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Clinical Transformation:

Fundamentally Changing Clinical Processes to Achieve a Sustainable Advantage

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Overview

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- What do we mean by clinical transformation?
  - No… meaningful clinical transformation!
  - Care variation management is at the core of clinical transformation
    - Clinical and financial impact of care variation
    - Approach to standardizing care processes
- The Maine Medical Center experience
  - Practical lessons learned
  - Creating sustainability
- Where do you go from here? The link to true clinical integration

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Geographic Variation in Screening for Prostate Cancer

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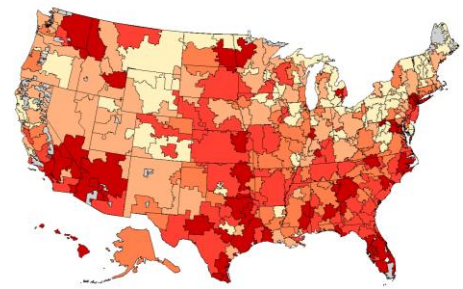

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Raging Debate About the Cause of Regional Variation in Medicare spending: Policy Implications

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Dartmouth Institute	Federal Reserve/Cooper
• Variation is due to differences in practice patterns • Variation within states cannot be accounted for by individual patient characteristics or population health • Most variation is due to greater use of discretionary services	• Health differences and socioeconomic factors affect health and health behaviors rather than practice styles • Smoking, diabetes, obesity • Graduation rates, test scores, insurance, unemployment, violent crime, teen pregnancy

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Care Variation Exists Virtually Everywhere

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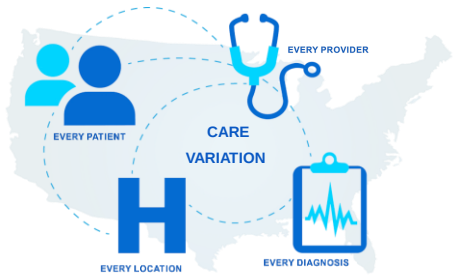

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Care Variation Among Top Health Systems

HIGH VALUE HEALTHCARE COLLABORATIVE — TOTAL KNEE REPLACEMENT STUDY

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Cleveland Clinic, Dartmouth-Hitchcock Medical Center, Denver Health, Intermountain Healthcare, Mayo Clinic

Characteristic	Range of Performance
Length of Stay	2.8 – 4.4 Days
Operating Time	66 – 118 Minutes
Complications	0.2% – 1.1%
Readmissions	2.2% – 4.6%

Source: Tomek et al., Health Affairs, October 2012

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Baseline Provider LOS Opportunity
APR-DRG 194: Heart Failure

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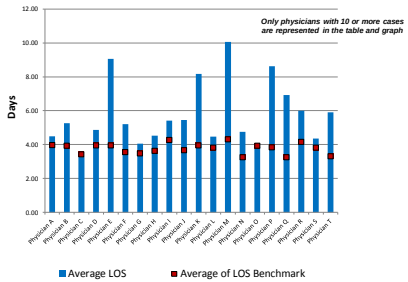

Source: Total Benchmark Solutions_Client Information System; Timeframe - 11/1/2010 to 10/31/2011; Charge Benchmark – >251 bed NY State Medicare 75th percentile ; LOS Benchmark – 151 to 250 bed Medicare 75th percentile; APR-DRG 194 Encounters = 487, Avg LOS = 5.84 Days, Benchmark = 3.82 Days, Opportunity per Encounter = 2.02 Days, Total LOS Opportunity= 982 Days

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Economic Impact of Waste in Healthcare

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Category	Annual Cost to U.S. Healthcare System ($ Billions)
Failures of Care Delivery	$102 – $154
Failures of Care Coordination	$25 – $45
Overtreatment	$158 – $226
Administrative Complexity	$107 – $389
Pricing Failures	$84 – $178
Fraud and Abuse	$82 – $272
TOTALS	$558 – $1,263
% of Total Spending	21% – 47%

Clinical Transformation Can Address 34% – 51% of Waste

Source: Berwick DM, Hackbarth AD. Eliminating waste in US health care. JAMA, 3/14/12

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Achieving Clinical Transformation

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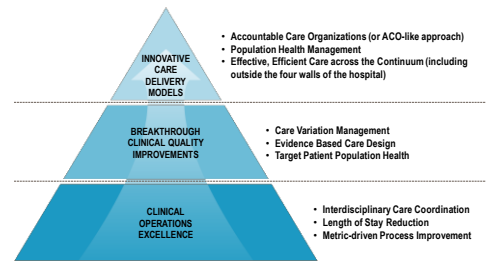

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Care Variation Management

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Cost per case improvement excludes room/ICU, OR, professional fees, ED, outpatient.

