



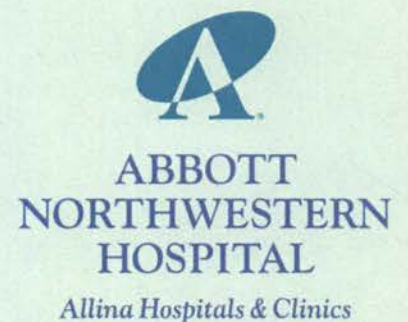
[Robina Foundation](#)

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Robina Foundation Board Visit

April 4, 2011



OUR MISSION

WE SERVE OUR COMMUNITIES BY PROVIDING
EXCEPTIONAL CARE, AS WE PREVENT ILLNESS,
RESTORE HEALTH AND PROVIDE COMFORT TO ALL
WHO ENTRUST US WITH THEIR CARE.



OUR VALUES

INTEGRITY

WE MATCH OUR ACTIONS WITH OUR WORDS.

RESPECT

WE TREAT EVERYONE WITH HONOR, DIGNITY AND COURTESY.

TRUST

WE ACT IN THE BEST INTERESTS OF OUR PATIENTS, PHYSICIANS,
COMMUNITIES AND ONE ANOTHER

COMPASSION

WE CREATE A CARING ENVIRONMENT
FOR OUR PATIENTS AND ONE ANOTHER.

STEWARDSHIP

WE USE OUR RESOURCES WISELY.

Robina Foundation Board Visit Abbott Northwestern Hospital and Allina Hospitals & Clinics

Monday, April 4, 2011
11:30 AM – 7:30 PM

Agenda

Tour of Abbott Northwestern Hospital Campus

11:30 AM – 12:00 PM

Jeff Peterson & Penny Wheeler

Meet in Abbott Northwestern Hospital Main Lobby

Lunch

12:00 – 1:00 PM

Hosted by Ken Paulus & Jeff Peterson

Abbott Northwestern Boardroom

- Introductions
- Overview of Allina Relationships
- Allina and Abbott Northwestern's vision, mission, strategy, and financial status

Attendees: Robina Foundation Board and Rich Meyer, Heather Britt, Marcus Thygeson, Lindsey Niswanger, Ken Paulus, Penny Wheeler, Bob Wieland, Jeff Peterson, Bob Barrows

Robina Care Guides Update and Future Plans

1:00 – 1:30 PM

Kim Radel & Heather Britt

Abbott Northwestern Boardroom

The Center for Healthcare Innovation

1:30 – 2:00 PM

Marcus Thygeson

Abbott Northwestern Boardroom

BREAK

2:00 – 2:15 PM

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The Center for Healthcare Innovation

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Marcus Thygeson

Abbott Northwestern Boardroom

BREAK

2:00 – 2:15 PM

Discussion: Supportive Care

*Eric Anderson, Gayle Mattson, & Sandy Schellinger
Abbott Northwestern Boardroom*

2:15 – 3:15 PM

BREAK

3:15 – 3:30 PM

Discussion: Adaptive Health Practice

*Marcus Thygeson
Abbott Northwestern Boardroom*

3:30 – 4:30 PM

Other Innovations at Abbott Northwestern & Allina:

Telehealth: Creating Regional Systems of Care

*Matt Kolb & Ron Tarrel
Abbott Northwestern Boardroom*

4:30 – 4:50 PM

Shared Decision Making in Oncology

*Tim Sielaff
Abbott Northwestern Boardroom*

4:50 – 5:10 PM

Professional Well-being

*Marcus Thygeson & Heather Britt
Abbott Northwestern Boardroom*

5:10 – 5:30 PM

Conclude and Walk to Dinner

*Jeff Peterson & Rich Meyer
Abbott Northwestern Boardroom*

5:30 – 6:00 PM

Dinner

7th Floor Heart Hospital

6:00 – 7:30 PM

Attendees: Robina Foundation Board Members and Marcus Thygeson, Heather Britt, Jeff Peterson, Rich Meyer, Bob Barrows, Penny Wheeler, Lindsey Niswanger

Robina Foundation Board Visit

List of Attendees

Robina Foundation Participants:

- Susan Berresford
- Kathleen Blatz
- Tom Crosby
- Penny Hunt
- Steven Schroeder, MD
- Nancy Gilberg

Allina Participants:

- Abbott Northwestern:
 - Matt Kolb, JD, MHA
 - Rich Meyer, JD
 - Lindsey Niswanger, MPH, MHA
 - Jeff Peterson, MHA, FACHE
 - Ron Tarrel, DO
 - Bob Barrows, JD
- Allina Hospitals & Clinics
 - Eric Anderson, MD
 - Ken Paulus, MHA
 - Gayle Mattson, RN
 - Sandy Schellinger, NP
 - Tim Sielaff, MD, PhD, MBA
 - Bob Wieland, MD
 - Penny Wheeler, MD
- Center for Healthcare Innovation:
 - Heather Britt, MPH, PhD
 - Marcus Thygeson, MD
 - Kim Radel, MHA

ABBOTT NORTHWESTERN HOSPITAL

Welcome to Abbott Northwestern Hospital

April 4, 2011



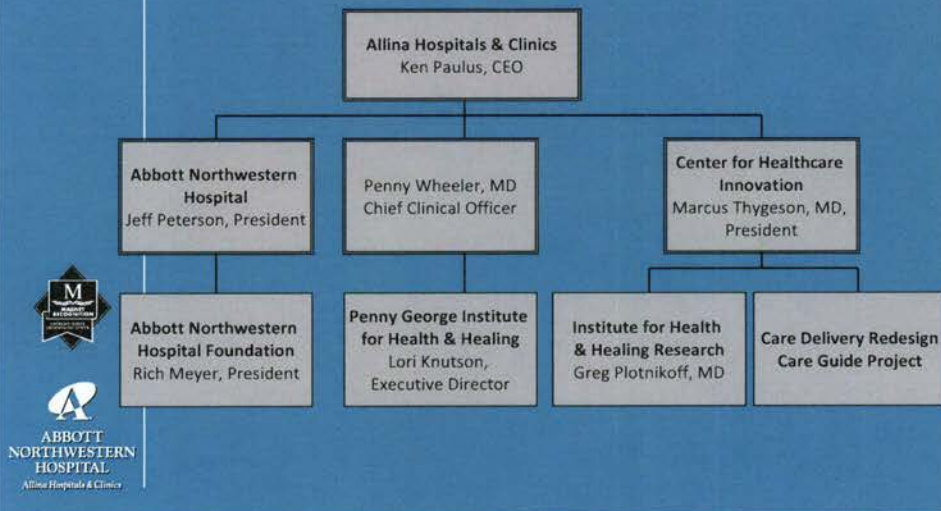
ABBOTT NORTHWESTERN HOSPITAL

Lunch Agenda

- Introductions (Wheeler & Thygeson)
- Overview of Allina Relationships (Thygeson)
- Mission, Vision, Strategy & Financial Status:
 - Allina Hospitals & Clinics (Paulus)
 - Abbott Northwestern Hospital (Peterson)



Overview of Allina Relationships



2011

Allina Hospitals
& Clinics

- 31% market share in the Twin Cities
- 11 hospitals
- ~100 clinics
- 24,000 employees, including 1,000+ physicians
- Home Health Company
- Retail Pharmacy Company
- DME Company
- Ambulance Company
- \$3.2 billion in revenue
- Includes several market leading centers of excellence
 - Virginia Piper Cancer Inst.
 - Minneapolis Heart Inst.
 - Sister Kenny Rehab Inst.
 - Phillips Eye Institute

Health Care Reform: How Will the System Change?

<i>From</i>		<i>To</i>
Fragmented Care		Coordinated Care
Organized Around Providers		Organized Around Patients
Payment for Volume		Payment for Value
Facilities Focused		Care Systems Focused
Physician Accountability		Care Team Accountability
Paper		Electronic
Episodic Hospital-Based Care Models		Longitudinal, Multi-site Care Models
Inconsistent Variable Care		Efficient Evidence Based Care

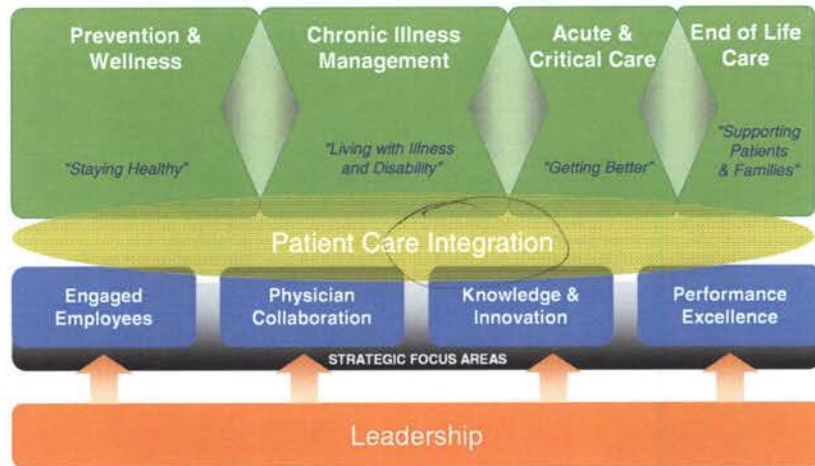
*Our goal
is to
close the
gap...*

*Docs will have more patients, but team to manage.
Care Guides = future*

Our Mission

*We serve our communities by providing
exceptional care, as we prevent illness,
restore health and provide comfort to all
who entrust us with their care*

*A vision of seamless care that is patient centric,
high quality, affordable and pro-active*



Planks in the strategy platform

*Better care, better service, better value will drive
community, organizational, financial health and will lead
to growth...*



What Will Allina Stand For?

→ More beyond acute care

Care Navigation and Patient Advocacy

- The healthy enrolled in a health portal before they are sick
- Patients with chronic illness connected to a care coordinator
- Complex patients using clinical service lines assigned a patient navigator
- Skilled Nursing Facility patients and the frail elderly managed by senior care advisors
- End of life patients and families supported by palliative care and home based hospice

Unparalleled Access to Care

- Health portal for health assessment, information and family health management
- Health and fitness partnership
- Nurse triage
- Retail health
- Primary care team 'model of the future'
- Distributed urgent care
- High performing emergent care

The Best Caregivers

- Recruit and retain the best primary caregivers in the region
- Partner with the best independent specialists via two means
 - Network
 - Clinical Service Line Partnership
- Partner with regional providers/PHOs to create comprehensive geographic distribution
- Integrate these caregivers into a 'virtual' high performing health network

The Right Care, at the Right Time, at the Right Place

- Strong relationships with regional care delivery systems to care for patients close to home
- Community hospital excellence serving as a hub for secondary care
- Tertiary and quaternary expertise that is high volume and high value
- Integrated via technology to render care seamless and to support easy movement of knowledge – eICU, Telehealth

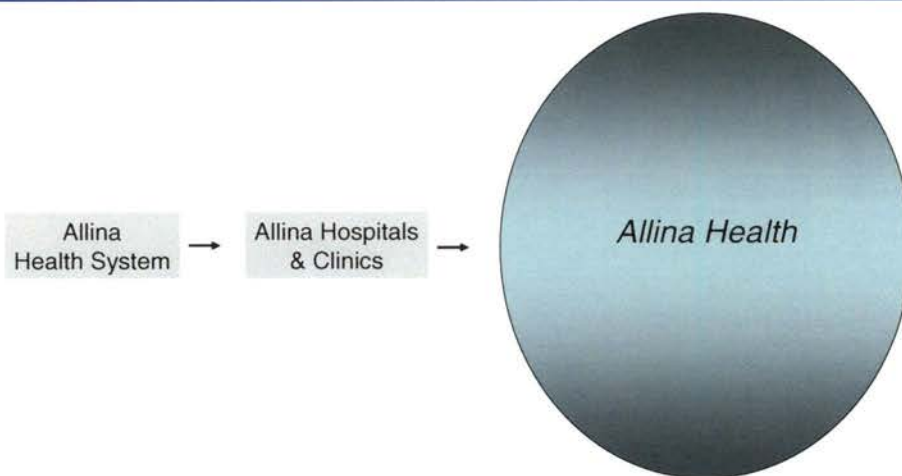
Empowering Partnerships with our Community

- Take risk for the health of a population or community
- Work hand in hand with community leaders to advance health and reduce illness
- Integrate our community and employee engagement efforts through volunteerism and linkage to our mission

What Will Allina Stand For?

- *Care Navigation and Patient Advocacy*
- *Unparalleled Access to Care*
- *The Best Caregivers*
- *The Right Care, at the Right Place, at the Right Time*
- *Empowering Partnerships with our community*

Allina Health



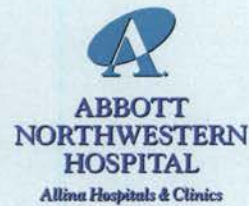
Role of Abbott Northwestern Hospital

- Unassailable excellence in areas of acute and critical care – Cancer care, neurosciences, cardiovascular care, obstetrics and perinatology
- Partnership with the community through primary care integration
- Moving to a knowledge utility that is designed to put patients in the best position for optimal health – bringing together these two forces to transcend the traditional definition of a hospital

ABBOTT NORTHWESTERN HOSPITAL

Welcome to Abbott Northwestern Hospital

April 4, 2011



ABBOTT NORTHWESTERN HOSPITAL

Overview of Abbott Northwestern

- Size and scope:
 - Twin Cities' largest not-for-profit hospital
 - 639 staffed beds/952 licensed
 - Caring for more than 200,000 patients and their families in the Twin Cities and the Upper Midwest each year
 - Approximately 5,425 employees, 1,550 physicians and 660 volunteers and auxiliaries
 - Diverse workforce with 20+ languages spoken



Abbott Northwestern Centers of Excellence



- Medical/Surgical Services
- Minneapolis Neuroscience Institute
- Minneapolis Heart Institute
- Orthopaedic Institute
- Sister Kenny Rehabilitation Services
- Spine Institute
- Virginia Piper Cancer Institute
- WomenCare
- Mental Health Services
- Institute for Health & Healing

largest in country

Recognized for Excellence



- Named one of the nation's 100 Top Hospitals® for cardiovascular care in 2008 by Thomson Healthcare
- ANCC granted Abbott Northwestern Magnet Recognition Program™ status
 - This achievement is reached by fewer than 5 percent of all U.S. hospitals
- Ranked one of the Top 100 Hospitals to Work for nurses in by *Nursing Professionals* magazine

Recognized for Excellence, cont..

- The Minnesota Women's Press honored two of Abbott Northwestern's Centers of Excellence in their "What Women Want! 2009" issue
 - The Penny George Institute for Health and Healing
 - The Virginia Piper Cancer Institute's Piper Breast Center
- The *U.S. News & World Report* "America's Best Hospitals" for six years in a row with recognition for
 - Digestive disorders,
 - Geriatric care,
 - Heart and heart surgery,
 - Neurology and neurosurgery, and
 - Orthopedics



Recognized for Excellence, cont...

- *U.S. News & World Report's* 2010 - 2011 "America's Best Hospitals" Abbott Northwestern rankings:
 - #38 in neurology & neurosurgery
 - #39 in heart & heart surgery
 - #44 in orthopedics
- Signature Programs & Services:
 - Cool-it
 - iMRI
 - Complex Valve Program
 - CV Stem Cell Research
 - Individual Brain Tumor Vaccine



ABBOTT NORTHWESTERN HOSPITAL

Financial Overview

ANW Revenue & Expenses (000's omitted)

	<u>2010</u>	<u>2009</u>	<u>2008</u>
Net Patient Revenue	\$875,198	\$849,648	\$801,671
Other Operating Revenue	\$32,654	\$33,507	\$28,468
Net Operating Revenue	\$907,851	\$883,154	\$830,139
Total Operating Expenses	\$797,119	\$764,906	\$738,095
EBIDA	\$110,731 (12.2%)	\$118,248 (13.4%)	\$92,095 (11.1%)
Net Income	\$51,034 (5.6%)	\$48,389 (5.5%)	\$21,259 (2.6%)



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Allina Hospitals & Clinics

30% of Allina

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Financial Overview, cont...

ANW Key Volume Indicators

	<u>2010</u>	<u>2009</u>	<u>2008</u>
Inpatient Admissions	37,800	39,225	39,766
Average Length of Stay	4.40	4.37	4.47
Average Daily Census	455.5	469.2	485.7
Outpatient Encounters	365,796	365,987	361,626
Births	4,011	4,211	4,324
ED Visits	44,385	46,329	46,575
Total Surgeries	22,118	22,614	22,883



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2011 Strategic Plan

- Demonstrate Differentiating Value
- Design For Patient Centered Care
- Support Advancement of Clinical Model
- Grow Market Share of Services




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Altimira Hospitals & Clinics

2011 Strategic Plan

Demonstrate Differentiating Value:

- Develop sophisticated understanding of cost-to-serve and margins for services provided at ANW
- Develop understanding of value equation tying economics with outcomes and share with care providers
- Trial new payment models (e.g., warranties) in line with clinically advanced care in key Clinical Programs/Centers of Excellence




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2011 Strategic Plan

Design For Patient Centered Care:

- Invest in ANW facilities such that the physical functionality and experience support the high standard of care provided
- Develop models to improve patient education and navigation of care within ANW, across Allina services, and with non-Allina providers of services
- Coordinate with other business units in order to fully & appropriately utilize ANW to support optimal patient care



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Allina - 161 days of cash reserves

2011 Strategic Plan

Support Advancement of Clinical Model:

- Create position of clinical program development to drive program development, outcomes and research
- Develop ANW as the Allina focal point for advanced tertiary and quaternary services and clinical service line innovation (e.g., telemedicine, eICU, and other mechanisms that extend its clinical expertise)



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2011 Strategic Plan

Grow Market Share of Services:

- Enhance regional, national and international outreach efforts
- Invest in market research activities with patients and primary care to understand needs and to guide overall communication efforts that increase awareness of ANW's differentiating characteristics
- Develop stronger relationships with primary care physicians employed by Allina, and with Allina's continuum partners



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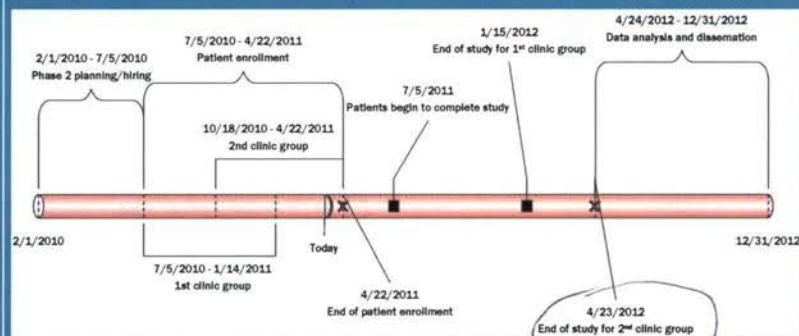
Robina Care Guides Update & Future Plans

Kim Radel and Heather Britt



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Phase 2 Timeline



Phase 2 Study Clinics, Enrollment

- 12 care guides
- 3 diverse clinic cultures

Clinic	Care Guide	Control	Total	Goal	%
Aspen - Bandana Square	241	119	360	360	100%
AMC - Cottage Grove	239	120	359	360	100%
AMC - Faribault	347	167	514	540	95%
AMC - Hastings	327	159	486	540	90%
ANGMA - Edina	240	117	357	360	99%
TOTAL	1394	682	2076	2160	96%

- AMC-Hastings is actively enrolling



Phase 2 Expenses

Jan 2010 – March 2011	Actual	Budget
Salaries	\$792,468	\$1,718,307
Expenses (mileage, supplies, U of MN contract)	\$343,523	\$287,188
Facility upgrades	\$55,390	\$122,600
Clinic reimbursement	\$294,538	\$562,500
Project to date	\$1,485,919	\$2,690,595
Total Phase 2 (yrs 2010-12)		\$4,746,421



Phase 2 Patient Stories

- Patient experience
 - Priorities: eating healthy, exercising and losing weight
 - Care guide and patient agreed to weekly follow up phone calls
 - Checking blood sugar regularly, cutting back on carbohydrates
 - >3 months, patient is down 26 pounds
 - Never felt happier, healthier; never would have happened without care guide
- Physician response
 - "I cannot believe that this patient has lost weight, I have been trying to get her to lose weight for 3 years."



Phase 2 Patient Stories

- Patient experience
 - 20 year smoker, several quit attempts
 - Told care guide ready to try to quit again
 - When asked what motivated him to want to quit, the patient replied:
 - "My motivation to quit smoking was you. Someone is watching over my health now, so I better start taking care of it."



