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National Readmissions Summit

Safe and Reliable Transitions: An Integrated Approach

Reducing Heart Failure Readmissions

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Kaiser Permanente Southern California

- Southern California Region – 13 Service Areas – Bakersfield to San Diego
  - 13 KP owned and multiple contracted hospitals
  - Owned and contracted home health agencies
  - Out patient care managers in each service area
- 35,000 members with heart failure
- 6,000 primary care physicians
- 95 cardiologists

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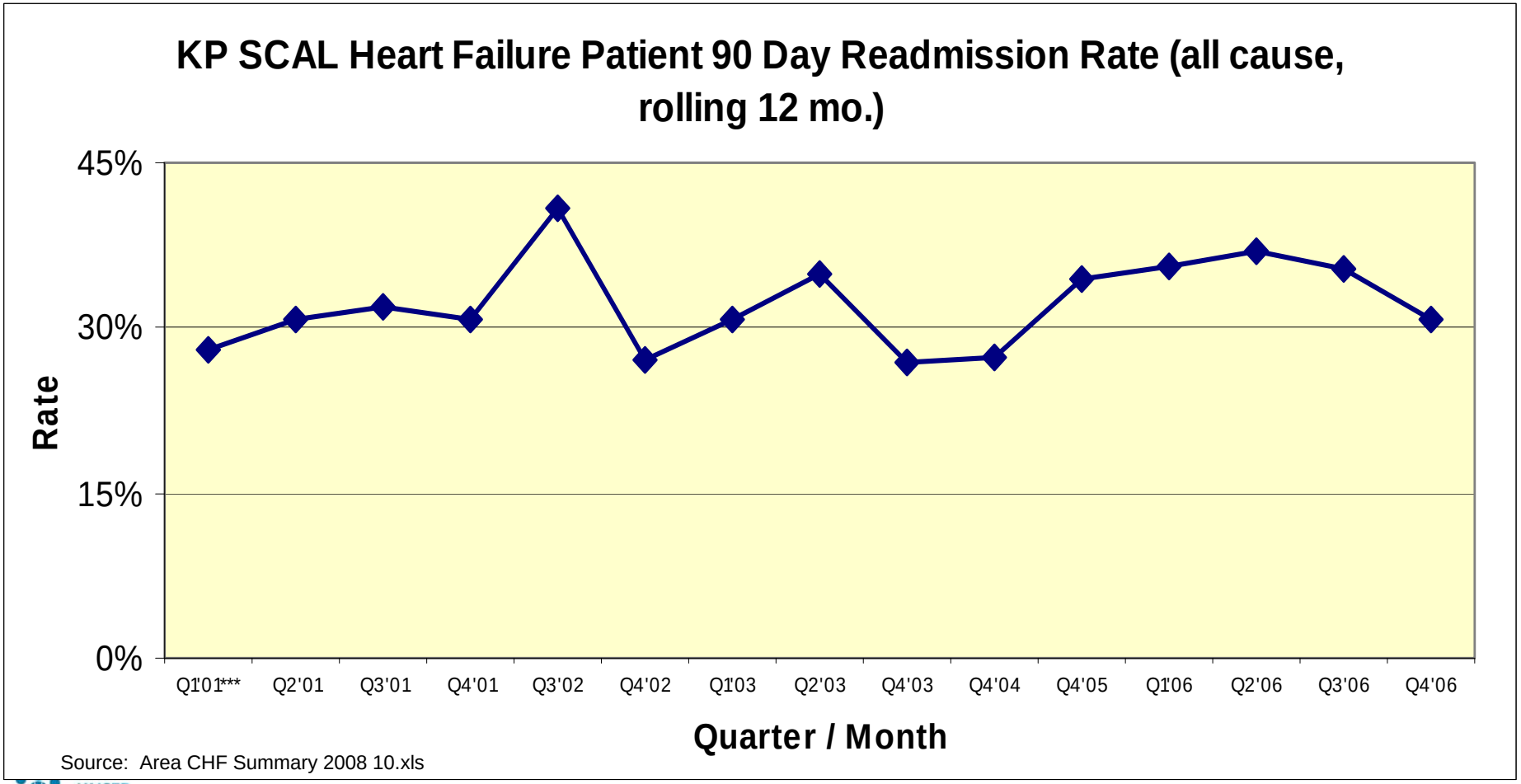
Readmission Rates Were High – Why TCP Started in 2007



Source: Area CHF Summary 2008 10.xls

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Background/Relevance

- Heart Failure is a disease with a complex pathophysiology that is still being defined today. Because of the complexity of heart failure, therapeutic regimens have been difficult to develop.
- An estimated 5.3 million individuals are afflicted with this disease in the United States*
- Heart failure causes substantial morbidity with hospital discharges rising from 400,000 in 1979 to 1,084,000 discharges in 2005, an increase of 171 percent
- The estimated direct and indirect cost of HF in the United States for 2008 is $34.8 billion*
- In Kaiser Permanente Southern California, 36,000 heart failure patients have been identified**. Current prevalence of heart failure is at 1.1%

