

California's DSRIP

Results from Contra Costa Regional Medical Center

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High Impact Interventions

- Sepsis
- HAPU
- Ambulatory Care Redesign

DSRIP OVERSIGHT COMMITTEE

Members include:

- Chiefs (CEO, COO, CMO, CNO, CMIO, CMQO, Ambulatory Care Medical Director)
- Director, Safety and Performance Improvement
- Patient Safety Officer
- Quality Manager
- Director, Analytics
- Behavioral Health Program Chief
- DSRIP Manager
- Improvement Specialists



Sepsis

Sepsis Beginnings

- Sepsis Team started in 2008 pre-DSRIP
- Integrated Nurse Leadership Program (INLP) began work on one-hour bundle in California
- Contra Costa chose to continue 1-hour bundle for DSRIP

Sepsis Bundle

Within 1 hour from time of presentation

(i.e., presumed infection and 2 positive SIRS with lactic acid greater than 4 or systolic blood pressure less than 90 or a drop at more than 40 from baseline.)

- Measure lactic acid level
- Give 20-30ml/kg fluids (crystalloids) or 2 liters
- Obtain 2 sets of blood cultures
- Start broad spectrum antibiotic

Value of 1 Hour Sepsis Bundle

- Allows for early identification of potential organ failure by nursing staff based on objective clinical criteria.
- Pushed CCRMC to evaluate and streamline workflow to meet 1-hour goal.
- Standard work allows nursing staff to “just do it and do it promptly” for the sake of the patient. Nurses do not need permission nor to wait to confer with provider to start care.

Sepsis Journey

- Began in Emergency Department (ED)
- Bundle education and training by 2008 on one shift and spread – slowly
- Identified physician champion
- May 2013, ED Nurse Sepsis Protocol order set initiated

Sepsis Journey

- Designated Sepsis nurse assigned every shift to assist with Severe Sepsis cases.
- Trained Rapid Response Team (RRT) and Emergency Department (ED) nurses to take blood cultures
- Simplified Sepsis antibiotic order set to two antibiotics
- Established dedicated sepsis nurse to monitor and train new staff

Sepsis Journey

- Consolidated sepsis treatment order sets from various departments in our Electronic Health Record
- Spread bundle to the Inpatient setting
- Created an Inpatient nursing RRT/ICU severe sepsis/septic shock protocol and order set.
- Small tests of change (PDSA's) were performed on use of the STAT sepsis pager and the “RRT Tackle Box” to evaluate effectiveness

Barriers Overcome

- Staff uncomfortable with level of fluids given (2 liters) fearing fluid overload.
 - With backing of Cardiology MD, convinced staff that patients are more likely to die from organ failure than fluid overload.
- Infection Control staff concerned about false positives on blood cultures taken by nurses in ED.
 - With initial education and once per year competency checks, ED and RRT nurses are fully capable of performing accurate blood cultures.

Barriers Overcome

- Organization-wide consolidation of various departmental sepsis treatment standards within EHR.
- Agreement by interdisciplinary team (Pharmacy, Critical Care, ED) of two antibiotics for bundle set for the “initial antibiotic” that cover the majority of infection types occurring with sepsis.

Strengths

- Director of sepsis team is a front-line provider
- Front-line nurses have responsibility for initiating sepsis treatment orders
 - Reduces number staff needed to treat sepsis efficiently
 - Process streamlined from patient's point of view
- iStat average lactate time within 20 minutes
- Real time feedback to staff with sepsis team members

Success

- Bundle compliance increases:
 - 2012-13 @ 50% ➡ 2014 @ 72% ➡ 2015 @ 78.8%
- Mortality rate decreases:
 - 2012-13 @ 17% ➡ 2014 @ 11% ➡ 2015 @ 7.8%

