INSTITUTE FOR HEALTHCARE IMPROVEMENT

The Science of Improvement

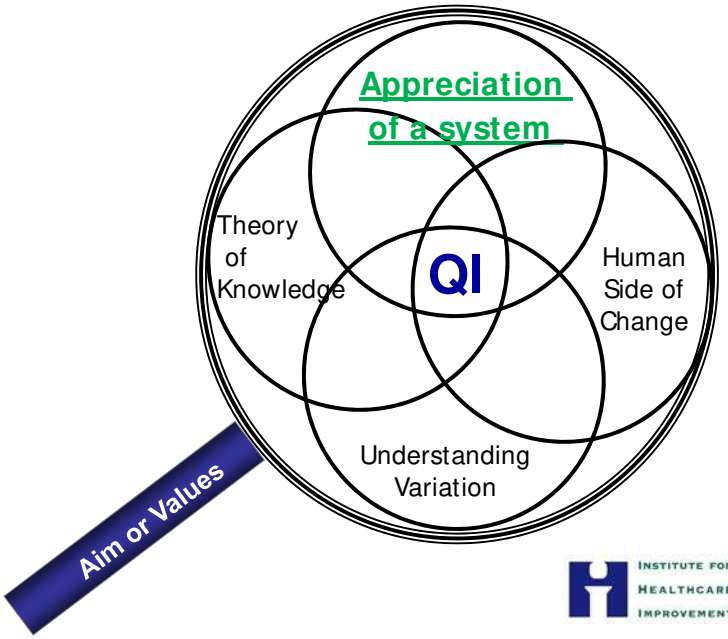
The Model for Improvement: Overview

November 2011

Faculty
Rebecca Steinfield, M.A. and Jane Taylor, Ph.D.

The presenters have nothing to disclose

Applying the Lens of Profound Knowledge



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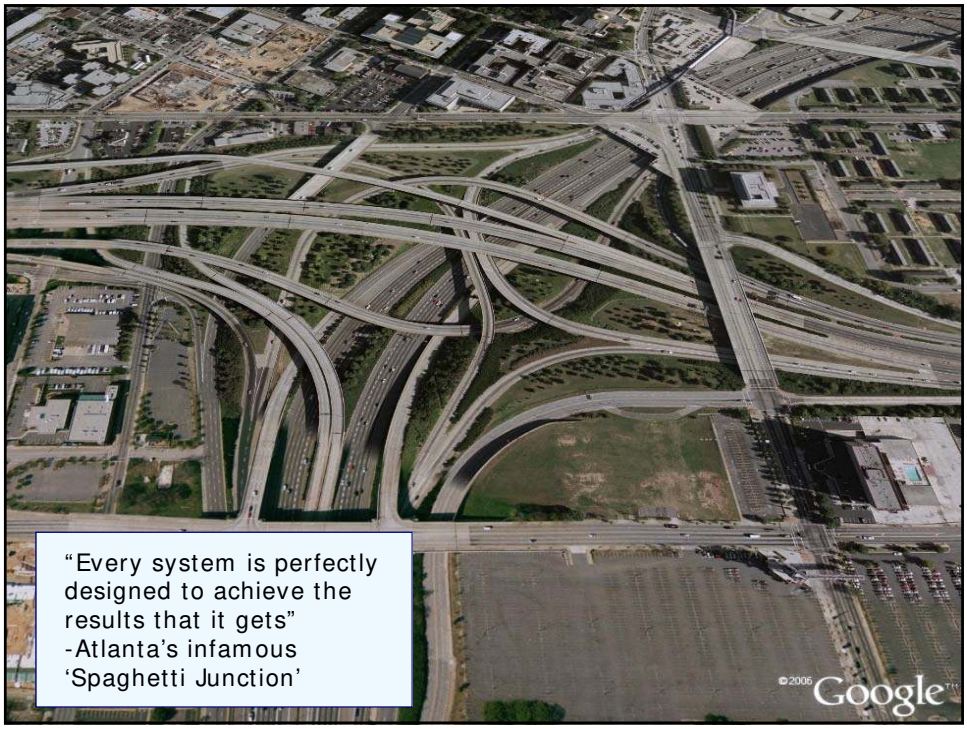
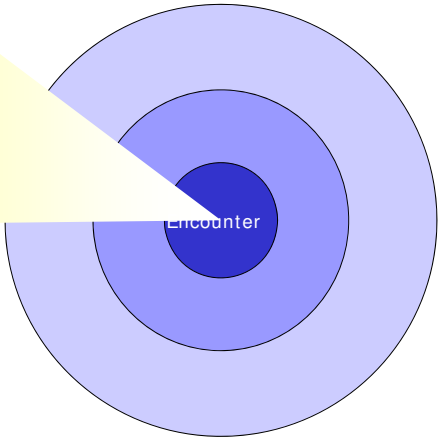


A System

- A system has an aim or purpose
- The network of factors that lead to outcomes of value to stakeholders
- Factors comprise structures, processes, culture, personnel, geography, and much more.
- Dynamic: The 'thing in motion'.
- The system 'is what it is'
- Improving outcomes requires understanding the dynamics of the system

The System Of Care



- Reliable evidence-based care
- Patient-centered
- Timely
- Safe
- Efficient
- Effective

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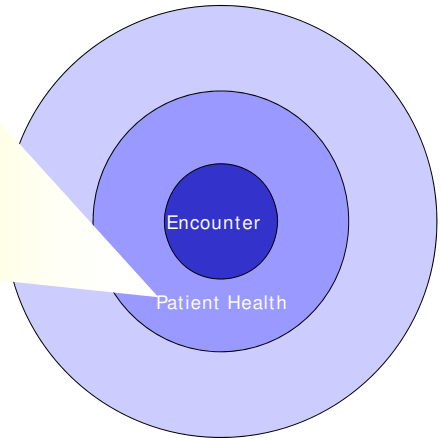
The System Of Care



- Staying fit
- Getting better
- Managing chronic disease
- Healthy mom & baby
- Coping with end-of-life

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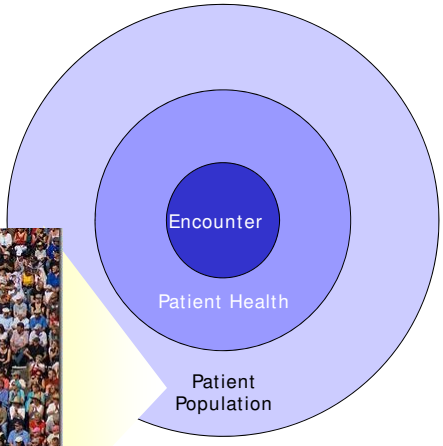
The System Of Care

Population health and well-being

- Percent of patients who suffered harm
- Percent with current preventive care
- Percent of patients who would recommend



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Sizing the 'System'

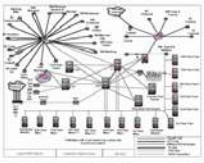
D: The environment (policy, payment, accreditation, etc.)

C: Organizations that support microsystems

B: Microsystems

A: Experience of Patients

Zooming the View

Hospital	Macro-systems e.g. facility, region	
Service Area	Meso-systems e.g. division, clinical dept, pathology, IT	
Frontline Unit	Microsystems e.g. unit, clinic, surgical team	

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System Components

Structure

\+ Process

\+ Culture*

Outcome

* Added to Donabedian's original formulation

Donabedian, A. (1966). "Evaluating the quality of medical care." Milbank Mem Fund Q 44(3): Suppl:166-206.

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System Purpose

"The quality of patients' experience is the "north star" for systems of care."

–Don Berwick

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The Voice of the Patient

How would your patients describe the purpose of your system of care?

"I want your pharmacy to provide me with the right medications at the right time, in the correct dosages, to help me heal."

"While I am in your care, I want you to provide me with compassionate, respectful care. I want to be free from pain and have a dignified death."

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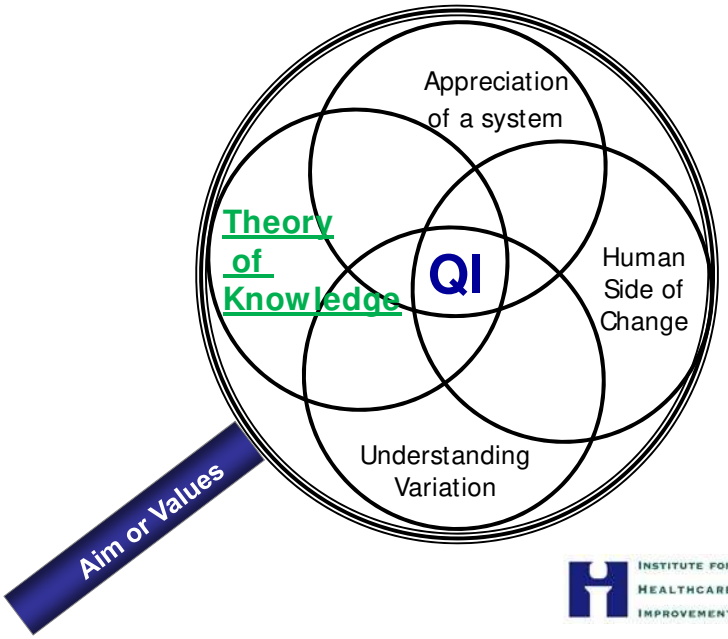
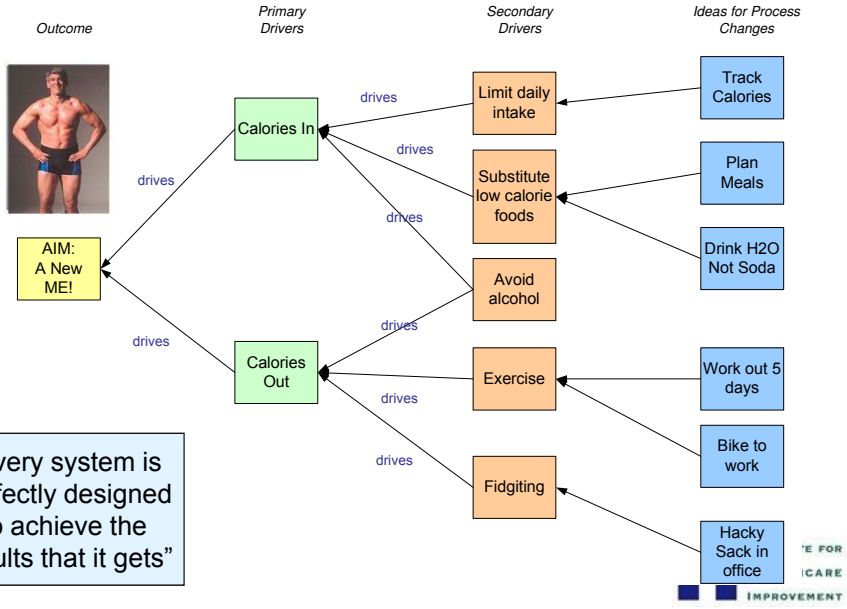
Exercise: What's *Your* System?