*American Heart Association. 2008 Heart and Stroke Statistical Update

** POINT-PCS, 5/10.

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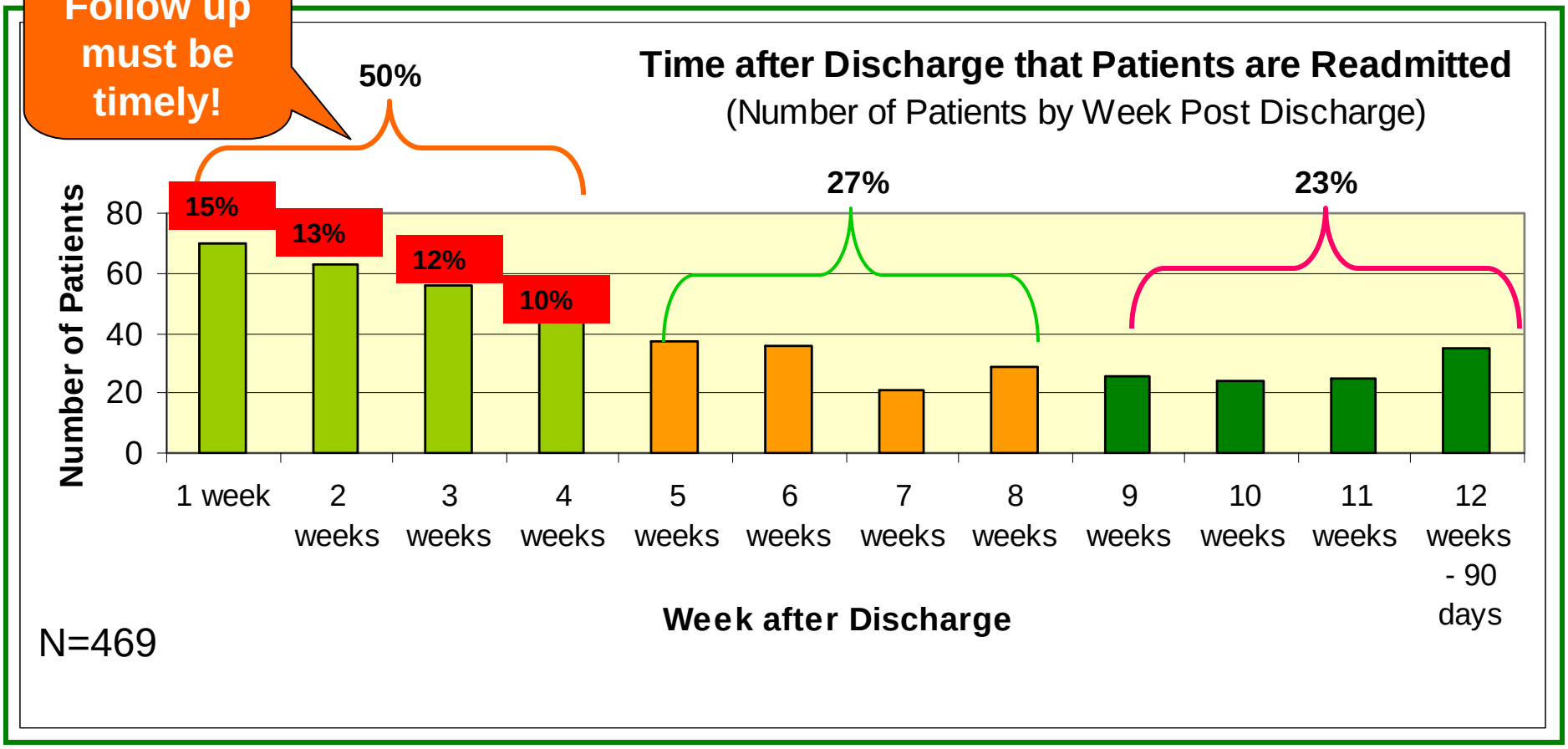
Half of those readmitted were readmitted within the first 30 days

Follow up must be timely!



Source: PAS, CHF_Hosp_Utilization, Patient count based on number of days to readmission for HF (run date = 5/26/06), MAS Consulting Analysis

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Southern California Heart Failure Program

Transitions Care Program (TCP)

- Region-wide program
- Focus on heart failure transitions
- Key Clinical Interventions
  1. Heart failure nurse assessment in the hospital
  2. Home health visit within 48 hours
  3. Out-patient Heart Failure Care Manager follow-up

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Transitions Care Program

Transitional Care Program

Inpatient Care Management

- TCP patient identification
- TCP referral
- Discharge planning coordination
- Survival skills education reinforcement
- Home Health/outpatient care manager communication and coordination
- HF bundle oversight

Inpatient Nursing

- Patient identification
- Survival skills education
- Discharge instructions provided and understood by patient/caregiver
- HF bundle

Home Health

- Home visit within 48 hours of discharge
  - Medication reconciliation and adherence
  - MD appointment confirmation
  - How & when to call Outpatient Care Manager/911
  - Symptom/Fluid Management
  - HF Education/Diet/ Adherence
  - HF class promotion
- Outpatient care manager and palliative care coordination

Outpatient

- Intensive post discharge follow-up (in person & by phone) for up to 6 months
- Medication optimization
- Heart failure education and self management optimization
- How & when to call KP/911
- Remote care monitoring for selected patients
- Medical and palliative care coordination
- Inbound phone support by outpatient care manager & advice available 24/7 through KP onCall

Provider and Other Clinician Roles

- Providers / Physicians / Hospitalists:
  - Diagnosis and treatment
  - Coordination with other team members
- Pharm.Ds:
  - Medication reconciliation, optimization and adherence
- Nurses / Care Managers:
  - Medication reconciliation and adherence
  - Education and self-Management optimization

Inclusion/Exclusion Criteria

- Target Population
- High-risk member defined
  - 1 or more CHF admits per year, and/or EF<40%
- Exclusion Criteria:
  - Non-member
  - Palliative/hospice
  - Dialysis
  - Discharged to Skilled Nursing Facility or Rehab
  - Living out of area

Program Objectives

Improve member's quality of life

1. Reduce Readmission Rate
2. Reduce Hospital Bed Days
3. Reduce ER Visits
4. Increase Referrals to Palliative Care/Hospice
5. Promote End of Life Planning
6. Improve Performance on Joint Commission "HF Bundle"