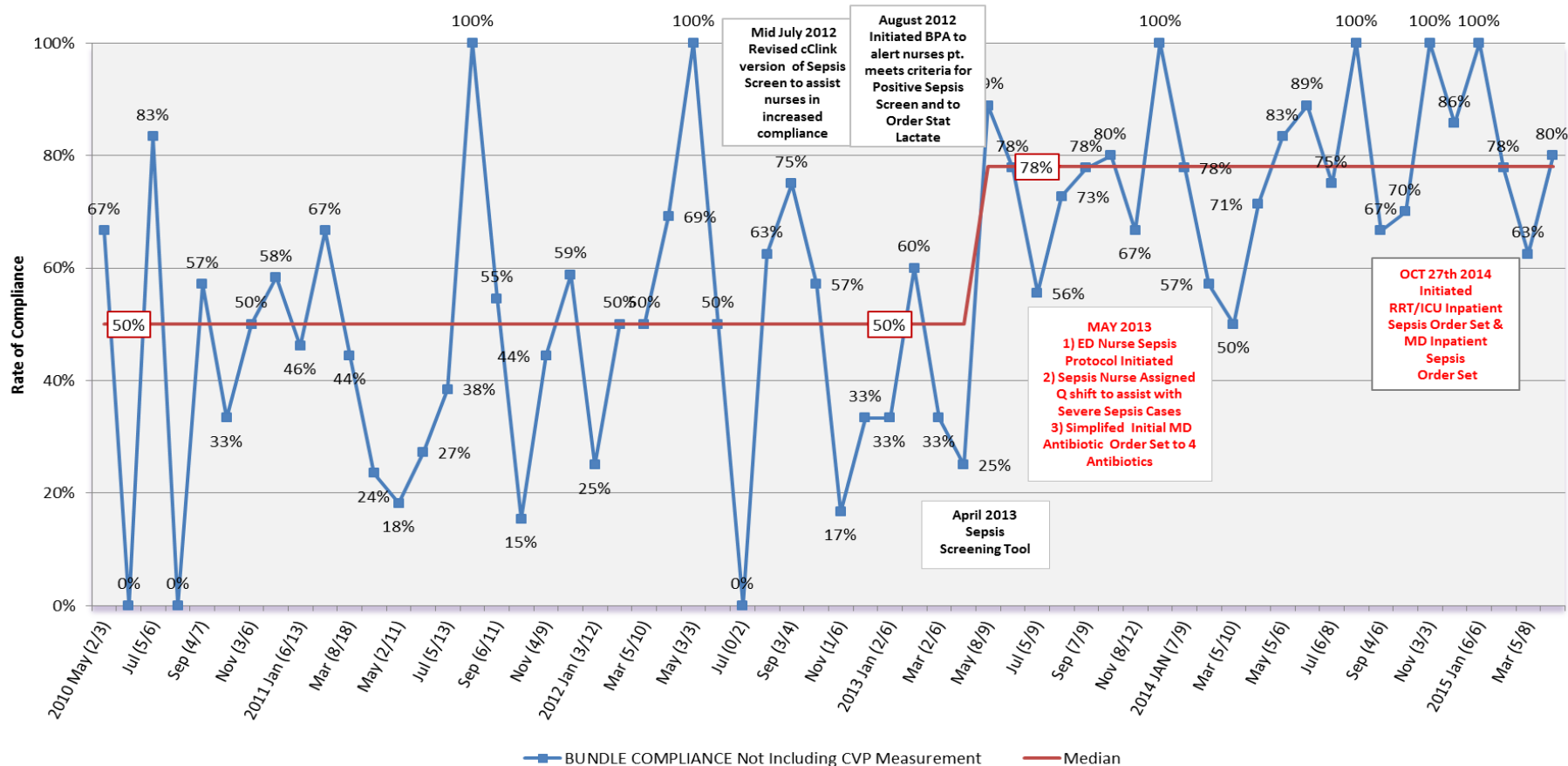
BUNDLE COMPLIANCE

CCRMC 1 Hour SEPSIS

Bundle Compliance

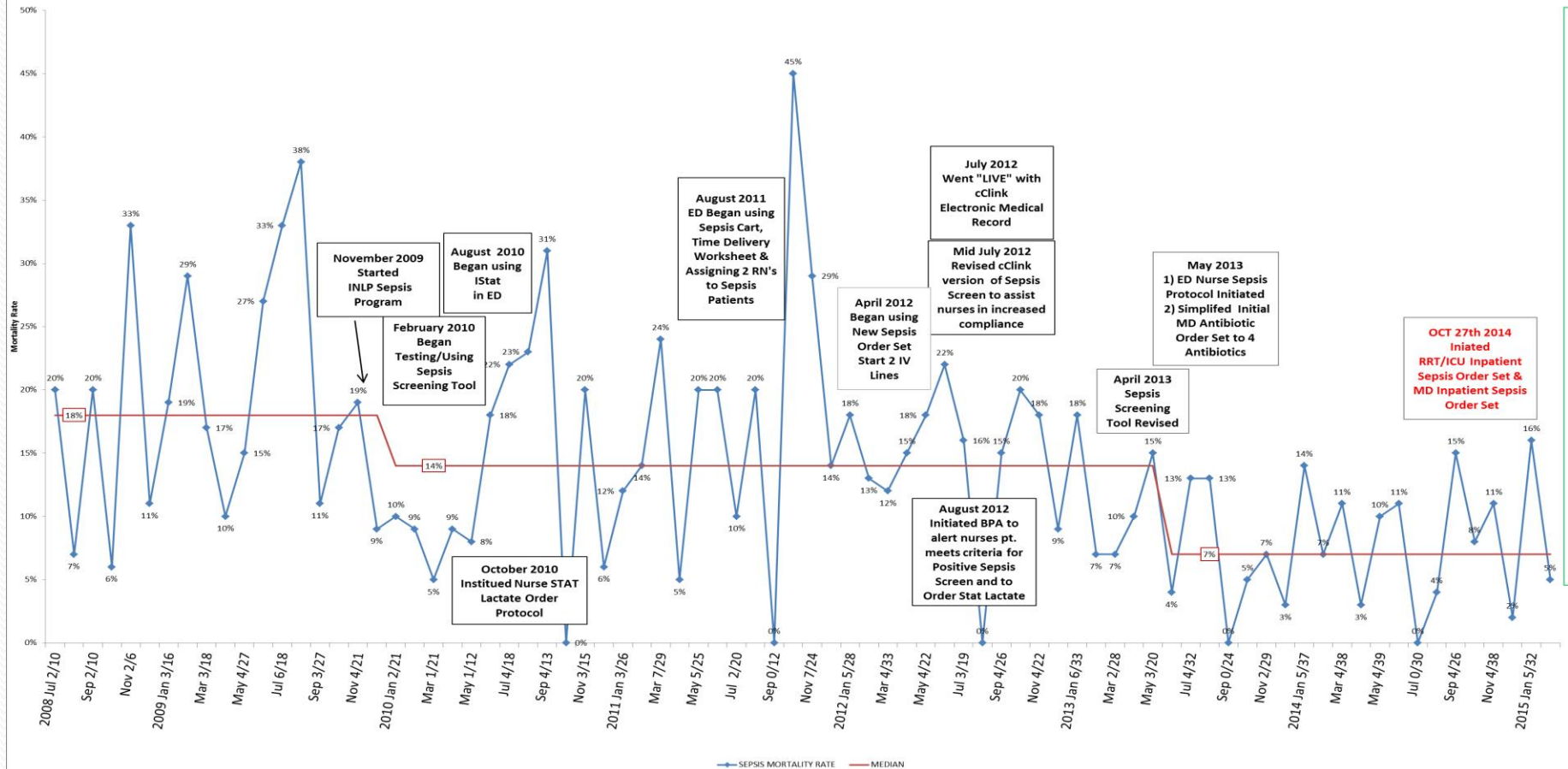
Reporting Requirement #2

Meets All Bundle Element Requirements
(Lactate, Blood Culture, Antibiotic, Fluid Bolus)




SEPSIS MORTALITY

CCRMC SEPSIS MORTALITY
(ICD9 Coding - Sepsis, Infection and Organ Failure Coding)
DSRIP Sepsis Reporting Requirement #2



GOOD



Hospital Acquired Pressure Ulcers (HAPU)

Hospital Acquired Pressure Ulcers

Essential factors in promoting healthy skin:

- Skin assessment
- Mobility
- Good nutrition

Hospital Acquired Pressure Ulcers

- Started pre-DSRIP with oversight team
- To meet DSRIP targets, HAPU Prevention Team was restructured in Fall 2011 to be multidisciplinary (nurse leadership, physician champion, unit nurses, quality manager, nurse educators)
- Goal: Identify and employ a sustainable HAPU prevention bundle that works for our patient population.

TESTS OF CHANGE KEY DRIVER DIAGRAM

January 18, 2013

SMART AIM

- To reduce the hospital-wide HAPU rate to 1.75% by June 30, 2015.