1. Describe the system you want to improve
2. List the stakeholders and what they value in the system
3. Identify the patient population
4. Write down the purpose of *your* system using the language of the patient

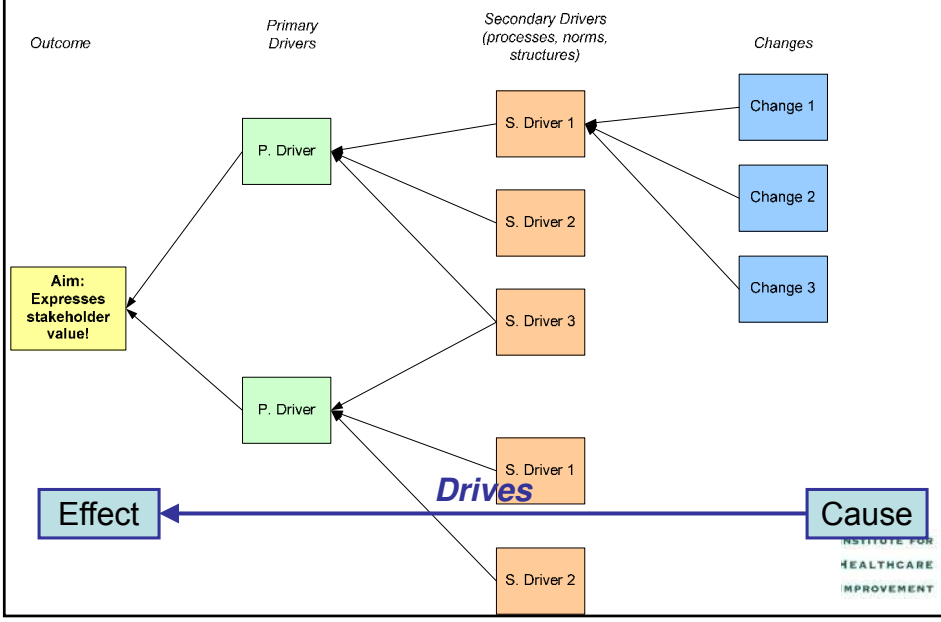
Applying the Lens of Profound Knowledge



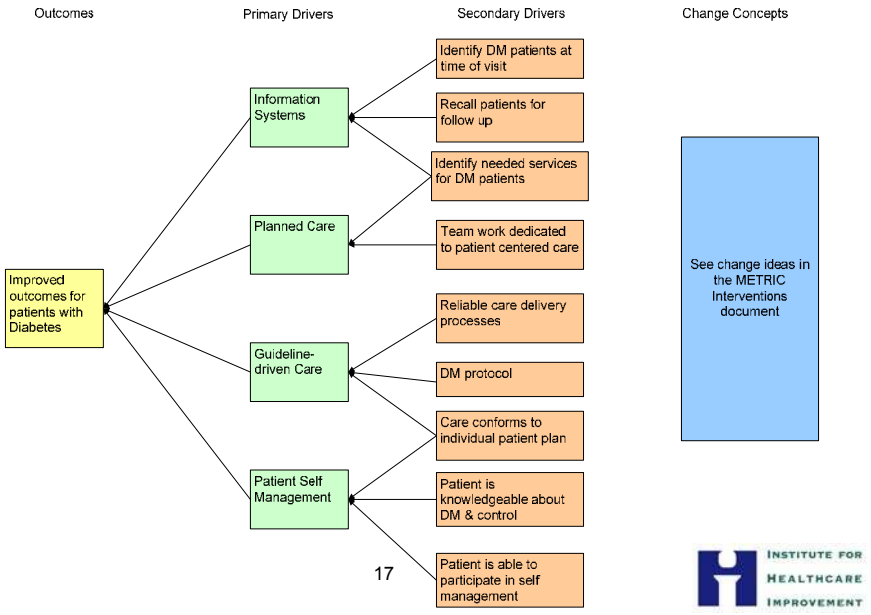
A Theory for Weight Loss



A Theory of How to Improve a System



Improving Diabetes Care Driver Diagram



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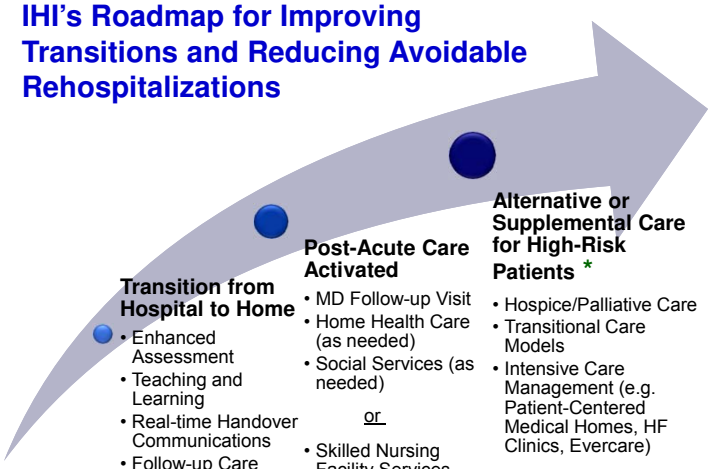
IHI's Roadmap for Improving Transitions and Reducing Avoidable Rehospitalizations



Transition from Hospital to Home
- Enhanced Assessment
- Teaching and Learning
- Real-time Handover Communications
- Follow-up Care Arranged

Post-Acute Care Activated
- MD Follow-up Visit
- Home Health Care (as needed)
- Social Services (as needed)

or

- Skilled Nursing Facility Services

Alternative or Supplemental Care for High-Risk Patients *
- Hospice/Palliative Care
- Transitional Care Models
- Intensive Care Management (e.g. Patient-Centered Medical Homes, HF Clinics, Evercare)