Program Implementation

Connecting to Our Potential

January '07	January'08	June'08	Sept.-Nov. '08	January'09	April'09
• Implemented at 2 medical centers • Regional consultant assigned • Regional work group formed • Medical center site visits	• Implemented at 12 medical centers • RWB report	• CMI demonstra-tion site • Medical center evaluations started	• South Bay chosen as Rapid Improvement (RIM) Model Site • Kick off meeting at South Bay (11/08)	• Medical center evaluations complete • Perfect care bundle measure implemented • Enhanced tracking tool • Reliability training • Monthly regional webinars	• RIM work at South Bay moves into sustainability phase • Spread learnings of South Bay RIM project • Flexible diuretic smart set • Inpatient KPHC view flowsheet and questionnaire

Create interest and awarenes

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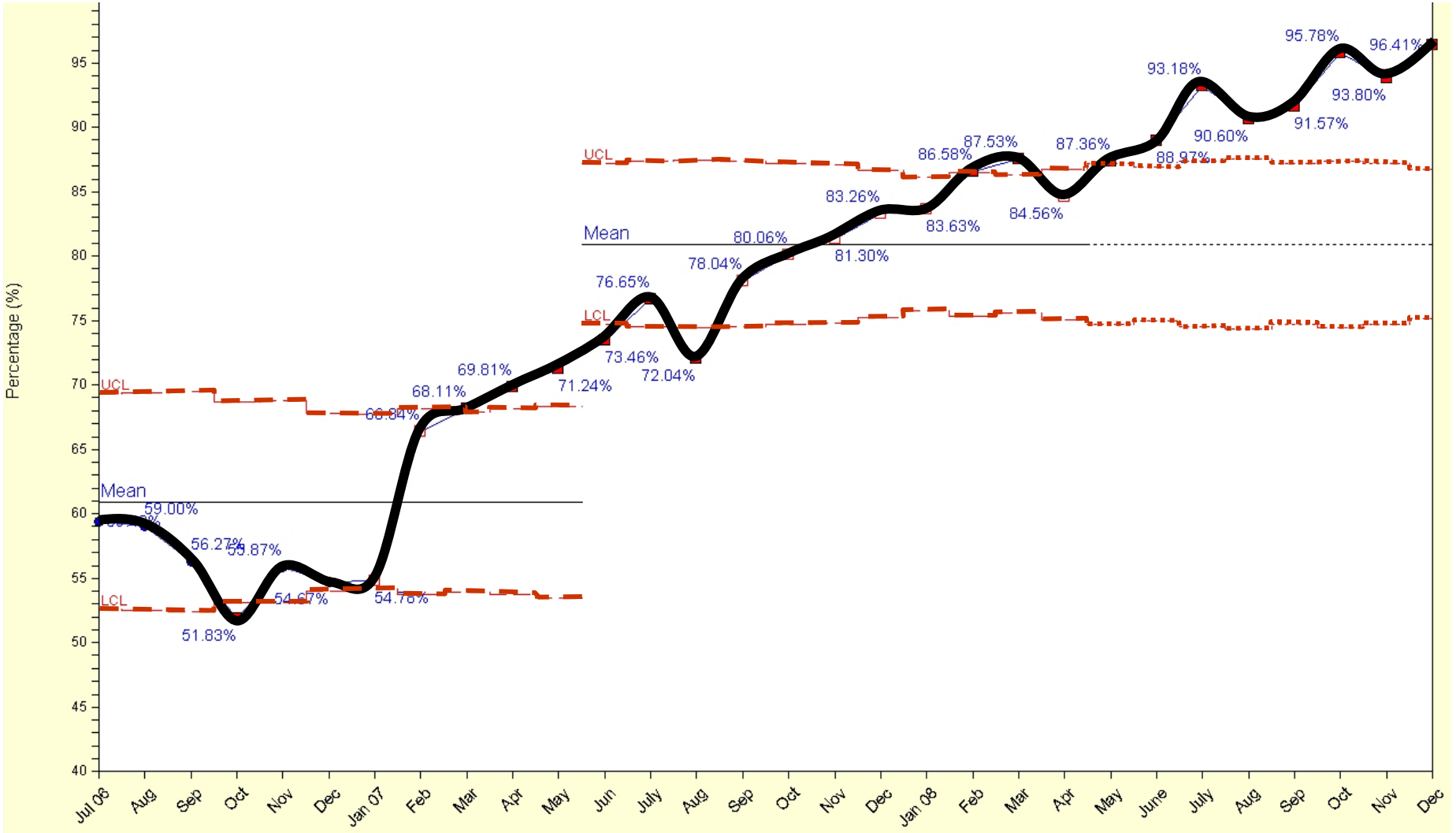
Joint Commission Heart FailureBundle:

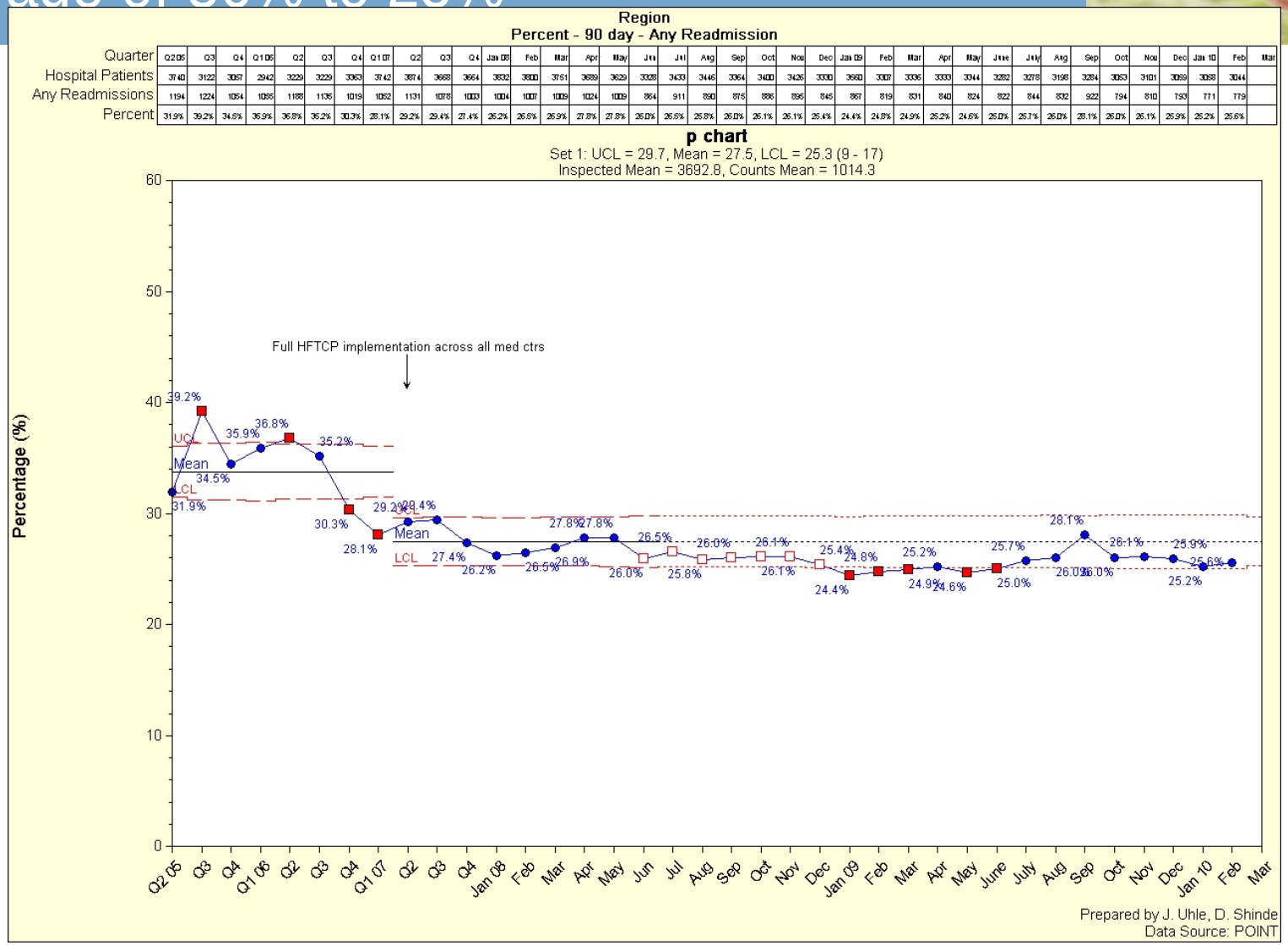
Improved by 42 points



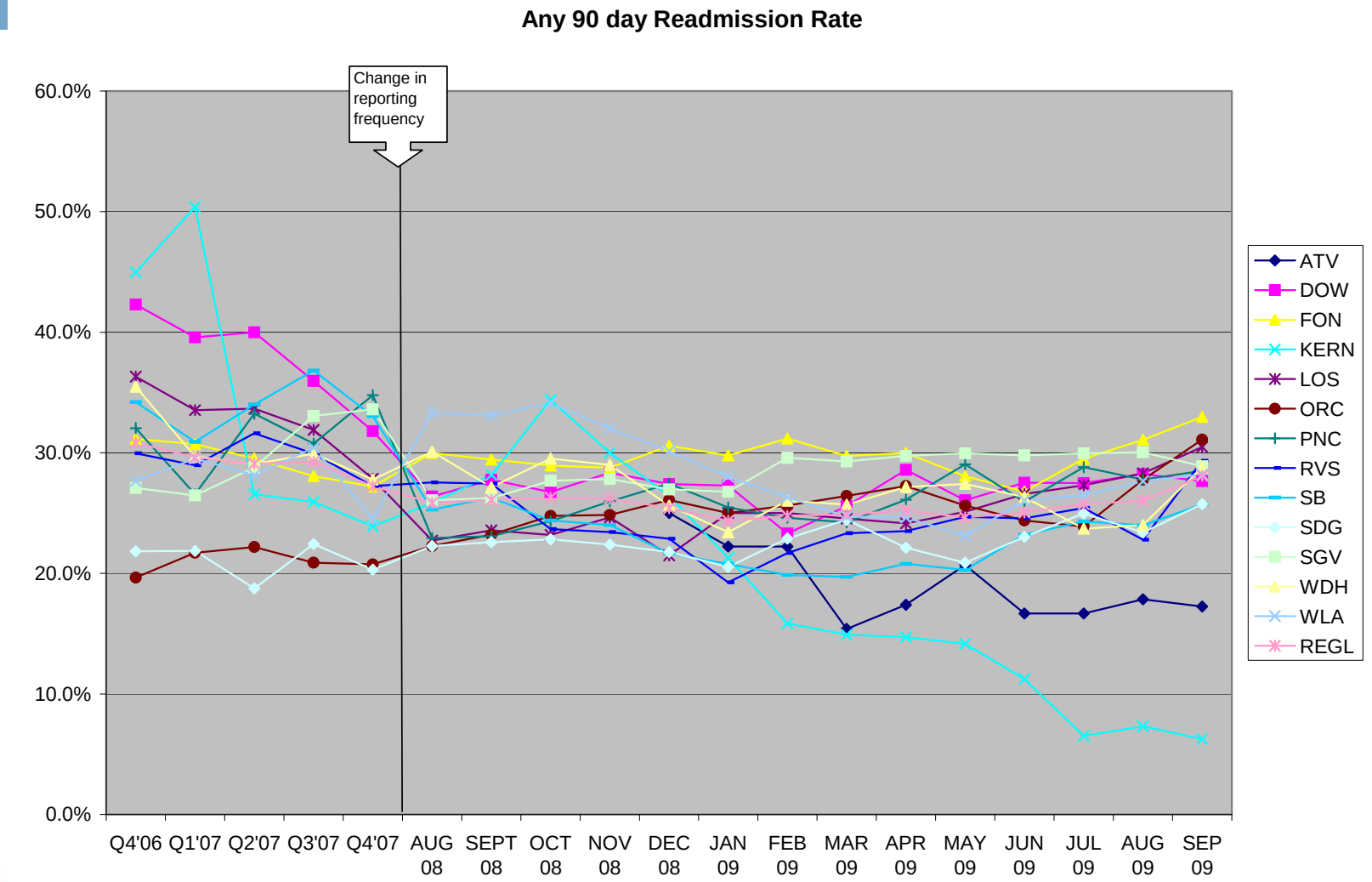
System Improvement: 90-day any cause readmission rate has improved from an average of 36% to 25%

