

# The Role of Telehealth Innovations in Managing Chronic Illness and Co-morbid Depression.

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# Burden of Chronic Illness

- Medicare beneficiaries
  - 82% have chronic illness
  - 65% have multiple chronic illnesses
  - Chronic illness accounts for 75% of all US health care expenditures
- Wagner's chronic care model - Delivery of medical care must change due to new patient composition.

# Depression in Chronic Illness

- Rates of depression range from 11 to 25%.
- Depression associated with increased morbidity, mortality, and services use.
- Depression or distress accounted for 25% of total cost of heart failure.

- Sullivan et al., 2002

# Chronic Illness Interventions

- Illness management:
  - Rich et al., 1995 – Reduced rehospitalization
  - Lorig et al., 1999, 2001 - Decreased per patient cost \$480 in hospitalizations and \$100 in outpatient charges
- Home-Monitoring
  - Several Studies – most without a control group. VISN 8 Community Care study found reduced hospitalizations and improved functioning.

# Integration Model

- Integrate depression illness management into a standard CHF protocol including home-monitoring
  - More likely to be used by cardiology
  - Improve depression outcomes in chronic illness
  - Perhaps improve outcomes in minor depression

# Education and Goal Setting

- Heart failure
- Weighing
- Salt Restriction
- Medication Compliance
- Exercise/Rest
- Contact with cardiac care providers when indicated
- Depression
- Coping with Impairment
- Depression Education
- Identification and Treatment
- Referrals for antidepressant evaluation when indicated

# Hybrid Model

- Interpersonal Psychotherapy
  - Loss of former functioning
  - Role Transition
- Behavioral Activation
  - Developing new meaningful routines
  - Finding new reinforcing behaviors

# Changing Roles

Living with heart failure means living with change. This booklet aims to help you adjust to the changes in your life brought on by heart failure.

You may find it more difficult to do things you have done in the past. If you don't accept these changes, you may be spending a lot of your energy and time feeling angry, frustrated, and helpless. If you do accept these changes, then you will be more free to focus your energy on developing a new life for yourself.





“When one door to happiness closes, another opens: but often we look so long at the closed door that we do not see the one that has been opened for us.”

# Modify Activities and Learn New Activities

- People with heart failure often face physical limitations that may result in some loss of independence, and loss of former hobbies or enjoyable activities. If this happens, it is important to focus on what you can do. Often you can make adaptations so you can still participate in an enjoyable activity or find a new hobby.
- For example, you may enjoy gardening, but feel overwhelmed or get too tired by the work it takes to maintain a garden. You can modify this activity by using special tools, working on indoor projects, or container gardening. You may also need to rest frequently.

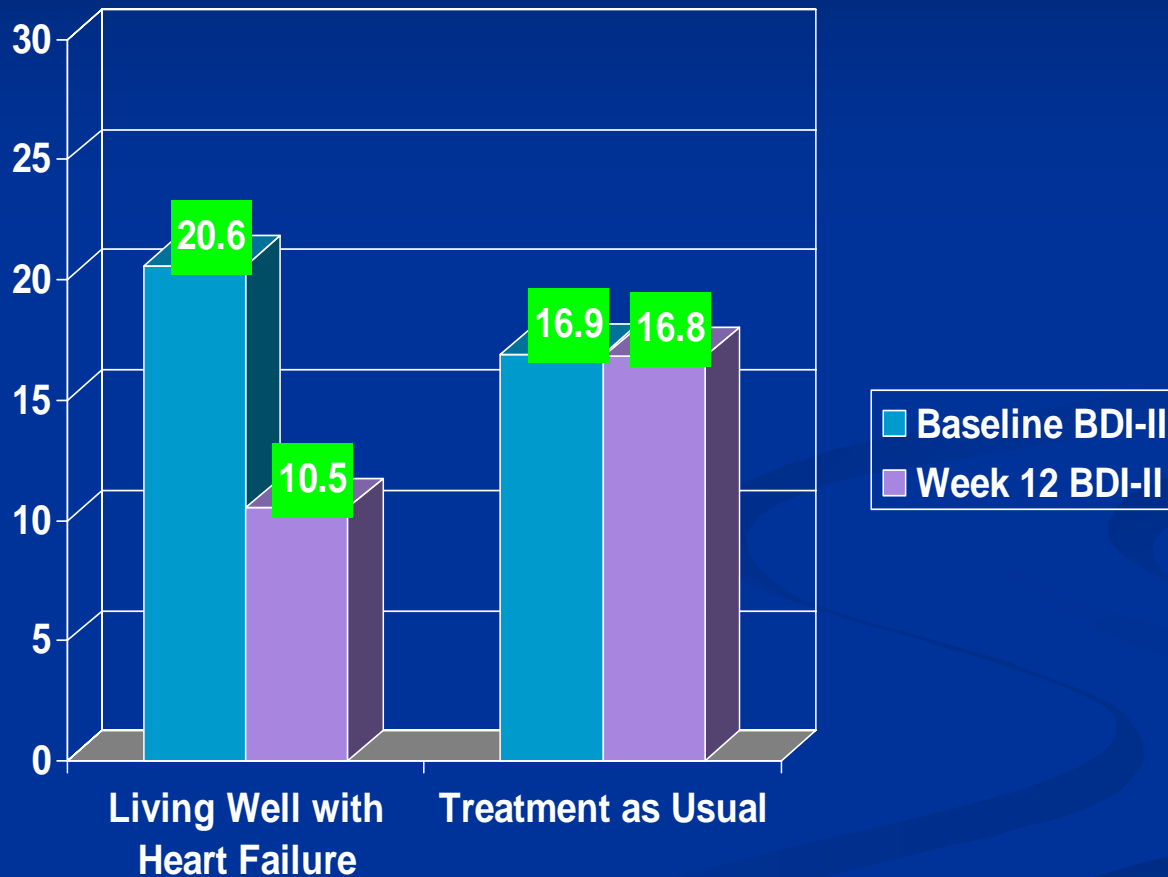
“And in the end it’s not the years in your life that count. It’s the life in your years.”