GLOBAL AIM

0% Hospital Acquired Pressure Ulcer Events every month

PRIMARY DRIVERS

Optimally Implement Prevention Interventions

Optimal Assessment

Increased Multidisciplinary Involvement and Teamwork

Improved Communication

Culture shift

- Appropriate equipment availability (improve bed functionality, availability, surface availability,
- Early Mobilization
 - Hourly rounding occurs reliably
 - Physical Therapy involvement sooner for high risk patients
- Dietary consult triggered by Braden
- Visual cues for staff about Braden score linked interventions (in cclink and on Census Boards)

- Standardized skin assessment
- Early identification of risk/timely assessments
- Documentation that is easy and visible to others
- Hired advanced level RN focus wound care to consult, educate physicians and staff

- Increase multidisciplinary involvement at the unit level (discharge rounds, 4 eye skin assessment, Braden Scale in ICU/IMCU, 4B, 5D, 4A, ED, PACU, Perinatal.
- Improve team effort approach in 4C and PES
- Partnering with patients and families in prevention, intervention and education thereof
- MCS/NPM/health care team involvement in coordination and optimal utilization/shifting of resources to support staff in meeting patients needs
- Improve support and development of unit champions
 - Recognition of unit champions and their roles in improvement efforts

- Education and policy awareness
- Improve practice through clearly defined policy
- Improve communication of HAPUs to staff and why they occurred
- Improve display and communication of data in way to more engage staff and families/patients and increase process owner awareness

- Improve Culture of safety
- Awareness- staff and leadership awareness of the last 5 HAPU's and why they occurred.
- Policy and practice alignment
- Improve compliance and increase level of best practice sustainability of pressure ulcer prevention and care
- Standardize audit process

Feb 2012 Intentional rounding on 5D

Nov 2012: Braden Score on Census Board-5D

Development of automated intervention triggers Standardized Order sets to support HAPU prevention

Feb 2012 4-eyes skin assess on 4B4 Eyes Skin Assessment on every transfer or admit to 4A, 4B, 5D September: Mandatory 15 min. in-service on 4 Eye Skin Assessment on Med/Surg and CCU/IMCU

March 2012: Unit Champions 1st 8 hour pressure ulcer training for Unit Champions August: Aug 2012: NAPH kick-Off; In-service training planning October: 2 hour wound training for unit champions

Jan 2012: weekly HAPU Meetings April 2012: Braden < 18 reported to NPM's; safety huddles Braden score on digital whiteboard 4B Communication of patients at risk Staff meetings Standardized messaging 5 minute safety huddles (CN, primary nurse)-standardization between unit 9am daily multidisciplinary discharge rounds CN-CN bedside safety rounds at change of shift Nov 2012: Braden Score on Census Board-5B Audit cclink documentation for 4 eyed skin assessments after review of policy Test perinatal storyboard template approach to adapt to Med Surg area

Survey (staff) Audits Staff meeting discussions Active Involvement (doing to) Awareness – staff and leadership awareness of the last 5 HAPU's and why they occurred. Engagement (doing with)... (MD, nursing, MCS, support staff, residents, PT, dietary) CALNOC prevalence survey – involvement of team approach Test audit tool Charge Nurse and manager discuss audits and keep log of follow ups

First Steps

- Early 2012 employed intentional hourly rounding
- Trialed 4-eye skin assessment all patients on one unit, including transfers in and out of unit
- Unit champions received 8-hr pressure ulcer training
- 5 minute safety huddles for communication on at-risk patients
- Braden scores posted on whiteboards for staff
- Encouraged patient mobility when appropriate

Stepping It Up

- Roll out to all inpatient units:
 - Every admission reviewed for existing pressure ulcers
 - 4-Eye Skin Assessment required every shift, on admission, transfer, postop and upon discharge to a SNF
- ED nurse protocol: Braden scale/4-Eye Assessment required within 2 hours of admission orders
- Daily monitoring reports and audit tools created

Stepping It Up

- Staff and leadership review of root cause of all HAPUs
- Treatment guides include stage-specific wound care products
- Wound care nurse hired to educate and identify areas of improvement

Barriers Overcome

- Education of all inpatient and emergency staff on all shifts on HAPU tools, HAPU stages and Safety event reporting tools
- Design of assessments into patient care standard workflows
- Display of real-time patient data to underscore patient care needs and expectations of leadership
- Identification of physician champion

