Heart Failure (HF) Network of VA Providers:
An Innovative Strategy for Implementation

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Purpose

To describe our experience with the formation and use of a Community of Practice (CoP) of VA providers as a strategy to improve care for heart failure patients.
Background

- Heart failure (HF) is associated with high mortality and poor quality of life.
- Moreover, it is the most common medical reason for admission within and outside of the VA health care system.
- Reducing admission and readmission rates for HF are goals of CHF QUERI, VA in general and non-VA partner organizations like the Institute for Healthcare Improvement.
About Social Networks

• There is growing interest in the use of social networks to facilitate knowledge exchange in health-care settings.
• Creating connectedness among providers using EBP in the treatment of specific disease may foster exchange of best practices.
• Social network structures provide opportunities for members to connect and share information.
Social Network: Examples

• **Condition-specific networks** have been formed among providers with similar clinical interests.

• In British Columbia, a **heart failure** provider network has been created among cardiologists, internists, family physicians, nurses, pharmacists, dieticians and social workers.

• A network for New York providers treating patients with **tuberculosis** was associated with a 10-fold increase in the number of individuals receiving directly observed therapy (Klein, 1995).

• Montreal Stroke Network
Communities of Practice (CoPs)

- CoPs are a type of informal learning organization.
- They are gaining popularity in the health sector.
- CoPs have 3 fundamental elements:
  i. a domain of knowledge
  ii. a community of people
  iii. a shared practice
- Wenger (2002) has described CoPs as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis”.
Building CoPs through Social Network: Examples

• There is growing evidence of CoPs being developed as social networks.

• Norman and Huerta (2006) have examined building foundations for a CoP using evaluation and social network methodologies.

• Poissant (2005) reported that emergent CoPs with the Montreal Stroke Network were successful in developing and implementing critical inputs, such as referral tools that accelerated patients’ transition between acute care to rehab.
Conceptual Frameworks for Implementation

- We have conceptualized the HF Network as a CoP
- We have used 2 complementary theoretical frameworks for implementation:
  - **The Promoting Action on Research Implementation in Health Services (PARIHS)** framework (2008) according to which successful implementation is a function of evidence, context and facilitation.
  - **Rogers' Diffusion of Innovation Theory** (2003) indicates that opinion leaders play a critical role in shepherding an innovation.
About the HF Network

- CHF QUERI has formed a CoP called: **Heart Failure (HF) Network**
- It is a national network of VA providers interested in improving quality of care for heart failure patients.
- It is supported by:
  - The Office of Patient Care Services, and
  - Dr. John Rumsfeld, Director National Cardiology Program
  - Dr. John Rumsfeld, Director National Cardiology Program
Goals of HF Network

1. Share evidence-based HF programs and facilitate their implementation
2. Understand the context (e.g. culture, leadership style, resources) at facilities.
3. Learn about barriers and facilitators to improving HF care
4. Establish collaborations/networking among members of the HF Network
5. Provide opportunities to identify/involve local champions at facilities
Formation of HF Network

- HF Network was formed in **July 2006**
- Chiefs of Cardiology or Chiefs of Medicine at each VA facility were contacted via e-mail and/or phone to identify providers interested in heart failure and quality of care.
- Identified providers were invited to join and were asked to identify any additional staff.
- Multi-disciplinary/multi-level membership.
- Members do not have to be providers (QI managers)
Formation of HF Network (contd.)

- Goal to include providers/staff from ALL VA Health Care Systems.
- Members can drop out by sending an email.
- 1st session (in-person annual meeting) was held on **September 11, 2006 in Seattle.**
Connectedness of HF Network with VA Stakeholders

Partnerships
- VA Office of Principal Deputy Under Secretary for Health Contact: Robert Jesse MD, PhD
- VA Office of Patient Care Services Contact: John Rumsfeld MD, PhD
- VA GRECC Associate Director / Clinical Group Network Contact: Kenneth Shay DDS, MS
- VA Nursing Service

Heart Failure (HF) Network

Facilities (N=150)
- VA Medical Centers and VA Health Care Systems

HF Network Members (N=910)

Executive Committee Members and Local Advisory Board Members

HF Network Members
How Does HF Network Work?