Region
Percent - 90 day - Any Readmission

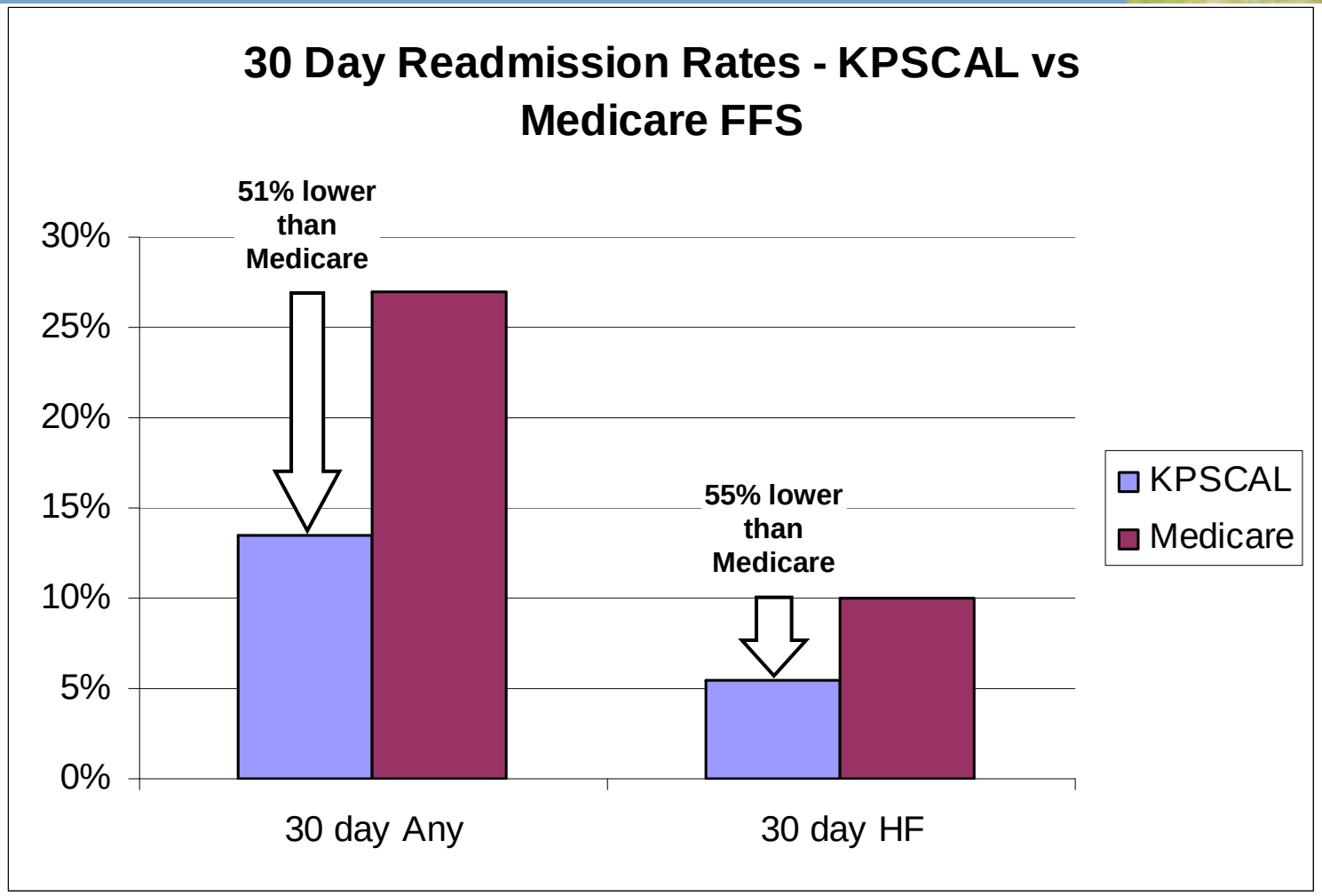
Quarter	Q2 05	Q3	Q4	Q1 06	Q2	Q3	Q4	Q1 07	Q2	Q3	Q4	Jan 08	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 09	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan 10	Feb	Mar
Hospital Patients	3740	3122	3057	2942	3229	3229	3363	3742	3874	3668	3664	3832	3800	3751	3689	3629	3328	3433	3446	3364	3400	3426	3330	3660	3307	3336	3333	3344	3282	3278	3198	3284	3053	3101	3059	3058	3044	
Any Readmissions	1194	1224	1054	1095	1188	1135	1019	1052	1131	1078	1003	1004	1007	1009	1024	1009	864	911	890	875	886	896	845	867	819	831	840	824	822	844	832	922	794	810	793	771	779	
Percent	31.9%	39.2%	34.5%	35.9%	36.8%	35.2%	30.3%	28.1%	29.2%	29.4%	27.4%	26.2%	26.5%	26.9%	27.8%	27.8%	26.0%	26.5%	25.8%	26.0%	26.1%	26.1%	25.4%	24.4%	24.8%	24.9%	25.2%	24.6%	25.0%	25.7%	26.0%	28.1%	26.0%	26.1%	25.9%	25.2%	25.6%	