Phase 2 Initial Results

- Care guide patients improved care goals
- Phase 1 results showed that care guides had a significant improvement on patients with hypertension
- Phase 2 shows that care guides have an impact on hypertension and diabetes



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Internal/Local Dissemination

- Learning sessions about pilot results and preliminary RCT results
- Continued employment of care guides
- Expansion of condition scope: smoking cessation, COPD, asthma
- Care guides included in care management design
- 10 FTEs budgeted for inclusion in Allina's medical home model
- Hennepin County Medical Center has hired community health workers to serve as care guides



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Rel by
Allina

External Dissemination

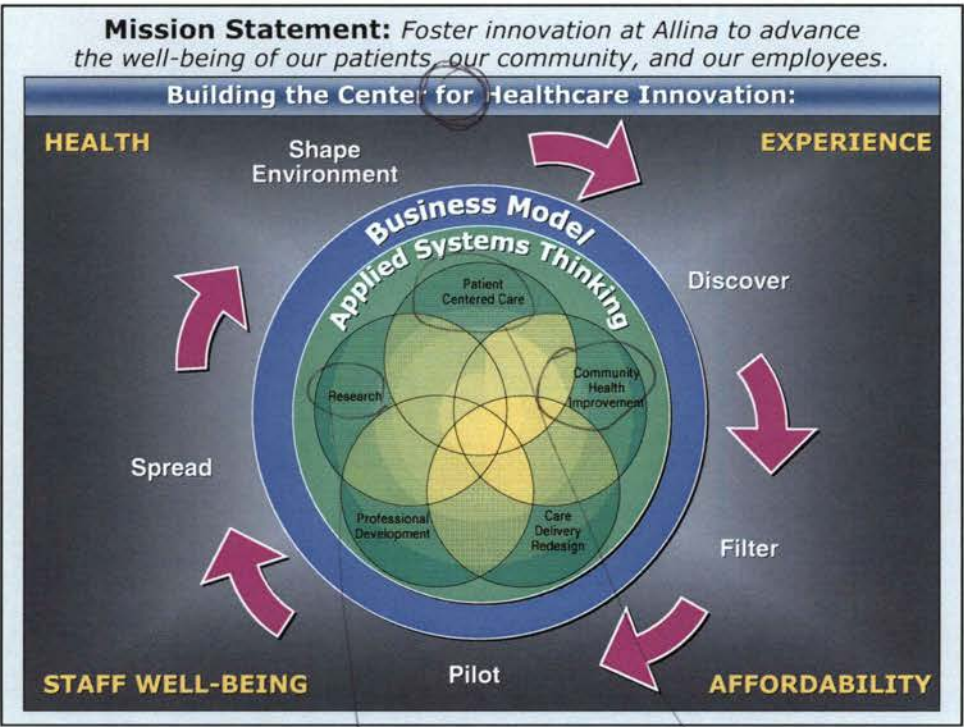
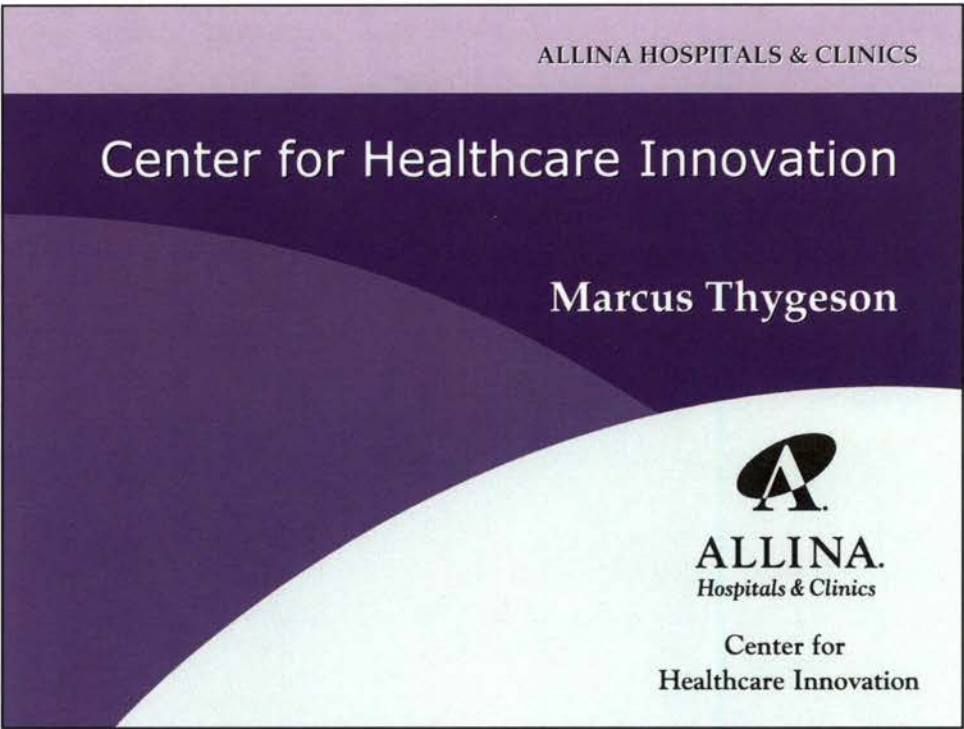
- Publications and presentations
 - Outcomes, implementation
- Initiation of payer conversations to identify how care guides can be part of a 'total cost of care' model
 - BCBS of MN, Medica, HealthPartners
- Partnership with Stratis, MN's QIO
 - Dedicated website
 - Toolkit
 - Outreach campaign



CMS Designer

National
network

\$for dissemination?



\$5m/yr from Allina

\$2.5m/yr - grants

Trying to get endorsement

Total Budget ~\$8m

PG Institute

Shared Decision - Mkey

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Late Life Supportive Care: *Transforming the End of Life Experience*

Eric Anderson, Gayle Mattson,
and Sandra Schellinger



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A Patient's Changed Journey

- Chuck was 81 years old: a father, a veteran, a man of strong faith.
- He was an engineer who loved to golf, fish, and work in his woodshop.
- He died at home of heart failure last month, 12 years after a kidney transplant.
- In his last year of life, Chuck and his wife faced many challenges.



The Triple Aim for Chronic Illness

Institute of Medicine

Supportive Care

1. Improving the individual experience of care
2. Improving the health of populations, and
3. Reducing the per capita costs of care for populations

1. Care based on patients' values and wishes.
2. Access to good end of life care for all patients.
3. Matching care to patient's values and wishes



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82% of hospice patients =
Kaiser

> 40% of people eligible
for hospice get it

Challenge

- Patients and caregivers have limited access to late life supportive care services.
- Individuals, who have a life-limiting condition, do not have a consistent and meaningful way to have their values and wishes understood and to share in care decisions.
- The result is often poor experiences for patients, caregivers, and the healthcare teams that support them at one of the most vulnerable times of life.



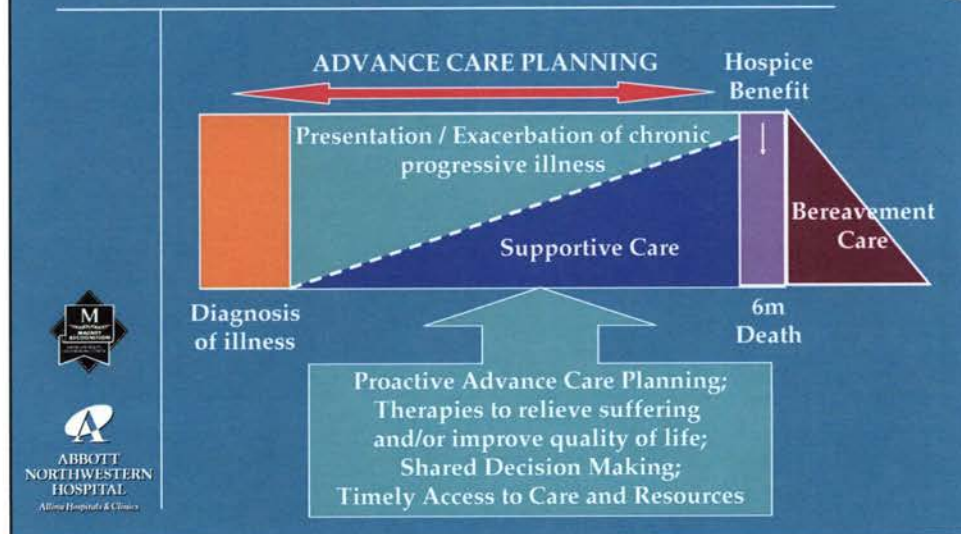
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Hospice = median = 21 days (old cover 6 mos)
\$60/day

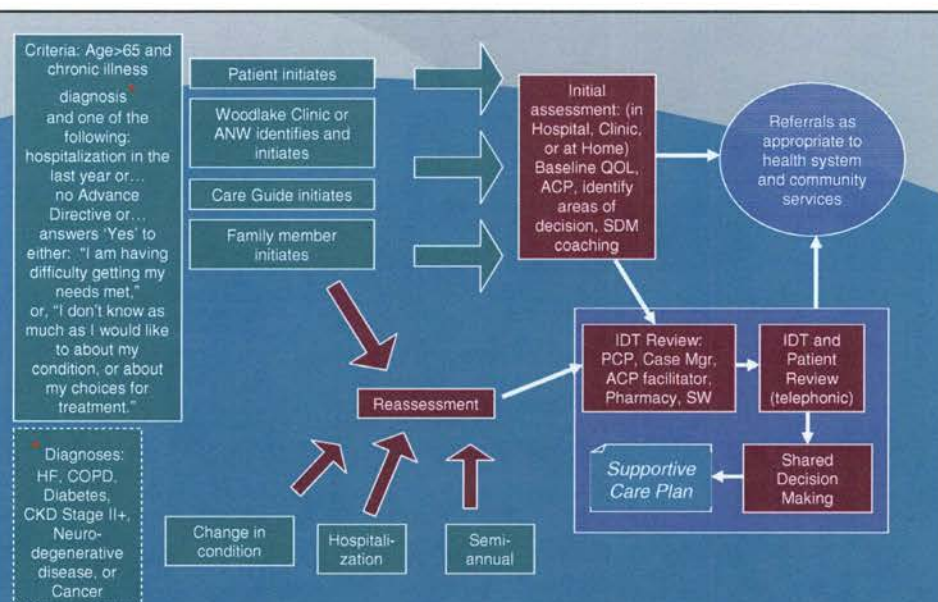
Current State: End of Life Care



Best Practice: End of Life Care



- 



Supportive Care: The Patient Care Process



Supportive Care

- Disease Specific Advance Care planning
- Quality of life assessment
- Shared Decision making
- Interdisciplinary team supportive care plan
- Social work referral
- Spiritual care referral
- Physical Therapy
- Advance Care Plan review
- Palliative Care consultation
- Proactive discussion re: end of life care
- Hospice care and support in the last 60-90 days of life
- Anticipatory Grief support for spouse



Design & Methods

- Phase I:
 - Complete design of model and pilot test at ANW and Woodlake.
 - Pre-post design for evaluation, comparing patients with concurrent and historical controls.
- Phase II:
 - Implement at another metro hospital, regional hospital, and across all 3 medical groups.
 - Employ a robust evaluation design.
 - Launch cooperative discussions with local payers to develop business model.
 - Partner in engaging the Twin Cities community in a public dialogue around end of life issues.



Timeline

- Phase I: January 2012 – June 2013
 - Preparation:
 - Observation and description of best practice
 - Adaptive health leadership training
 - Culture shift preparation
 - Model refinement
 - Decision aid(s) selection
 - Electronic health record tool development
 - Training of participating providers and staff
 - Test/Assessment
 - Implementation of model in two pilot sites
 - Pre-post evaluation
- Phase II: July 2013 – December 2014



Key Outcomes

- *Patient quality of life*
- *Hospice use, length of stay, and death in hospice*
- *Hospital use, length of stay, and death in hospital in last 6 months of life*
- Patient and caregiver experience
- Self-efficacy of care team
- Individual wishes honored
- Total cost of care in last 6 months of life
- Total inpatient stay costs compared to patients not receiving these services
- Health care team satisfaction with model



ANW/Allina's Qualifications

- Advance care planning infrastructure
- Plan for a patient and family advisory group for late life care
- Current business model
- Organizational leadership
- Human capital
- Well-suited pilot sites
- Opportunity to advance current work



> ~~Essential~~ prep m/g/ae

Discussion



What's unique? Currently piecemeal. Bld reliable model.
Serve patients + families. Coming - earlier w/ bdr menu.
Implementation experiment.
Cultural shift. Sustainable. Public Dialogue.

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Adaptive Health Practice: *Transforming Primary Care*

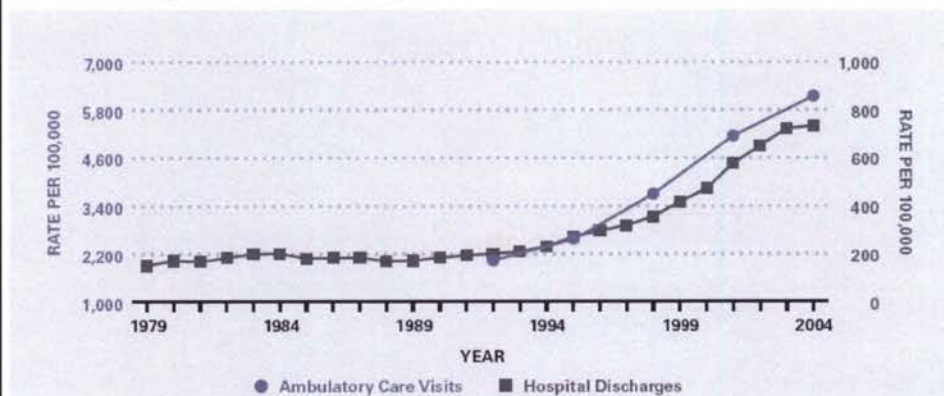
Marcus Thygeson



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The Heartburn Epidemic

Figure 1. Gastroesophageal Reflux Disease: Age-Adjusted Rates of Ambulatory Care Visits and Hospital Discharges With All-Listed Diagnoses in the United States, 1979–2004



SOURCE: National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS) (averages 1992–1993, 1994–1996, 1997–1999, 2000–2002, 2003–2005), and National Hospital Discharge Survey (NHDS)

The Challenge

- Modifiable health status:
psychosocial → behavior → health
- We're not very good at health promotion
- We're really good at using medical technology to treat illness
- Over-use of technology + ineffective health promotion → waste and harm




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Substituting Technology for Behavior Change in Primary Care

- | | |
|----------------------|-----------------|
| • Diabetes | • Heart disease |
| • Hypertension | • Heartburn |
| • Lipid disorders | • Arthritis |
| • Obesity | • Back pain |
| • Metabolic syndrome | • Depression |




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Talk Doesn't Pay, So Psychiatry Turns Instead to Drug Therapy



Richard Perry/The New York Times

"I had to train myself not to get too interested in their problems, and not to get sidetracked trying to be a semi-therapist." DR. DONALD LEVIN, a psychiatrist whose practice no longer includes talk therapy.

By GARDINER HARRIS

Published: March 5, 2011

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The Vision

- What if we implemented a new care model, Adaptive Health Practice, that
 - Helps our patients make the environmental, social, and behavioral changes needed for them to be as healthy as possible
 - Uses technology judiciously to promote health, manage illness, and avoid both short and long-term harm
 - Integrates with the "sick care" system but is health focused




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Like a garden trellis—guiding our patients' healthy growth



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Adaptive Health Practice

People face adaptive and technical challenges:

- Technical challenges respond to technical solutions
- Adaptive challenges require adaptive work
- Adaptive work is resisted
- A common error is using technical interventions to address adaptive challenges



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- 
- M**
MAGNET
ACADEMY



Adaptive Health Practice

- Correctly distinguish technical and adaptive challenges
- Use technology judiciously
- Facilitate adaptive work



What's Required

- Design adaptive practice routines
- Train staff on AHP, behavior change, and social interventions
- Change the systems to support adaptive practice routines
- Change the financial incentives
 - Payers: pay for value, not throughput
 - Compensation models: pay for time and outcomes, not RVUs
- Change the culture of health care



Electronic
Records

Changing Health Care Culture

Current Assumptions	Adaptive Health Practice Assumptions
Providers (experts) dispense health.	People produce their own health. Providers facilitate self-healing and provide excellent sick care when necessary.
Patients are not able to change their behavior or social systems.	Patients can do the adaptive work to change their behavior and social systems.
Provider attempts to get patients to change behavior are not effective.	Providers can facilitate patient adaptive work and behavior change.
Health care technology is efficient and effective. More is better.	Health care technology helps and harms. Less is often more.
Patient relationships are important, but not paramount.	Patient relationships are our most important therapeutic tool.



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Principles of AHP

1. Mindfulness
2. Maintain a healing relationship
3. Distinguish between adaptive and technical challenges and work
4. Give the adaptive work to the person who has to do it



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Regulate the Heat; Manage Conflict



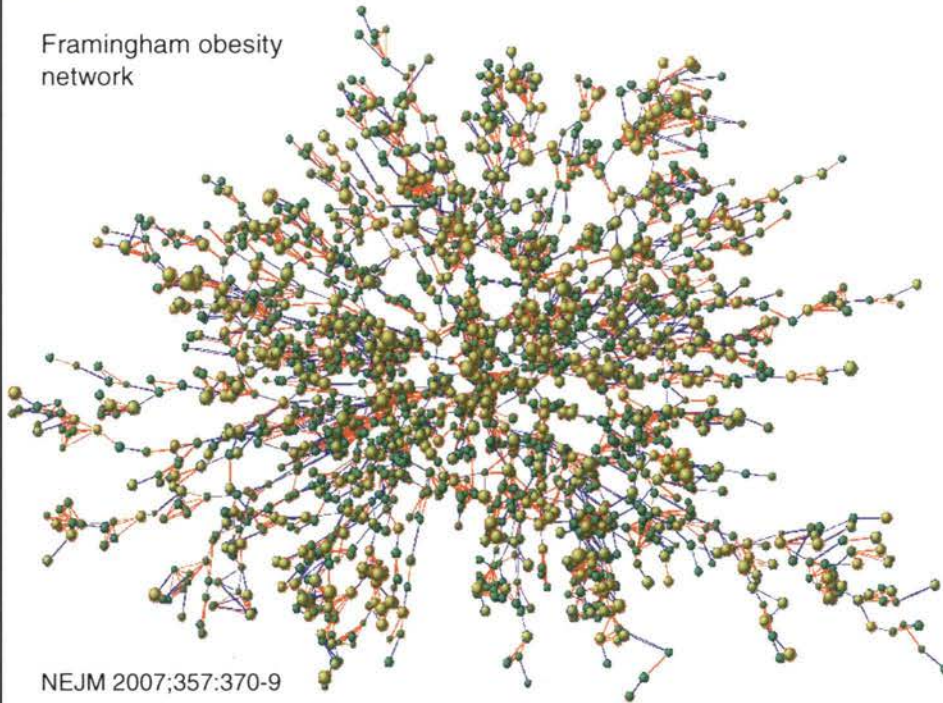
Example: SOAP*—Old and New



	Traditional	AHP
S	Standard history	Assess health beliefs, social support and network, family and work systems, patient complexity, detailed lifestyle inventory
O	Standard physical and diagnostic testing, (PHQ-9 in MN)	Actionable information about adaptive capacity and social network/support.
A	Diagnosis, prognosis	Distinguish adaptive and technical challenges explicitly.
P	Treatment, referrals, testing	Support adaptive work. Minimum necessary technical interventions.

*SOAP = Subjective, Objective, Assessment, and Plan

Framingham obesity network



NEJM 2007;357:370-9

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Project Phases

- Design phase (12 months)
- Pilot and refine it—three possible pilot sites:
 - New employee wellness clinic at ANW
 - New primary care clinic in White Bear Lake
 - New wellness clinic within existing Woodbury clinic
- Spread



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HOSPITAL
Allina Hospitals & Clinics

Design Team

- Patients
- Pilot site care teams
- Expert consultants
 - Adaptive leadership
 - Social epidemiology
 - Developmental psychology
 - Behavior change
- IT/EMR staff (Excellian, or a different EMR?)
- Payer relations
- HR staff
- Design and architecture staff



Design Phase Milestones

- Specification of AHP practice routines
- Care team design
 - Composition
 - Selection criteria
 - Training program
- Modification of systems
 - EMR
 - Patient education
 - Billing and administration
- Selection and training of staff
- Negotiation with payers
- Proposal and budget for pilot phase



Measures of Success

- Patient experience
- Patient behavior change
- Patient social network or social support change
- Technical quality measures
- Utilization
- Provider engagement and burn out
- Care team structure and function



Why Allina

- Thought leadership
- Organizational commitment to
 - Adaptive leadership
 - Transformation
 - Health focus
 - Community engagement
 - Patient-centered care
- Proven ability to deliver



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Discussion




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Regional Systems of Care & Telehealth

April 4th, 2011



Telehealth Goals and Objectives

Enhance patient care and clinical outcomes – *right care.*

Keep care local while providing all needed expertise – *right place.*

Provide timely and differentiating care and service in markets where availability of specialists is limited – *right time.*



Tele-Stroke Program

Stroke System of Care (Neuroscience & Spine Clinical Service Line)

–If United States Healthcare is headed toward a model that eliminates fragmentation and emphasizes continuity and cooperation, stroke care may lead the way in making a difference in patients lives.