Ongoing Challenges

- Education of new inpatient and emergency staff on HAPU interventions
- Continued engagement of front-line staff to assist with problem solving (i.e., patients with co-morbidities, indwelling tubes, etc.)
- Timely and accurate staging of wounds

Strengths

- Strong, committed multidisciplinary team
- Skin assessments built into daily standard work
- Use of proven tools:
 - 4 Eyes Assessment
 - Braden Scale
 - Internal audit reports

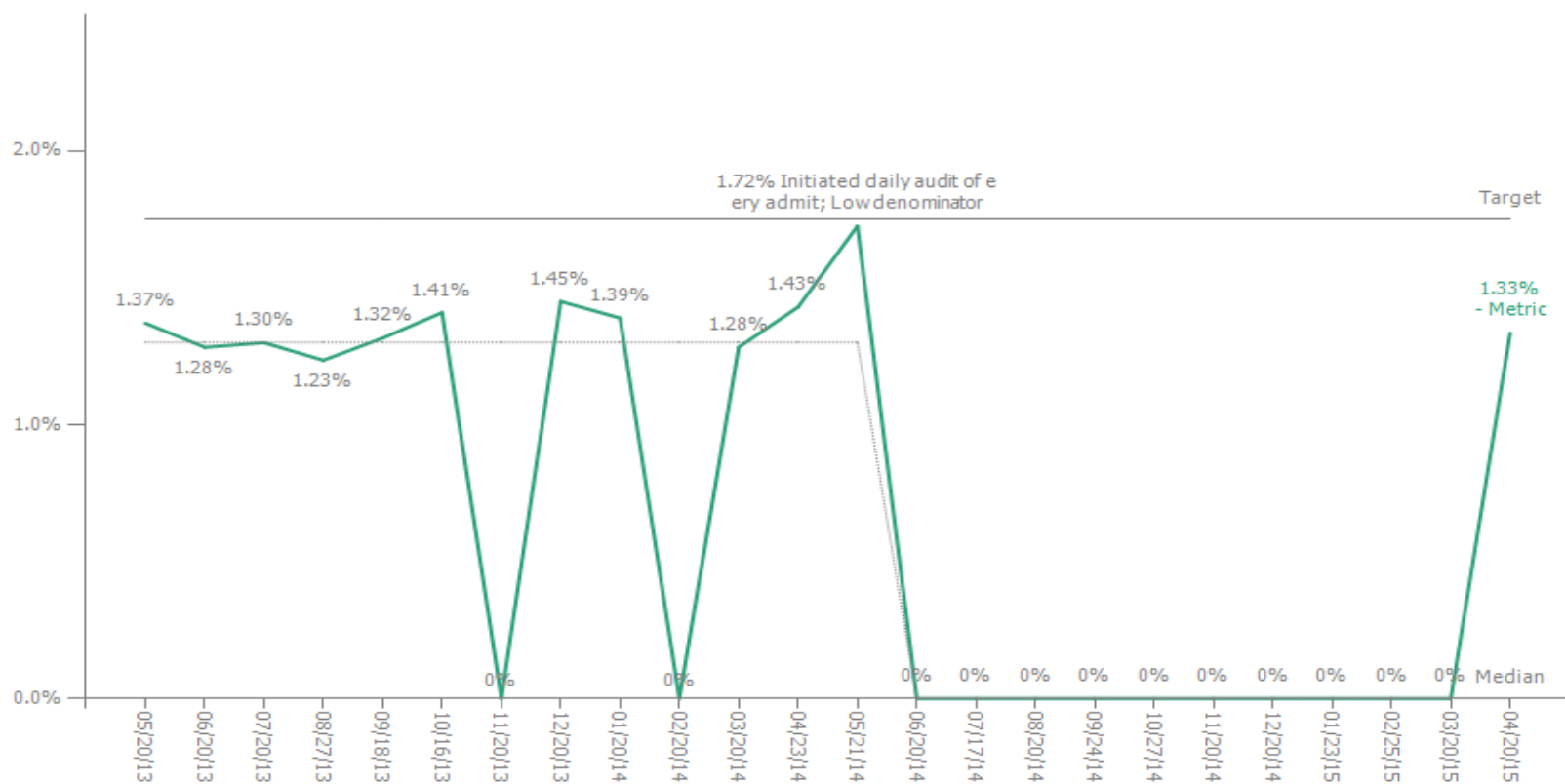
HAPU Prevalence Rate (Stage 2+)