Increased consistency of process has translated into a **reduction in variation** between high and low performers



Comparison to Medicare Fee for Service Readmission Rates



SOURCE: NEJM, 4/2/09, Rehospitalizations among patients in Medicare FFS Program

Improving Reliability and Quality …

- In 2008 – conducted medical center evaluations
- Rapid Improvement Model Projects/pilots conducted throughout region
- Region-wide sharing of best practices and training
- PDSAs: real time med rec, teach back, palliative care referrals, readmission diagnostics

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South Bay "Real-Time" Medication Reconciliation: Home health nurses pages Pharmacist Care Manager while in patient home to perform med rec

As of June 2009

Number of Patients	**182**
Total Med Interventions	**278**
Percent with Errors	63%
Intervention for other diagnoses	**50%**
Intervention for HF	**27%**

Type of Errors - % of Patients with Errors	
Med missing	**55%**
Extra med	**19%**
Order needed	**19%**
Wrong dose	**15%**

Average: **13.2** meds per patient

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Patient Teach Back Quiz

Heart Failure Assessment Quiz

1. After you go home from the hospital, you notice that you have gained 3 pounds overnight. What do you do? **(circle the best answer)**

   A. Take more Lasix (furosemide), if ordered, and tell your heart failure care manager or physician.
   B. Do nothing, because you lost a lot of weight during your hospital stay.
   C. Do nothing and hope you lose the 3 pounds you gained by tomorrow.

2. After going home from the hospital, when should you first weigh yourself and then how often? **(circle the best answer)**

   A. The morning after you get home and once a week after that.
   B. As soon as you get home and then every morning after you use the bathroom.
   C. Whenever you feel like you have gained weight.

3. Can drinking too much fluid cause weight gain, shortness of breath, or swelling?

   ☐YES ☐ NO

4. Drinking the right amount of fluids is an important part of managing your heart failure. How many glasses of fluids can you drink per day? (1 glass = 8 ounces) **(circle the best answer)**

   A. As much fluid as you can because you take a water pill that makes you urinate.
   B. About 6 glasses of fluid a day (48 ounces or 1,500 ml).
   C. More than 8 glasses a day because it's good for your health.

5. When should you call your outpatient heart failure care manager or physician? **(circle the best answer)**

   A. You are more tired or have more shortness of breath than usual.
   B. You have a worsening cough or shortness of breath when lying down.
   C. You have more swelling in your ankles or legs than usual.
   D. All of the above.

6. When should you call 911 or come to the Emergency Department? **(circle the best answer)**

   A. You have severe shortness of breath.
   B. You are coughing up pink, foamy mucus.
   C. You have chest pain that does not go away after 15 minutes of rest.
   D. All of the above.

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Prognostic Index Tool used to identify patients with HF for Inpatient Palliative Care Team Consult

Inpatient Palliative Care Referral Assessment Tool for HF TCP Inpatient Care Managers

Use the following tool to determine whether a patient should receive a consultation with the Inpatient Palliative Care team during this admission. **Patients scoring 6 points or more should be targeted for the IPC team consult.**

Sex = male	1 point
1-4 dependant ADLs*	2 points
5 or more dependant ADLs*	4 points
HF	**2 points**
Cancer – local	3 points
Cancer – mets	8 points
Renal impairment – creatinine >3.0	2 points
Poor nutritional index Albumin 3.0-3.4	1 point
Poor nutritional index Albumin <3.0	2 points

This validated index predicts a 68% of 1-year mortality for patients scoring 6 points and above.

ADL (Activities of Daily Living) (ignore points listed but follow point system above)

ACTIVITIES POINTS (1 OR 0)	INDEPENDENCE: (1 POINT) **NO** supervision, direction or personal assistance	DEPENDENCE: (0 POINTS) **WITH** supervision, direction, personal assistance or total care
BATHING POINTS:_____	**(1 POINT)** Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area or disabled extremity.	**(0 POINTS)** Needs help with bathing more than one part of the body, getting in or out of the tub or shower. Requires total bathing.
DRESSING POINTS:_____	**(1 POINT)** Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	**(0 POINTS)** Needs help with dressing self or needs to be completely dressed.
TOILETING POINTS:_____	**(1 POINT)** Goes to toilet, gets on and off, arranges clothes, cleans genital area without help.	**(0 POINTS)** Needs help transferring to the toilet, cleaning self or uses bedpan or commode.
TRANSFERRING POINTS:_____	**(1 POINT)** Moves in and out of bed or chair unassisted. Mechanical transferring aides are acceptable.	**(0 POINTS)** Needs help in moving from bed to chair or requires a complete transfer.
CONTINENCE POINTS:_____	**(1 POINT)** Exercises complete self control over urination and defecation.	**(0 POINTS)** Is partially or totally incontinent of bowel or bladder.
FEEDING POINTS:_____	**(1 POINT)** Gets food from plate into mouth without help. Preparation of food may be done by another person.	**(0 POINTS)** Needs partial or total help with feeding or requires parenteral feeding.

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Readmission Diagnostic Tool

READMISSION DIAGNOSTIC TOOL

Name	MRN		Age
Initial Hospitalization Admission Date:	**Initial Hospitalization Discharge Date:**	**Readmission Date:**	**Readmission Time:**

1. CHART REVIEW (from chart or TCP d-base)

- Number of days between the previous discharge and readmission date: _____
- Was patient seen by inpatient CHF RN Care Manager at initial hospital admission? ☐ Yes ☐ No
- Did patient have follow-up physician visit scheduled after initial admission? ☐ Yes ☐ No
- Was a physician follow-up visit kept after initial admission? ☐ Yes ☐ No
- Number of days between initial hospitalization and follow-up physician visit: _____
- Did HH visit occur after initial hospitalization? ☐ Yes ☐ No
- Number of days between initial discharge and HH visit: _____
- Did outpatient care manager 7- day follow-up phone call occur after initial hospitalization? ☐ Yes ☐ No
- # of days between initial discharge and outpatient care manager phone call: _____
- Functional status of patient at time of initial discharge:

  ☐ Fully Dependent ☐ Somewhat Dependent ☐ Independent
- Are advanced directives documented: ☐ Yes ☐ No (not sure if this is necessary?)