•*HealthLeaders Magazine, June 2010*

Planned Measures of Success	Allina Network Baseline Performance*
Stroke CMS Optimal Care Performance	11%
TPA administration rate (eligible patients)	27.1%
Door-to-needle time	83 minutes
Specialists response time	TBD (awaiting data)
Provider/Patient experience	TBD (awaiting data)

* Includes Allina metro hospital performance

2



Regional System of Stroke Care

Allina Stroke Care Network

Comprehensive Stroke Centers

(Abbott Northwestern and United Hospitals)

- 24/7 Neurology Coverage
- Advanced Medical Imaging
- Interventional Neuroradiology

Primary Stroke Centers

(Mercy and Unity Hospitals)

- 24/7 Neurology Coverage
- Advanced Medical Imaging

Urgent and Emergency Care

(Regional Hospital Partners and Emergency Medical Services)

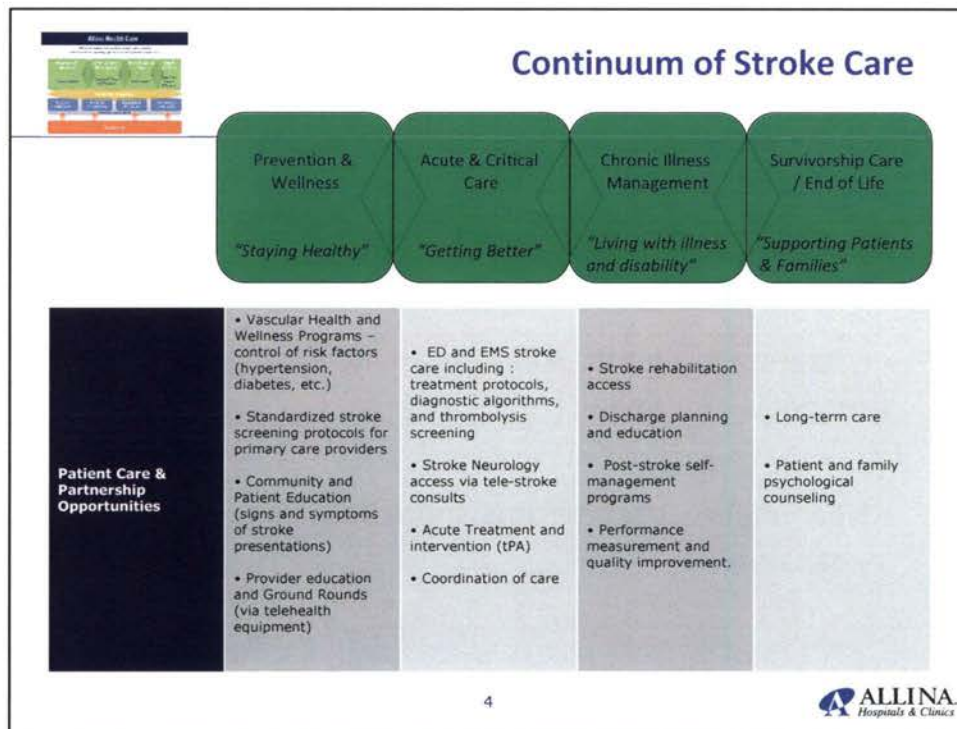
- Acute care consultations
- Treatment protocols



The regional stroke network – using telehealth as a supporting communication and assessment platform – will improve timeliness of stroke care, coordination of services, and ultimately enhance both patient experience and outcomes.

3





Program Value - Higher Quality & Lower Cost

Tele-Stroke/Neurology Experience To-Date

- Clinical Diagnoses
 - Bell's Palsy; Transient Ischemic Attack
- Patient Experience
 - Keep care local
 - "Having the neurologist diagnose my symptoms saved my life." – patient treated with IV tPA at New Ulm and transferred to stroke center.
- Physician Experience
 - Support and consultation for atypical patient presentation

Tele-Mental Health/Assessment & Referral Experience To-Date

- Pilot Program at Buffalo Hospital
- High Consult Volume

5

ALLINA
Hospitals & Clinics

Research Opportunities & Expansion

- Measuring patient and family satisfaction
- Understanding physician experience, adoption and decision-making
- New telehealth programs, innovation, and expansion

6

Thank you for your time



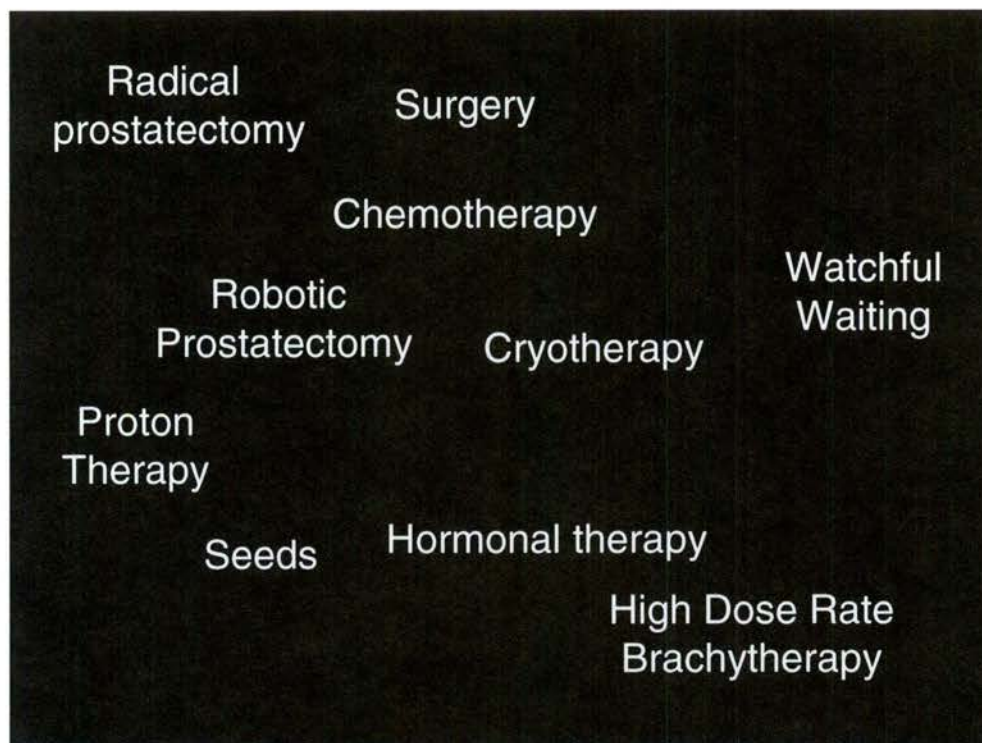
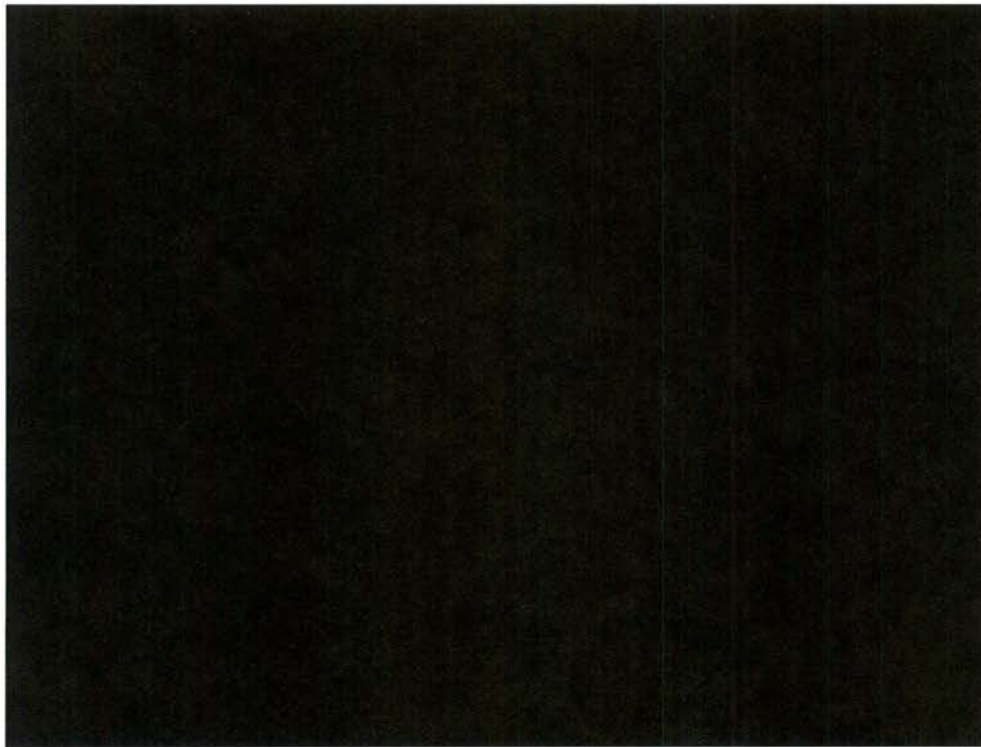
7

Shared Decision Making in Cancer

Timothy Sielaff, MD, FACS

Marcus Thygeson, MD

“I’m sorry,
but the biopsies showed
cancer.”



Surgery

Chemotherapy

Mastectomy

Implant

Modified radical

Lumpectomy

Neoadjuvant Chemo XRT

Saline

Hormonal therapy

Partial breast
irradiation

High Dose Rate
Brachytherapy

Shared Decision Making

Reliable collaboration

Well informed

Science, Values and Preferences

Vision

Every cancer patient

Every clinician

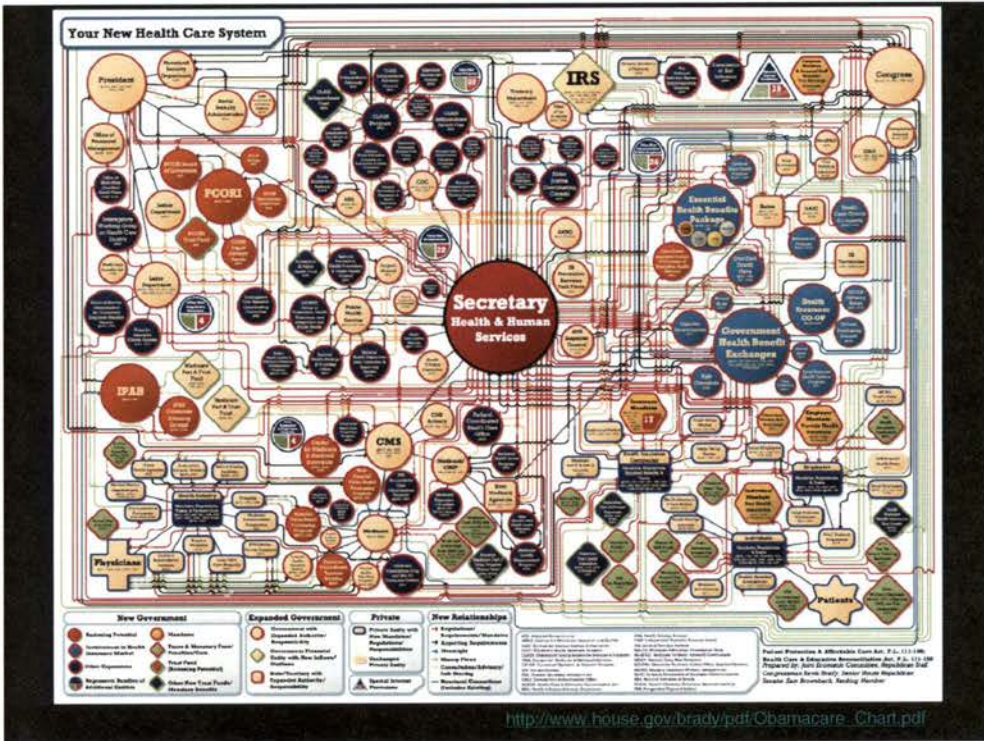
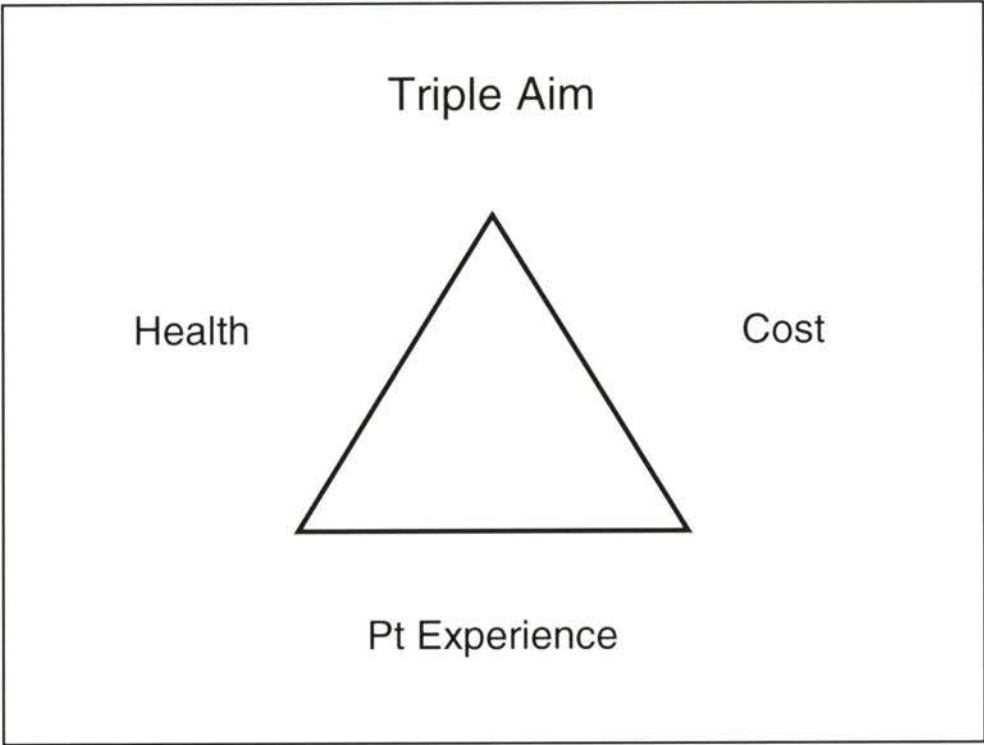
Tools - best decisions *across
the continuum*

Vision

No decisions w avoidable ignorance

No more care than desired

No less care than necessary



We will lead
the quality agenda.

Continuum of Cancer Care

Prevention/Early detection

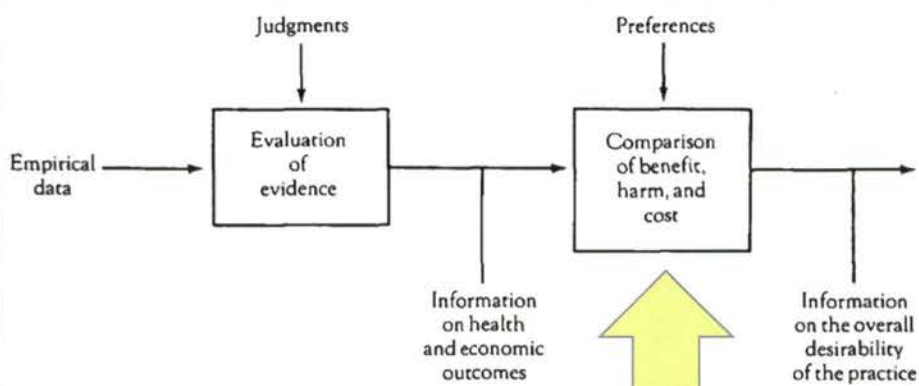
Acute care

Survivorship

End of life

The best decision

Exhibit 1
Steps In Determining Appropriate Practices



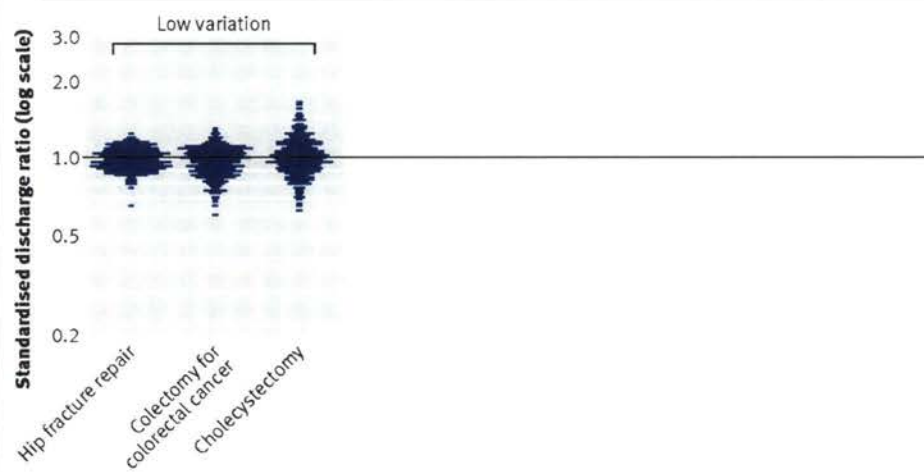
Source: D.M. Eddy, Center for Health Policy, Duke University.

“We already do this.
Right?”

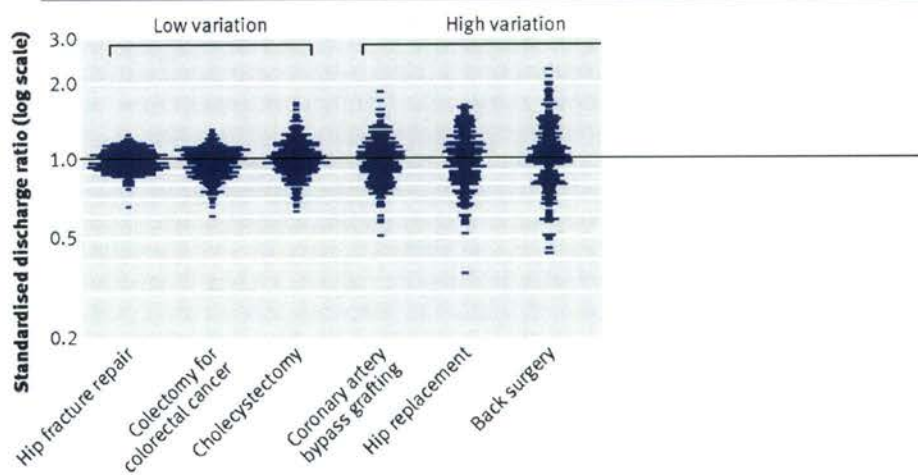
Breakdown.

Variation

Highly variable - 2009

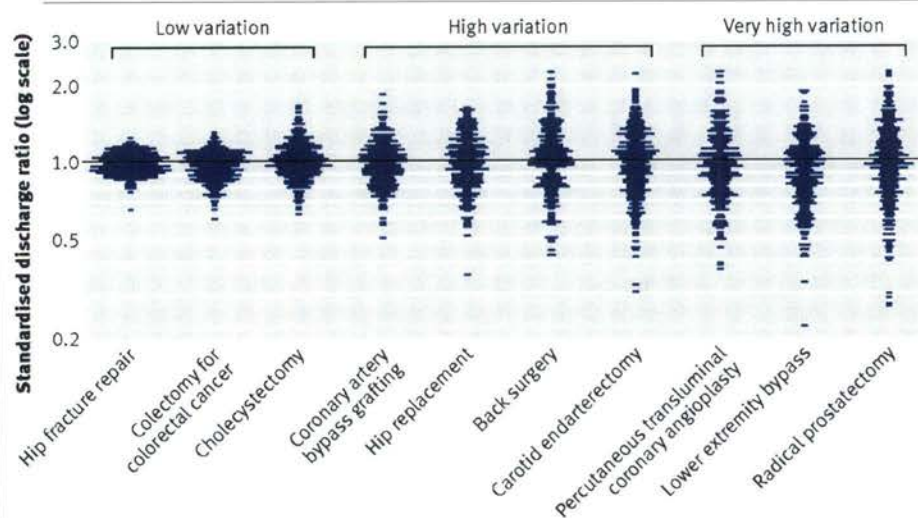


Highly variable - 2009



<http://www.bmj.com/content/339/7728/Analysis.full.pdf>

Highly variable - 2009



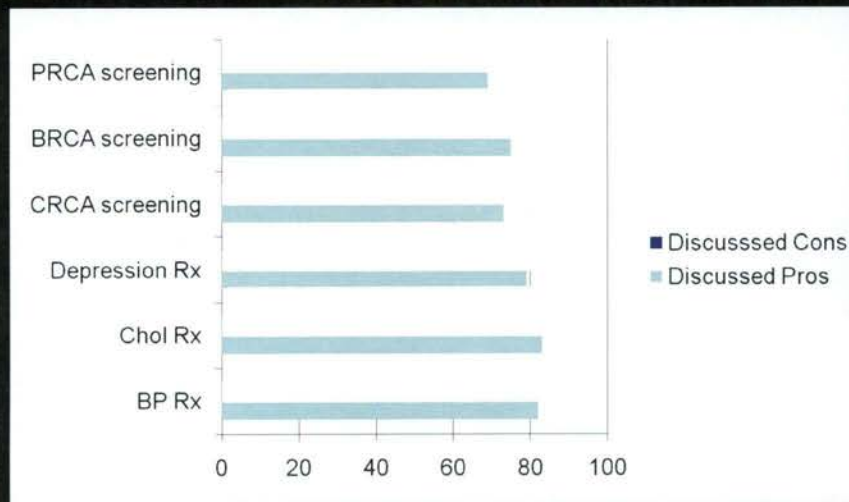
<http://www.bmj.com/content/339/7728/Analysis.full.pdf>

Why?