Diagnosis	Cost Per Case Improvement	30-Day Readmission Improvement
COPD	17%	15%
Pneumonia	6%	0%
Sepsis	20%	13%
CHF	7%	6%

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Benefits of Care Variation Management

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- Financial benefits for targeted patient populations
  - Length-of-stay (LOS) reductions (both expense and revenue opportunity)
  - Critical and intermediate care day reductions
  - Decreased resource consumption
- Improved quality and safety
  - Decreased variability in care processes
  - Reduction in readmissions
- Improved patient satisfaction
- Improved physician and staff satisfaction
- Emergence of high-performing, collaborative teams
- Positions the organization to be successful in a value-based reimbursement environment

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Improving Patient Flow and Reducing Variation

PATIENT SATISFACTION SCORES INCREASE

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Press Ganey Survey Sample Questions	Hospital of The University of Pennsylvania	The University Hospital, Cincinnati	Children's Hospital Colorado
Likelihood of Recommending Hospital	N/A	2.4*	3.8*
Nurses Kept You Informed**	1.8*	2.8*	4.7*
Physician Kept You Informed	1.5*	0.7	3.0*
Staff Included You in Decisions Regarding Treatment**	2.1*	1.4	3.6*
Instructions for Home Care**	2.3*	0.4	3.9*
Staff Worked Together to Care for You**	1.9*	1.7*	2.7
Felt Ready for Discharge**	2.2*	N/A	2.6
Speed of Discharge	1.0*	1.0	6.1*
Room Cleanliness**	3.2*	0.8	6.6*

*Denotes a statistically significant increase ($p \leq 0.05$)

**Questions that have a strong correlation with the HCAHPS question, "Would you recommend this hospital to family and friends?"

Source: "Increasing Patient Satisfaction: A Key Benefit of Improving Patient Flow Performance", Huron Healthcare white paper.

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Clinical Transformation

CRITICAL SUCCESS FACTORS

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- Coordinating the breadth of change required for success
  - Involving the appropriate clinical staff
  - Improvement initiatives must reflect a comprehensive view of care delivery for targeted conditions, not a departmental perspective
- Engaging physicians
  - Collaborative process
  - Strategy for addressing physician-related constraints/barriers
  - Strong personal relationships will support change
  - Utilize existing governance and accountability models to reinforce and support change
- Organization-wide support and buy-in
  - Visible and strong leadership support
  - Identify change agents and champions early, ensure they are involved and engaged
  - Comprehensive communication plan incorporating all stakeholders

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Clinical Transformation at Maine Medical Center

- A systematic approach to reduce indefensible clinical variation and costs *(improved value)* in the care of patients defined by specific DRGs.
- DGRs where MMC had costs *(charges)* significantly above benchmark hospitals *(12 similar medical centers in New England).*

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Northeast Teaching Hospitals Custom Benchmark

Facility Name	City	State
Albany Medical Center	Albany	NY
Baystate Medical Center	Springfield	MA
Berkshire Medical Center	Pittsfield	MA
Dartmouth-Hitchcock Medical Center	Lebanon	NH
Faulkner Hospital	Boston	MA
Fletcher Allen Health Care	Burlington	VT
Hartford Hospital	Hartford	CT
Lahey Clinic Hospital	Burlington	MA
Long Island Jewish Medical Center	New Hyde Park	NY
Mount Auburn Hospital	Cambridge	MA
Tufts Medical Center	Boston	MA
Upstate Medical University	Syracuse	NY

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Focus

"**Streamline and reduce variability** in the care of patients with **mechanical ventilation and tracheostomy** including palliative care, falling into DRGs 4 & 5.

Design and implement an efficient, safe effective and timely process based on best practices for patient safety and satisfaction, meeting regulatory requirements."

— Tracheostomy/Mechanical Ventilation/ Palliative Care Team Charter

DRG 4	• **Tracheostomy with long-term mechanical ventilation with an extensive procedure.**
DRG 5	• **Tracheostomy with long-term mechanical ventilation without an extensive procedure.**

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Background

- Sickest patient population
- Utilize multiple resources
- Variation in care
- These patients have huge impact on patient flow
- **In 2010, cost for 104 patients > $17M more than our 12 comparison hospitals at the 75%ile (TBS).**