# Living Well with Heart Failure

- Heart failure can affect how you feel physically and how you feel emotionally. This program is designed to help you feel your best.
- The key to feeling your best includes learning how to manage the physical aspects of your illness **AND** how to cope with the emotional challenges of heart failure.

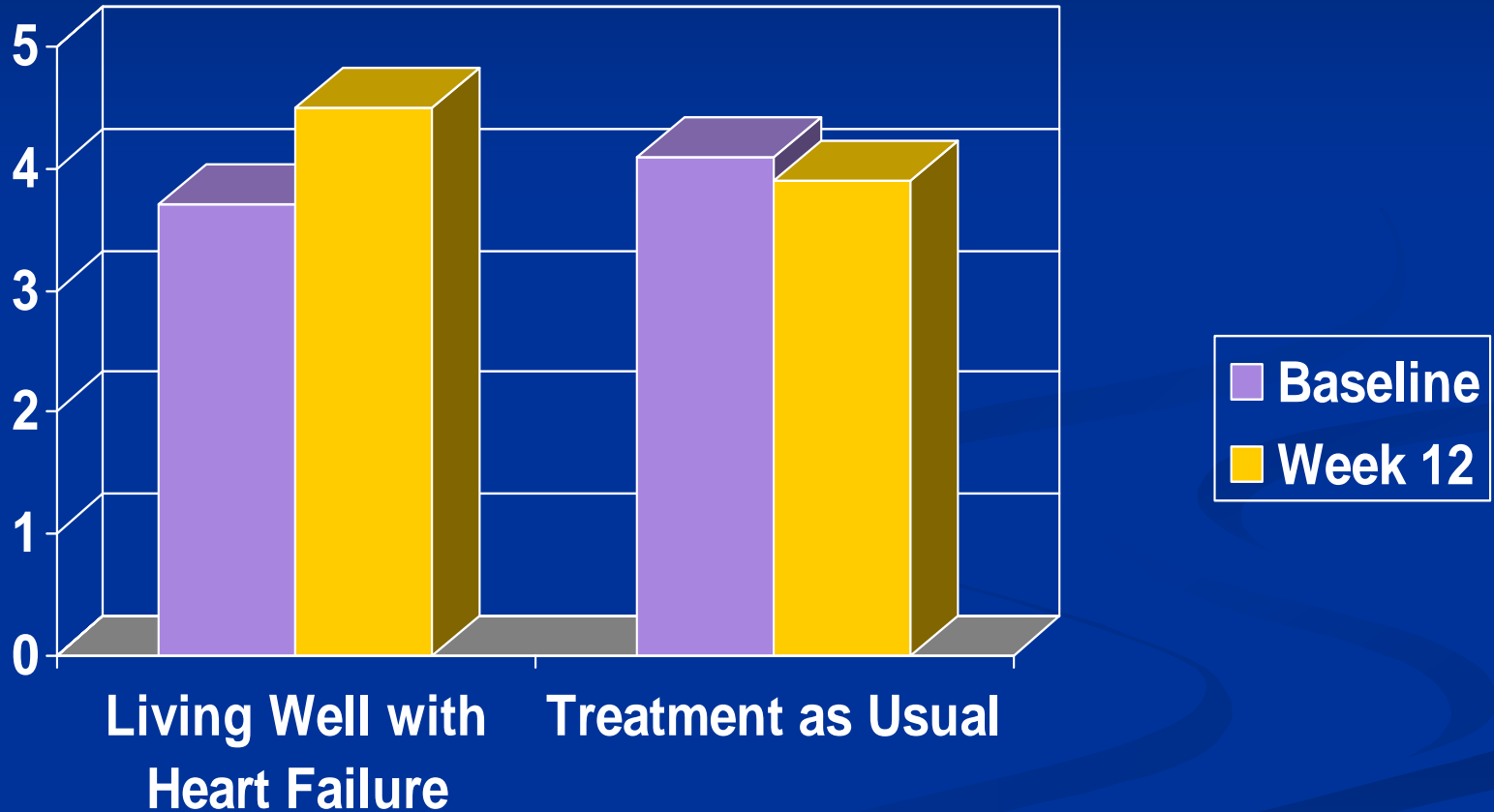
# Preliminary Results-Major and Minor Depression Combined- Beck Depression Inventory-II N=33



