiological Monitoring for Congestive Heart Failure**	
	Compared to Standard Care	Compared to Disease Management
Percent Reduction in Readmissions	60 percent	50 percent
Gross Savings Per Patient	$7,800	$5,750
Net Savings Per Patient	$5,000	$3,700
Annual Reduction in Real Readmissions	627,000	460,000
Annual National Savings	**$6.4 Billion**	**$4.7 Billion**

Source: ***NEHI***

CHF is Just The Tip of The Iceberg



Patients with preventable adverse medical events are **67 percent** more expensive ($17,460) than patients without them ($10,450).

Source: ***Adverse Patient Safety Events: Costs of Readmissions and Patient Outcomes Following Discharge. Bernard D, Encinosa W; AcademyHealth. Meeting (2004)***

Innovating Our Way to Quality Improvement and Cost Savings