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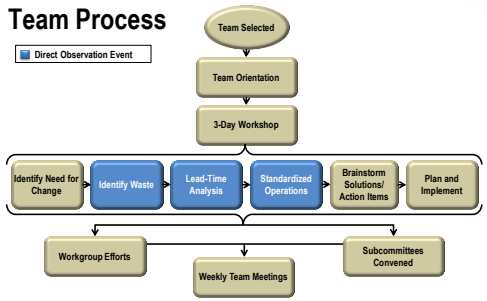
Team Process



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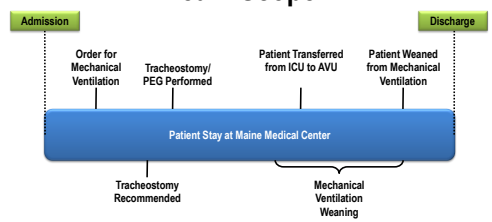
Team Scope



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73 Action Items

	Immediate	Short Term	Long Term	Total Items
Care Plan Design	4	5	3	12
Care Transition	4	2	4	10
Enhancing Professionalism	4	0	3	7
Environment of Care	6	2	5	13
Standardization of Care Processes	3	3	4	10
Structural Reorganization	9	3	9	21

55% of solutions were started prior to the workshop's conclusion.

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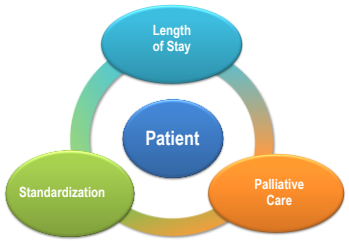
Our Goals



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Goals: Where team saw the biggest opportunities

- **Early assessment of palliative care needs** (days lost awaiting decision making)
- **Standardization of tracheotomy placement** (why, when, where, how, who)
- **Standardization of mechanical ventilation weaning process** (lost days through lost progress)
- **Standardization of post mechanical ventilation care** (lost days through no standardization of tracheotomy care and removal)

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Goals *(continued)*

- **Improve patient flow:** The right patient, at the right time, in the right bed (blocked ICU beds)
- **Finding long term care solutions**: Few options in Maine (patient satisfaction, staff satisfaction)
- **Supporting employees:** Helping employees feel confident, competent, and take pride in their work (full understanding of plan, improved hand-off, competencies)
- **Assessing the patient perspective:** "Experiencing consistent messaging, every day, all day, for the length of a shortened stay, in which my family is communicated with, and I am confident in my safety."

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How to measure our success?

- LOS
- Processes
- Patient/family satisfaction
- Financials

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Measurement Statements

Measurement Statement	Measurement Goal	Baseline	3 Month Results	6 Month Results	9 Month Results	12 Month Results
Average Length of Stay (ALOS) for APR-DRG 4 (Trach Pts w/ Extensive Procedure)	Reduce by 10%	48.8 days	47.8	46.4	44.9	43.9
Average Length of Stay (ALOS) for APR-DRG 5 (Trach Pts w/o Extensive Procedure)	Reduce by 10%	41.7 days	40.9	39.6	38.4	37.5
ALOS on SCU	Reduce by 10%	34.3 days	33.3	32.5	32.0	31.3
VAP Bundle Compliance	90% at 12 mos	75.7%	80%	> 90%	> 90%	> 90%
Palliative Care Screening	90% at 12 mos	0%	Complete Development of Screening Tool	30%	60%	90%
Frequency of Bounce Back to SCU	none	TBD	TBD	TBD	TBD	TBD
ALOS Between Order and Treatment (AVP Referral)	Reduce by 1 day	3.4 days	3.2	2.9	2.5	2.4
SCU Patient Satisfaction Survey	Create	No survey exists	Complete Survey Development	Measure Baseline	Increase Baseline by 5%	Increase Baseline by 10%
HCAHPS Scores on R4	AP target			Decrease gap by 50%	Meet	Meet or Exceed AP Targets
New Interdisciplinary Rounds	Redefine, 100% attend		25% Attend	100% Attend	100% Attend	100% Attend
Family Meeting Conducted Prior to Trach Placement (Identify Team and Family Needs for Comprehensive Discussion of Implications of Proceeding with Trach)		Unknown	25%	50%	75%	100%
Generate >$1M in Savings Within 1st Year			$100,000	$300,000	$500,000	$1,000,000

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Cost

	Potential Savings
Decrease 1 SCU Day @ $3,831*	$3831* X 104 pts**=$398,424.00
Decrease 1 AVU Day @ $2,300*	$2300* X 104 pts**=$239,200.00
Decrease 1 Med/Surg Day @ $2,300*	$2300* X 104 pts**=$239,200.00
	$876,824.00 (End of Stay)
Decrease LOS Cost With Long-Term Solution	TBD

* (Based on FY2010, RCC=.525 per C. Alsdurf)
**(Based on Data for DRG 4 and 5 for 2010)