Preference sensitive care.

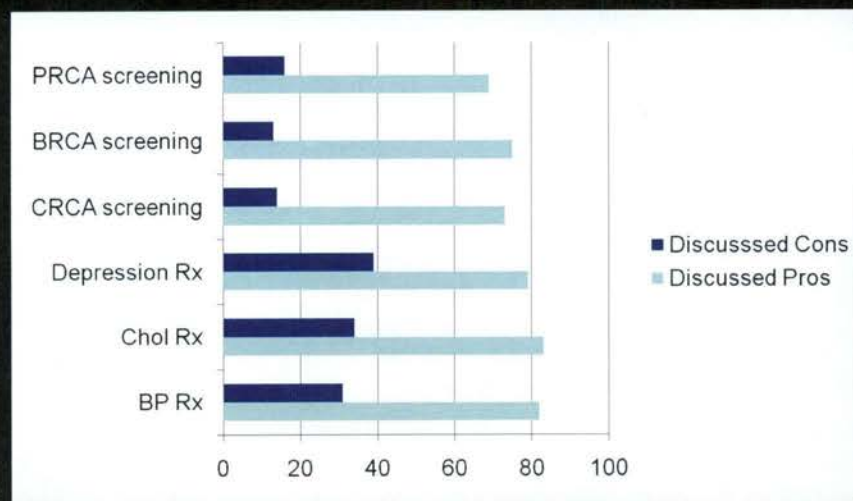
Whose preferences?

Patient's Perception Pros and Cons



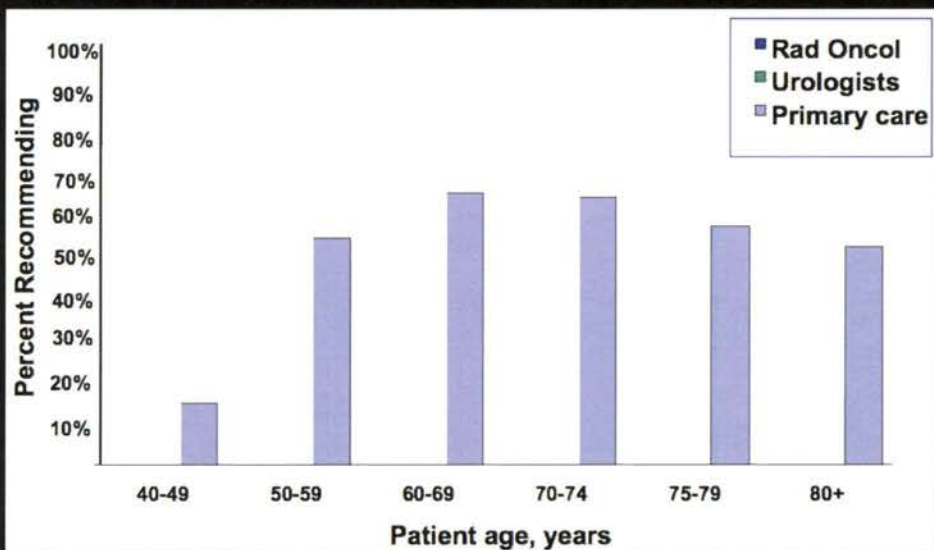
The DECISIONS study. Medical Decision Making 30(S1), Sep-Oct, 2010

Patient's Perception Pros and Cons

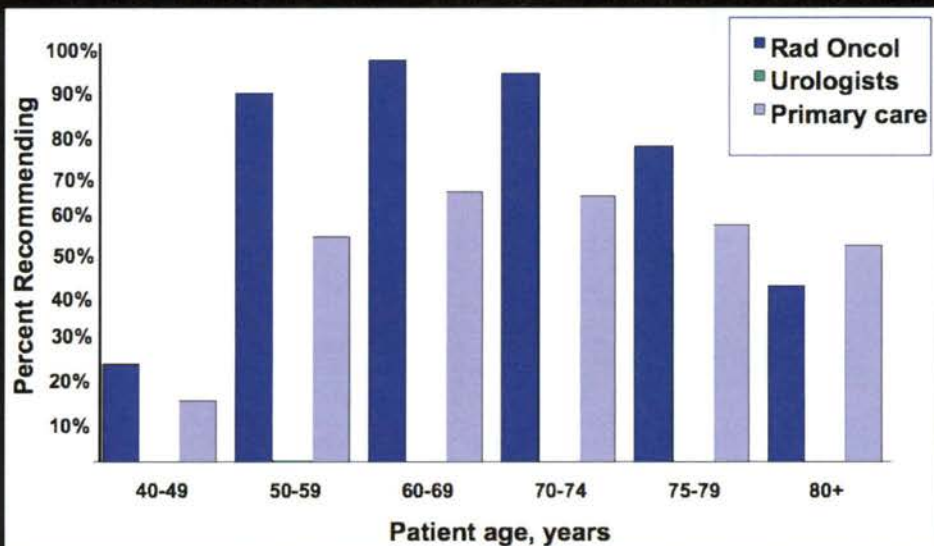


The DECISIONS study. Medical Decision Making 30(S1), Sep-Oct, 2010

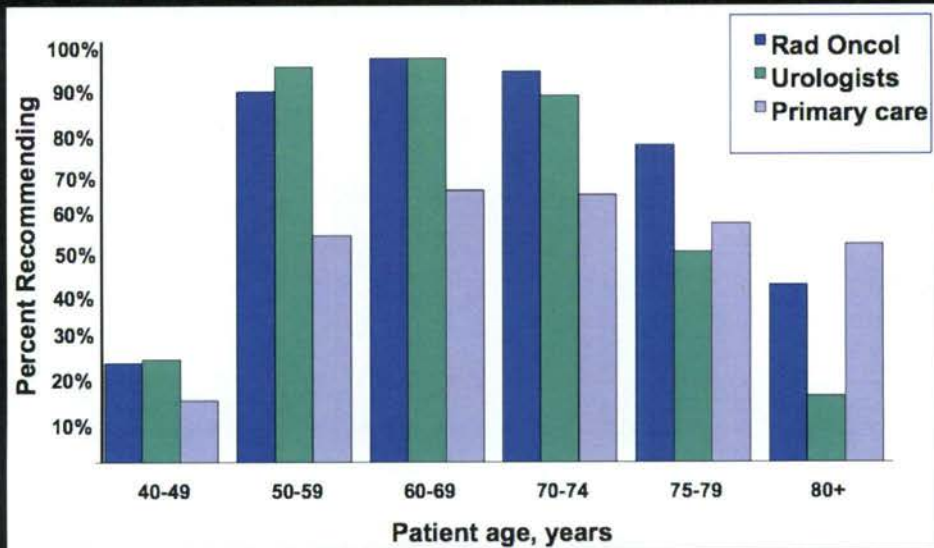
Screen this cohort - PCa?



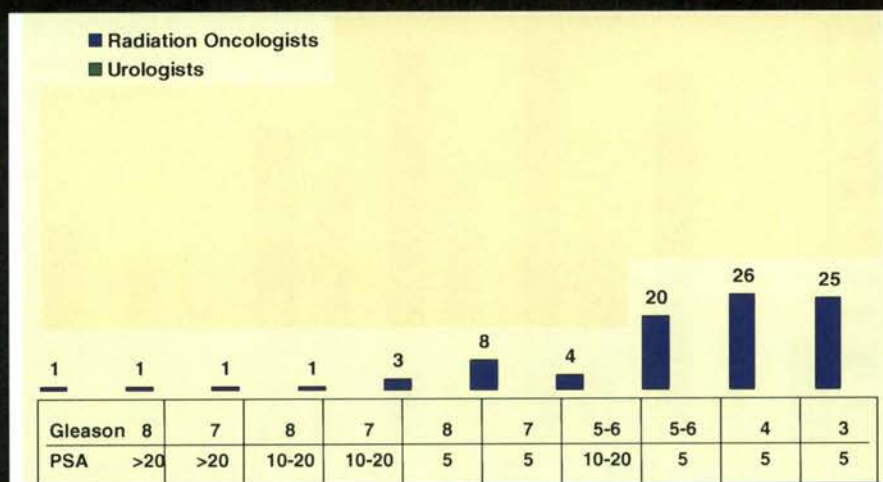
Screen this cohort - PCa?



Screen this cohort - PCa?

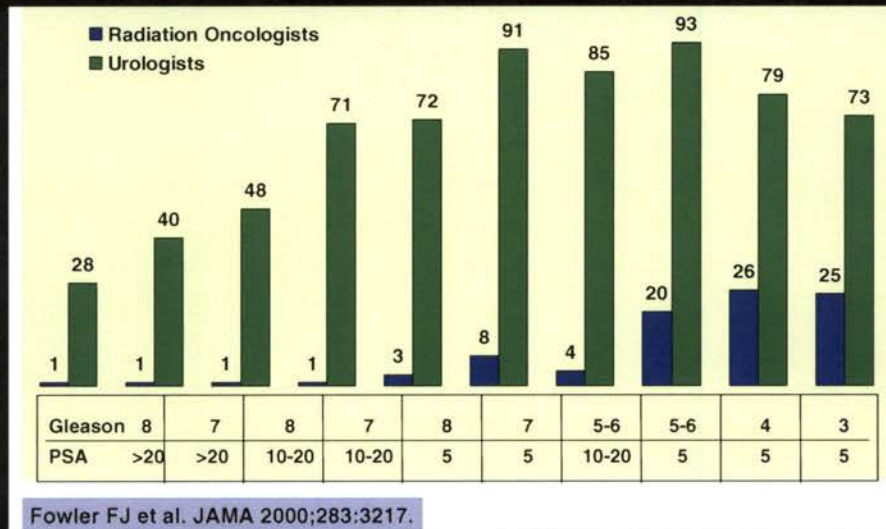


Localized PCa - Radical Prostatectomy



Fowler FJ et al. JAMA 2000;283:3217.

Localized PCa - Radical Prostatectomy



Do we understand
patient's preferences?

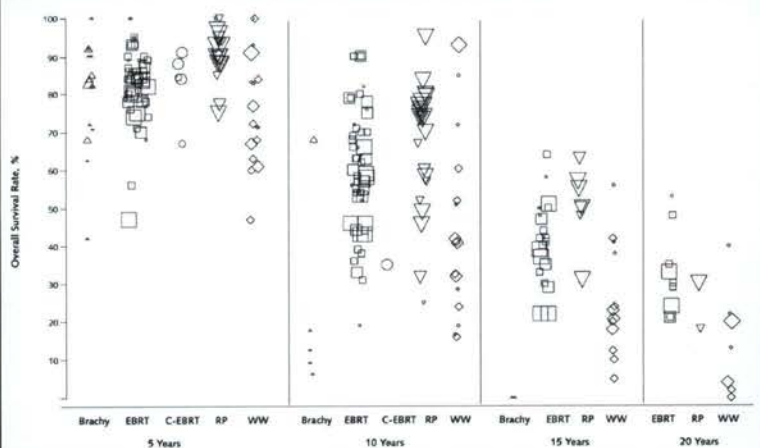
Prostate Ca Treatment Options

- △ Brachytherapy
- ▽ Radical prostatectomy
- External-beam radiation therapy
- Conformal external-beam radiation therapy
- + Nerve-sparing radical prostatectomy
- ◇ Watchful waiting

Ann Intern Med. 2008;148:435-448

Survival

Figure 1. Overall survival at time points, by treatment, from nonrandomized studies.

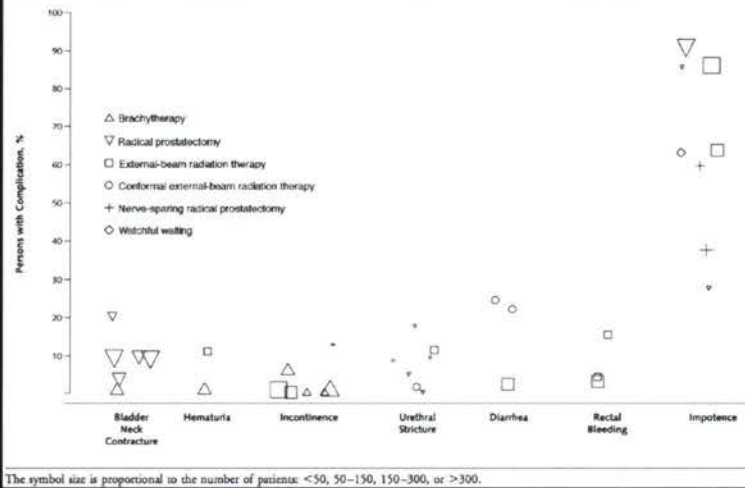


The symbol size is proportional to the number of patients: <50, 50-150, 150-300, or >300. Brachy = brachytherapy; C-EBRT = conformal external-beam radiation therapy; EBRT = external-beam radiation therapy; RP = radical prostatectomy; WW = watchful waiting.

Ann Intern Med. 2008;148:435-448

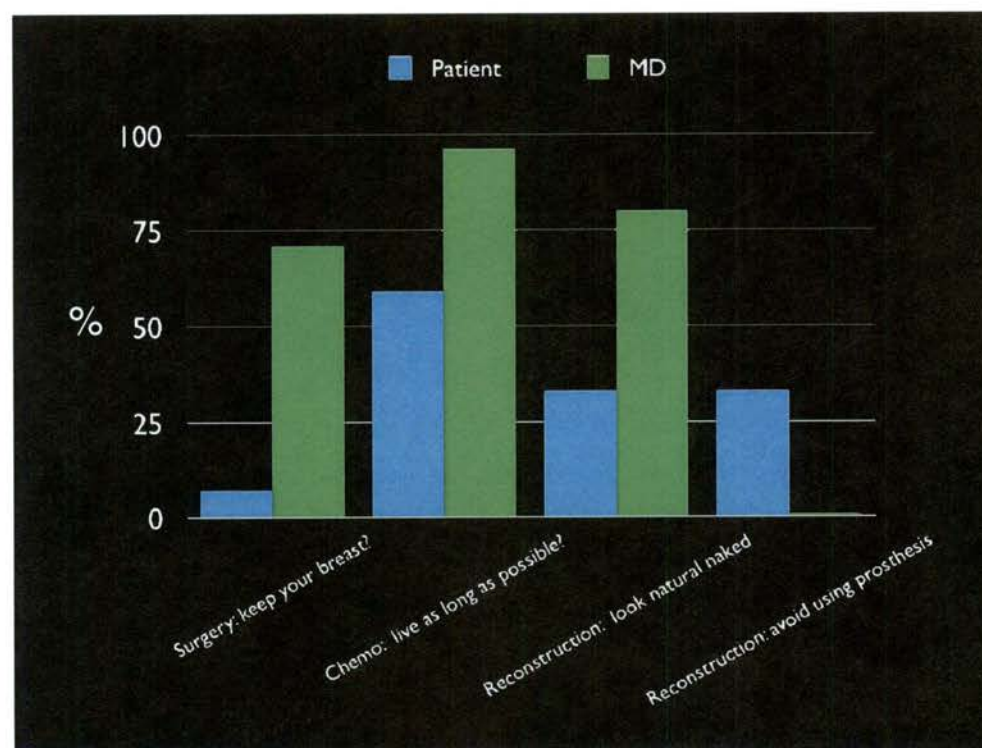
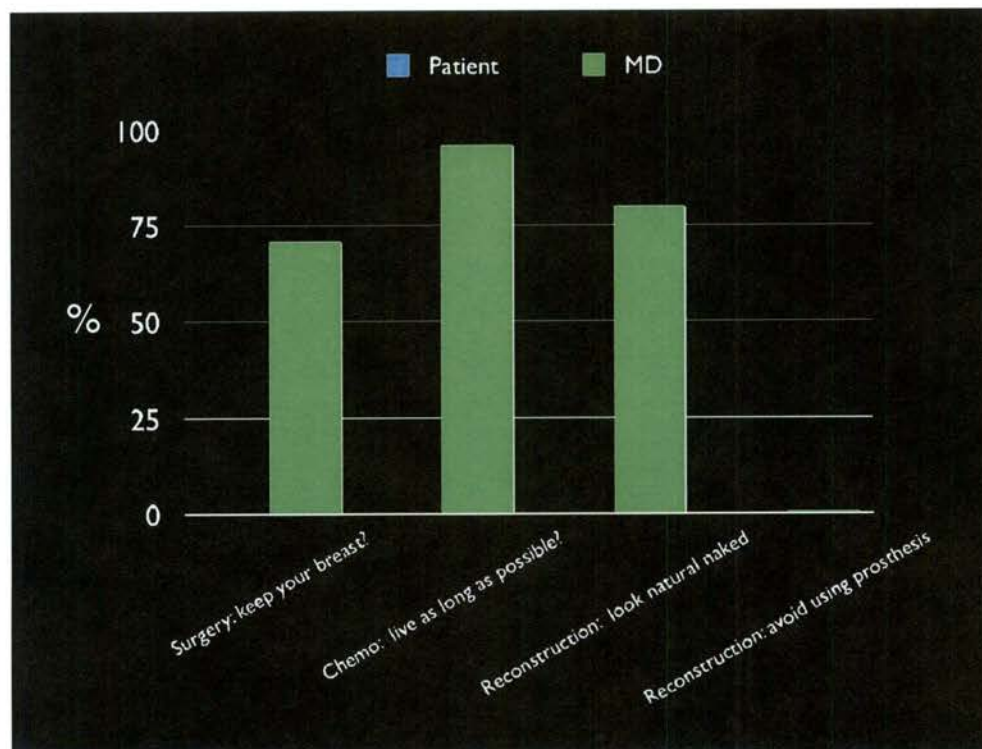
Complications

Figure 2. Complications of brachytherapy, radical prostatectomy, external-beam radiation therapy, conformal external-beam radiation therapy, nerve-sparing radical prostatectomy, and watchful waiting from nonrandomized studies.



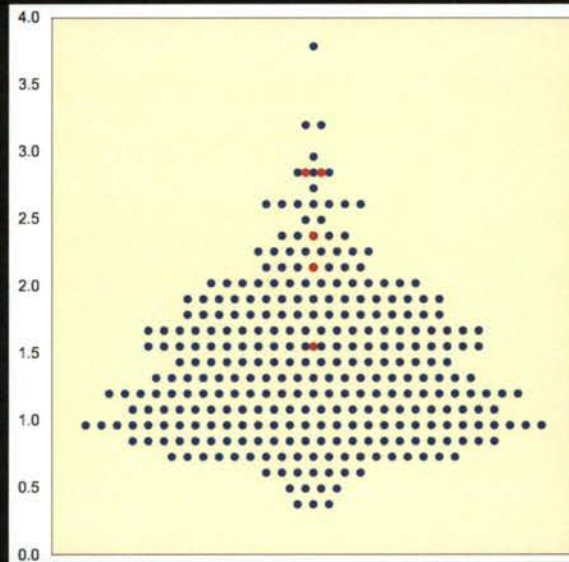
Ann Intern Med. 2008;148:435-448

Top Concerns
about Breast Cancer ...



Radical prostate / 1000 Medicare Beneficiaries

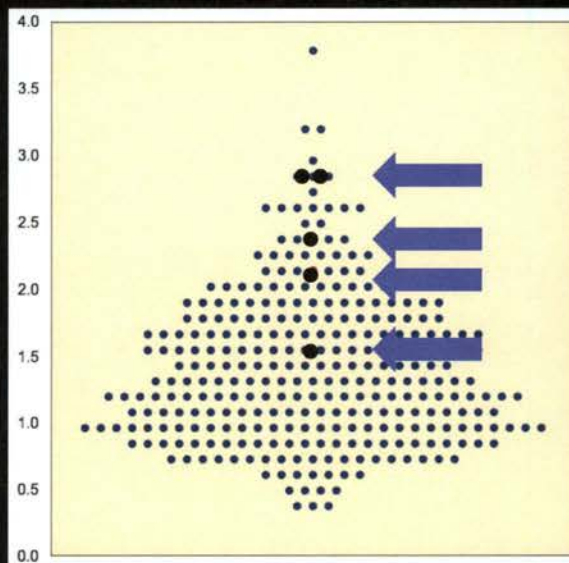
MN HRR 2003 -2007



Improving Patient Decision-Making in Health Care- A 2011 Dartmouth Atlas Report Highlighting Minnesota

Radical prostate / 1000 Medicare Beneficiaries

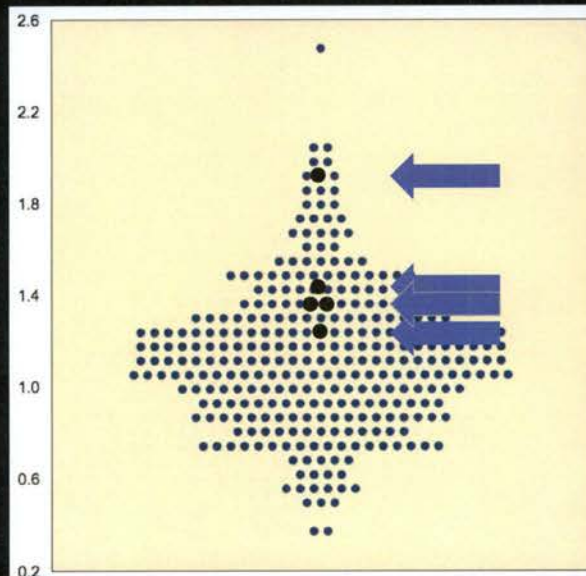
MN HRR 2003 -2007



Improving Patient Decision-Making in Health Care- A 2011 Dartmouth Atlas Report Highlighting Minnesota

Mastectomy per 1000 Medicare Beneficiaries

MN HRR 2003 -2007



Improving Patient Decision-Making in Health Care- A 2011 Dartmouth Atlas Report Highlighting Minnesota

Multiple decision points

Prevention/
Early detection

Should I be screened?