<u>Year</u>	<u>Target</u>	<u>Rate</u>
2012	N/A	2.40%
2013	2.40%	2.04%
2014	2.20%	1.06%
2015	1.75%	0.13%*

* Ten months ending April 2015

Hospital Acquired Pressure Ulcers

Cat 4 Hospital-Acquired Pressure Ulcer Prevention





Ambulatory Care Redesign

Ambulatory Care DSRIP Projects

- Increase primary care provider visits
- Reduce “Third Next Available” appointment rate
- Patient experience measurement
- Establish video interpreting network

Ambulatory Care DSRIP Projects

- Empanel Medi-Cal Health Plan patients
- Integrate physical and behavioral health care
- Population health measures (mammography rate, hypertension reduction, CHF 30-day readmission reduction, etc.)

Ambulatory DSRIP Results

- Increase Primary Care Provider visits by 17,000/year
- Reduced Third Next Available appointments from 13+ days to 6 days
- Video interpreting access in all 11 clinics

Ambulatory DSRIP Results

- MediCal Health Plan patients empanelled at 99%+
- Behavioral health integrated at 3 primary care clinics
- SBIRT* rate over 75% at pilot clinics and SBIRTs rolled out to all clinics by end of 2015

*Screening, Brief Intervention and Referral to Treatment

Ambulatory Care Redesign

- To ensure ability to meet DSRIP expectations we considered the individual projects part of an organization-wide improvement effort
- Resources and other interventions were included in the global effort
 - Telephone Consultation Clinic (500 visits/month)
 - Lean education & rapid improvement events
 - IHI collaborative on care access

Ambulatory Care Redesign

Access to Care Collaborative (IHI)

- Began with small tests of change at 4 clinic locations with each clinic assigned different project
- Worked with Nurse Manager Leads and clinical support teams (RNs, LVNs, MAs, clerks)
- Education provided on improvement work principles and overall goals
- Teams worked hard on tests of change, meeting regularly with coaches on monthly conference calls and in off-site learning sessions

Challenges

- Small tests of change did not create enough momentum at the individual sites to realize the greater systemic change needed.
- Adjusted model and employed all patient access interventions tested at the different clinics into one clinic location; provided improvement specialists and other support.

Results

In first three months, trial clinic shows improvement in:

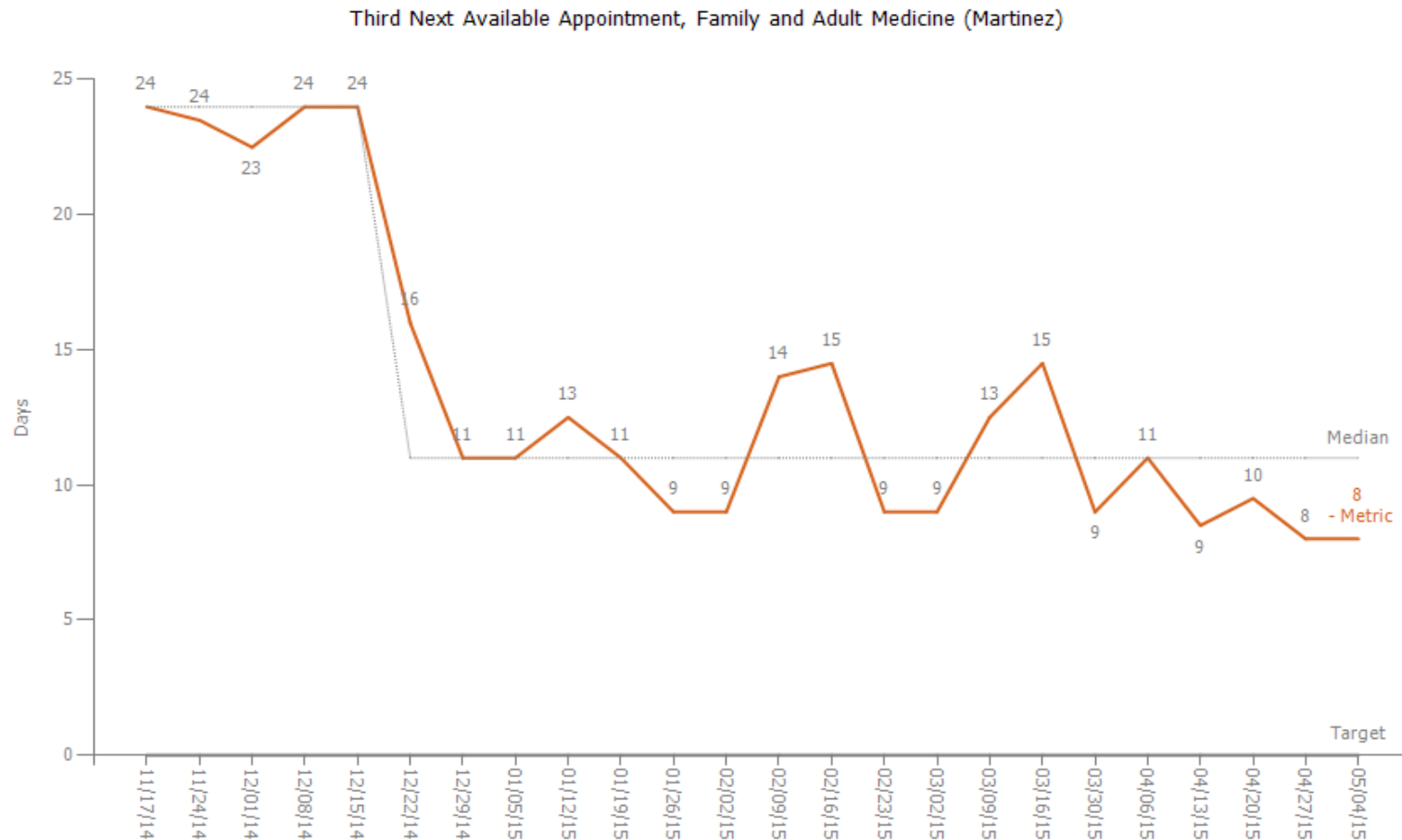
- Third next available appointment
- Patient continuity
- Appointment disposition (visit frequency)

Access model will be rolled out to new clinic locations every three months through early 2016 to hopefully realize the same improvement system-wide for our patients.

Ambulatory Care Results

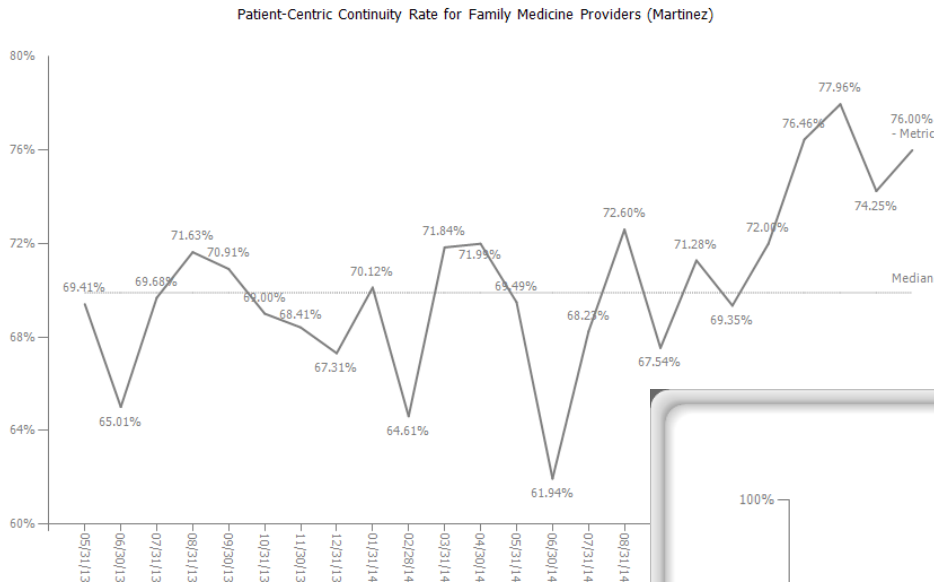
- Population health measures experiencing movement in right direction overall, i.e., mammography screening, influenza immunization rates, etc. (no set targets)
- Third next available appointment rate dropped in access pilot clinic from 24 to 8 days
- Patient care continuity rates at pilot clinics increased by 6 - 10%
- Reducing frequency of follow up visits. Percentage of patients asked to return in less than 4 months has dropped by nearly 9 points in 7 months