# 50% decline or greater on the BDI-II

- In the intervention group, 44% experienced a 50% or greater decline on the BDI-II.
- Only one in the treatment-as-usual group (7%) experienced a 50% or greater decline on the BDI-II

# Medical Outcomes Study- Self Care Index- Range 0-6



# What are personal health records?

- The personal health record is
  - An electronic, universally available, lifelong resource of health information
  - Individual own and manage the information which comes from the health care provider and the individual
  - Maintained in a secure and private environment
  - Separate and does not replace the legal record of the provider - American Health Information Management Association

# What functions do PHRs serve?

- Maintains both personal and health care provider records
  - Full medication list including OTC
  - Health history
  - Labs
  - Health Trends
  - Allergies/prior medication response
  - Family history

# Functions Continued

- Facilitates interaction with provider
  - Medication refill
  - Appointment viewing and scheduling
  - Secure messaging

# Continuity of Care

- Full complete medical record can be shared with other health care providers and with family members.

An estimated 70 million people in the United States have some form of electronic personal health record.

# Types of Personal Health Records

- Internet Based
- PC Based
- Portable Devices
- Mixed models: e.g. PC based and USB chip

# Why personal health records?

- Empower patients
  - Institute of Medicine Crossing the Quality Chasm delineated 10 “design rules” for improving care and the success of 6 rules depends on patient involvement in his or her own care.
- Continuity of care
  - 1<sup>st</sup> personal health records built by
    - Frustrated physicians
    - Frustrated caregivers

# Case Example

- Mrs. Johnson 79-year old with diabetes and congestive heart failure.
  - Secure messaged her physician to be certain about Rx instructions.
  - Received test results in a timely fashion
  - Used site to get illness related information
  - Emergency room continuity of care
  - Avoidance of Rx interaction

# Background Statistics

- Nearly 24 million veterans and 259,000 VA staff are eligible to use My Health<sub>e</sub>Vet; almost 8 million veterans enrolled in VA
- More than 598,000 registered users
- More than 6.1 million Rx refills have been processed since August 31, 2005
- More than 18 million visits to My Health<sub>e</sub>Vet since launched in November 2003.