104 = number of patients with DRG 4 & 5

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Results

- **LOS**
  - ICU LOS declined from 34 to 24 days
  - Transfer time from 3.4 to < 1 day
  - Hospital LOS declined by 3.5 days (9.2%)
- **Processes**
  - > 4 disciplines in attendance at IDCR: 82%
  - Palliative Care Screening tool created, implemented
  - Electronic Family Meeting tool created, implemented
- **Patient/Family satisfaction**
  - ICU specific survey created and implemented
- **Financial**
  - Cost reduction (savings) — $300K at 9 months ($500K goal)

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Results

- Palliative care assessment process has become the model for the health system
- MH/private corp. partnership for creation of a long term vent facility
- Model for independent and MMC employed physician partnerships in clinical transformation
  - Cultural
  - Operational

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Critical Areas of Success

- Building a sustainable Clinical Transformation team
- Hardwired hand-off process – face to face
- Reduction in MMC cultural handicaps
- Implementation of palliative care screening
- Reduction in LOS
- Partnership to create the 1st chronic vent facility in Maine
- Cost reduction

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Key Lessons Learned

- Managing the time commitment
  - Measure, monitor, mentor
- Clinicians rely on timely, accurate and relevant data
  - The lack thereof demeans the process
- Senior leadership commitment is essential
  - Provide the resources to get the work done, address barriers
- Change comes at different velocities
  - Manage change milestones expectations
- Communication is vital
  - 8 times, 8 ways, don't assume receptivity or memory

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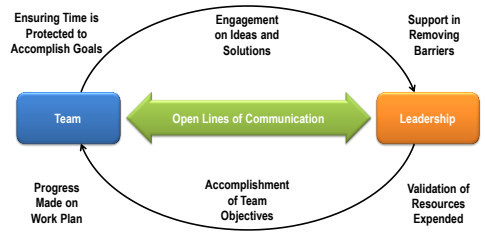
Reciprocal Accountability



Modeled on: Silverstein, DMD, DrPH, Jack. "Plain Talk About Physician." Lecture. 12th Annual International Summit on Improving Patient Care in the Office Practice and the Community. Dallas, Texas, United States. 21 Mar. 2013. *Institute for Healthcare Improvement*. Web. 6 Mar. 2012. <http://www.ihi.org/offerings/Conferences/Summit2011/Documents/International%20Summit%20Brochure.pdf>.

Focus on Outpatient Care:

2008 Medicare Acute and Post-Acute Payments for Inpatient-Initiated 90-Day Period Episodes

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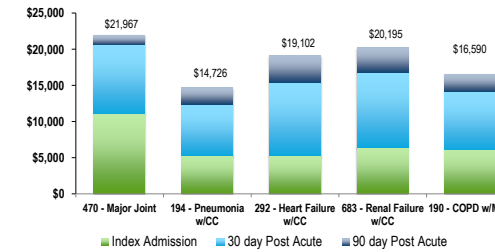

Clinical Integration Supports Care Variation Management Across the Continuum

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- Hospital physician collaboration produces significant decrease in cost and improvement in quality
  - Shared culture of engagement across employed and independent physicians
  - CI becomes the organizing force for physician engagement
- Shift to managing care across the continuum
- The delivery system is rationalized to have the right number and distribution of physicians
- Shift from metric setting to care standardization
- Advanced care management infrastructure
- Behave like a high performance employed medical group with strong physician leadership of clinical programs

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Demonstrating the Value of Clinical Integration
Advocate Physician Partners (2012)

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- Asthma initiative:
  - Asthma control rate 17% above national average
  - Saved $8.9M and 39,390 days saved from absenteeism
- Diabetes initiative:
  - Added 26,400 years of life, 42,240 years of sight, 31,680 years free from kidney disease
  - $4.3M annual savings
- Post-partum depression screening:
  - Saved $751,000 and 1,946 lost work days regained
- Childhood immunization initiative:
  - Saved $5M in avoided hospitalization costs
- Generic prescribing initiative:
  - $12.4M savings

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Clinical Integration Leads to Clinical Transformation: A Sustainable Strategic Advantage

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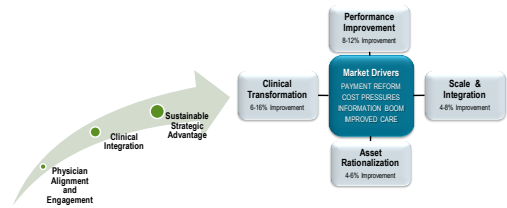

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Questions

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Q & A

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Today's Presenters

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