Acute care

Which treatment?

Survivorship

Surveillance

End of life

Where/how?

Shared Decision Making

One decision.

Across the continuum,
Multiple sequential decisions.

Transformational.

CSL Programs

We all
can use some
help.



Thank you.

ALLINA HOSPITALS & CLINICS

Physician and Staff Well-being: *A Strategic Priority for Allina and Abbott Northwestern Hospital*

Marcus Thygeson & Heather Britt



ALLINA.
Hospitals & Clinics

Center for
Healthcare Innovation

CENTER FOR HEALTHCARE
INNOVATION

The Dream

- *"Create a healing environment where passionate people thrive and excel ..."*
- *"We commit to meet the expectations and act in the best interests of our patients, physicians, communities and one another."*



ALLINA.
Hospitals & Clinics
Center for
Healthcare Innovation

--The Allina Vision and Values Statements

The Reality

- 49% of physicians said that over the next three years they plan to reduce the number of patients they see or stop practicing entirely.
- 60% of doctors would not recommend medicine as a career to young people.
- 42% of physicians said the professional morale of their colleagues is either "poor" or "very low". Only 6% of physicians described the professional morale of their colleagues as "positive."



--The Physicians Foundation

The Reality (continued)

- 78% of physicians said medicine is either "no longer rewarding" or "less rewarding."
- 76% of physicians said they are either at "full capacity" or "overextended and overworked."



--The Physicians Foundation

Effects of Burnout

- Poor health, depression, suicide, substance abuse
- Marital and family dysfunction
- Lost productivity—increases burden on others
- Unprofessional behavior adversely affects other team members
- Ceiling on patient experience
- Adverse impact on patient safety and other quality indicators



CHI Provider Well-Being Program

Specific aims:

- Develop a conceptual model for well-being, its antecedents and determinants.
- Develop a measurement instrument to assess provider well-being and important covariates, such as burnout, work-family balance, and engagement.
- Determine the relative contributions of individual-level, clinic-level, and organizational-level factors to well-being.



CHI Provider Well-Being Program

Specific Aims (continued):

- Assess the effectiveness of a wide-range of interventions currently underway, planned and in development to improve well-being.
- Assess the effect of differential levels of provider well-being on key performance metrics including quality, patient experience, operational efficiency, and total cost of care.
- Inform the development of a strategic initiative to improve provider well-being and morale so that Allina and ANWH becomes the destination healthcare employer in Minnesota

Robina Care Guides Update and Future Plans

UPDATE

Enrollment in Phase II of the Robina Care Guide randomized control trial is proceeding at an exceptional pace. We have enrolled 96% of the total patients for the study and enrollment will end on April 22, 2011. Five clinics are engaged in the trial, representing three diverse clinic cultures at Allina (Abbott Northwestern General Medicine Associates, Allina Medical Clinic, and Aspen Medical Group). Twelve care guides are employed in this phase of the work. Expenses continue to run under budget. Baseline data have been collected and the collection of the first quarter data is proceeding as scheduled, including regular audits of data quality by peer care guides and supervisors. Preliminary analysis of changes between baseline and first quarter reveal that care guide patients improved care goals. Phase 1 results showed that care guides had a significant improvement with patients facing hypertension, while Phase 2 is showing, preliminarily, that care guides have an impact on hypertension and diabetes.

Two patient stories reveal the quality of the impact care guides are having on individual patients:

After 20 years of smoking and several attempts to quit, one patient told his care guide that he was ready to try to quit again. When asked what motivated him to want to quit, the patient replied, "My motivation to quit smoking was you. Someone is watching over my health now, so I better start taking care of it."

Another patient working with a care guide had decided that eating healthy, exercising and losing weight were her health priorities. She was worried about developing diabetes. The care guide and patient agreed to weekly follow-up phone calls, and the patient is checking her blood sugar regularly and cutting back on her carbohydrates. After three months, the patient is down 26 pounds and has never felt healthier or happier. The patient stated this would never have happened if not for her work with a care guide. When the physician was told about this result, he responded, "I cannot believe that this patient has lost weight. I have been trying to get her to lose weight for 3 years." He also noted that the care guide had built trust and taken time with the patient that he just could not offer.

FUTURE PLANS

Allina is continuing to proceed with internal dissemination of the learnings from the pilot phase, as well as the preliminary analysis of the randomized trial data. The Medicine Clinic, site of the pilot phase, continues to employ care guides in their work and the clinical team is adding new conditions to the scope of care guide work, including smoking cessation, chronic obstructive pulmonary disease and asthma. Allina's care management team is integrating care guides into additional primary care settings, and the clinical leadership for medical home has budgeted for 10 care guides to be integrated into primary care teams. Locally, Hennepin County Medical Center has hired community health workers to serve as care guides in their facility.

In addition to local dissemination, Allina is continuing to proceed with an emphasis on publications around the care guide experience – both around implementation of the role, as well as outcomes from the pilot phase. We will employ the same model for the results of the randomized trial. The care guide model is being presented locally and nationally at professional conferences. In the future, we will initiate conversations with local payers (e.g., BlueCross BlueShield of Minnesota, Medica, HealthPartners) to discuss how care guides can be part of a total cost of care model that improves health, experience and affordability for patients. We will also partner with Stratis Health, Minnesota's Quality Improvement Organization, to develop a statewide and nationwide dissemination plan to include the launch of a dedicated care guide website, a care guide toolkit (e.g., job description, interview questions, training curriculum, electronic health record tools), and an outreach campaign to Minnesota provider groups and hospitals, as well as other quality improvement organizations and networks across the country.

Timing?

Budget?

Employees?

The Center for Healthcare Innovation

THE CENTER

The mission of the Center for Healthcare Innovation is to foster innovation at Allina, and in healthcare generally, to improve the well-being of our patients, our community, and our employees. The work of the Center is funded out of the operating margin of Allina Hospitals & Clinics, and from research and programmatic funding from numerous government, corporate, and philanthropic institutions.

The Center is focused on what we like to call the “quadruple aim”: improving population health, patient experience, affordability, and healthcare workforce well-being. We have multiple strategic projects underway that address one or more of these goals. Underlying all the work we do is a commitment to rigorous scientific research and evaluation, and to sharing what we learn with others. Major areas of focus include patient-centered care, care delivery redesign, community health improvement, professional development, and building innovation capacity. Major projects we are engaged in are briefly described below.

CARE DELIVERY REDSIGN

The Care Guides Project

The first phase of this project involved piloting implementation of Care Guides, lay people trained to help people with chronic illnesses improve their care. The second phase is now underway, with a randomized, controlled trial evaluating the impact of Care Guides on quality of care and costs, compared to control clinics.

End-of-life Care

We are working in partnership with Allina’s Home and Community Care Division to evaluate the impact of their Advanced Care Planning program. ?

Team Care and Medical Home

We are partnering with the Ambulatory Division at Allina Hospitals & Clinics to evaluate several new staffing models being piloted in primary care.

COMMUNITY HEALTH IMPROVEMENT

The Heart of New Ulm

We are completing the third year of this 10 year project working in partnership with the community of New Ulm, a town of 15,000 people in Southern Minnesota, to “eliminate” deaths from premature coronary artery disease. The project has three program arms—a community engagement arm (promoting healthy behavior in the community), a worksite health promotion arm (promoting healthy behavior in the worksite), and a clinical arm (working with the physicians to promote heart healthy behavior and improve management of coronary artery disease risk factors). Early results suggest that the incidence of heart attacks in New Ulm has decreased about 25% since the project started.

The Backyard Initiative

This project is also in its third year. We are working with the 45,000 people living in the 7 neighborhoods immediately around Abbott Northwestern Hospital and the Allina Commons to improve the health and healthcare of this ethnically diverse and economically challenged community. To date we have supported the community in completing a community health assessment and launching a wide variety of health improvement projects.

SHARE

This is a community health improvement initiative just getting underway in partnership with Blue Cross Blue Shield of Minnesota, to promote colon cancer screening. We will be developing and implementing community-based communications and engagement screening promotion campaigns in 2-4 Minnesota communities, coupled with clinic-based shared decision making regarding evidence-based screening options. Goals are to increase colon cancer screening rates, and normalize shared decision making in the primary care clinics.

PATIENT-CENTERED CARE

Shared Decision Making

See the **SHARE** project described above. In addition, we are working with the Oncology Service Line to introduce SDM into breast and prostate cancer care, with the intention of spreading this approach across the entire service line. We also intend to expand the number of preference-sensitive decisions for which SDM is available in primary care. The Cardiology Service Line is also interested in exploring this.

Improving Pain Management Experience at United Hospital

We are piloting an innovative change management method called Positive Deviance at United Hospital to help the nurses improve the inpatient pain management patient experience scores.

PROFESSIONAL WELL-BEING

Physician job satisfaction and burnout

Job dissatisfaction and burnout are widespread in medicine and nursing, and contribute to a wide variety of problems including depression, suicide, substance abuse, premature retirement, unprofessional behavior, and suboptimal clinical performance. Most large healthcare organizations like Allina use generic employee engagement surveys to assess employee engagement. These surveys are not specific to health care, and do not adequately measure physician job/role satisfaction. The standard survey tool for identifying burnout, the Maslach Burnout Inventory, is good for identifying staff who are already suffering from burnout, but does not help us identify precursors of the condition or staff who are at risk, so we can intervene early. We are beginning a research program to develop a physician-specific job satisfaction survey that can be used to accurately assess this phenomenon, understand its dynamics, and evaluate responses to interventions. We also intend to develop a similar tool for nurses.

Professional Fellowship Program

We are currently fundraising to create an ongoing set of fellowships for nurses and physicians that will enable clinicians interested in research or quality improvement to take some time away from their usual duties to pursue promising lines of inquiry. In so doing, we hope to cultivate new investigators, build internal capacity, and promote professional development.

INNOVATION CAPACITY

Design Consultant Program

We are initiating an internal design-thinking consultancy, to work with front-line staff and identify and address “low-hanging fruit” redesign opportunities that will improve care or experience, or reduce costs. We intend to build this program so that eventually it can meet the needs of the entire Allina Hospitals & Clinics system.

RESEARCH

Applied Research

Our team of investigators conducts original health services and population health research, and also serves as a consulting unit to assist investigators throughout the Allina system. Current areas of focus include the topics listed above, as well as innovative methodologies such as social network analysis, data mining, agent based modeling, and qualitative comparative analysis.

Research Administration

The Center supervises research administration for Allina Hospitals & Clinics. We manage the three Allina Institutional Review Boards, administer sponsored projects, and oversee research compliance for the entire system.

Executive Summary: Systems Approach to Late Life Supportive Care

CHALLENGE

Patients and caregivers (i.e., family members, close friends) have very limited access to late life supportive care services. Individuals, who have a condition that is life limiting, do not have a consistent and meaningful way to have their values and wishes understood and to share in care decisions made in concert with their healthcare team. Further, even when advance care plans exist for these individuals, they often contain insufficient information to inform decisions providers have to make resulting in health care systems providing potentially unwanted care. The result is often poor experiences for patients, their caregivers, and the healthcare teams that support them at one of the most vulnerable times of life.

VISION

We aim to implement a comprehensive late life supportive care approach that yields reliable access for all patients with life-limiting serious illness, enables shared decision making through Advance Care Planning and needs assessment, and results in the most appropriate patient-determined care choices.

PATIENT POPULATION

The patient population targeted for supportive late life care includes individuals over the age of 65 who have a chronic illness diagnosis and one of the following: have been hospitalized in the past year, are lacking an advance directive, or answer 'yes' to either 'I am having difficulty getting my needs met' or 'I don't know as much as I would like to about my condition or about my choices for treatment.' The chronic illness conditions included for these patients are: heart failure, chronic obstructive pulmonary disease, diabetes, chronic kidney disease stage II or greater, neuro-degenerative disease, or cancer.

MODEL SUMMARY

Allina's model for late life supportive care includes an initial patient or provider initiated referral for and performance of a supportive care assessment, followed by an interdisciplinary team review of the assessment results and a shared decision-making process with patients, families, and care team members to determine necessary action steps. This process will involve appropriate care continuum partners as is warranted. In addition, reassessment of patients will occur annually or dependent upon a change in condition.

DESIGN and METHODS

In an approach similar to the 'Care Guides in the Primary Care Clinic' proposal previously funded by the Robina Foundation, we will employ a two phase approach for this effort. In Phase I, we will complete design of the model and pilot test the approach at Abbott Northwestern Hospital and Allina Medical Clinic Woodlake (Woodlake). We will use a pre-post design for evaluating the impact of the pilot, comparing patients with both concurrent and historical controls, where appropriate and feasible. In Phase II, we will target implementation at another metro hospital, another regional hospital, and across all three major medical groups at Allina. We will employ the most robust evaluation design possible in this scenario. Further, we will launch cooperative discussions with local payers to allow

How does this fit into Allina's Advanced Care planning program?

for the development of a robust business model to supportive late life supportive care. Phase II will also include the engagement of the metro Twin Cities community in a public dialogue around end of life issues and the need for a supportive care approach, confronting the ethical care issues of the balance between autonomy and social justice. Following Phases I and II, we will complete a sustainable system-wide rollout of this model across Allina Hospitals & Clinics.

A Systems Approach to Late Life Supportive Care

CHALLENGE

Patients and caregivers (i.e., family members, close friends) have very limited access to late life supportive care services. Individuals, who have a condition that is life limiting, do not have a consistent and meaningful way to have their values and wishes understood and to share in care decisions made in concert with their healthcare team. Further, even when advance care plans exist for these individuals, they often contain insufficient information to inform decisions providers have to make resulting in health care systems providing potentially unwanted care. The result is often poor experiences for patients, their caregivers, and the healthcare teams that support them at one of the most vulnerable times of life.

Chuck's Story

Chuck was 81 years old: a father, a veteran, a man of strong faith. He was an engineer on secret government projects who loved to golf, fish, and work in his woodshop. He died at home of heart failure last month, 12 years after a kidney transplant.

In his last year of life, Chuck and his wife faced the following challenges:

- *His medical problems were getting worse, including heart failure and rejection of his transplanted kidney.*
- *He and his wife made an emotionally difficult move from their town home to Assisted Living.*
- *They lost contact with friends from their old neighborhood. Chuck lost the ability to drive and therefore could not get to church.*
- *They were running out of money.*
- *Chuck's wife struggled with memory issues and a debilitating illness that kept her in a wheelchair most of the time.*

Chuck began to experience more episodes of heart/kidney failure requiring the hospital.

- *Exacerbations of his disease were countered with stronger medication and more time in the hospital, with the result that Chuck became gradually weaker from bed rest. "Why go back to the hospital if the doctors are telling me it won't help? I didn't feel any better after the last hospital stay, in fact I felt weaker." He began to fall at home.*
- *When his family attempted to broach an end of life discussion with his doctors, they were met most often with, "Let's try this new medicine first. Come back in two weeks and we'll check it." MRI scans, endoscopy, and other unhelpful tests were recommended to evaluate his increasing number of symptoms as his body declined.*

Nationally, the current system of care provides end-of-life care within the crossroads of a crisis and does not effectively deliver supportive care services in ways that assure patients' wishes are met until the last days or weeks of an individual's life. The provision of a Late in Life model of supportive care services, which includes comprehensive advance care planning, palliative care, hospice services, and shared decision making will provide a standard approach to ensuring patients and families living with a chronic progressive illness is proactively supported by their care team for most of the last year of their life.

Advance Care Planning

Early ACP programs, following the implementation of the Patient Self-Determination Act (1991) focused on promoting and evaluating the impact of health care directives. The early assumption was that if more people were made aware of their rights, and more completed directives and appointed proxies, end-of-life care would line up with their desires, which typically has been found to mean less aggressive treatment towards the end-of-life (McCarthy, Phillips, Zhong, Drews, & Lynn, 2000). However, achieving the goal of providing patient determined care near the end of life has proven much more complex than implementing health care directives and appointing healthcare agents (Ditto & Hawkins, 2005).

Research on advance directives has generally found few people have them and for patients who do, physicians are often not aware of the presence of directives or the language is too vague to follow. A summary of research funded by AHRQ on the issue of ACP indicates less than 50% of the severely or terminally ill patients studied had an advance care directive in their medical record; between 65% and 76% of physicians whose patients had an advance care directive were not aware that it existed; having a directive did not increase documentation in the medical chart regarding patient preferences; and language in the directives was often not specific enough to provide clear instructions (Kass-Bartelmes, Hughes, & Rutherford, 2003). Since the focus of health care directives is often life sustaining treatment and uses broad language, many have shown how they do not provide guidance for people with chronic or terminal diseases (Messinger-Rapport, Baum, & Smith, 2009) (Lynn & Goldstein, 2003).

While some have argued for the use of proxies instead of completing forms, this method too is imprecise, with some research finding surrogates named in the directive were often not present to make decisions or were too emotionally upset to offer guidance (Kass-Bartelmes, et al., 2003). Other research found proxies were not good at predicting the desired choices of the patient and lacked information to serve as decision makers (Hines, et al., 2001; Uhlmann, Pearlman, & Cain, 1988). Many have focused on the communication gap, examining reasons patients and providers avoid end-of-life discussions (Larson & Tobin, 2000), and documenting that professionals are uncomfortable and lack appropriate training to initiate complex end of life decision making discussions (Weissman, Ambuel, Norton, Wang-Cheng, & Schiedermayer, 1998).

Palliative Care

While palliative care is available in many hospitals and is growing steadily, it is constrained by lack of integration into primary care and poor reimbursement. Limited public understanding of available late life resources results in under use of support services, and overuse of interventions that do not add to quality of life. Further, late referrals to palliative care yield inadequate changes in quality of life. Subsequently, those with serious illness often live with poorly managed pain and symptoms for months and wishes that are incompletely understood. Finally, there is a misperception that palliative care services are only for patients with advanced disease who are near death when in fact, palliative care serves to manage symptoms of people with advanced disease regardless of stage of illness or treatment.

Hospice Use

Home and community hospice services, shown to markedly improve the experience of patients and their caregivers, are intended to serve those in the last several months of life. At present, however, median hospice length of stay is 22 days and over one third of hospice patients receive fewer than 8 days of services (Russell and LeGrand 2006). Hospice also serves a predominantly (82%) white population (Connor et al 2004). Sadly, of eligible hospice patients, fewer than 40% are served by hospice at the time of death. While over 80% of people would like to die at home, 75% die in hospitals or nursing homes. Poor utilization of hospice in the US is thought to be related to demographic factors, misconceptions of financial and eligibility requirements, and difficulty in discussing or accepting hospice as a treatment option (Finestone and Inderweis 2008).

Inconsistent Care Model Has Care and Financial Repercussions

The human and financial cost of this inconsistent care model are sky high, with care in the last year of life consuming 27% of Medicare spending for 5% of the population. Much of this financial expense is for services that patients and their families do not want or need to achieve the highest quality of life.

Public dialog around late life issues and the societal impact of present approaches is also lacking or politicized. A deeper conversation resulting in awareness of care support resources available and their impact is needed. In addition, a community conversation that meaningfully confronts ethical care issues—balancing autonomy and social justice—has the potential for profound societal benefit.

BENEFITS OF AN ALTERNATIVE APPROACH

Advance Care Planning

Allina has adopted the Respecting Choices model developed by Gundersen Lutheran. While the completion of an advance directive is the current standard for documenting wishes, advance care planning is a much more comprehensive process. An advance directive is a legal document that generally serves the purpose of appointing a health care agent and may or may not include some written instructions about care. Instructions, if present, are typically about very specific scenarios such as resuscitation that may have limited application to the decisions that agents often need to make for loved ones with chronic disease. Under the Respecting Choices model, advance care planning is a conversation between a patient and their health care agent with a trained facilitator. The conversation

reflects on the goals, values and beliefs of the patient and puts these goals, values, and beliefs in the context of health care choices (either general for basic planning, or tailored common scenarios based on the individual's disease status). Advance care planning also includes documentation and clear communication of those choices to others. This model of advance care planning addresses the barriers identified in the standard of care overcoming the following barriers: lack of physician awareness of plans, lack of documentation of preferences in medical record, poor communication between providers and patients about end of life wishes, lack of applicability of documented wishes to decisions needed, poor proxy prediction of patient wishes. In randomized trials, the Gundersen Lutheran Respecting Choices model has been shown to improve proxy knowledge of patient wishes that result in them making decisions with high levels of agreement with patient desires and reduced decisional conflict among patients (Briggs et al 2004, Song et al 2005, Lyon et al 2009, Kirchhoff et al in Press). Gundersen Lutheran, as leaders in the field of advance care planning, has intentionally set standards around advance care planning, palliative care and hospice support for patients and families in their community. Approximately 95% of their community has a documented advance care plan. According to the Dartmouth Atlas, Gundersen has one of the lowest costs of care for patients at the end of life.