**** Additional Costs for these Services***

Improved Transitions and Coordination of Care

Reduction in Avoidable Rehospitalizations

Patient and Family Engagement

Cross-Continuum Team Collaboration

Evidence-based Care in All Clinical Settings

Health Information Exchange and Shared Care Plans

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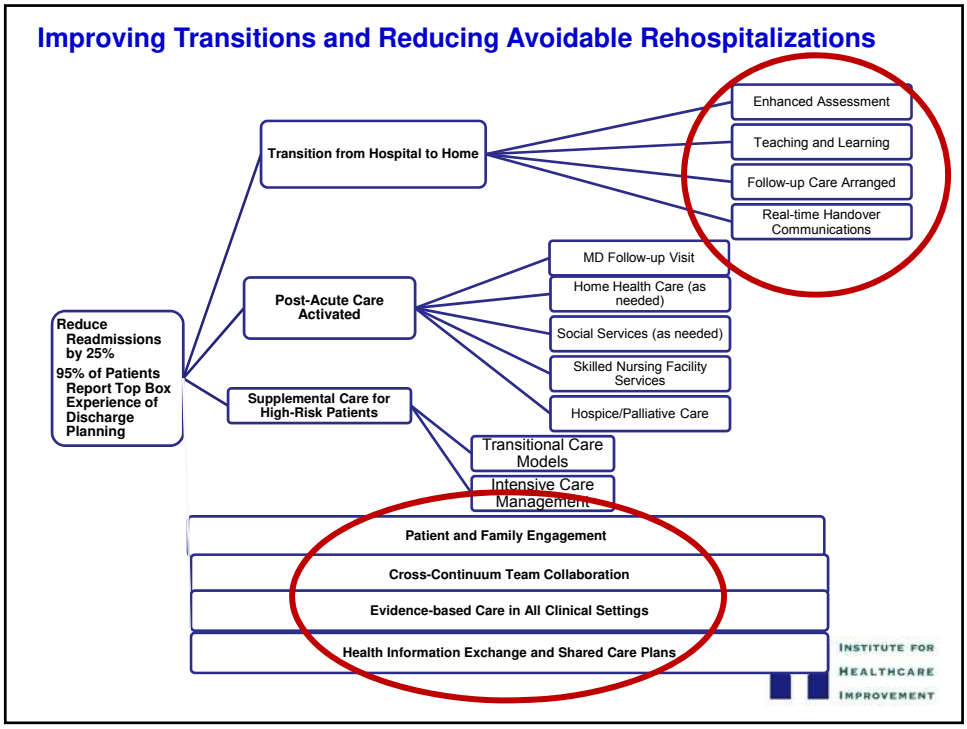
Improving Transitions and Reducing Avoidable Rehospitalizations
Reduce Readmissions by 25%
95% of Patients Report Top Box Experience of Discharge Planning
Transition from Hospital to Home
Enhanced Assessment
Teaching and Learning
Follow-up Care Arranged
Real-time Handover Communications
Post-Acute Care Activated
MD Follow-up Visit
Home Health Care (as needed)
Social Services (as needed)
Skilled Nursing Facility Services
Hospice/Palliative Care
Supplemental Care for High-Risk Patients
Transitional Care Models
Intensive Care Management
Patient and Family Engagement
Cross-Continuum Team Collaboration
Evidence-based Care in All Clinical Settings
Health Information Exchange and Shared Care Plans
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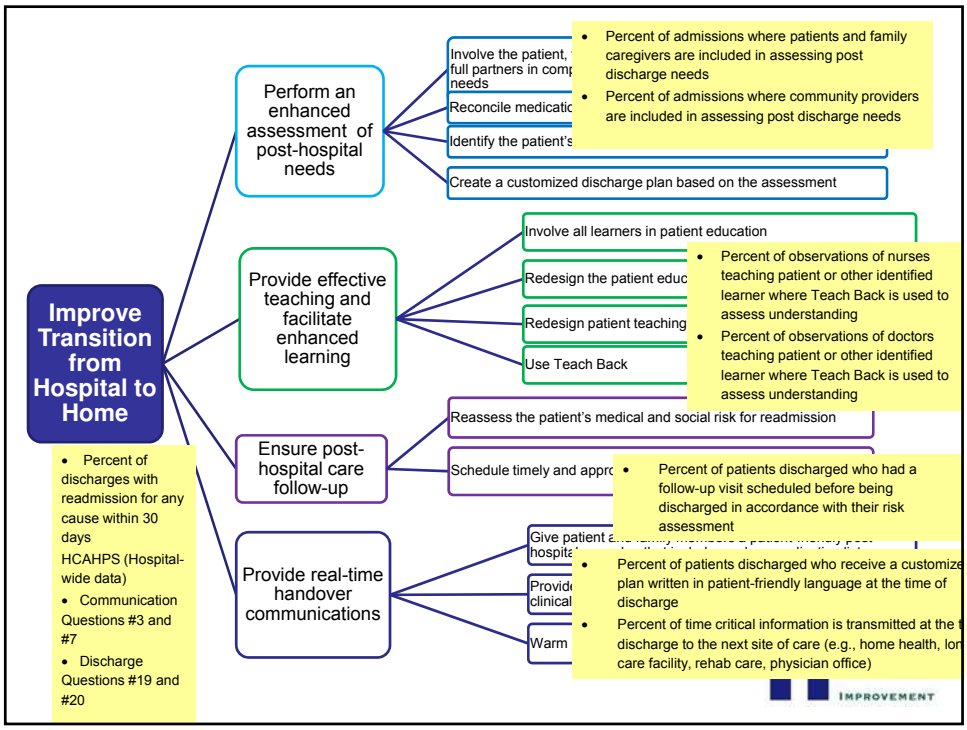
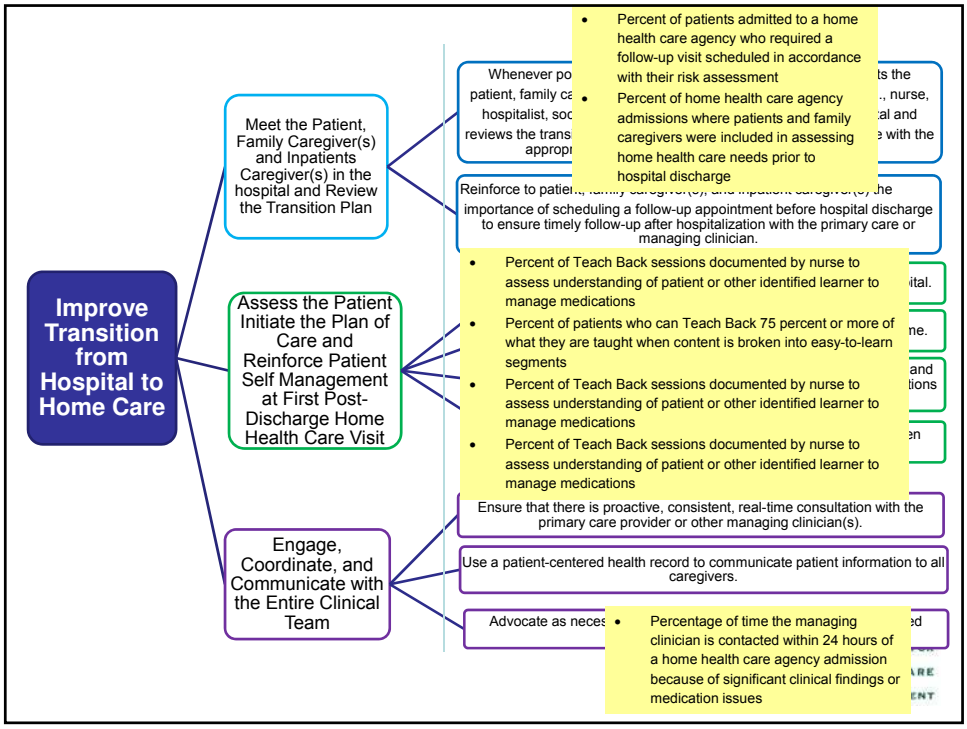
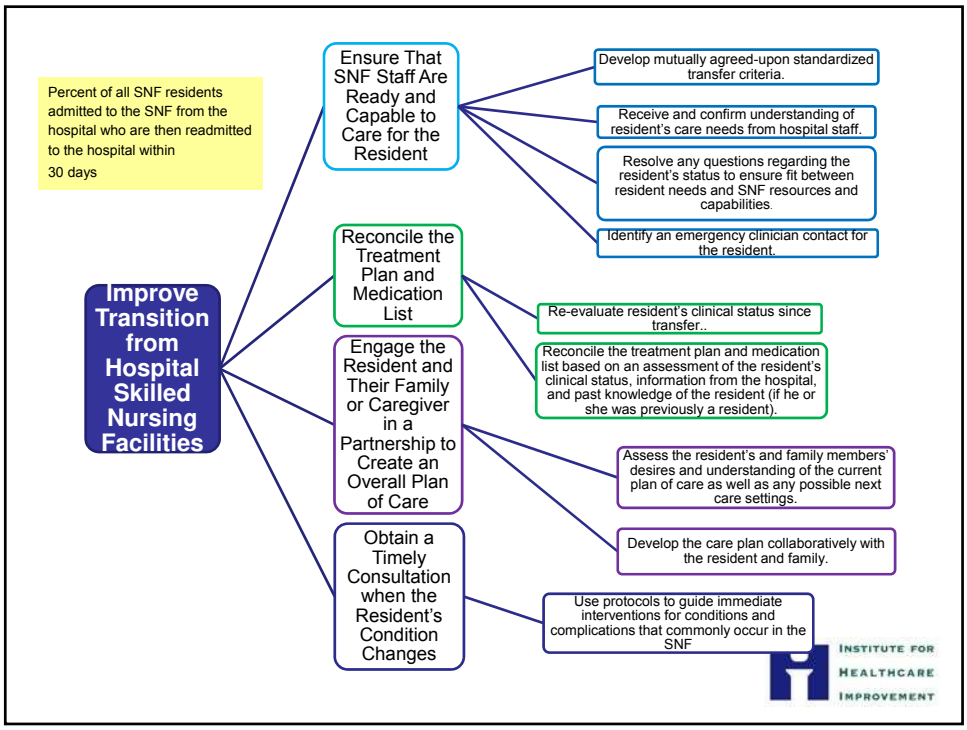

Improve Transition from Hospital to Home
Perform an enhanced assessment of post-hospital needs
Involve the patient,
full partners in comp
needs
Reconcile medicatio
Identify the patient's
Create a customized discharge plan based on the assessment
Provide effective teaching and facilitate enhanced learning
Involve all learners in patient education
Redesign the patient educ
Redesign patient teaching
Use Teach Back
Ensure post-hospital care follow-up
Reassess the patient's medical and social risk for readmission
Schedule timely and appro
Provide real-time handover communications
Give patient a
hospita
Provid
clinical
Warm
Percent of admissions where patients and family caregivers are included in assessing post discharge needs
Percent of admissions where community providers are included in assessing post discharge needs
Percent of observations of nurses teaching patient or other identified learner where Teach Back is used to assess understanding
Percent of observations of doctors teaching patient or other identified learner where Teach Back is used to assess understanding
Percent of patients discharged who had a follow-up visit scheduled before being discharged in accordance with their risk assessment
Percent of patients discharged who receive a customize
plan written in patient-friendly language at the time of discharge
Percent of time critical information is transmitted at the t
discharge to the next site of care (e.g., home health, lon
care facility, rehab care, physician office)
Percent of discharges with readmission for any cause within 30 days
HCAHPS (Hospital-wide data)
Communication Questions #3 and #7
Discharge Questions #19 and #20
IMPROVEMENT


Improve Transition from Hospital to Home Care
Meet the Patient, Family Caregiver(s) and Inpatients Caregiver(s) in the hospital and Review the Transition Plan
Assess the Patient Initiate the Plan of Care and Reinforce Patient Self Management at First Post-Discharge Home Health Care Visit
Engage, Coordinate, and Communicate with the Entire Clinical Team
Reinforce to patient, family caregiver(s), and inpatient caregiver(s) the importance of scheduling a follow-up appointment before hospital discharge to ensure timely follow-up after hospitalization with the primary care or managing clinician.
Ensure that there is proactive, consistent, real-time consultation with the primary care provider or other managing clinician(s).
Use a patient-centered health record to communicate patient information to all caregivers.
Percent of patients admitted to a home health care agency who required a follow-up visit scheduled in accordance with their risk assessment
Percent of home health care agency admissions where patients and family caregivers were included in assessing home health care needs prior to hospital discharge
Percent of Teach Back sessions documented by nurse to assess understanding of patient or other identified learner to manage medications
Percent of patients who can Teach Back 75 percent or more of what they are taught when content is broken into easy-to-learn segments
Percent of Teach Back sessions documented by nurse to assess understanding of patient or other identified learner to manage medications
Percent of Teach Back sessions documented by nurse to assess understanding of patient or other identified learner to manage medications
Percentage of time the managing clinician is contacted within 24 hours of a home health care agency admission because of significant clinical findings or medication issues