# Who? What? Where? How? Why?



**Who are our users?**

**What are their characteristics, needs, and preferences?**

**Where do they access My HealtheVet?**

**How often?**

**Why?**

**What is working well and what can be improved?**

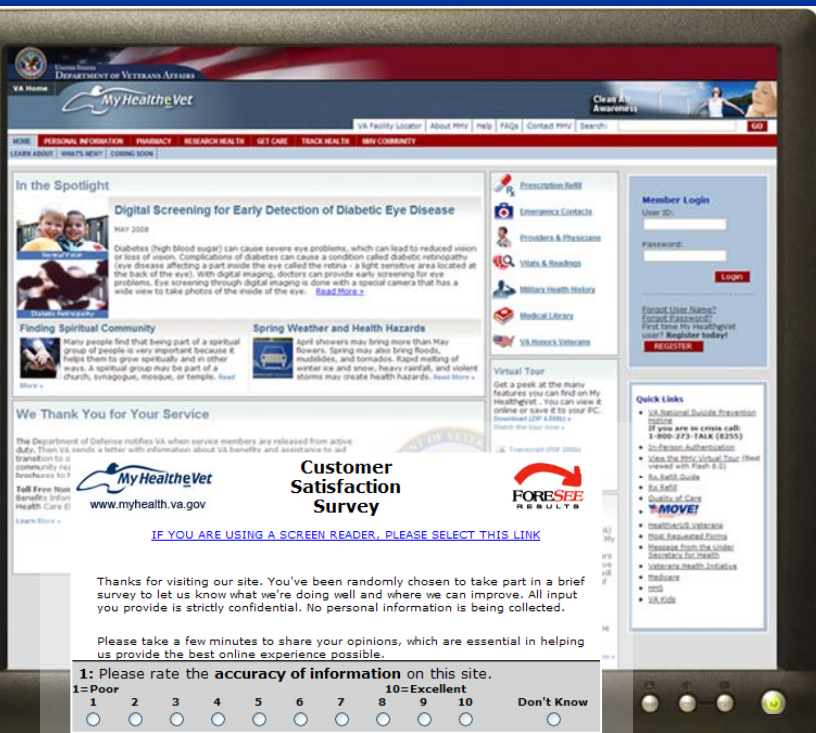
# My Health\_Vet ACSI Survey

## American Customer Satisfaction Survey

Data Collection Period:  
October 2007 – May 2008  
61,186 respondents

Sampling percentage: 4%  
Loyalty factor: 4 pages

My Health\_Vet average: 17.0%  
ForeSee average: 6.5%



Please take a few minutes to share your opinions, which are essential in helping us provide the best online experience possible.

1: Please rate the **accuracy of information** on this site.  
1=Poor 10=Excellent  
1 2 3 4 5 6 7 8 9 10 Don't Know

2: Please rate the **quality of information** on this site.  
1=Poor 10=Excellent  
1 2 3 4 5 6 7 8 9 10 Don't Know

3: Please rate the **usefulness of the services provided** on this site.  
1=Poor 10=Excellent  
1 2 3 4 5 6 7 8 9 10 Don't Know

4: Please rate the **convenience of the services** on this site.  
1=Poor 10=Excellent  
1 2 3 4 5 6 7 8 9 10 Don't Know

5: Please rate the **ease of reading** this site.  
1=Poor 10=Excellent  
1 2 3 4 5 6 7 8 9 10 Don't Know

6: Please rate the **clarity of site organization**.  
1=Poor 10=Excellent  
1 2 3 4 5 6 7 8 9 10 Don't Know

# My HealthVet ACSI Results

## 1. Which of the following best describes you?

- 93 % Veteran
- 4 % Family member of veteran
- 1 % Other role
- <1 % VA employee
- <1 % Federal government employee
- <1 % Veteran Service Organization
- <1 % General public

### MHV Registration Data

- 86 % Veteran
- 4 % VA Employee
- 3 % Health Care Provider
- 2 % Veteran Advocate
- 1 % Other

\*72 % VA Patient

## 2. What is your age range?

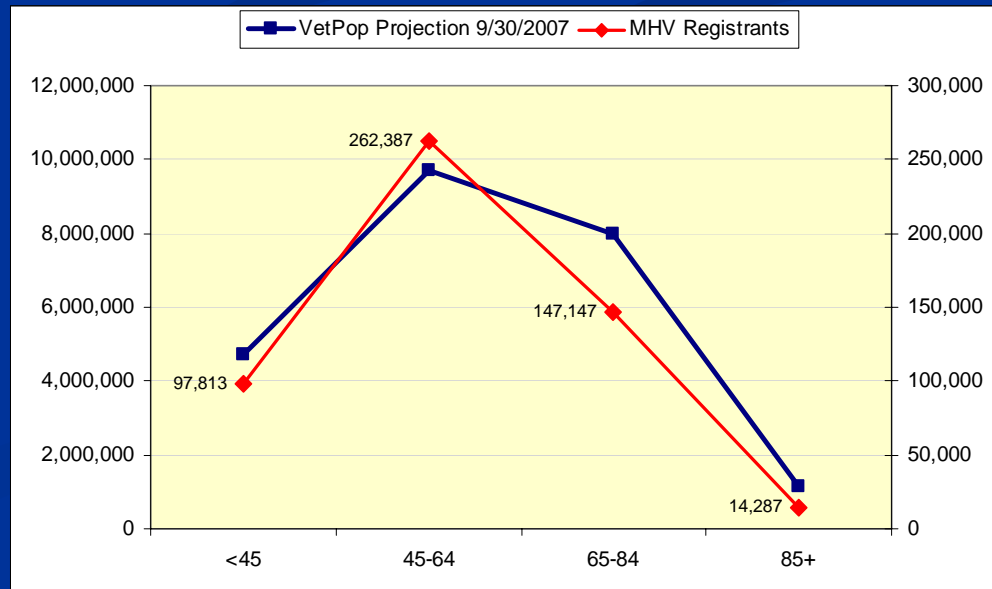
1 % 19 to 30 years  
4 % 31 to 40 years  
11 % 41 to 50 years  
34 % 51 to 60 years  
34 % 61 to 70 years  
16 % 71 or older