This process likely has benefits for caregiver wellbeing as well. In an examination of end-of-life planning in cancer patients, one study found patients who did not have end-of-life discussions were more likely to undergo aggressive care and aggressive care was associated with worse patient quality of life and worse bereavement adjustment for the caregiver (Wright, et al. 2008).

Palliative Care

The aim of palliative care is to relieve suffering and improve quality of life for patients with advanced illness and provide support for their families. Palliative care assesses and treats pain and other symptoms, communicates about care goals and provides support for complex medical decision making; includes practical, psychosocial support; coordinating care; and offers bereavement services (Morrison et al 2011). A recent study found improved quality of life and mood among cancer patients randomized to early palliative care; in addition these same patients experienced less aggressive care but longer survival (Temel et al 2010). While palliative care is known to benefit cancer patients, nationally there are increasing calls for its application to other disease stages (e.g., heart failure) (Goodlin 2009). Additionally, a study of 3 years of data from New York hospitals indicates an average of approximately \$6,900 less in hospital costs for patients receiving palliative care than a group of matched patients who received usual care (Morrison et al 2011).

Hospice Care

Hospice services focus on care rather than curing. In most cases, care is provided in the patient's home but hospice care is also available in hospice centers, hospitals, nursing homes and other long-term care facilities. Hospice integrates palliative care to manage pain and symptoms with other supports for the patient and family. Core services include professional nursing care, personal assistance with activities of daily living, a variety of rehabilitation therapies, dietary counseling, psychosocial and spiritual counseling for both patient and family, training family on how to care for patient, respite care, provision of medications and devices for palliative care, and family bereavement services after the

patient's death. Hospice services are provided by an interdisciplinary team of nurses, social workers, pastoral counselors, nursing assistants, and the patient's primary care provider or a physician directly associated with hospice (Finestone and Inderwies, 2008).

Several studies have documented higher quality of life in hospice patients compared to terminally ill patients in hospitals (Finestone and Inderweis 2008; Dawson 1991; Hanson et al 1997; Nolen-Hoeksma et al 2000; Teno et al 2004). Hospice care may prolong the lives of some terminally ill patients. In a recent study the mean survival was 29 days longer for hospice patients than for non-hospice patients (Connor et al 2007). Longer lengths of survival were found in four of the six disease categories studied.

Findings of a major study demonstrated that hospice services save money for Medicare and bring quality care to patients with life-limiting illness and their families. Researchers at Duke University found that hospice reduced Medicare costs by an average of \$2,309 per hospice patient. Additionally, the study found that Medicare costs would be reduced for seven out of 10 hospice recipients if hospice was used for a longer period of time (Taylor et al 2007).

VISION

We aim to implement a comprehensive late life supportive care approach that yields reliable access for all patients with life-limiting serious illness, enables shared decision making through advance care planning and needs assessment, and results in the most appropriate patient-determined care choices.

Patients and families will say, "Through the last few years, we could count on you to reach out and help us. You asked about our concerns before we thought they were serious enough to bother anyone."

"When it came time for a decision, our doctors and healthcare team never assumed what we wanted and always asked how we felt about our choices. When the illness got worse, they were always thinking ahead and helping us plan for the next step. We never felt like we had to fend for ourselves."

Care team members will say, "My patients get reliable support from our clinic. I no longer worry about them falling through the cracks. The interdisciplinary team helps more than just the patient, it helps me focus on doing what I do best, knowing that we are addressing the big picture. This is the kind of care I hope my parents will have when the time comes to get care in the last years of their lives."

Chuck's New Story

With Supportive Care, Chuck and his family have a very different care experiences the last year of his life:

During Chuck's second hospital stay he receives a palliative care consult that explores his goals and wishes and recommends a supportive care consult once he is discharged.

Chuck and his family participate in a supportive care assessment that includes:

- **A Disease Specific Advance Care Planning session resulting in a completed advance care plan in the medical record; a Quality of life assessment; and identified future Shared Decision making:** change in living situation; code status; dialysis; do not hospitalize; to cure vs. comfort care

Shortly after the supportive care assessment Chuck's Interdisciplinary care team develops a supportive care plan based upon his goals values and wishes, anticipating his future needs and concerns.

- **Social work referral:** assistance with financial, insurance and legal concerns and how to cope with parent- child role reversal.
- **Spiritual care referral:** assistance in coping with multiple life losses
- **Physical Therapy:** assessment of safety and falls risk
- **Palliative Care** consultation: assist with pain and symptom management

*After Chuck's third hospital stay (four months before his death) he reviews and **updates his Advance Care Plan** which prompts more aggressive supportive care assistance:*

- **Continued interdisciplinary palliative care consultation** including symptom management, end of life discussions, interdisciplinary shared decision making session.
- **Hospice care** and support in the last 60 days of life.
- **Anticipatory Grief** for spouse to assist in coping with living alone after the death.
- **Thirteen months of grief and bereavement** support post death.

Looking back, Chuck and his family tell his doctor and care team they got the right care when they needed. They felt well supported and understood for a total of 25 months, starting the last year of his life followed by 13 months of grief support.

MODEL SUMMARY

Allina's model for late life supportive care includes an initial patient or provider initiated referral for a supportive care assessment, followed by an interdisciplinary team review of the assessment results and a shared decision-making process with patients, families, and care team members to determine necessary action steps. This process will involve appropriate care continuum partners as is warranted. In addition, reassessment of patient needs will occur annually or dependent upon a change in condition.

In an initial pilot phase, Allina intends to test this model with patients with life limiting conditions served by Abbott Northwestern Hospital and the Allina Medical Clinic – Woodlake. Following the initial pilot test, we will target implementation with rigorous evaluation with a broader patient population served at 2 other hospitals (urban and

regional) as well as clinics within all three of our primary care medical groups. Finally, after the pilot test and target implementation, we will complete full implementation across our system, modifying our approach based upon data obtained during the first two phases of this work.

QUALIFICATIONS OF ABBOTT NORTHWESTERN HOSPITAL and ALLINA for EFFECTIVE IMPLEMENTATION

Advance Care Planning Infrastructure

Allina Hospitals & Clinics began in 2007 work of implementing a strategic plan for comprehensive advance care planning process system-wide. As a first step of our strategic implementation, 8 Allina Hospice and Palliative Care Clinicians underwent extensive training in the Respecting Choices model to become certified facilitators of both basic and disease specific advance care planning discussions. Additionally, Sandra Schellinger, Director of Palliative Care became certified at the level of national faculty member by Gundersen Lutheran to train new facilitators.

Allina spent 2 years (2008-2010) pilot testing a model of Disease Specific Advance Care Planning (DS-ACP) for patients with heart failure, COPD, or chronic kidney disease. This process included the development of a POLST (Physician's orders for life sustaining treatment) form and related process to be done within the DS-ACP process or other appropriate clinical contexts. The POLST process was pilot tested with hospice patients in 2009 and then moved system-wide as needed in 2010. The trained facilitators completed 268 Disease Specific Advance Care Plans for heart failure patients in 2008; 758 DS-ACP for patients with any chronic condition and 200 POLST with Hospice patients in 2009; and 1,218 Basic Advance Care Plans, 1,803 DS-ACP and 3,329 POLST forms for hospice and nursing home patients in 2010.

Based on the experience of the DS-ACP pilot, Allina created a component of the electronic health record (EHR) specific to Advance Care Planning in 2009. This component identifies ACP on the problem list, aids in the referral process through an ambulatory consult order for ACP (either basic or disease specific) and has built in forms using smart and free text to enable facilitators to easily document preferences directly into the EHR in addition to providing easy access to scanned documents such as a health care directive, health care power of attorney, living will, POLST. This documentation can be easily updated as medical conditions and preferences change.

Upon completion and implementation of the EHR ACP component, a system-wide training on ACP was launched in early 2010. Training requirements were different based on level of knowledge needed however it was comprehensive enough to ensure that all staff with patient care responsibilities received some basic training. All nurses and physicians were trained in the basics about advance care planning and how to introduce the concept to patients and how to initiate an order in the EHR, how to view and update information in the EHR component. Social work and palliative care staff received more training, and the system also trained more ACP facilitators. The training was implemented for staff in all inpatient settings followed by a continuing roll-out of the education across ambulatory care sites.

Evaluation of our DS-ACP pilot implementation from 2008 – 2009 found 94% of those participating in DS-ACP had some type of health directive compared to 25% without DS-ACP facilitation. Only those undergoing DS-ACP had documentation about their desires and wishes of treatment choices specific to their disease status. Among patients who died during the pilot phase, those who participated in DS-ACP were twice as likely to (56% vs. 37%) to receive hospice care. After adjustment for age and recruitment differences between the groups, DS-ACP participants were still over twice as likely to participate in hospice (OR = 2.21, p = 0.003, CI 1.3, 3.7). Additionally, mean LOS was 27.5 days longer among DS-ACP participants however this was not statistically significant likely due to a lack of power when examining the subset of patients who died and used hospice.

* The infrastructure development and implementation of a truly integrated model of ACP with an EHR component, comprehensive staff training and provision of dedicated resources at a level beyond that of other health systems nationally demonstrates our position of readiness to build on this infrastructure to reach the goal of comprehensive late life supportive care services. While Gundersen Lutheran has focused on rigorous studies to test and refine this method and widespread basic advance care planning in the two counties their system serves in Wisconsin, Allina Hospitals & Clinics is the first large US health system to adopt and spread both the basic and disease specific models of ACP at the system-level. In addition, Epic, the vendor for Allina's health record and the largest EHR vendor in the country, has expressed interest in standardizing the EHR component designed and built by Allina.

Patient and Family Advisory Group for Late Life Care

The Supportive Care initiative is forming a Patient and Family Advisory Council. This group will work closely with the leadership in developing and implementing the Supportive Care model. Key areas where they will contribute are the design of patient/family engagement strategies and evaluation of services.

Business Model

As Allina developed and implemented the strategic roll out of basic and disease specific advance care planning, Palliative Care leadership worked collaboratively with payers to explore reimbursement strategies. Specifically, we worked with Blue Cross Blue Shield of Minnesota to support Allina's advance care planning efforts over a 3 year period and to conduct a quasi-experimental evaluation of cost of care for disease specific advance care planning which will eventually help us understand how to evaluate cost of care over the last several years of a person's life. We also established reimbursement for disease specific advance care planning services with Blue Cross Blue Shield, Health Partners, and UCare. This experience of negotiating reimbursement structures to sustain this late life service demonstrates Allina's track record for building a sustainable business model into late life care.

Organizational Leadership

Allina Hospitals & Clinics is also well positioned to implement this initiative because we have the necessary organizational leadership and internal expertise. Allina's Clinical Leadership Team authorized the development of a key system measure focused on decreasing hospital days in the last 6 months of life across the system. Of particular

importance is the fact that this measure is part of every Allina leader's (e.g., hospital Presidents, clinic Managers) performance expectations and a financial incentive is tied to that performance. This measure will ultimately be part of a late life care 'scorecard' or dashboard that includes multiple measures focused on the care that hospitals and Allina medical groups provide to patients and families facing life limiting illness. Finally, in an effort to more tightly link the home and community services segment of Allina (e.g., palliative care, care management, hospice and home care) with the primary care segment of Allina (e.g., Allina Medical Clinic, Aspen Medical Group), all of these business units report to a single senior leader. This enables a better operational and clinical connection between primary care and supportive care members of the care team.

Human Capital

Because of Allina's ACP experience, we have a growing staff of nurses and social workers who are certified advance care planning facilitators, giving them the appropriate skill set to further enhance these services. Allina's Division of Home and Community services offer several levels of hospice and palliative care services as well as Home Care and SeniorCare Transitions program. Home Care includes nurse case managers visiting patients' homes to help manage care needs and may include visits from other professionals such as physical therapists. SeniorCare Transitions is designed to help patients and their families manage medical care in transitional (short-term care), nursing homes (long-term care) and senior residential communities with on-site medical teams. Allina offers hospice care services in the home, inpatient setting as well as through hospice residential facilities.

Well Suited Pilot Sites

The pilot phase of this work will involve both an inpatient care setting and a primary care clinic. Testing this model in two different healthcare settings allows the establishment of a referral process and interdisciplinary team care review process in different environments. To start this work, we have selected Abbott Northwestern (ANW) Hospital and Allina Medical Clinic - Woodlake as our pilot sites.

Abbott Northwestern Hospital (ANW) is the largest tertiary care hospital in the Twin Cities. In 2010, ANW served 27,927 inpatients. Of those, 34 % (9,483) were over age 65, and 8 % (2,333) had a heart failure (19% of those over age 65) and 12% (3,414) had diagnosis of COPD (18% of those over age 65), indicating a patient population ideal to this project. ANW staffing includes 6 interdisciplinary palliative care experts and the hospitalist group at ANW is part of the Allina Medical Clinic.

Allina Medical Clinic - Woodlake is located in Richfield MN, a southern suburb of Minneapolis. The population of Richfield consists of 16.4% residents over age 65, compared to 9% for neighboring Minneapolis. Woodlake is part of the largest medical group within Allina and offers an ideal location for piloting a new model. Piloting in this context will ease expansion of this model to all clinics in this medical group. This clinic is equipped with a mix of primary (internal medicine, family practice, ob-gyn) and specialty care (cardiology, mental health, nephrology, podiatry) providers. This mix of providers enables the development of comprehensive care teams to review late life supportive care assessments within the primary care setting. Woodlake physicians refer patients to ANW for hospital care.

Community Leadership

Allina is a member of the Honoring Choices Minnesota -- a collaborative initiative of Twin Cities hospitals, health systems, and health care organizations led by the Twin Cities Medical Society to better address advance care planning needs consistently. Allina Hospitals & Clinics was one of the two lead health care organizations in the Honoring Choices Minnesota collaborative when it began in 2009, and the group has continued to add new hospitals and organizations since.

Opportunity to Advance Our Current Work

While the vision for this system of coordinated late life supportive care is important to ensuring patients get the best late life experience, Allina is unable to advance this work in an accelerated fashion. Resource constraints and competing priorities prevent us from being able to expand our current approach more deeply or quickly and therefore prevent us from getting to the next level in supportive care. Robina Foundation support will enable Allina to test a coordinated model of comprehensively addressing late life care needs. Rigorous implementation and evaluation of this model will allow for the full development of the business model to further sustain this approach.

Robina support for this project will also enable a culture shift in a large healthcare setting around the discussions providers have with patients facing life limiting illness. These discussions will transition from reactive to proactive. Public dialogue will further contribute to this culture shift. Active patient participation in the design of supportive late life care services will ensure transformation of healthcare in a way that is truly patient centered.

DESIGN and METHODS

In an approach similar to the 'Care Guides in the Primary Care Clinic' proposal previously funded by the Robina Foundation, we will employ a two phase approach for this effort. In Phase I, we will complete design of the model and pilot test the approach at Abbott Northwestern Hospital and Allina Medical Clinic Woodlake (Woodlake). We will use a pre-post design for evaluating the impact of the pilot, comparing patients with both concurrent and historical controls, where appropriate and feasible.

Launching the Phase I pilot in both an inpatient acute setting, as well as a traditional primary care setting, will offer us the opportunity to develop and test the late life supportive care approach with two different types of care teams. The inpatient hospital team includes hospitalists, specialty care physicians, and inpatient care management staff, while the primary care clinic team includes a primary care provider, nursing staff, and clinic care management staff. Developing the model in two different environments ensures generalizability and a greater likelihood for successful implementation in Phase II.

In Phase II, we will target implementation at another metro hospital, another regional hospital, and across all three major medical groups at Allina. We will employ the most robust evaluation design possible in this scenario. Further, we will launch cooperative discussions with local payers to allow for the development of a robust business model to supportive late life supportive care.

During Phase II, Allina Hospitals & Clinics will also build on our participation with the Honoring Choices Minnesota collaborative and its work with Twin Cities Public Television and the Citizens League to further public dialogue on the issue of late life care for Minnesotans. Additional potential partners for these public discussions include the University of Minnesota Law School and the University of Minnesota Bioethics Department. We aim to continually improve our supportive care approach based upon these dialogues and to engage with the community in confronting the ethical care issues of the balance between autonomy and social justice.

Following Phases I and II, we will complete a sustainable system-wide rollout of this model across Allina Hospitals & Clinics.

Patient Population

The patient population targeted for supportive late life care includes individuals over the age of 65 who have a chronic illness diagnosis and one of the following: have been hospitalized in the past year, are lacking an advance directive, or answer 'yes' to either 'I am having difficulty getting my needs met' or 'I don't know as much as I would like to about my condition or about my choices for treatment.' The chronic illness conditions included for these patients are: heart failure, chronic obstructive pulmonary disease, diabetes, chronic kidney disease stage II or greater, neuro-degenerative disease, or cancer.

Patient Care Process

Below we outline the specific components of the patient care process we envision:

1. Patient initiates request or a member of the patient's care team (e.g., primary care provider, care manager, care guide) refers patient for a supportive care assessment
 - a. Automatic triggers in the electronic health record once request or referral has been made
 - b. Scripting language is available for initial approach of patient/family
2. Supportive care assessment takes place – in patient's home, nursing care facility, clinic or hospital
 - a. Introduction of general decision aid guide / framework for shared decision making model
 - b. Advance Care Planning (1 – 2 sessions, including completion of POLST if warranted)
 - c. Evaluation of current medical and psychosocial needs (e.g., palliative care, integrative therapies, hospice, changes in living situation, psychotherapy, self-management support, social work), includes a quality of life assessment (i.e., financial, spiritual, emotional, symptoms)
3. Interdisciplinary team reviews assessment results
 - a. Team includes any of the following depending on providers working with patient or needed for decision making: primary care provider, therapists (integrative health, occupational, physical), mental health providers, care manager, palliative care clinicians, advance care planning facilitator, home care providers, and any other strategic partners from outside the Allina medical system (e.g., long-term care, nurse block program, nursing home, assisted living facility).

- b. Purpose of team review is to discuss key strategies for supporting patient as disease progresses and identification of roles and responsibilities for each team member, appropriately assigning work based upon these characteristics
 - c. Shared decision making process (e.g., around treatment decisions, resuscitation status, living situation) with patient, family and care team is used to determine action steps needed – develop plan for action steps needed now and time line for subsequent action steps
4. Action plan is completed – clinic case manager has accountability for this process and ensuring this work is done
 5. Patient receives continued support from Late Life Supportive Care team – monitoring progress of plan and patient. Member of patient's supportive care team available 24/7. If patient is hospitalized, a family meeting or supportive care consult is conducted as needed
 6. Annual reassessment OR reassessment dependent upon change in condition, both automatically triggered; refinement and update of ACP and assessment

Model Design Process

Full design of the Late Life Supportive Care model will include patients and care team members, the Home and Community Services team, as well as key operational staff from Abbott Northwestern Hospital and Woodbury Clinic. The approach will be built upon established Institute for Clinical Systems Improvement (ICSI) and other best practice guidelines for late life care. Observation of currently high performing late life care team members, as well as integration of adaptive health practice strategies, will be a necessary part of establishing the final model.

Timeline

Phase I of the project will commence in January of 2012 and extend through June of 2013.

Phase I will include two components – Preparation and Test/Assessment:

- Preparation:
 - Expert observation of best practice
 - Adaptive health leadership training of design team
 - Culture shift preparation and discussion
 - Model refinement
 - Decision aid selection
 - Electronic health record tool development
 - Model and adaptive health leadership training of participating providers and staff
- Test/Assessment:
 - Implementation of model in two pilot sites
 - Pre-post evaluation and concurrent and historical controls available where possible
 - Understand need and role for home-based clinicians

Phase II of the project will proceed upon completion of Phase I and will launch in July of 2013. Phase II will include the development and deployment of home-based clinicians. Phase II will be complete by December of 2014. System-wide implementation will continue after the end of Phase II.

Evaluation

The evaluation design for the pilot phase of late life supportive care will include a process (implementation) evaluation as well as a quasi-experimental observational outcome evaluation. Implementation or process evaluation is essential to programs in a developmental phase.