Improve Transition from Hospital Skilled Nursing Facilities
Percent of all SNF residents admitted to the SNF from the hospital who are then readmitted to the hospital within 30 days
Ensure That SNF Staff Are Ready and Capable to Care for the Resident
Develop mutually agreed-upon standardized transfer criteria.
Receive and confirm understanding of resident's care needs from hospital staff.
Resolve any questions regarding the resident's status to ensure fit between resident needs and SNF resources and capabilities.
Identify an emergency clinician contact for the resident.
Reconcile the Treatment Plan and Medication List
Re-evaluate resident's clinical status since transfer..
Reconcile the treatment plan and medication list based on an assessment of the resident's clinical status, information from the hospital, and past knowledge of the resident (if he or she was previously a resident).
Engage the Resident and Their Family or Caregiver in a Partnership to Create an Overall Plan of Care
Assess the resident's and family members' desires and understanding of the current plan of care as well as any possible next care settings.
Develop the care plan collaboratively with the resident and family.
Obtain a Timely Consultation when the Resident's Condition Changes
Use protocols to guide immediate interventions for conditions and complications that commonly occur in the SNF
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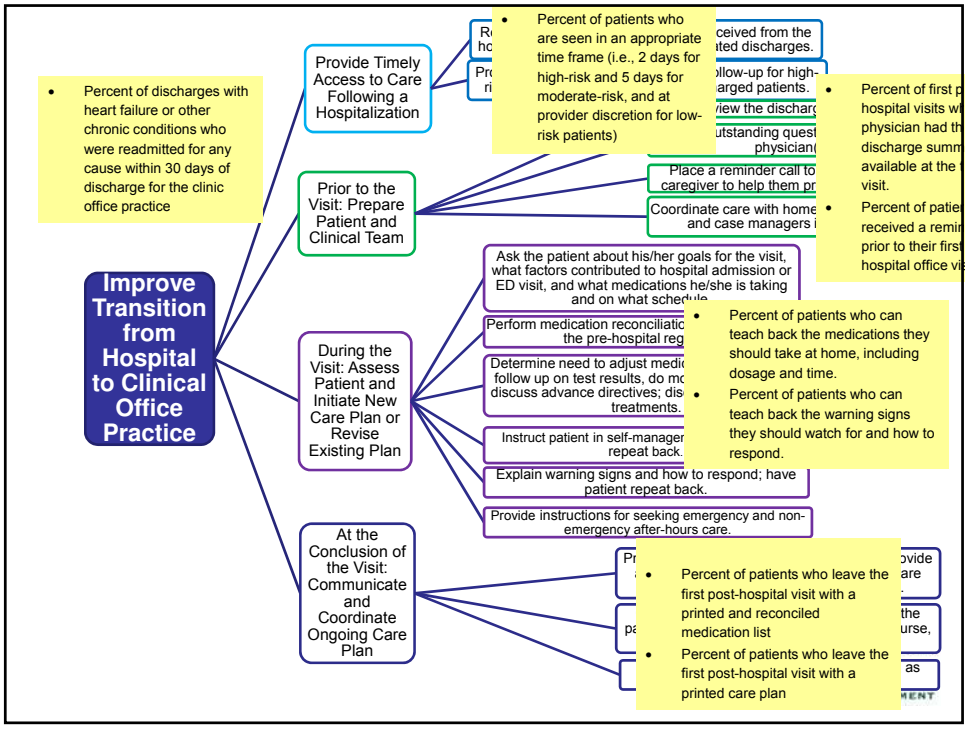

Hospitals	Office Practices	Home Care	Skilled Nursing Facilities
• Perform an enhanced assessment of post-hospital needs • Provide effective teaching and facilitate enhanced learning • Ensure post-hospital care follow-up • Provide real-time handover communications	• Provide timely access to care following a hospitalization • Prior to the visit: prepare patient and clinical team • During the visit: assess patient and initiate new care plan or revise existing plan • At the conclusion of the visit: communicate and coordinate ongoing care plan	• Meet the patient, family caregiver(s), and inpatient caregiver(s) in the hospital and review transition home plan • Assess the patient, initiate plan of care, and reinforce patient self-management at first post-discharge home care visit • Engage, coordinate, and communicate with the entire clinical team	• Ensure that SNF staff are ready and capable to care for the resident patient's needs • Reconcile the Treatment Plan and Medication List • Engage the resident and their family or caregiver in a partnership to create an overall place of care • Obtain a timely consultation when the resident's condition changes

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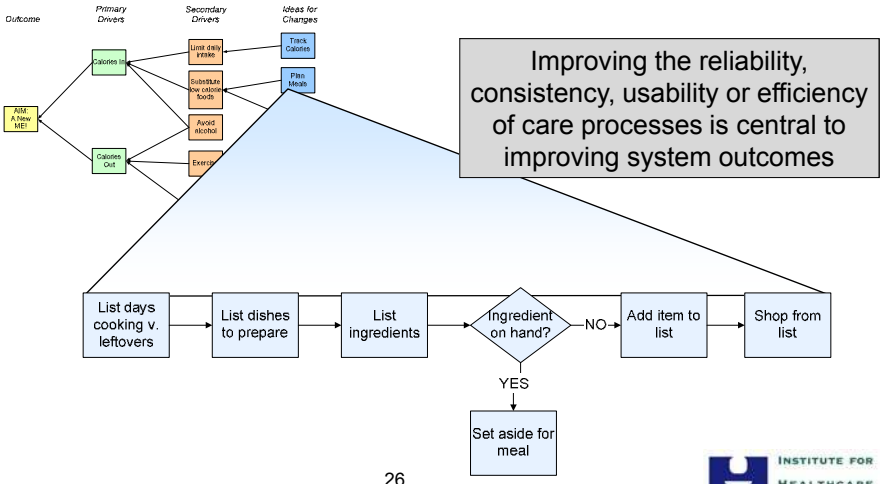
About Drivers

- **Secondary Drivers**
  - Structures, processes, or cultural norms that contribute to desired outcomes
  - Evidence based: clinical or improvement
  - Necessary and sufficient for improvement
- **Primary Drivers**
  - Groups of secondary drivers with common resources, manager, equipment, patients, etc.
  - Could be assigned to a team to improve

Drivers and Processes

Many drivers are processes



Readmissions Drivers

- What processes are your drivers for reducing readmissions?

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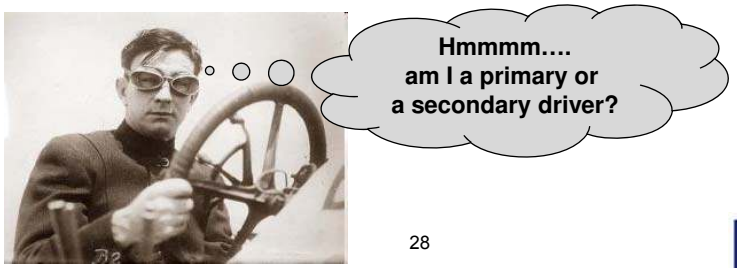
Exercise: Drivers of Improvement

- Review the driver diagram for your system
  - Aim & Outcomes
  - Key drivers of improvement in the outcome(s)
- Is there anything you would change? Add?



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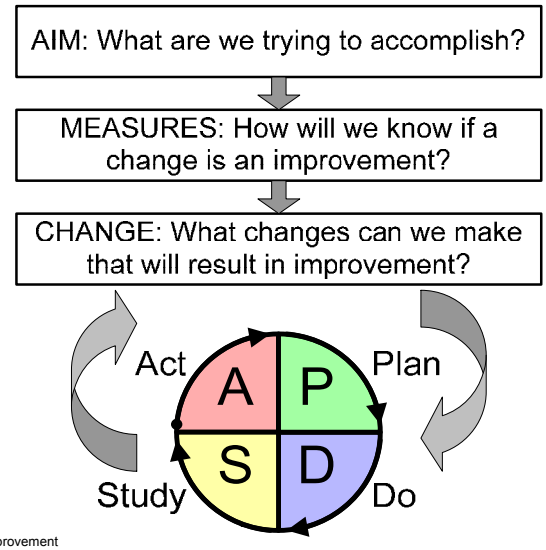
The Model for Improvement



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What are We Trying To Accomplish?

The Project AIM is:

- Not just a vague desire to do better
- A commitment to achieve measured improvement
  - —In a specific ***system***
  - —With a definite ***timeline***
  - —And numeric ***goals***

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What are We Trying To Accomplish?

"Hope" is not a plan

- N… better
- A… asured in…
  - —In a specific *system*
  - —With a definite *ti…*
  - —And numeric *goa…*

"Some" is not a number

"Soon" is not a time

Components of an Aim

- Boundaries: the *system* to be improved (scope, patient population, key processes, drivers you will address, etc.)
- Specific numerical *goals* for *outcomes*
  - —Ambitious but achievable
- Includes *timeframe*
- Provides *guidance* on sponsor, resources, strategies, barriers, interim & process goals

Sample Aim

- *General Hospital will improve transitions home for elderly patients as measured by a reduction in unplanned 30-day readmissions of elderly patients from 25 percent to 15 percent or less by December 31, 2012. We will focus on enhanced assessment for discharge needs, coordination with community providers, and pt/family understanding of how to care for themselves at home.*

- *System*:
- *Goal*:
- *Timeframe*:
- *Guidance:*

Example #2 of an Aim Statement

The Best Homehealth Agency will improve transitions home for all patients as measured by a decrease in their acute care hospitalization rate within 30 days of the last day of hospital stay by 30 percent within 24 months. We will start with patients being cared for by Teams A and B and will expect to see a decrease in readmissions for patients being cared for by those teams of at least 15 percent within 12 months.