- Conduct bi-monthly live meetings* and an annual in-person meeting* at a major HF conference.
- Communicate via:
  - E-mails
  - Conference calls
  - CHF QUERI / HF Network website
  - SharePoint site
  - Periodic surveys*

*Referred as “session” of the HF Network
Active Participation in the HF Network

“ACTIVE” membership is defined as participation in at least one of the following activities:

- Attend bi-monthly live meeting and/or conference call
- Attend annual in-person meeting at a major HF conference (Heart Failure Society of America)
- Complete a survey
- Submit “Letter of Intent” to CHF QUERI for QUERI’s RRP or SDP proposals, or for CHF QUERI’s core funds
Current Membership

- 910+ members
- 150 facilities
- 1-13 members at each facility
- 1-6 years of membership (from July 2006 onwards)
Activities

• Bi-monthly live meetings/conference calls
• HF programs
• Toolkits
• Tools
• SharePoint site as a discussion forum
• VA HF Experts
• Research projects
• Quality improvement (QI) projects
• Solicitation for QUERI proposals
• Surveys
Activities:
Bi-monthly live meetings/conference calls

As of 2012

- 7 Annual meetings and conference calls.
- 28 Bi-monthly live meetings/conference calls.

Plan for bi-monthly meetings:
- Announcements
- Updates
- Presentations with focus on barriers and facilitators followed by discussion by members from different facilities for following projects:
  a) Funded research project
  b) Quality improvement project at own facility
Activities:
Bi-monthly live meetings/conference calls (contd.)

Website: http://www.queri.research.va.gov/chf/networks/schedule.cfm

Screenshot of webpage is below
Activities: SharePoint site

- CHF QUERI has a SharePoint on the intranet.
- All members are provided immediate access to it.
- Members may:
  - Discuss current topics related to the improvement of care for HF patients
  - Share/exchange new ideas, news & documents
  - Provide comments and feedback
  - Keep updated on conference calls and other important announcements

- Minimal traffic / SharePoint not really useful.
Activities:

Tools

CHF QUERI has various tools for:

• **HF NURSES:** “Heart Failure Nurse Education” conference was co-organized by CHF QUERI and Dr. Mike Pham from the Palo Alto VA

• **HF PATIENTS:**
  - HF Assessment Tool for self-management to track their health condition.
  - Patient education materials
  - Caregiver education materials
Activities:
Quality Improvement (QI) Project - “Heart Failure (HF) Provider Toolkit”

- We have developed a comprehensive evidence-based (EB) “HF Toolkit for Providers”
- Funding: CHF QUERI core funds
- Goal: To provide EB comprehensive tools to VA providers to better manage their HF patients.
- Toolkit materials are available through web-links and downloadable PDF documents.
Method:

- HF Network members were asked to share their existing tools
- We reviewed existing quality tools being used/recommended by non-VA HF organizations like AHA-GWTG & HFSA.
- A multidisciplinary committee of VA clinicians, nurses, pharmacists and a HF patient reviewed, screened and rated these tools.
- Selected tools are organized into 18 key areas.

Activities:
QI Project - “Heart Failure (HF) Provider Toolkit” (contd.)
All and Current HF Network Members

HF Network Membership
All members (July 2006 – October 2012)
N=1110
Current members
N=910

Attended 0 session
All members
n=325
Current members
n=223

Attended 1-2 sessions
All members
n=416
Current members
n=344

Attended 3-9 sessions
All members
n=273
Current members
n=241

Attended ≥ 10 sessions
All members
n=96
Current members
n=102
Types of Members

- VACO leadership
- Facility leadership
- VISN leadership
- Chief of Cardiology
- Staff Physician
- Nurse
- Pharmacist
- Quality Manager
- Other
New Members Joining HF Network in Years 1-6

![Chart showing the number of members joining the HF Network in each year from Year 1 to Year 6. The number of members increases from Year 1 to Year 6, with peaks in Year 1 and Year 6.](chart.png)
Total Participation in HF Network by Types of Members in Years 1-6

- VACO & VISN leadership
- Facility leadership
- Chief of Cardiology
- Staff Physician
- Nurse
- Pharmacist
- Other

Number of Members

0 200 400 600 800 1000 1200 1400
HF Network Participation and Academic Characteristics

P=NS  P=0.02  P=0.07

% VA Facilities

ACGME  COTH  Board Cert >75%

None  Low  High
HF Network Participation and Volume

P = 0.02

P = 0.006
Is the HF Network Effective?

- Formative evaluation of the HF Network is important to assess its value and make appropriate refinements in the implementation strategy.
- We have adopted a “phased” approach for the formative evaluation of the HF Network.