The process evaluation will enable us to examine if the project was developed as intended (establishing the necessary infrastructure) as well as if it was implemented as intended (delivering the program as intended to the target audience). The process evaluation will serve multiple purposes. The first is essentially a process formative evaluation, meaning using data collected about the program development and implementation process to improve the continued development of the program, making modifications to address problems identified. The main audience for this information is the staff implementing the program. The second purpose of the process evaluation is to provide context for the interpretation of the outcome evaluation results. If outcome results indicate a strength or weakness of a particular measure, it is important to put those findings in the context of program implementation activities related to those measures. Lastly, process evaluation is essential in any phased strategic expansion of a service or program such as this late life supportive care model. Comprehensive measures of implementation will be used to guide replication at sites and adjust activities and timelines as necessary. The process evaluation will include measures on infrastructure development indicated below. Many of these measures are focused on the completion of tasks to be done in the project planning phase and will be measure in the context of a time line. We will also collect qualitative information on the satisfaction of providers and clinical staff in the pilot sites with the training and infrastructure development.

Measures Assessing Development of Infrastructure

- Establishment of reliable method to automatically identify (through the electronic health record) all patients in the target population in order to generate referrals for assessments as well as triggers for re-assessment
- Protocol and instruments finalized for assessment process
- Protocol finalized for interdisciplinary team review process
- Protocol and instruments finalized for shared decision making process after assessment
- Referral process established and automated into electronic health record
- Training curriculum established for staff at pilot sites – facilitators, interdisciplinary team members
- Satisfaction of providers and clinical staff with training and infrastructure development

Below is a set of measures to be examined in the process evaluation. This phase of the evaluation will focus on measuring implementation of activities relative to goals (to be established) and to continue to identify areas for improvement. These measures generally examine coverage of the intervention (proportion of the eligible target population getting the service) and dosage (percent getting the full late life supportive care program), service delivery efficiency (time to accomplish activities) and patient and provider experience with

implementation. Much of the data necessary to assess process measures will be built into the related electronic health record component. Qualitative data will be collected via methods deemed most appropriate for patients and providers (e.g., key informant interviews, focus groups).

Measures Assessing Program Implementation

- Number of eligible patients identified and referred, proportion of those who are self-referrals
- Degree of engagement of referring clinical team in referral and assessment processes
- Percent of referred patients who complete assessment
 - Percent of these who are completing ACP for first time
- Time from referral to completion of assessment
- Number and percent of patients with Interdisciplinary reviews completed, includes communication of ACP plan to entire care team
- Time from assessment completion to interdisciplinary review
- Number and percent of shared decision making processes completed
- Number and percent to patients for whom selected action steps are addressed with strategic partners
- Effectiveness of shared decision making: A good indicator of the decision quality is whether or not the patient and care team follows through with their chosen option [O'Connor and Jacobsen, 2007]
- Documentation of barriers and facilitators to implementation of all program components (referral, assessment, interdisciplinary team review, shared decision making, working with strategic partners)
- Patient and provider experience measures related to process

The outcome evaluation of the pilot phase will use two different methods depending upon the outcomes of interest. The list below contains several outcome measures. The primary measures of interest are quality of life, hospice use, hospice length of stay, and number of days in the hospital in the last 6 months of life. For measures of hospice use, LOS and hospital days at the end of life, we will use historical controls for patient populations of Woodlake and ANW. We will examine patients who were active patients at Woodlake Clinic in the year before implementation of the new model who would have met the criteria for late life supportive care services and establish baseline measures for hospice use, hospice length of stay, and hospital days in the last 6 months of life for patients who died during that year. As the program is implemented during the pilot phase, these same measures will be collected for patients who were referred and participated as well as those who were referred and did not participate enabling the use of both historical and concurrent controls, each with their own set of strengths and weaknesses as a comparison population. Secondary outcomes related to cost will follow these same study design strategies of concurrent and historical control analyses.

Because quality of life, symptoms, and emotional well-being are not standardized measures collected through the course of clinical care, we have no historical comparison data. To assess differences in these measures for patients participating late life supportive care assessment and related activities, we will collect quality of life, symptom, and well being

data on a concurrent set of controls. We will measure these at the point of initial assessment and then again a few months afterward, and at similar time points in the control population. We will also obtain comparison data on a comparable patient population not served by the clinic.

Measures collected on provider experience will rely on pre-post changes within the ANW and Woodlake participating staff. Provider self efficacy will be measured prior to training, after training, and several months into implementation.

To establish goals for participation, we will conduct power calculations on quality of life, symptoms measures, hospice use and hospice length of stay and establish goals for enrollment based on the sample size needed to detect a change in these four primary measures.

Outcome Measures

Experience

- Patient experience: Patients will tell us that someone was always there that they could get in touch with when they needed something and that others listened to them and took the time to understand what was going on with them.
- Caregiver experience of support
- Self-efficacy of care team members for initializing discussions about supportive care needs

Health

- **PRIMARY OUTCOME: Quality of life, symptom burden, and emotional well being**
- **PRIMARY OUTCOME: Hospice use, number and proportion of patients who die in hospice**
- **PRIMARY OUTCOME: Length of stay in hospice**
- **PRIMARY OUTCOME: Number of days in hospital in last 6 months of life**
- Care provided such that Individual wishes honored
- Number and proportion of deaths in hospitals

Affordability

- Reduced total cost of care in the last 6 months of life
- Reduced total inpatient stay costs compared to patients not receiving these services

Wellbeing

- Health care team satisfaction with the model

References available in a separate document.

Executive Summary: Transforming Primary Care through Adaptive Health Practice

CHALLENGE

Modifiable health status is mostly determined by environmental, social, and behavioral factors; but rather than effectively addressing these root causes of poor health, we focus almost all of our healthcare resources on using medical technology to treat illness. The leading causes of death in the United States are all related to behavior issues (tobacco use, over-eating, insufficient physical activity, inappropriate use of alcohol and psychoactive drugs, and risky behavior). However, our efforts to help our patients change their behavior have been relatively ineffective. Frustration with this lack of efficacy has engendered a sense of futility about behavior change in many providers, which reinforces our tendency to focus on technical interventions, like medications and surgery, to treat illness.

Unfortunately, medical technology is often a “double-edged sword”, in that it has the potential to both heal and harm patients. Frequently that harm presents in a most ironic way—the treatment actually aggravates the condition it was intended to treat. Examples of this are ubiquitous in health care. For instance, we are all familiar with the fact that narcotics induce addiction and chronic pain problems. Pain medication makes the pain problem worse.

Our relative inability to effect changes in the environmental, social, and behavioral determinants of health, and our consequent “over-reliance” on technical interventions to manage illness, produces large amounts of avoidable waste and harm. Waste, because instead of helping our patients make the changes they need to be healthy, we are prescribing and administering treatments to them that would often be unnecessary if we were more effective at facilitating behavior change; and because those treatments often induce the demand for further technical interventions.

This happens for a variety of reasons. For one thing, behavior change, and changing social and environmental systems, is hard work. We and our patients both resist it. Behavior is also strongly influenced by social factors, like our work, our family, and our social network. However, the evidence base regarding effective social interventions is limited. This reinforces our tendency to neglect these opportunities, and further undermines our ability to help patients adopt healthier lifestyles.

VISION

Our vision is that five years from now Allina has implemented a new care model, Adaptive Health Practice (AHP), that is achieving the quadruple aim (good health, great patient experience, affordable care, and sustainable for providers) by creating the conditions that enable care teams to effectively and efficiently help our patients make the environmental, social, and behavioral changes needed for them to be as healthy as possible, while using technology judiciously to promote health, manage illness, and avoid both short and long-term harm. This AHP care model will be tightly integrated with the “sick care” system, so that patients can still receive the best possible care for unavoidable illness and suffering; but it will be fundamentally focused on producing health, and empowering patients to be co-producers of their own health. See the first table below (“Changing the Culture of Care”)

for more specifics about the differences between the existing culture of care and the AHP model.

MODEL SUMMARY

The conceptual underpinning for Adaptive Health Practice starts with the recognition that the challenges people (patients) face in life can be divided into two categories: adaptive challenges, and technical challenges. Technical challenges are typically simple or complicated problems that are amenable to solution by technical interventions, often provided or administered by outside experts. Cataract replacement is a quintessential technical challenge. Technical interventions often do not require much effort from the person with the technical challenge.

In contrast, adaptive challenges are typically complex, often mysterious, challenges that require the person or system to learn new attitudes and beliefs, and to make substantial behavior changes. These changes require significant effort—to learn new ways of doing things, and to give up the old, familiar ways. This effort can be called “adaptive work.” Making the environmental, social, and behavioral changes required to live a healthy life is adaptive work. Learning a more evidence-based, scientific set of health beliefs is adaptive work. Managing a chronic illness is adaptive work. Coping with pain, disability, and impending death at the end of life is adaptive work.

Adaptive health practice consists of understanding these phenomena; correctly diagnosing (distinguishing between) adaptive and technical challenges; using technical interventions judiciously, and in particular as a complement, not a replacement to, adaptive work; and facilitating patient adaptive work. See the second table below (“Specific Adaptive Health Practices”) for a high level summary of the model of care.

DESIGN and METHODS

We think this work needs to proceed in three distinct phases. The first step is a design phase, which is expected to take 6-12 months, during which we will convene a team of practitioners, patients, and experts in a variety of disciplines relevant to AHP, and develop a detailed plan for implementing pilot AHP clinics. The second, Pilot Phase, will involve piloting, refining, and evaluating the new AHP design in three distinct settings: a employee wellness clinic serving the Abbott Northwestern and Allina Commons campus; a new integrative health and wellness “clinic-within-a-clinic” located in the Allina Woodbury clinic, our second largest primary care clinic; and a completely new primary care clinic opening in White Bear Lake. Each of these pilots will test the model in a different setting; but all three will be *de novo* implementations affording us the opportunity to develop the distinctly new culture of care we believe is required for this approach to be successful.

Changing the Culture of Care	
Current Mental Models	Adaptive Health Practice Mental Models
Health care providers (experts, administering technical interventions to patients) are the source of health. People have a limited capacity to self-heal. They need our expertise to be healthy.	Patients (people) produce their own health by doing adaptive work. They have powerful self-healing capabilities. Our job is to facilitate, not interfere with, self-healing.
Patients are incapable of behavior change.	Patients can do the adaptive work to change their behavior.
Provider attempts to get patients to change behavior are not effective.	Providers, using adaptive leadership methods and supportive systems, can facilitate patient adaptive work and behavior change.
Health care technology is efficient and effective. It can obviate adaptive work.	Health care technology is a double-edged sword. It should be used very judiciously and never in lieu of adaptive work.
We don't have the time to do that "relationship stuff".	Relationships are the source of healthy behavior changes. We take the time to do it right.

Specific Adaptive Health Practices
1. Be mindful: simultaneously engage in the work, and also at the meta-level be aware of what is going on. Heifetz calls this "going to the balcony."
2. In each clinical situation, distinguish between adaptive and technical challenges, and adaptive and technical work.
3. Establish and maintain a "holding environment" or healing relationship. Key components of a healing relationship appear to be "valuing" (creating a non-judgmental emotional bond), "abiding" (displaying a commitment to caring over time), and consciously managing power in ways that most benefit the patient.
4. Diagnose the system, and the problem. Identify which challenges are "ripe" for doing adaptive work, and focus on those. For those challenges that are not ripe, help the patient reframe the issue in order to increase readiness to change.
5. Give the adaptive work to the person who has to do it (usually the patient).
6. Regulate the "heat" so that people are motivated to do the adaptive work (overcome work avoidance), but not overwhelmed by the challenge.
7. Manage conflict proactively and constructively.
8. Be persistent (abide). Adaptive work takes time and is challenging. Adaptive leaders are patient and persistent.
9. See yourself in the system, and manage your self. Show up as a person, not as a "role".
10. Advanced AHP: help the patient develop their adaptive capacity. Help them develop the tools to change their environment and social circumstances, and to have the self-awareness, to be able to do their own adaptive work autonomously.

Transforming Primary Care through Adaptive Health Practice

CHALLENGE

Modifiable health status is mostly determined by environmental, social, and behavioral factors; but rather than effectively addressing these root causes of poor health, we focus almost all of our healthcare resources on using medical technology to treat illness.¹⁻⁴ The leading causes of death in the United States are all related to behavior issues (tobacco use, over-eating, insufficient physical activity, inappropriate use of alcohol and psychoactive drugs, and risky behavior).⁵ However, our efforts to help our patients change their behavior have been relatively ineffective. Frustration with this lack of efficacy has engendered a sense of futility about behavior change in many providers.⁶⁻⁸ This reinforces our tendency to focus on technical interventions, like medications and surgery, to treat illness.

Unfortunately, medical technology is often a “double-edged sword”, in that it has the potential to both heal and harm patients. Frequently that harm presents in a most ironic way—the treatment actually aggravates the condition it was intended to treat. Examples of this are ubiquitous in health care. For instance, we are all familiar with the fact that narcotics induce addiction and chronic pain problems. In the past decade the United States has experienced an epidemic of opioid use after long-acting powerful oral narcotic analgesics entered the market.⁹ The pain medication makes the pain problem worse. Likewise, proton pump inhibitors (PPIs—heartburn medicines) induce heartburn in normal people and perpetuate heartburn symptoms in patients with gastroesophageal reflux.¹⁰ The prevalence of gastroesophageal disease has doubled in the United States since PPIs were introduced.¹¹ Anti-depressants sometimes induce suicidality, frequently lead to tachyphylaxis, and often produce a withdrawal syndrome with symptoms of depression that mimic the symptoms that led to the drugs being prescribed in the first place.^{12,13} Interpersonal and cognitive behavioral therapy, in contrast, may produce persistent benefit, and reduce or prevent recurrence of depression.¹⁴ Long-acting beta agonist asthma medications increase deaths from asthma¹⁵; spine fusion surgery for back pain increases the risk of more spine surgery, chronic low back pain and disability^{16,17}; percutaneous coronary interventions are no more effective at preventing heart attacks or cardiac death than medications, and intracoronary stents, if not accompanied by continuous treatment with anti-platelet agents (which are associated with bleeding risks), clot off and cause heart attacks¹⁸; and aggressive treatment of incurable metastatic non-small-cell lung cancer shortens and reduces the quality of life, compared to early palliative care.¹⁹

For each of the conditions mentioned above, the patient’s behavior, social system, and environment play important roles in the genesis or management of their illness. Non-pharmacological techniques for managing pain; changing diet and losing weight for GERD; removal of allergens for asthma; physical rehabilitation for back pain—these are all examples of effective non-technical approaches to helping patients with these conditions. Unlike medical technology, these types of changes generally do not have negative health consequences; and often they improve other health conditions. Thus, helping a patient make the environmental, social, and behavioral changes required to quit smoking, increase physical activity, eat a healthy diet, lose weight, and develop stress-management skills will treat not only their back pain, but will also treat or reduce their risk for all the “plagues” of

modern life: diabetes, hypertension, coronary artery disease, arthritis, GERD, depression, and cancer.

Our relative inability to effect changes in the environmental, social, and behavioral determinants of health, and our consequent “over-reliance” on technical interventions to manage illness produces large amounts of avoidable waste and harm.¹ Waste, because instead of helping our patients make the changes they need to make to be healthy, we are prescribing and administering treatments to them that would often be unnecessary if we were more effective at facilitating behavior change; and because those treatments often induce the demand for further technical interventions. For example, medications often require follow up lab testing to monitor drug levels and possible side effects. Harm, because those treatments too frequently aggravate the underlying condition, or produce other kinds of morbidity (e.g., side effects of medications, or early and late complications of surgery).

Imagine how health care would be different if we could partner with our patients to effectively address the environmental, social, and behavioral determinants of their (and our) health!

Why aren't we more effective at doing this? For one thing, behavior change, and changing social and environmental systems, is hard work. It requires the patient to make significant changes in places, people, beliefs, and behaviors to which they are attached. It requires them to learn new things, and give up old, familiar, comfortable things. Helping people make these kinds of changes is also hard work. It requires patience, skill, and lots of time. The working conditions in most medical practices do not provide the time or systems required to support patients in doing adaptive health work.²⁰ Both patients and health care providers avoid the work, effort, and time required to effect these kinds of changes.

Also, health care workers, for the most part, are not trained to do this kind of work. Physicians are educated and trained about the technical aspects of medicine, but most get little training on behavior change, and even less about managing the social and environmental determinants of health. Public health and medicine are kept separate, both professionally and pedagogically. Nurses, family medicine physicians, mental health professionals, and social workers are trained to a greater degree on these issues, but even in those professions the dominant culture and business models in health care reinforce the use of technical interventions and discourage the systematic application of practices required to address the environmental, social, and behavioral determinants of health.

Perhaps our most effective, and in most cases our only, social “intervention”, the provider-patient relationship, is systematically undervalued in the fee-for-service system. Current healthcare financial models pay for technical interventions. Profits for both providers and manufacturers come from efficiently delivering the maximum number and intensity of

¹ It is worth noting that not infrequently we make the obverse error and recommend behavioral treatment for health problems that need technical interventions. For instance, many patients are diagnosed with irritable bowel syndrome when in fact their symptoms are due to celiac disease, inflammatory bowel disease, food intolerance, or post-infectious or post-antibiotic diarrhea.

technical interventions to patients. A recent article in the New York Times, entitled “Talk Does Not Pay, So Psychiatry Turns to Drug Therapy”, illustrates this story vividly.²¹ Only ten percent of psychiatrists in the United States still provide psychotherapy. The rest now spend their time in brief visits with patients adjusting their medications. “I had to train myself not to get too interested in their problems, and not to get sidetracked trying to be a semi-therapist,” one psychiatrist is quoted.

BENEFITS OF AN ALTERNATIVE APPROACH

Adaptive Health Practice is a theory of health care resulting from the application of Adaptive Leadership to health care practice. A recent publication introduced the concept of applying the principles of Adaptive Leadership, as developed by Dr. Ronald Heifetz and his colleagues, to the practice of medicine.²²⁻²⁴ That article focused on medical practice, but the Adaptive Leadership framework applies broadly to all health care professions.

The conceptual underpinning for Adaptive Health Practice starts with the recognition that the challenges people (patients) face in life can be divided into two categories: adaptive challenges, and technical challenges. Technical challenges are typically simple or complicated problems that are amenable to solution by technical interventions, often provided or administered by outside experts. Cataract replacement is a quintessential technical challenge. Technical interventions often do not require much effort from the person with the technical challenge.

In contrast, adaptive challenges are typically complex, often mysterious, challenges that require the person or system to learn new attitudes and beliefs, and to make substantial behavior changes. These changes require significant effort—to learn new ways of doing things, and to give up the old, familiar ways. This effort can be called “adaptive work.” Making the environmental, social, and behavioral changes required to live a healthy life is adaptive work. Learning a more evidence-based, scientific set of health beliefs is adaptive work. Managing a chronic illness is adaptive work. Coping with pain, disability, and impending death at the end of life is adaptive work.

Adaptive work is difficult, and slow. People tend to resist adaptive work. This resistance can be termed “work avoidance.” Because adaptive work is resisted, and technical interventions often look relatively quick and easy, it is a very common error to substitute technical interventions for adaptive work and try to solve adaptive challenges with technical interventions. As discussed above, this results in both waste and harm.

Adaptive health practice consists of understanding these phenomena; correctly diagnosing (distinguishing between) adaptive and technical challenges; using technical interventions judiciously, and in particular as a complement, not a replacement to, adaptive work; and facilitating patient adaptive work.

Two other components of the adaptive health practice framework are also important. First, a key part of adaptive leadership has to do with the leader (provider) taking care of themselves, so they can continue to function effectively in their role. High levels of emotional exhaustion and burnout occur in health care, especially among nurses and

physicians.²⁵ Adaptive health practice explicitly calls on us to do the adaptive work of changing the culture and practices of health care in order to make it more sustainable for health care workers.

Finally, adaptive health practice can benefit patients in two ways: by helping them address the current adaptive and technical health challenges they face, and also by helping them build their capacity to do adaptive work. Helping patients build their adaptive capacity enables them to become maximally autonomous co-producers of their own health.

The principles of adaptive health practice are not entirely new in health care. For one thing, the construct of adaptive leadership was developed by a physician, and one of the first examples he gives to illustrate adaptive leadership is a story about a physician helping a patient and his family cope with terminal illness.²³ (p.73, et seq.) Many techniques have been developed and piloted in health care to help patients do adaptive work. These techniques include motivational interviewing, trans-theoretical model based behavior change programs, shared decision making, a wide variety of psychotherapeutic methods, and relationship-centered care. However, none of these methods have achieved widespread adoption, except in limited areas like addiction medicine, for reasons discussed above.

In recent years, there has been a tidal wave of interest, publications, and policy initiatives in support of deploying patient-centered medical homes. While much of this work focuses on developing systems to provide more efficient and effective technical care for chronic disease, there is growing attention to the underlying philosophy of care and recognition that in addition to improving the technical aspects of care we need to do a better job of addressing the underlying determinants of health and incorporate “salutogenic” components into our practices.²⁶ Likewise, the principles of adaptive health practice can be recognized in some of the philosophy of care underlying the use of the set of alternative technical interventions that are characteristic of complementary and alternative medicine (CAM).

Finally, there is strong evidence that many patients want to receive care that is more “holistic” and less focused on technical interventions, especially the powerful interventions of allopathic medicine with their attendant power to harm. The widespread use of CAM services is proof of this; and survey evidence also supports it.²⁷ Anecdotally, many co-workers at Allina make use of these kinds of services on their own, and say they would welcome the opportunity to work with more traditional providers offering a truly integrative, adaptive health practice approach.