- *System*:
- *Goal*:
- *Timeframe*:
- *Guidance:*

Example #3 of an Aim Statement

By December 2011, Maryfree Skilled Nursing Facility will reduce readmissions for all residents as measured by a decrease in 30-day all-cause readmission rate from 17 percent to 13 percent or less. The Facility will focus on identifying early changes in patients' condition, standardized communication, and teamwork.

- *System*:
- *Goal*:
- *Timeframe*:
- *Guidance:*

Aim Statement	Good	Bad	Ugly
We aim to improve transitions home for all patients.			
By June of 2012 we will reduce hospitalizations of our over-65 home care patients with CHF by 50%.			
Our patient satisfaction scores are in the bottom 10% of the national comparative database we use. As directed by senior management, we need to get the score above the 50th percentile by the end of the 1st Q of 2011.			
We will improve patients understanding of discharge materials.			
According to the consultant we hired to evaluate our home health services, we need to improve the effectiveness and reliability of home visit assessments and reduce rehospitalization rates. The board agrees, so we will work on these issues this year.			
Our most recent data reveal that on the average we only reconcile the medications of 35% of our discharged inpatients. We intend to increase this average to 50% by 4/1/12 and to 75% by 8/31/12.			

Sponsor Owns The Aim!

- Each project should have a senior sponsor that can provide resources and accountability
- The sponsor's credibility is on the line for results:

The Sponsor Owns the Aim

- Meet quarterly, review results & plans

Tips for Developing Aims

- Achieve consensus and state the aim early
- Include outcome goals (may leave numbers for later)
- Don't worry if it's vague at first, BUT…
- Revise as you develop drivers and measures and think through changes
- Revisit and kick it up a notch!

Exercise
Review and Revise Your Aim Statement

- Based on your description of your system and driver diagram, review & revise the aim statement for your project.
- Include:
  - System or process description
  - Timeframe
  - Goals

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Where You Want to Get To?

"Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to," said the Cat."

"I don't much care where—" said Alice.

"Then it doesn't matter which way you go," said the Cat.

Lewis Carroll, *Alice in Wonderland*

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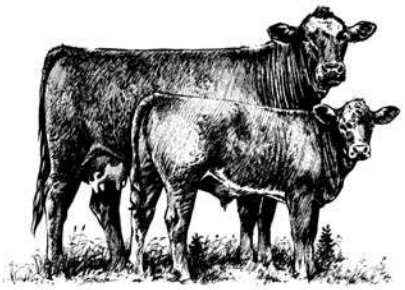
A Good Aim Statement

- Identifies the *system or process* to be improved (scope, patient population, drivers selected)
- Has specific numerical *goals*
  - —Ambitious but achievable
- Includes *timeframe*
- Provides *guidance* on sponsor, resources, strategies, barriers

How Do We Know if a Change is an Improvement?

"You can't fatten a cow by weighing it"

- Palestinian Proverb

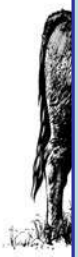


- Improvement is *NOT* about measurement
- However…

How Do We Know if a Change is an Improvement?

"You can't fatten a cow by weighing it"

erb



"If you can't measure it, you can't ~~manage~~ IMPROVE it"

Improvement Project Measurement Guidelines

- Need a balanced set of measures reported each month (at a minimum) to assure that the system is improved.
- These measures should reflect your aim statement & make it specific.
- Measures are used to guide improvement and test changes.
- Integrate measurement into daily routine.
- Plot data for the measures over time and annotate graph with changes.

Types of Measures

- Outcome Measures
  - —Results - system level performance
- Process Measures
  - —Inform changes to the system
- Balancing Measures
  - —Signal “robbing Peter to pay Paul”

Hospital Outcome Measures: Readmissions Hospital-level AND Pilot-level

Measure	Description
30-Day All-Cause Readmissions **Hospital-overall** **Pilot-unit(s)**	Percent of discharges with readmission for any cause within 30 days
Readmissions Count **Hospital-overall** **Pilot Unit**	Number of readmissions (numerator for 30-day all cause readmissions measure) for hospital and pilot unit(s)
Optional Measure **30-Day All-Cause Readmissions for a specific clinical condition or subpopulation** (e.g., CHF, COPD, frail elders)	Percent of discharges in the desired subpopulation who were readmitted for any cause within 30 days of discharge

Hospital Outcome Measures: Patient Experience

Measure	Description
HCAHPS (Hospital-wide data) Communication Questions #3 and #7 Discharge Questions #19 and #20	"During this hospital stay, how often did nurses explain things in a way you could understand?" (Q3) "How often did doctors explain things in a way you could understand?" (Q7) "Did hospital staff talk with you about whether you would have the help you needed when you left the hospital?" (Q19) "Did you get information in writing about what symptoms or health problems to look out for after you left the hospital?" (Q20)

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Hospital Patient Experience: Care Transitions Measures
PILOT UNIT

Description	Numerator	Denominator	Data Collection Strategy
• The hospital staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left the hospital. • When I left the hospital, I had a good understanding of the things I was responsible for in managing my health. • When I left the hospital, I clearly understood the purpose for taking each of my medications.	Calculate the sum of responses across the 3 items. Responses are scored Strongly Disagree =1; Disagree =2; Agree =3; Strongly Agree =4	Number of questions answered across all patients asked.	Collect data on routine follow up phone calls. Sample 21 patients. If you have less than 21 discharges per month, report 100% Response options: Strongly Disagree, Disagree, Agree , Strongly Agree, or Don't Know/Don't Remember/Not Applicable Do not count in your denominator questions where the patient responded don't know/remember or not applicable If disagree, ask (and document) what their concerns were.

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Hospital Process and Balancing Measures

Enhanced Admission Assessment for Post-Hospital Needs	• Percent of admissions where patients and family caregivers are included in assessing post discharge needs • Percent of admissions where community providers (e.g., home care providers, primary care providers and nurses and staff in skilled nursing facilities) are included in assessing post discharge needs
Effective Teaching and Enhanced Learning	• Percent of observations of nurses teaching patient or other identified learner where Teach Back is used to assess understanding • Percent of observations of doctors teaching patient or other identified learner where Teach Back is used to assess understanding
Post-Hospital Care Follow Up	• Percent of patients discharged who had a follow-up visit scheduled before being discharged in accordance with their risk assessment
Real-time Patient- and Family- Centered Handoff Communication	• Percent of patients discharged who receive a customized care plan written in patient-friendly language at the time of discharge • Percent of time critical information is transmitted at the time of discharge

SNF Draft Outcome Measure

Measure Name	**Description**	**Numerator**	**Denominator**
30-Day All-Cause SNF Readmissions	*Percent of all SNF residents admitted to the SNF from the hospital who are then readmitted to the hospital within 30 days*	*Number of residents admitted to the SNF from the hospital who are then readmitted to the hospital within 30 days* *Exclusion: planned readmissions*	*Total number of residents admitted to the SNF from the hospital in the measurement month*

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Home Health Outcome Measures: Readmissions

Measure	Description	Numerator	Denominator
Acute Care Hospitalizations within 30 days of hospital discharge	Percent of acute care hospitalizations within 30 days of hospital discharge	Number of acute care hospitalizations within 30 days of hospital discharge. Exclusion: planned readmissions (e.g., chemotherapy schedule, rehab, planned surgery)	The number of patients on service who were discharged from a hospital in the last 30 days
Count of Acute Care Hospitalizations within 30 days of hospital discharge	Number of acute hospitalizations within 30 days of hospital discharge (numerator for % of acute care hospitalizations within 30 days of hospital discharge above)	NA	NA
Emergency Department Use with Hospitalization	Use OASIS Data		
Discharged to Community			
Optional Measure Acute Care Hospitalizations within 30 days of hospital discharge for a Specific Clinical Condition	Count of acute care hospitalizations within 30 days of hospital discharge with a specific clinical condition who were hospitalized for any cause within 30 days of discharge	Number of patients on service with a specific clinical condition hospitalized for any cause within 30 days of a hospital discharge. Exclusion: planned readmissions (e.g., chemotherapy schedule, rehab, planned surgery)	N/A

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Home Health Outcome Measures: Patient Experience

Measure	Description	Numerator	Denominator
HHHHCAHPS Communication Question 5	When you started getting home health care from this agency, did someone from the agency ask to see all the prescription and over-the-counter medicines you were taking?	Number patients surveyed in the month who answered, "Yes"	Number of surveys completed in the month with an answer for this question
HHHCAHPS Communication Question 4	When you started getting home health care from this agency, did someone from the agency talk with you about all the prescription and over-the-counter medicines you were taking?	Number patients surveyed in the month who answered, "Yes"	Number of surveys completed in the month with an answer for this question
HHHCAHPS Discharge Question 10	In the last 2 months of care, did you and a home health provider from this agency talk about pain?	Number patients surveyed in the month who answered, "yes"	Number of surveys completed in the month with an answer for this question
HHHCAHPS Discharge Question 12	In the last 2 months of care, did home health providers from this agency talk with you about the purpose for taking your new or changed prescription medicines?	Number patients surveyed in the month who answered, "yes" Exclude those patients who did not take any new prescriptions or have any medication changes	Number of surveys completed in the month with an answer for this question

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Home Health Outcome Measures: Patient Experience

Measure	Description	Numerator	Denominator
Discharge Question 13	home health providers from this agency talk with you about when to take these medicines?	in the month who answered, "yes" Exclude those patients who did not take any new prescriptions or have any medication changes	the month with an answer for this question
HHHCAHPS Discharge Question 14	In the last 2 months of care, did home health providers from this agency talk with you about the side effects of these medicines?	Number patients surveyed in the month who answered, "yes" Exclude those patients who did not take any new prescriptions or have any medication changes	Number of surveys completed in the month with an answer for this question
HHHCAHPS Discharge Question 17	In the last 2 months of care, how often did home health providers from this agency explain things in a way that was easy to understand?	Number patients surveyed in the month who answered, "Always"	Number of surveys completed in the month with an answer for this question
HHHCAHPS Discharge Question 18	In the last 2 months of care, how often did home health providers from this agency listen carefully to you?	Number patients surveyed in the month who answered, "Always"	Number of surveys completed in the month with an answer for this question

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Home Health Outcome Measures: Patient Experience

Measure	Description	Numerator	Denominator
Patient Experience: Care Transitions Measures (Pilot team data) (CTM3) *This measure is taken from Dr. Coleman's Care Transitions Program℠:* *http://www.caretransitions.org/*	Three questions are asked on a follow-up phone call: • The home health staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left the hospital. • When I left the hospital, I had a good understanding of the things I was responsible for in managing my health. • When I started home health, I clearly understood the purpose for taking each of my medications	Calculate the sum of responses across the 3 items. Responses are scored: Strongly Disagree =1 Disagree =2 Agree =3 Strongly Agree =4	Number of questions answered across all patients asked.