  If yes, what are they: _____
- Primary reasons for readmission (from chart review):

  ☐ Fall ☐ Adverse Reaction to Meds ☐ COPD
  ☐ Medication Side Effect ☐ Pre-renal Disease ☐ Dietary Non-compliance
  ☐ Heart Failure ☐ Fluid overload ☐ [illegible]edure
  ☐ Adema shortness of breath ☐ Other (explain below)

  Full Screen
  Close Full Screen

  If other, please explain: _____

_____

2. PROVIDER INTERVIEW (email or call with these questions at least 1 physician, e.g. PCP

Adopted from IHI, web-based tool **triangulates data from chart, provider, and patient** to identify system issues associated with readmission

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IHI Readmission Diagnostic Tool – Method for identifying system gaps

Chart review and patient interview drill beyond proximate reasons for readmission, asking: **Why? Why? Why?**

Upon readmission, patient explained:
"I didn't understand exactly what was meant by 'fluid' so I had been taking in too much liquid.
And during my visit with the Home Health nurse I did not have an adequate explanation of my medications."

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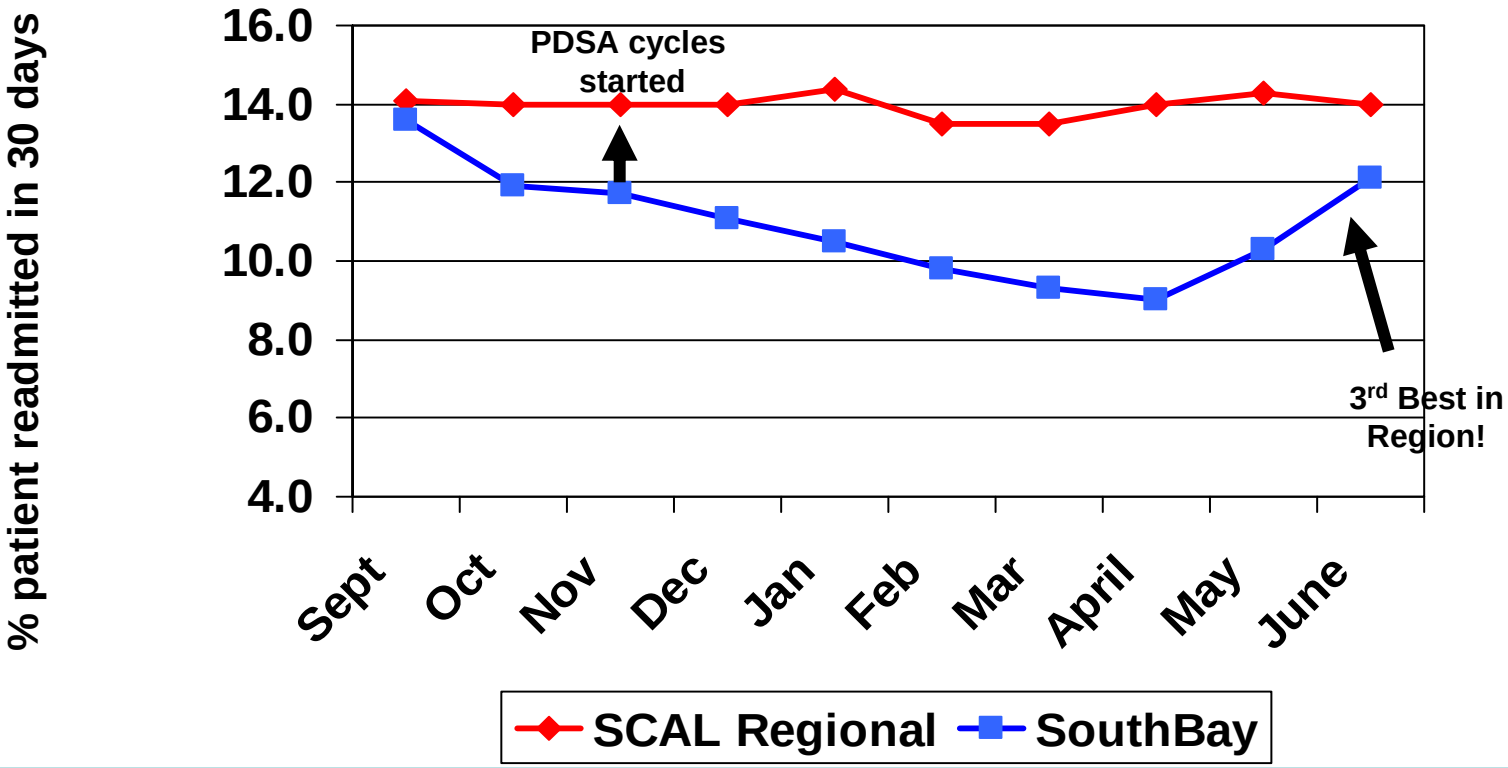
The IHI Readmission Diagnostic Tool Case Study

Case Study – South Bay (N = 12)

Issues identified	Solutions tested
Actos prescribed incorrectly (5 cases)	Physician lead educating team
Gaps in patient understanding of diet for CHF	Path identified for improving referral process to dietician
Unmet patient social service and psych support needs	Improving social worker assess-ment and further leveraging social worker across the program

Results: 30 Day readmission rates ANY reason (12 month roll up)