- **PHASE 1 is complete using mixed methods:**
  - Survey: 115 members completed a web-based survey (32% response rate)
  - Interview: 17 members participated in semi-structured phone interviews with question-specific content analysis
Is the HF Network Effective?
Research Project - VA H2H Initiative

- Conducted a randomized trial titled “Implementation of the Hospital to Home (H2H) Heart failure Initiative”
- Funding: QUERI SDP: 09-160
- Goal: 1. Enroll VA facilities on H2H website
  2. Initiate projects to reduce HF readmission
- Method: i) Identified 122 facilities with 100+ HF discharges over 2 years
  ii) Randomized 1:1 to usual care of HF Network activation
Using the HF Network to Implement a National Quality Initiative (H2H)

H2H Enrollment at Six months

Percent Enrolled

VA Intervention facilities

VA Control facilities
Using the HF Network to Implement a National Quality Initiative (H2H)

New Projects Due to VA H2H Initiative

- **Intervention**
- **Control**

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<th>Number of Projects</th>
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Using the HF Network to Implement a National Quality Initiative (H2H)

Facility Enrollment in H2H: 2012

Percent Enrolled

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<th>Facility</th>
<th>Percent Enrolled</th>
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<td>VA</td>
<td>60</td>
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<tr>
<td>Other US</td>
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HF Network Participation and Quality of Care

All P=NS

CMS and Joint Commission Inpatient Performance Measure
HF Network Participation and 30-Day Outcome Following a HF Discharge

Event Rate

- 30-Day HF Readmission
  - None
  - Low
  - High
  - P=0.12

- 30-Day Mortality
  - None
  - Low
  - High
  - P=0.17
Results from Phase 1 Formative Evaluation of the HF Network
Survey: Which of the following activities have been helpful to YOU?

- HF programs presented
- Learning about barriers & facilitators
- Discussion about implementing changes based on IHI’s 5 Million Lives Campaign
- Opportunity to collaborate with CHF QUERI
- Opportunity to collaborate with other providers within the HF Network
- Dissemination of QI projects

% Agreed: 40
Survey: Overall, did participation in the HF Network sessions influence YOU in terms of the following?

[Bar chart showing percentage agreed]
Survey: Benefit of Participation in the HF Network for Influential Members

- Participation Not Beneficial
- Participation Somewhat Beneficial
- Participation Very Beneficial

# of Respondents

- Self Not Influential
- Self Somewhat Influential
- Self Very Influential

- Participation Not Beneficial
- Participation Somewhat Beneficial
- Participation Very Beneficial
Goals of the HF Network (revisited)

1. Share evidence-based HF programs and updates in HF care
2. Understand the context (e.g., facility, culture, leadership style, HF program)
3. Learn about barriers and facilitators to improve HF care
4. Establish collaborations/networking among members of the HF Network
5. Provide opportunities to identify/involve local champions at facilities
Interview: Which goals do YOU think have been achieved by the HF Network at least to a moderate extent?
Interview: What do you believe are the most significant BARRIERS to the success of the HF Network in achieving these goals?

1. Limited time
2. Short-staffed
3. Limited resources/info
4. Poor communication
5. Other (e.g., administrative difficulties in implementing new HF protocols; differences in facilities in pt flow and difficulty translating best practices between facilities)
Interview: What do you believe are the most significant FACILITATORS to the success of the HF Network in achieving these goals?

1. Moral support (supervisory/network)
2. Information on utilization (information or ideas shared with the purpose of future improvements)
3. Forms of Media (which helps disperse information such as phones and emails)
4. Other (e.g., person’s own commitment to HF specialty care; and continuing to hear new ideas in HF care)
Interview: Members’ perceptions of the value of HF Network

- “I have several people calling me...we are sharing a lot of knowledge so everyone doesn’t have to start at “ground zero.” (Nurse Practitioner)

- “What I learn and bring out of the program [session], I usually share with the 2 physician extenders and the other provider.” (Clinician)

- “These national calls are extremely helpful. Like I said, especially to a facility like us where we don’t have the expertise here...we could really be off the mark in our management of what we’re doing here to us.” (Nurse)

- “So to me, it seems like it’s a very nice way for the different facilities to share what’s worked and what’s not worked and to brainstorm and share different ideas, so other people listening can take that and also implement those at their site.” (Pharmacist)
Planning Phase 2: Formative Evaluation of the HF Network
Phase 2: Formative Evaluation Planning

- Survey and interview guide are being finalized to conduct Phase 2 of the formative evaluation.
- RRP proposal has been submitted to seek funding for this evaluation.
- CHF QUERI core funds will also be used.
Phase 2: Formative Evaluation Planning (contd.)

- Mixed methods approach will be used.

**SURVEY:**
- All current HF Network members will complete a web-based survey.
- Non-HF Network members (n=40) will complete a web-based survey.

**INTERVIEW:**
- Selected HF Network members (n=30) will participate in semi-structured phone interviews.
Conclusions

- As a CoP the HF Network has provided an informal forum to share and exchange ideas, and combine tacit and explicit knowledge.
- Variety of activities provide opportunities to members to find “best-fit” in own area of interest.
- Results from formative evaluation will be used to:
  a. Make modifications to improve its value for participating members and VHA leadership;
  b. Growth of similar CoPs within social networks focusing on other health conditions for veterans.
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