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Home Health Process Measures

Measure	Description	Numerator	Denominator
Meet the Patient, Family Caregivers and Inpatient Caregivers in the Hospital and Review Transition Home Plan **Follow-up visit scheduled**	Percent of patients admitted to home care who required a follow-up visit scheduled in accordance with their risk assessment. "Family" is defined by the patient and includes any individual(s) who provide support. "Family caregivers" is the phrase used to represent those family members who are directly involved in care of the patient outside hospital or other community institutions.	Number of patients admitted to home care that required a follow-up visit scheduled with their provider in accordance with their risk assessment.	Number of admissions in the sample
Patients and family included in home needs prior to hospital discharge	Percent of home health admissions where patients and family caregivers were included in assessing home needs prior to hospital discharge	Number of home health admissions where patient and family care giver were included in assessing home needs prior to hospital discharge and home health admission	Number of patients admitted to home health after a hospital stay in the sample

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Home Health Process Measures

Measure	Description	Numerator	Denominator
Medication Management	Percent of Teach Back sessions documented by nurse to assess understanding of patient or other identified learner to manage medications. Often patients are not able to learn enough to teach back due to cognitive issues. Assure you are best supporting the patient by teaching the appropriate person who will support the patient's self management	Number of documented sessions of nurses where Teach Back with patient or identified learner is used to assess understanding of medication management	Number of documented sessions where nurse is teaching about medication management
Percent of patients who can teach-back 75% or more of what they are taught when content is broken into easy-to-learn segments.	Assess the effectiveness of your teaching and your content design by tracking which elements patients can teach back. Define three or four "vital few" elements for the transition instructions, medications, and/or self-care needs.	Number of patients in your sample who were able to Teach Back 3 out 3 or 3 out of 4 content elements by the time of transition	Number of patients in the sample where teach back is used
Engage, Coordinate and Communicate with the Full Clinical Team. Contacting managing clinician	Percentage of time the managing clinician is contacted within 24 hours of home health admission because of significant clinical findings or medication issues.	Number of times the managing physician or clinician is contacted within 24 hours of admission due to significant clinical finding or medication issue	Number of new admissions

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Office Practice Outcome Measures

Outcome Measure	Description	Numerator	Denominator
30-day all-cause readmissions for the selected subpopulation for the clinic office practice	Percent of discharges with heart failure or other chronic conditions who were readmitted for any cause within 30 days of discharge for the clinic office practice	Number of discharges with heart failure or other chronic conditions readmitted for any cause within 30 days of discharge Planned readmissions would be excluded (e.g., scheduled chemotherapy).	Number of discharges in the measurement period with heart failure or other chronic conditions Exclusions: Transfers to another acute care hospital, patients who die before discharge
Patient satisfaction or patient experience of care measure*	To be determined by the practice	To be determined by the practice	To be determined by the practice

* Teams may select a measure that they are already using to track patient satisfaction. An alternative approach would be to begin surveying a sample of patients each month using a survey question to assess patient experience. As an example, the question could be *"When you think about your health care, how much do you agree or disagree with this statement: 'I receive exactly what I want and need exactly when and how I want and need it.'?"*
Patients may respond with *I strongly agree*, *somewhat agree*, *somewhat disagree*, or *strongly disagree*.

Office Practice Process Measures

- Percent of patients who are seen in an appropriate time frame (i.e., 2 days for high-risk and 5 days for moderate-risk, and at provider discretion for low-risk patients)
- Percent of first post-hospital visits when the physician had the discharge summary available at the time of the visit.
- Percent of patients who received a reminder call prior to their first post-hospital office visit.
- Percent of patients who can teach back the medications they should take at home, including dosage and time.
- Percent of patients who can teach back the warning signs they should watch for and how to respond.
- Percent of patients who leave the first post-hospital visit with a printed and reconciled medication list
- Percent of patients who leave the first post-hospital visit with a printed care plan

Some Measurement Assumptions

- The purpose of measurement in the collaborative is for *learning* not judgment
- All measures have limitations, but the limitations do not negate their value
- Measures are one voice of the system. Hearing the voice of the system gives us information on how to act within the system
- Measures tell a story; goals give a reference point

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Qualitative Patient Experience Data

- Conduct the diagnostic tool with 4 patients readmitted each month (1 per week). Present findings to the cross continuum team to identify areas for redesign, better communication and improvement.
- Conduct a quarterly in-depth analysis of 1 patient who has experienced frequent readmissions within the year. Include a review of the diagnostic tool and a list of the patient's cross continuum care history with a timeline. For example, a diary or log of discharges, subsequent visits to the doctor, etc. Review at the cross continuum meeting.