VISION

Our vision is that five years from now Allina has implemented a new care model, Adaptive Health Practice, that is achieving the quadruple aim (good health, great patient experience, affordable care, and sustainable for providers) by creating the conditions that enable care teams to effectively and efficiently help our patients make the environmental, social, and behavioral changes needed for them to be as healthy as possible, while using technology judiciously to promote health, manage illness, and avoid both short and long-term harm. This AHP care model will be tightly integrated with the “sick care” system, so that patients can still receive the best possible care for unavoidable illness and suffering; but it will be fundamentally focused on producing health, and empowering patients to be co-producers of their own health.

The new AHP model will be so attractive that it will help Allina and Abbott Northwestern Hospital grow market share by attracting patients from other traditional providers, as well as those who currently get their primary care from CAM practitioners (chiropractors, naturopaths, etc.). This growing patient volume will help us maintain and support our existing specialty and hospital care infrastructure as the per capita demand for those services decreases due to the increasing health of the population we serve.

We envision the AHP “clinic” as a truly disruptive innovation that delivers a set of services that shifts business out of the sick care system by reducing morbidity, and consequently lowers per capita health care costs. Additionally, the eventual spread of this model to more traditional, existing clinics should induce additional health improvement and savings.

MODEL SUMMARY

What follows here is a description of a “basic approach” to implementing Adaptive Health Practice. This model of care is so different and potentially transformational, that we do not yet know with enough specificity exactly how best to describe or deploy it. What we can do is describe at a high level the key components of the model, and a path to developing a sufficiently detailed design, such that it could be piloted.

Implementation and normalization of AHP requires successful execution on four key strategies, which are listed in Table 1.

Table 1: The Basic Ingredients of Adaptive Health Practice

1. Change the financial incentives
a. Payers
b. Provider compensation
c. Patient incentives (benefit design)
2. Change the culture of care
a. Separate; <i>de novo</i> ; loosely coupled with existing sick care system
b. Culture change work
3. Select and train the right staff
a. Selection (roles, personal characteristics)
b. Training
c. Group structure and dynamics
4. Modify the business processes and technology systems of care to support AHP
a. Electronic health record
b. Billing and other administrative systems
c. Patient education and engagement systems (e.g., Patient Rights and Responsibilities Statements)
d. Measurement of both adaptive and technical components of care

First, the financial incentives governing the practice must change. A new approach to financing health care is required that pays for value, not throughput. Health plan, employer, and government financing entities need to reward AHP practices for the health they create and the quality of the care they provide, not the type or volume of services they deliver. Likewise, the compensation models for providers need to reward their time and outcomes, not RVUs. Patient liabilities need to be tied to the value of the services they receive, too.²

Second, substantial work will need to be done to develop a new culture of care. Table 2 lists some key changes in the culture of health care that will be required to support the AHP model.

The current mental models in health care, like all cultural norms, are hidden assumptions that underlie our current practices and have been associated in the past with substantial professional and organizational success.²⁸ Changing these mental models will be strongly resisted (adaptive work, again); but this culture work is essential. To facilitate this, it will be important to develop AHP practices as separate, *de novo*, clinical units that are loosely coupled with the existing sick care system.²⁹

² Value-based benefit design models are fairly well developed for both fee-for-service and capitated health insurance products.

Table 2: Changing the Culture of Care

Current Mental Models	Adaptive Health Practice Mental Models
Health care providers (experts, administering technical interventions to patients) are the source of health. People have a limited capacity to self-heal. They need our expertise to be healthy.	Patients (people) produce their own health by doing adaptive work. They have powerful self-healing capabilities. Our job is to facilitate, not interfere with, self-healing.
Patients are incapable of behavior change.	Patients can do the adaptive work to change their behavior.
Provider attempts to get patients to change behavior are not effective.	Providers, using adaptive leadership methods and supportive systems, can facilitate patient adaptive work and behavior change.
Health care technology is efficient and effective. It can obviate adaptive work.	Health care technology is a double-edged sword. It should be used very judiciously (see Table 3) and never in lieu of adaptive work.
We don't have the time to do that "relationship stuff".	Relationships are the source of healthy behavior changes. We take the time to do it right.

Fundamental to AHP is finding the right balance between technical and non-technical approaches to health and healing. Table 3 lists some key principles about the use of technical interventions in the AHP model.

Table 3: The Proper Use of Technical Interventions

Facilitate adaptive work (e.g., exer-gaming, mobile health apps, analgesics to facilitate physical therapy or help patients cope with suffering that would otherwise overwhelm them)
Manage risk factors until adaptive work is effective (e.g., manage GERD symptoms until lifestyle changes become effective)
Treat disease not amenable to adaptive work (penicillin, not adaptive work, is required for strep throat)
Minimize the use of technologies that have irreversible or long-term negative health consequences

A third requirement to implement AHP, and a key component of the culture work, is selecting the right staff, and training them on AHP techniques and methods. Selection criteria will include strong interpersonal and communication skills; interest in and personal experience with successful behavior change; and openness to exploring a less technical approach to care.

The composition of the care team in an adaptive health practice will necessarily be different from the care teams that are being developed in the medical home model. Given the emphasis on changing the social and behavioral determinants of health, there will be stronger representation of staff trained on social work, behavioral health, and health coaching. Family practitioners and advance practice nurses, who have been trained on

family and community-based medicine, will be more strongly represented than Internists, whose training is generally more focused on biotechnical medicine. Given the emphasis on using technical interventions that minimize risk and facilitate adaptive work, the AHP care team will include staff trained and expert in the application and benefits of alternative technologies like therapeutic nutrition, Yoga, meditation, mindfulness-based stress reduction, acupuncture, naturopathy and herbal medicine.

In addition to training staff on the specific principles and techniques of adaptive health practice (see Table 2), they will also be trained on or experienced with practices that facilitate patient adaptive work, such as motivational interviewing, shared decision making, cognitive behavioral therapy,³⁰ and practices that promote patient self-healing.^{31, pp. 223-257}

Table 4: Specific Adaptive Health Practices	
1.	Be mindful: simultaneously engage in the work, and also at the meta-level be aware of what is going on. Heifetz calls this “going to the balcony.”
2.	In each clinical situation, distinguish between adaptive and technical challenges, and adaptive and technical work.
3.	Establish and maintain a “holding environment” or healing relationship. Key components of a healing relationship appear to be “valuing” (creating a non-judgmental emotional bond), “abiding” (displaying a commitment to caring over time), and consciously managing power in ways that most benefit the patient.
4.	Diagnose the system, and the problem. Identify which challenges are “ripe” for doing adaptive work, and focus on those. For those challenges that are not ripe, help the patient reframe the issue in order to increase readiness to change.
5.	Give the adaptive work to the person who has to do it (usually the patient).
6.	Regulate the “heat” so that people are motivated to do the adaptive work (overcome work avoidance), but not overwhelmed by the challenge.
7.	Manage conflict proactively and constructively.
8.	Be persistent (abide). Adaptive work takes time and is challenging. Adaptive leaders are patient and persistent.
9.	See yourself in the system, and manage your self. Show up as a person, not as a “role”.
10.	Advanced AHP: help the patient develop their adaptive capacity. Help them develop the tools to change their environment and social circumstances, and to have the self-awareness, to be able to do their own adaptive work autonomously.

The relationships between the members of the care team are also critical to successful AHP implementation. Learning together how to deploy effective and efficient AHP will require strong teamwork, a collaborative culture, adaptive reserve, and well-developed team reflexivity.³²⁻³⁶

Lastly, we must change health care systems and business processes to support Adaptive Health Practice. The electronic health record must be modified to prompt for AHP-related services, and to be able to record and make use of AHP-related information. Billing and other administrative systems will need to be modified to support, measure, manage, and report on the new AHP practice routines and services.

For instance, in traditional medical practice, the provider-patient clinical interaction is typically organized into four, sequential components: the collection of *subjective* information (the patient's history, including the history of the present illness, their past medical history, the social and family histories, and the review of systems); the collection of *objective* information (physical exam findings, diagnostic test results); the integration of this information into an *assessment* (diagnosis, prognosis); and the elaboration of a *plan* of action based on the assessment (further diagnostic testing, treatment plan, recommendations regarding behavior change, etc.). This "SOAP" approach (subjective, objective, assessment, plan) is built into the structure of the electronic health record progress note.

To support AHP, the "SOAP" note structure in the electronic health record will need to be modified in ways that are suggested in Table 5.

Table 5: The SOAP Note: Old and New

	Traditional	AHP
S	Standard history (CC, HPI, PMH, FHx, SHx, ROS). In MN, we also routinely collect PHQ-9 data to screen for depression.	Modify the traditional ROS to assess health beliefs, social support and network, family and work systems, patient complexity, and a detailed lifestyle inventory
O	Standard physical and diagnostic testing.	Measures of resilience, adaptive capacity, learning orientation, patient activation and engagement
A	Diagnosis, prognosis	Distinguish adaptive and technical challenges explicitly.
P	Treatment, referrals, testing, etc.	Follow adaptive leadership principles. Develop plan for supporting adaptive work, including social and psychological interventions. Require matching of adaptive interventions to adaptive challenges. Reduce use of technical interventions that impair adaptive capacity/work.

Implementing an AHP clinic will require informing and educating both new and existing patients about this philosophy of care. New informational materials will be required to inform patients about the practice's approach to care, and the associated expectations about their role in their own care. Cultural artifacts like Statements of Patient Rights and Responsibilities will need to be changed. Finally, we will need new measures of AHP-related phenomena. These are discussed in the next section.

DESIGN and METHODS

Overview

We think this work needs to proceed in three distinct phases. The first step is a design phase, which is expected to take 6-12 months, during which we will convene a team of practitioners, patients, and experts in a variety of disciplines relevant to AHP, and develop a detailed plan for implementing pilot AHP clinics.

The second, Pilot Phase, will involve piloting, refining, and evaluating the new AHP design in three distinct settings: a employee wellness clinic serving the Abbott Northwestern and Allina Commons campus; a new integrative health and wellness "clinic-within-a-clinic" located in the Allina Woodbury clinic, our second largest primary care clinic; and a completely new primary care clinic opening in White Bear Lake. Each of these pilots will test the model in a different setting; but all three will be *de novo* implementations affording us the opportunity to develop the distinctly new culture of care we believe is required for this approach to be successful.

Assuming the Pilot Phase is successful, and we are able to develop a robust, AHP health clinic model that delivers the desired quadruple aim outcomes, the third phase will involve spreading the model to additional communities and patient populations. In addition to possibly expanding this model to other outpatient clinics and additional employer worksites, we will explore the application of this model to geriatric care.

We intend to seek Robina Foundation funding for the first two phases of this work: design and piloting. If we are successful in the pilot phase, there should be a compelling business case to justify Allina investing in the spread of the model.

Design Phase

The design process will be overseen by a Steering Committee made up of leadership from the Center for Healthcare Innovation, patient representatives, three representatives from each of the future pilot site care teams (a physician, a nurse, and an administrator), representatives from key Allina departments (Excellian, Payer Relations, Human Relations, and Design and Construction), and external expert consultants in the following domains: Adaptive Leadership, Developmental Psychology, Industrial Psychology, Human Behavior Change, and Cognitive Task Analysis. As the design phase proceeds, we will create separate Operating Committees each focused on the specific design requirements of one of the three pilot sites. These Operating Committees will have broader representation from the future pilot site care team and from Allina operational support staff.

The Design Teams will address all of the issues discussed above, including the composition of the care teams, specification of AHP practice routines, selection and training of staff, modification of systems (EMR, MyChart, patient education, billing and practice management, provider compensation), payer relations, and performance measurement and improvement.

Timeline

We expect the Design Phase to last 6-12 months. The Pilot Phase is expected to last two years.

Evaluation

Outcome Measures

We will develop and collect a wide variety of AHP-related measures, in addition to the usual quality measure currently collected by our quality management and performance improvement programs. Below, in outline form, we list the measures we expect to collect and report on.

Health

- Patient behavior change (health appraisal), including
 - Physical activity
 - Diet
 - Tobacco use
 - Body mass index
 - Summary health status measure (TBD)
 - Measure of patient engagement or activation, such as Patient Activation Measure³⁷
- Psychological measures
 - Changes in health beliefs and attitudes
 - Developmental psych measures (TBD)
- Patient social network or social support change. Candidate measures include
 - Social network index (Berkman or Cohen?)
 - Social support (e.g., abbreviated ISSI, or EPESE Social Support Survey)
 - Social network unhealthy behavior risk (high-risk contacts within 3 degrees)
- All standard outpatient technical quality measures, including
 - Optimal diabetes and vascular care
 - Preventive services up-to-date

Affordability

- Utilization:
 - Pharmacy: # of Rx, generics, adherence, cost
 - Medical: OVs, ERVs, ASC Admits, elective surgery, cost
- Total cost of care (from claims costs data obtained from partner health plans)

Experience

- Patient experience (e.g., CG-CAHPS)

Provider and Staff Wellbeing

- Employee engagement survey
- Maslach Burnout Inventory
- Physician job satisfaction survey (to be developed?)

Other provider-level outcomes

- Propensity to intervene
- Provider version of PAM³⁸

Clinic level outcomes:

- Care team structure and function
 - Social network analysis
 - Culture survey

Business outcomes:

- Net income

Process Measures:

Engagement and Participation

- Patient volume
-

References available in a separate document.

Tele-Stroke Project Overview

Stroke is the third leading cause of death in the United States – behind only heart disease and cancer – and is the leading cause of adult disability. Allina's Neuroscience & Spine Clinical Service Line, with Abbott Northwestern Hospital, is focused on building a regional system of stroke care that will reduce death and disability caused by strokes – brain attacks.

As with any medical emergency, the faster a patient receives proper treatment, the better the chances are for a successful recovery. This is especially true for brain attack patients, as restoring blood flow to the brain minimizes the potential for long-term damage or impairment. In the Minneapolis-St. Paul metro area, Abbott Northwestern Hospital is a leading resource for comprehensive stroke care with 24-hour access to neurologists and interventional neuroradiologists. However, access to this level of expertise in rural areas is limited. In fact, in the state of Minnesota, there is a positive correlation between distance from the Minneapolis-St. Paul metro area and stroke mortality. By developing a regional system of stroke care, Abbott Northwestern and its regional hospital partners, plan to change this.

Telehealth technology allows neurologists, practicing in the metro area, to assess patients in real time via telehealth video equipment placed in regional hospitals' emergency departments. The consulting stroke neurologist is able to "beam in" to a regional hospital using a laptop equipped with a webcam, quickly assess the patient, and determine an appropriate course of treatment. The telehealth network provides regional hospitals with access to resources and specialty expertise that will enhance the availability and sophistication of stroke care in those areas.

Allina's goals for the regional stroke care network are threefold: to improve patient satisfaction and the overall cost of stroke care by allowing patients to receive care close to home, advance the statewide quality of stroke care, and ensure well coordinated patient transfers when more advanced treatment is required.

As with any new technology or care model, adoption and full acceptance takes time. For that reason, it is important for Allina and Abbott Northwestern to study the clinical impact, patient and provider satisfaction, and physician decision-making aspects of the technology.

The regional system of stroke care – using telehealth as a supporting communication and assessment platform – will improve timeliness of care, coordination of services, and ultimately enhance both patient experience and clinical outcomes. Allina's regional system of stroke care is fundamentally changing the way stroke patients are cared for in the state of Minnesota.

Shared Decision Making in Oncology

CHALLENGE

For many decisions in medicine there are multiple options available and the options have relatively similar outcomes in terms of survival and health status; but the risks and benefits of the different options vary substantially, such that the best choice depends on the preferences and values of the patient subjected to those potential risks and benefits. Examples of such “preference-sensitive” decisions in Oncology include mastectomy versus lumpectomy and radiation treatment for breast cancer, surgery versus radiation versus watchful waiting for prostate cancer, and palliative care versus aggressive chemotherapy for many types of metastatic cancer.

In these situations, a good decision can be defined as one where the patient is well-informed about the risks and benefits of all their options; understands which risks or benefits matter most to them; and has no avoidable decisional conflict about their decision. Unfortunately, many patients are not fully informed about their options or the possible risks of those options; and often in making treatment recommendations to patients, physicians make faulty assumptions about patient preferences, rather than asking about them.

As a consequence, we believe that patients sometimes receive treatment they would not have wanted, if they had known more about their choices and had had support from their providers in making a choice concordant with their preferences. Perhaps the most common examples of this in Oncology are patients who receive more treatment at the end of life than they really wanted because they don’t want to “disappoint” their doctor, who doesn’t seem ready to “give up”. However, Oncology care is full of preference-sensitive decisions, as noted above, and many cancer patients are making important treatment decisions in the presence of avoidable ignorance and decisional conflict. We believe the burden of this “unwanted care” is substantial.

Shared decision making (SDM) is a structured, standardized approach to helping patients make preference-sensitive decisions. In pilot and research studies, it has been shown to improve patient knowledge, confidence in their decision, treatment-preference concordance, and trust in their physician, and to reduce malpractice risk. It is becoming standard practice in a few breast centers around the country. We believe it is time to make SDM the normal approach to preference-sensitive decision making across our entire oncology service line.

VISION

Over the next five years, the Allina Oncology Service Line, led by Dr. Tim Sielaff from the Virginia Piper Cancer Institute at Abbott Northwestern Hospital, will implement a robust SDM program for all patients with a cancer diagnosis, such that from the day they are diagnosed (and in some cases from the day they decide whether to get screened) until the day they are either cured, or make their final end-of-life decision, our patients with cancer will have the information, the support, and the time to choose, in collaboration with their care team, the course of treatment that is evidence-based, concordant with their preferences and values, and feels best for them. “Unwanted care” will become a “never event” for oncology patients at Allina/ANW.

Physician and Staff Well-Being—the Fourth Aim

CHALLENGE

The deficiencies of the American healthcare system with respect to quality, patient experience, and affordability are well-known. Less often acknowledged is the fact that, despite generous compensation, high status and job security, it's not that good for providers, either. Burnout, emotional exhaustion, compassion fatigue, depersonalization, and job dissatisfaction are epidemic in front-line professional health care workers. In other industries, dissatisfied workers can often obtain relief by changing jobs, or employers; but in health care, job conditions are similar throughout the industry, and medical practices, in particular, are “sticky” and hard to leave. The reasons for this are various, and include the costs and bother of re-credentialing and re-licensure; the emotional and financial capital tied up in physician relationships with their patients; and the large investment of education and training physicians have made in their careers.

There is a large body of research on burnout; and reliable, valid surveys exist to measure it. Roughly 70% of Allina primary care providers manifest symptoms of burnout. However, we still know relatively little about the pathogenesis of burnout, the conditions that lead to it, and what can be done to prevent it. Typical employee engagement surveys, such as the one currently being used by Allina and Abbott Northwestern, do not do a good job of assessing physician job satisfaction (unpublished Allina data).

This matters because job dissatisfaction in front-line healthcare workers directly interferes with our ability to achieve the triple aim goals of improved health and quality of care, great patient experience, and affordable care. Physicians and nurses who are not getting their needs met will in the end not be able to fully meet the needs of their patients. Also, existing shortages in nurse and primary care physician staffing will be aggravated by loss of those providers who become so fed up that they leave their profession, despite the barriers mentioned above. In a recent survey,³

- 49% of physicians said that over the next three years they plan to reduce the number of patients they see or stop practicing entirely
- 60% of doctors would not recommend medicine as a career to young people
- 42% of physicians said the professional morale of their colleagues is either “poor” or “very low”. Only 6% of physicians described the professional morale of their colleagues as “positive.”
- 78% of physicians said medicine is either “no longer rewarding” or “less rewarding”
- 76% of physicians said they are either at “full capacity” or “overextended and overworked”

Ultimately, our nurses and our doctors are the reason people come to Allina and Abbott Northwestern Hospital for care. In order to be the best healthcare organizations in our community, we need to have the best workforce. That means we need to address physician and nurse job dissatisfaction directly, both by developing a better understanding of the pathogenesis of the problem, and by developing effective programs to address it.

³ The Physicians Foundation. Downloaded March 29, 2011 from http://www.physiciansfoundation.org/uploadedFiles/Key_Findings_for_Survey_Report.pdf

VISION

To begin this work, the Center for Healthcare Innovation has initiated a Provider Well-being program. The program has the following specific aims:

- Develop a conceptual model for well-being, its antecedents and determinants.
- Develop one or more measurement instruments to assess provider well-being and important covariates, such as burnout, work-family balance, and engagement.
- Determine the relative contributions of individual-level, clinic-level, and organizational-level factors to well-being.
- Assess the effectiveness of a wide-range of interventions currently underway, planned and in development to improve well-being.
- Assess the effect of differential levels of provider well-being on key performance metrics including quality, patient experience, operational efficiency, and total cost of care.
- Inform the development of a strategic initiative to improve provider well-being and morale so that Allina and ANWH becomes the destination healthcare employer in Minnesota.

Status?
Timetable?