79 %

### MHV Registration Data

12 % Under 40  
66 % 40 to 69 years old  
22 % 70 or older

Median age is 60



# My HealtheVet ACSI Results

## 16. What were you trying to accomplish today in My HealtheVet?

- 76 % Request a prescription refill
- 24 % Access prescription history from my VA medical record
- 18 % Look up information about a medication
- 14 % Enter/keep track of personal information  
(e.g. my caregivers)
- 13 % Enter/keep track of personal health care information  
(e.g. blood pressure)
- 9 % Other
- 6 % Research a health condition
- 6 % Find information about VA benefits
- 2 % Find a VA health care facility

# My Health\_eVet ACSI Results

## 22. What additional services would you like to see on My Health\_eVet?

88 % View my upcoming appointments

76 % Change or schedule my appointments

75 % Look at information in my VA medical record

67 % Online secure communication with my doctor

# My Health\_eVet ACSI Results

## 22. What additional services would you like to see on My Health\_eVet? (continued)

- 49 % Checking that different medications I take are safe when used together
- 36 % Notification of new content/features on the site
- 36 % Advance check-in for my VA clinic visits
- 33 % Reminders of preventive care I need (e.g. shots)
- 27 % Monthly email newsletter
- 24 % Share information with other people (e.g. family, doctor)
- 21 % Educational programs
- 17 % Advanced directive (e.g. living will, power of attorney, etc.)
- 9 % Other
- 8 % Information about the quality of VA health care

# My Health\_eVet ACSI Results

33. My use of the My Health\_eVet personal health record has improved my ability to manage my health.

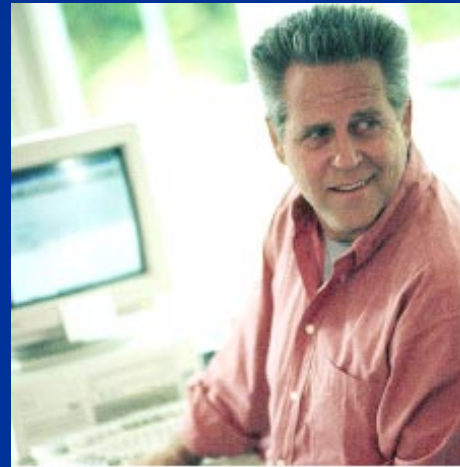
17 % Strongly agree

39 % Agree

26 % Not sure

4 % Disagree

3 % Strongly disagree



	1 Strongly agree	2 Agree	3 Not sure	4 Disagree	5 Strongly disagree	6 Not applicable	Overall
<i>Responses:</i>	3,776 17%	8,421 39%	5,564 26%	913 4%	409 2%	2,599 12%	21,682
Content	89	85	79	66	49	81	82
Functionality	88	84	78	60	42	80	81
Look and Feel	88	84	79	67	56	81	81
Navigation	87	81	73	53	38	75	77
Search	89	82	74	52	32	77	78
Site Performance	87	83	79	67	56	80	81
<b>Satisfaction</b>	<b>88</b>	<b>80</b>	<b>70</b>	<b>40</b>	<b>22</b>	<b>73</b>	<b>75</b>
Organization Satisfaction	93	86	76	46	25	79	81
Recommend	95	90	79	52	30	83	84
Return	97	94	87	69	47	89	90

## My HealtheVet ACSI Results

**Considering all of your experiences to date, how satisfied are you with the My HealtheVet program overall?**

**Results: 8.3 out of 10**

**How likely are you to recommend this site to someone else?**

**Results: 8.6 out of 10**

**How likely are you to return to this site?**

**Results: 9.1 out of 10**

# Main Conclusions

- Elders who use personal health records are satisfied with it.
- Medication management and functionality in general drive use.
- Self-management tasks less of a draw to personal health records.

# Future Directions: Rural Health Research Study

- Goal: Develop training session to teach elder veterans to use Personal Health Record to improve communication about medication between VA and non-VA providers