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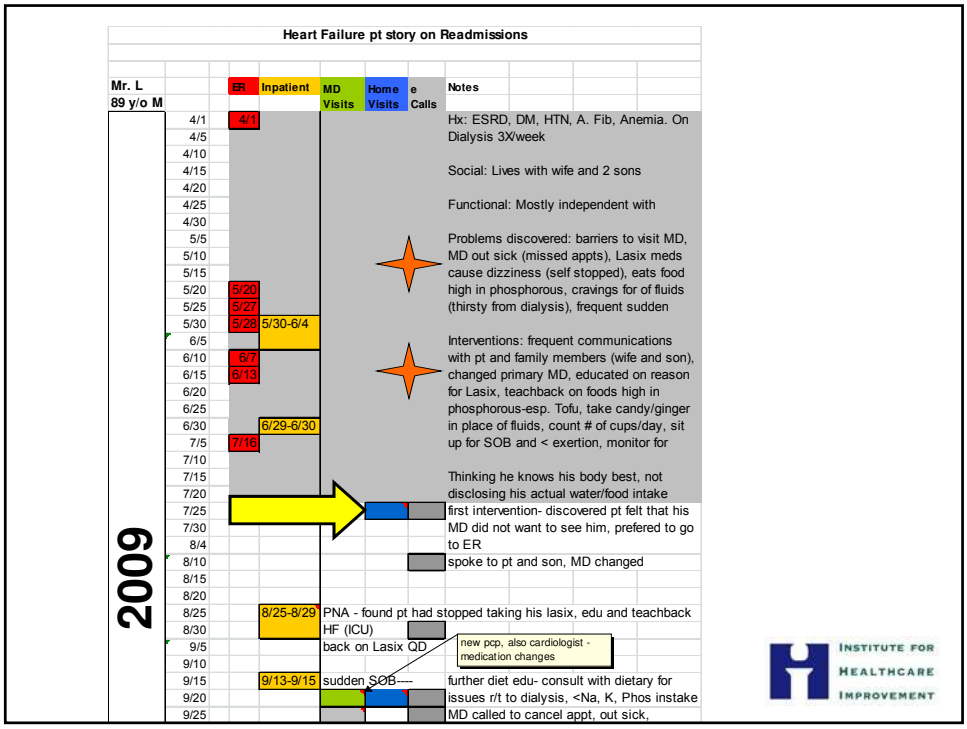
Heart Failure pt story on Readmissions
Mr. L
89 y/o M
ER
Inpatient
MD Visits
Home Visits
e Calls
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4/1
5/20
5/27
5/28
5/30-6/4
6/7
6/13
6/29-6/30
7/16
8/25-8/29
9/13-9/15
Hx: ESRD, DM, HTN, A. Fib, Anemia. On Dialysis 3X/week
Social: Lives with wife and 2 sons
Functional: Mostly independent with
Problems discovered: barriers to visit MD, MD out sick (missed appts), Lasix meds cause dizziness (self stopped), eats food high in phosphorous, cravings for of fluids (thirsty from dialysis), frequent sudden
Interventions: frequent communications with pt and family members (wife and son), changed primary MD, educated on reason for Lasix, teachback on foods high in phosphorous-esp. Tofu, take candy/ginger in place of fluids, count # of cups/day, sit up for SOB and < exertion, monitor for
Thinking he knows his body best, not disclosing his actual water/food intake
first intervention- discovered pt felt that his MD did not want to see him, prefered to go to ER
spoke to pt and son, MD changed
PNA - found pt had stopped taking his lasix, edu and teachback
HF (ICU)
back on Lasix QD
new pcp, also cardiologist - medication changes
sudden SOB----
further diet edu- consult with dietary for
issues r/t to dialysis, <Na, K, Phos instake
MD called to cancel appt, out sick,
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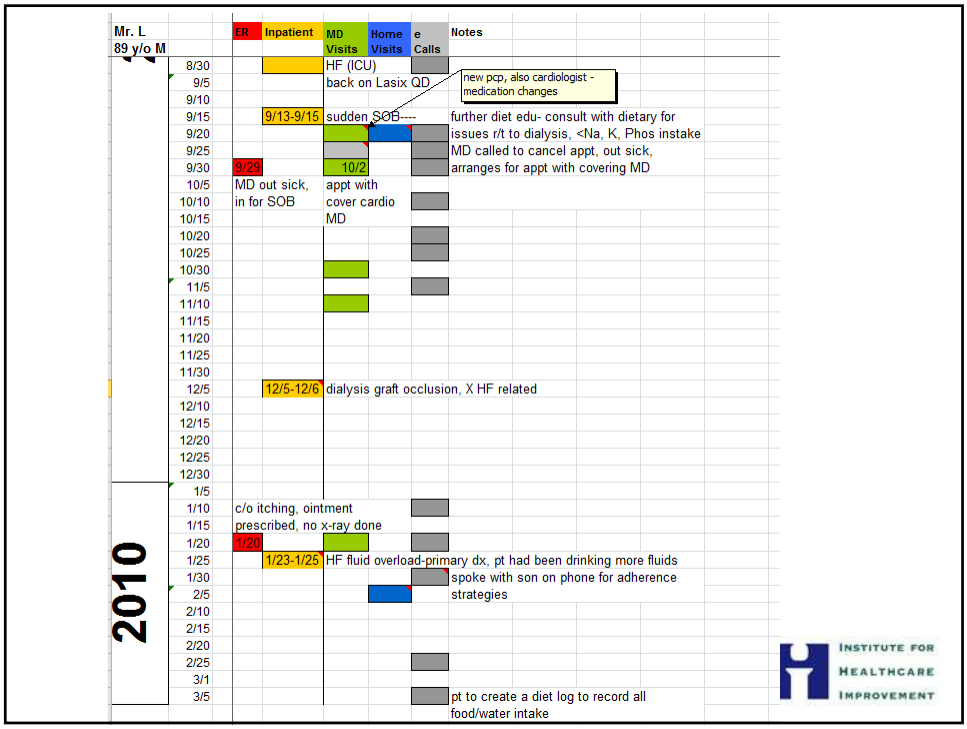
Mr. L
89 y/o M
ER
Inpatient
MD Visits
Home Visits
e Calls
Notes
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2/20
2/25
3/1
3/5
9/29
9/13-9/15
12/5-12/6
1/20
1/23-1/25
HF (ICU)
back on Lasix QD
new pcp, also cardiologist - medication changes
sudden SOB----
further diet edu- consult with dietary for
issues r/t to dialysis, <Na, K, Phos instake
MD called to cancel appt, out sick,
10/2
arranges for appt with covering MD
MD out sick, in for SOB
appt with cover cardio MD
dialysis graft occlusion, X HF related
c/o itching, ointment prescribed, no x-ray done
HF fluid overload-primary dx, pt had been drinking more fluids
spoke with son on phone for adherence strategies
pt to create a diet log to record all food/water intake
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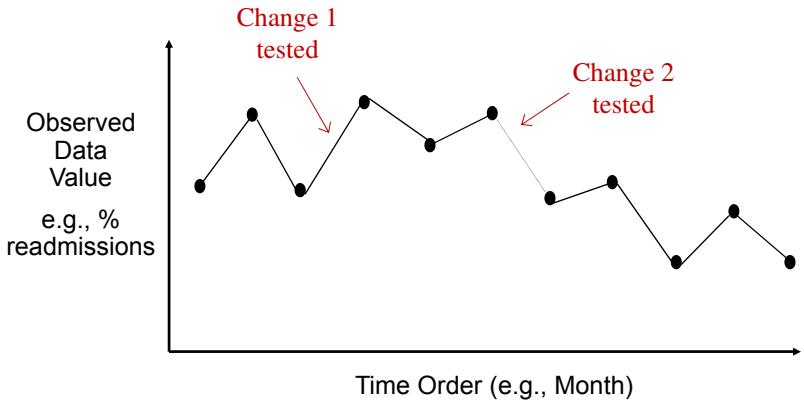
For Each of the Key Measures

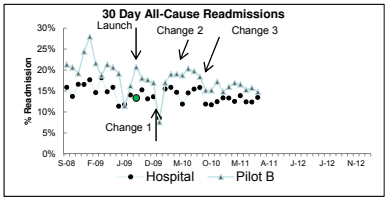
- Carefully define each of the measures for your pilot population (numerator and denominator)
- Develop run charts to display your measures monthly (or weekly)
- Begin collecting and reviewing (with your team) your measures immediately

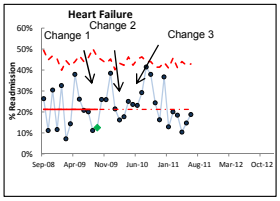
Tracking Changes: Annotated Time Series

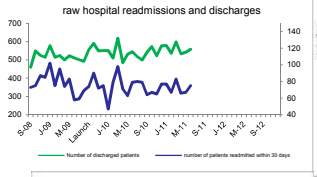


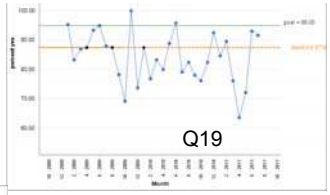
Langley, G. J., K. M. Nolan, et al. (1996). The improvement guide : a practical approach to enhancing organizational performance. San Francisco, Jossey-Bass.

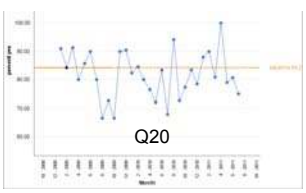
Family Of Measures

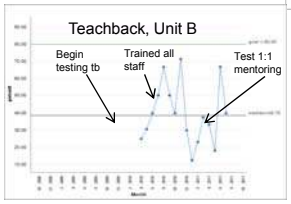












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PDSA Cycle Measures

- In addition to the family of measures you review each month, specific data is required to determine and document the success of your PDSA tests and implementation cycles:
  - Collect useful data, not perfect data - the purpose of the data is learning, not evaluation
  - Use a pencil and paper until an information system is ready
  - Use sampling as part of the plan to collect the data
  - Use qualitative data rather than wait for quantitative
  - Record what went wrong during the data collection

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What Changes Can We Make?

- ***Understand the system.***
  - Front-line knowledge about drivers generates insights for useful changes.
- Use ***change concepts*** & directed creativity to generate additional change ideas.
  - Techniques for taking a fresh look at the issues!
- ***Copy*** from successful colleagues.
  - Who does this best? Who has successfully improved? How did they do it?
  - Is there a ***change package*** available?

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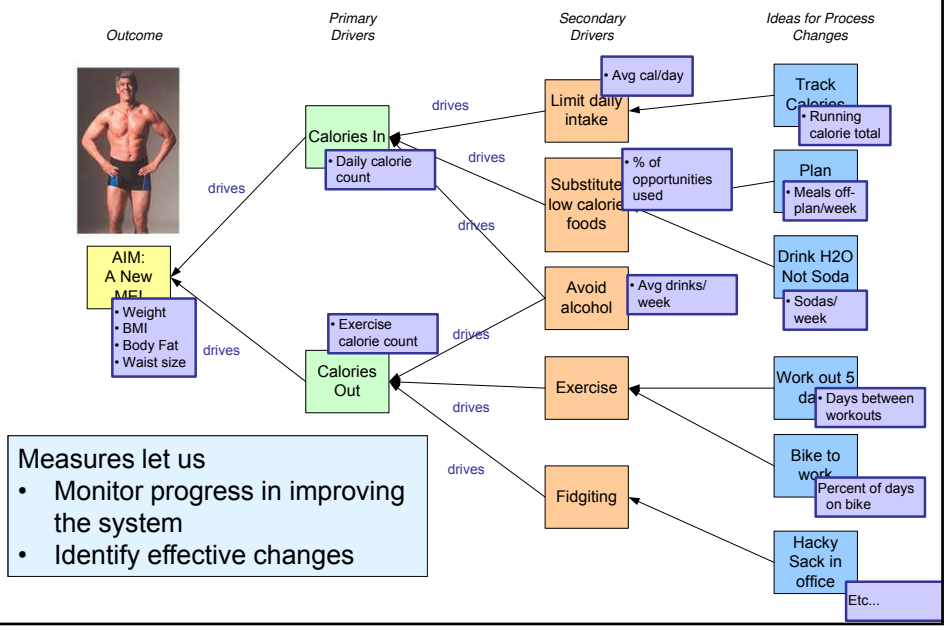
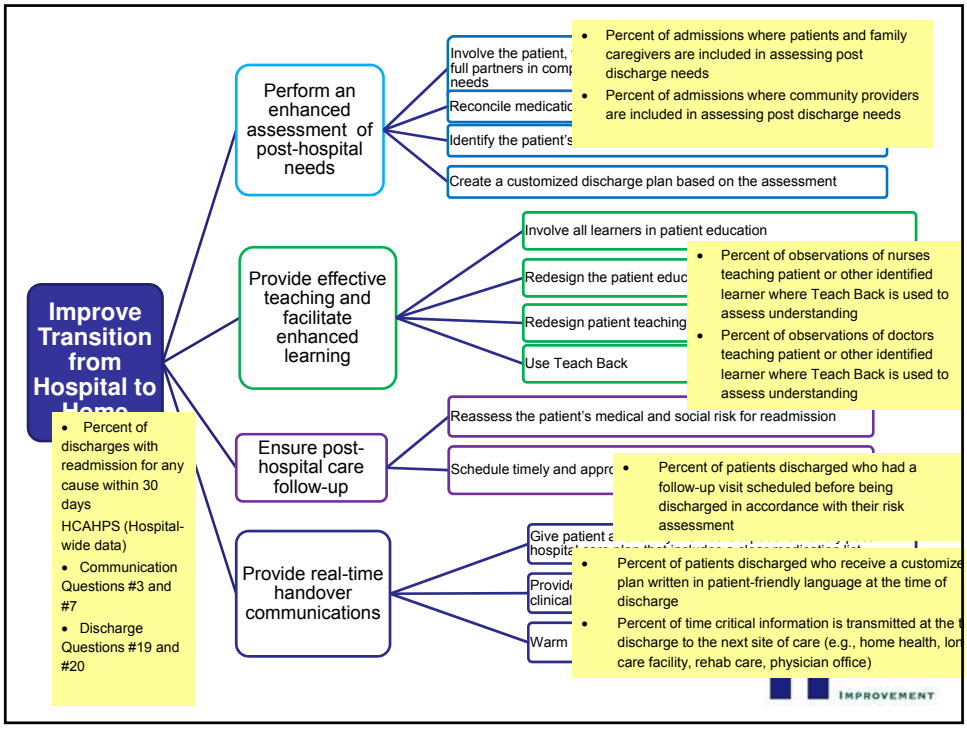
How Will We Know We Are On Track to Improve?