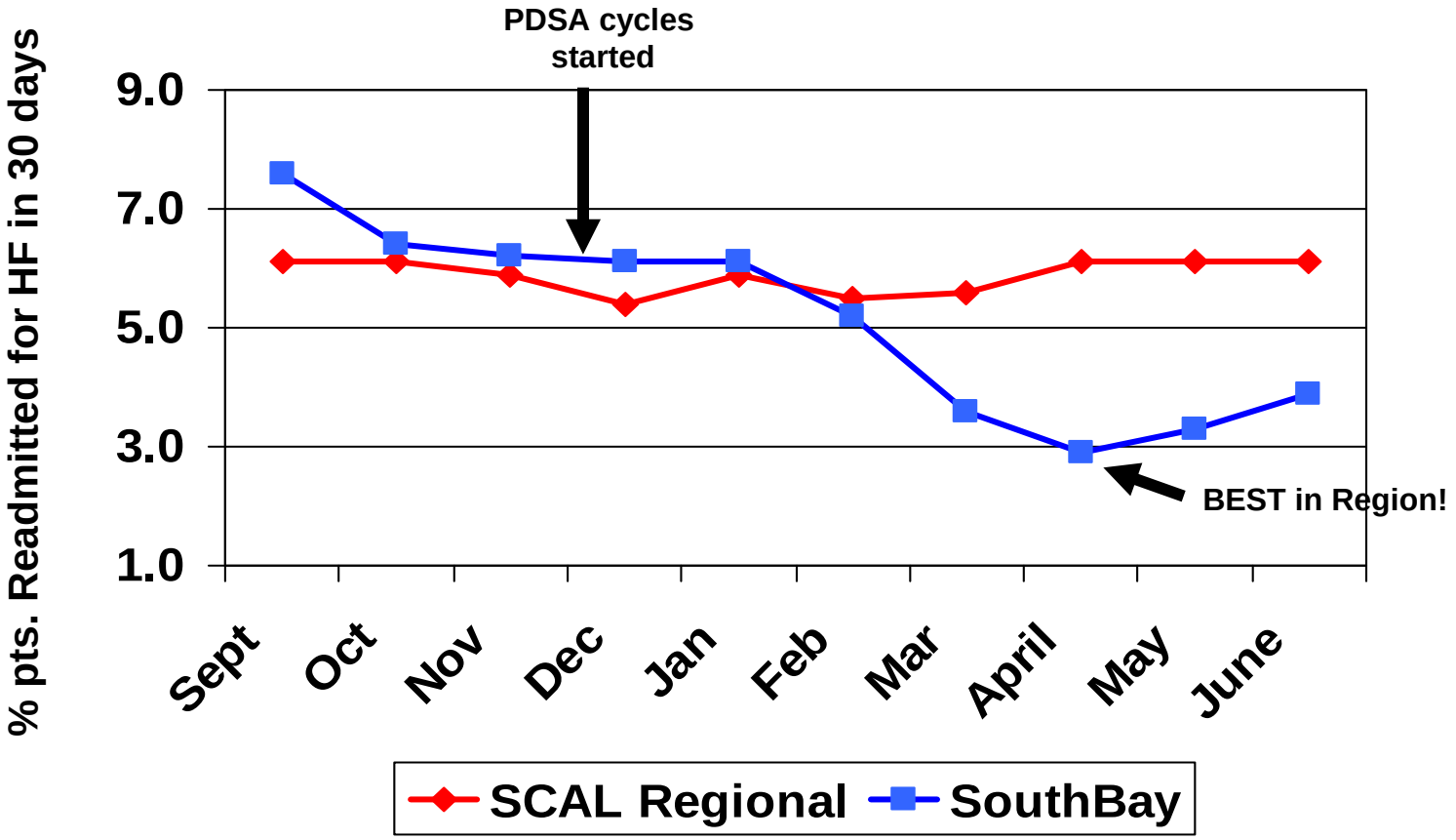
SBAY 30 day all cause readmission rates declining!



Of 151 (1/09-6/09) Real-Time Med Reconciliation patients – 6% 30-day any cause readmission rate (regional average 14%)

30 Day readmission rates-HF reason (12 month roll up)

SBAY 30 day HF readmission rates declining!



Challenges – Leadership and Culturally Related

- Medical center ownership and competing priorities
- Resources – no new funding
- A different way of working – breaking silos
- Addressing the “good enough” belief
- Communication to all stakeholders

Who’s involved?

- inpatient nursing
- hospital and nursing administration
- utilization management
- home health/ continuing care
- population care management
- primary care
- cardiology

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Example Interventions to Address Leadership and Cultural Challenges

- Medical Center-wide team meetings focused on inter-departmental handoffs and coordination improvement efforts - sponsored and supported by leadership
- Monthly scorecards distributed to leadership and all team members
- Patient video to understand patient perspective
- Readmission analysis to understand why patients readmitted
- Workload based staffing analysis

Operational and Clinical Challenges

- Understanding/adopting program criteria
- Implementation across care settings and departments
- Smooth handoffs between care settings to reduce duplication
- Home health timeliness and missing or late referrals, patient request, patient refusals, etc.
- Advanced care management skills needed
- High variability in patient understanding of heart failure and self-management skills
- Medication reconciliation – hospitalist / primary care

Example Interventions to Operational and Clinical Challenges

- Monthly medical Center-wide team meetings focused on inter-departmental handoffs and coordination improvement efforts
- Inter-department process flow mapping and analysis for each medical center with improvements identified and implemented
- Regional meetings and conference calls to share best practices
- TCP patient identification decision tree and quiz
- Patient quiz
- TCP documentation in electronic health record with patient quiz results
- Home Health training
- Shadowing
- Home visit / real time medication reconciliation

Critical Clinical Activities

- Medication reconciliation/adherence
- Patient education
- Self-management optimization
- Clinician and provider communication

Critical Success Factors

- **Leadership Support**
  - Scorecard review
  - Resources
  - Support for ongoing improvements
- **Ongoing Improvement**
  - Inter-departmental processes
  - Training