Measures let us
- Monitor progress in improving the system
- Identify effective changes



Hospitals	Office Practices	Home Care	Skilled Nursing Facilities
• Perform an enhanced assessment of post-hospital needs • Provide effective teaching and facilitate enhanced learning • Ensure post-hospital care follow-up • Provide real-time handover communications	• Provide timely access to care following a hospitalization • Prior to the visit: prepare patient and clinical team • During the visit: assess patient and initiate new care plan or revise existing plan • At the conclusion of the visit: communicate and coordinate ongoing care plan	• Meet the patient, family caregiver(s), and inpatient caregiver(s) in the hospital and review transition home plan • Assess the patient, initiate plan of care, and reinforce patient self-management at first post-discharge home care visit • Engage, coordinate, and communicate with the entire clinical team	• Ensure that SNF staff are ready and capable to care for the resident patient's needs • Reconcile the Treatment Plan and Medication List • Engage the resident and their family or caregiver in a partnership to create an overall place of care • Obtain a timely consultation when the resident's condition changes

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Exercise: Measuring Improvement

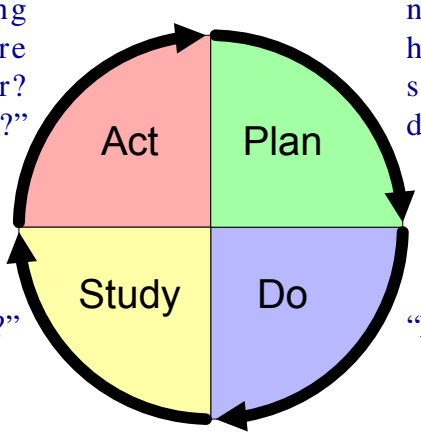
Using your driver diagram, identify the key measures you will need to track improvement in your system.

The PDSA Cycle

Your 'reality check' tool for testing changes

"What's next: Try something else? Explore this further? Implement?"

"What's happening now? What will happen if we try something different?"

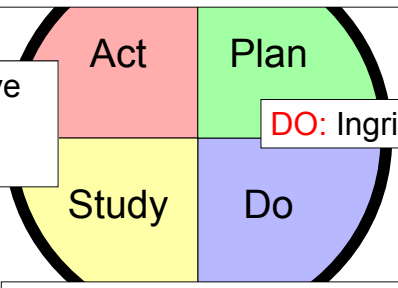


"Did it work?"

"Let's try it!"

Schedule Appointment – Cycle 1

PLAN: Pick one pt who is likely to be discharged in the next two days and determine who their PCP is



ACT: next cycle, have Ingrid talk to pt and family first

DO: Ingrid calls PCP

STUDY: Ingrid makes appointment but is on hold for 20 min and pt does not like the time

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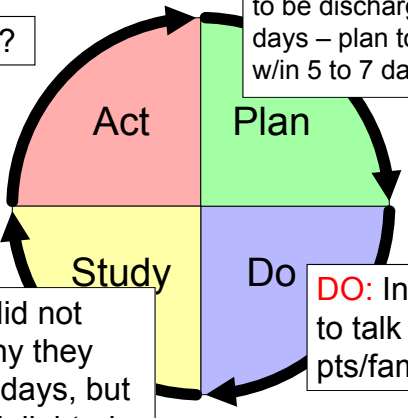
Schedule Appointment – Cycle 2

PLAN: this week, Ingrid will talk to all med risk pts/families likely to be discharged in the next two days – plan to schedule appts w/in 5 to 7 days

ACT: ???



DO: Ingrid was able to talk to three of six pts/families

STUDY: pts/families did not initially understand why they needed appt w/in 5-7 days, but were convinced and delighted by discussion and help in scheduling

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Not Just Once!

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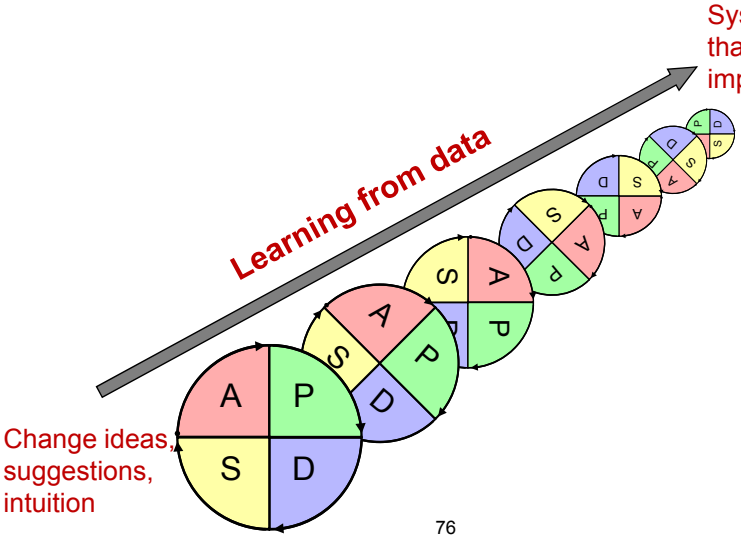
Building Confidence for Change



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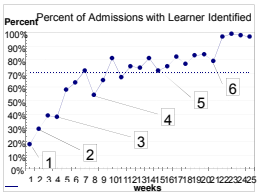
Change Idea: actively include pt and family in assessing needs (specifically, identify the learner on admission, and include them in discharge planning)



Mini-measure tracks improvement cycles

99% Reliability

Learning from data

Cycle 6: Educate staff on new standards

Cycle 5: Standardize and document

Cycle 4: Analyze failures, determine plans for patients without family caregivers

Cycle 3: Day 3: Unit A is able to get useful information from all patients, continue with unit A, all admissions, try unit b

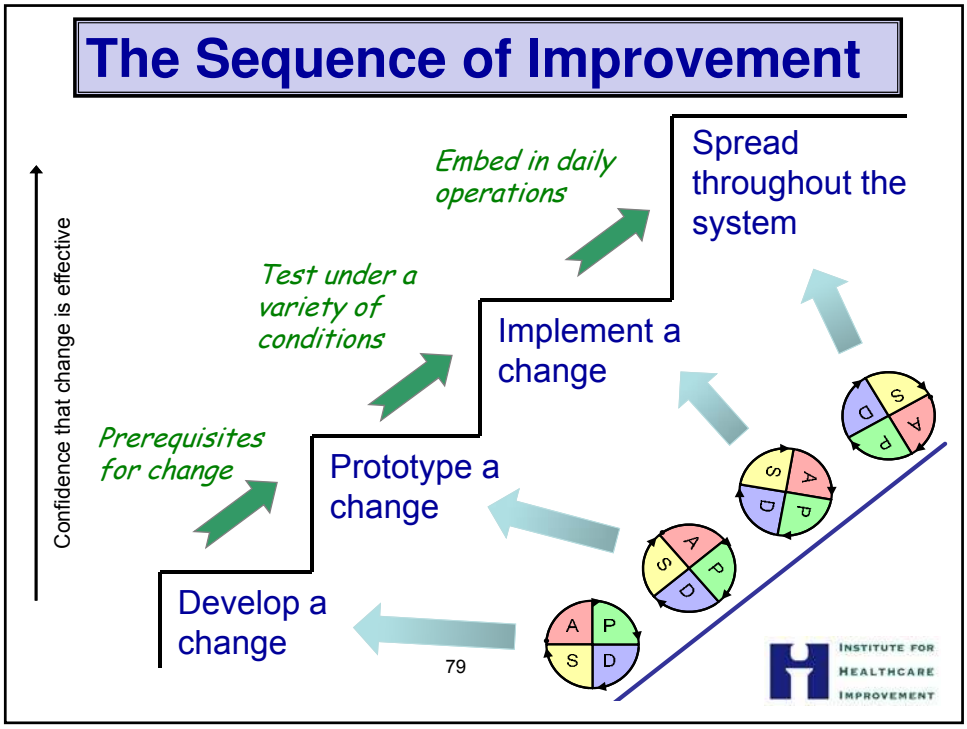
Cycle 2: Day 2: get information on family caregivers for all patient admitted to Unit A

Cycle 1: Day 1: on next admission, ask nurse to ask the patient to identify the person who should be involved in understanding their care plan after discharge

If we identify the learner on admission, we can engage them in discharge planning and have a better chance of adherence to plan

Testing v. Implementation

- ***Testing*** – Trying and adapting ideas and knowledge on small scale. Learning what works in your system.
- ***Implementation*** – Making this change a part of the day-to-day operation of the system – a permanent change in how work is done
  - Would the change persist even if its champion were to leave the organization?


The Sequence of Improvement
Confidence that change is effective
Prerequisites for change
Develop a change
Test under a variety of conditions
Prototype a change
Embed in daily operations
Implement a change
Spread throughout the system
A P S D
79
Institute for Healthcare Improvement