Third Next Available Appointment

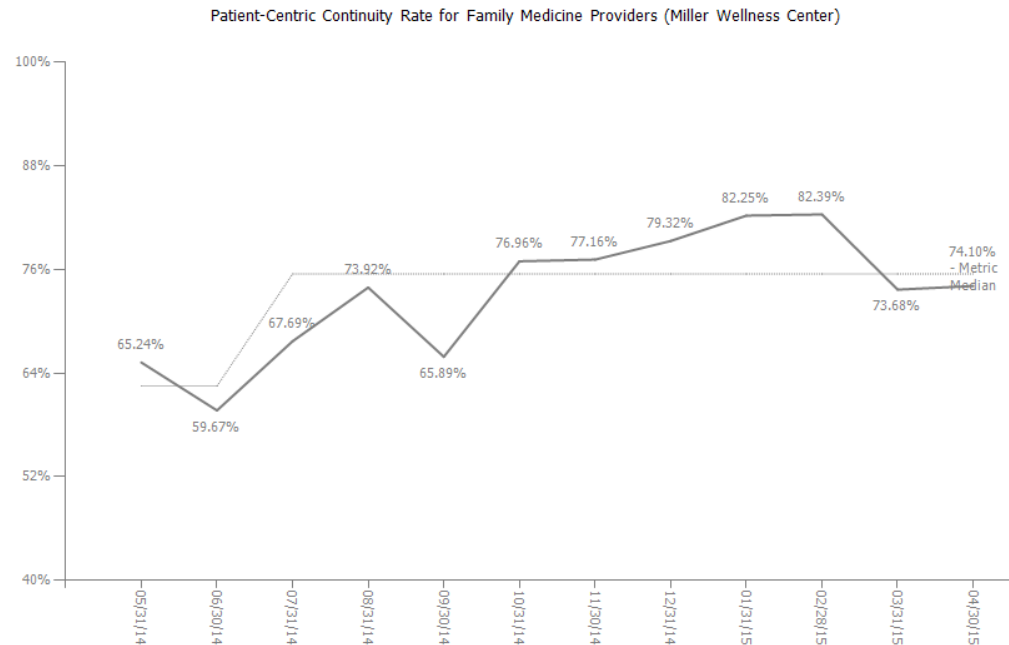


Patient-Centered Continuity

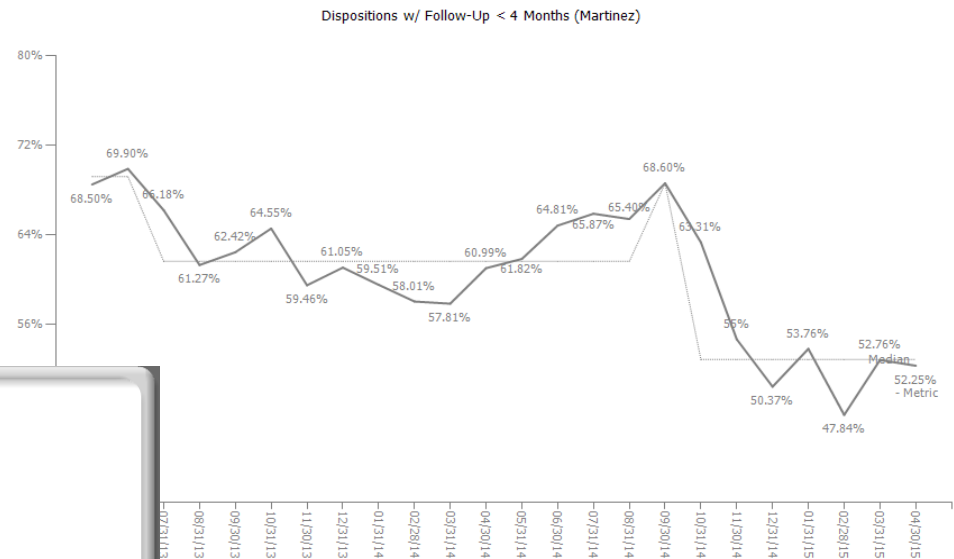
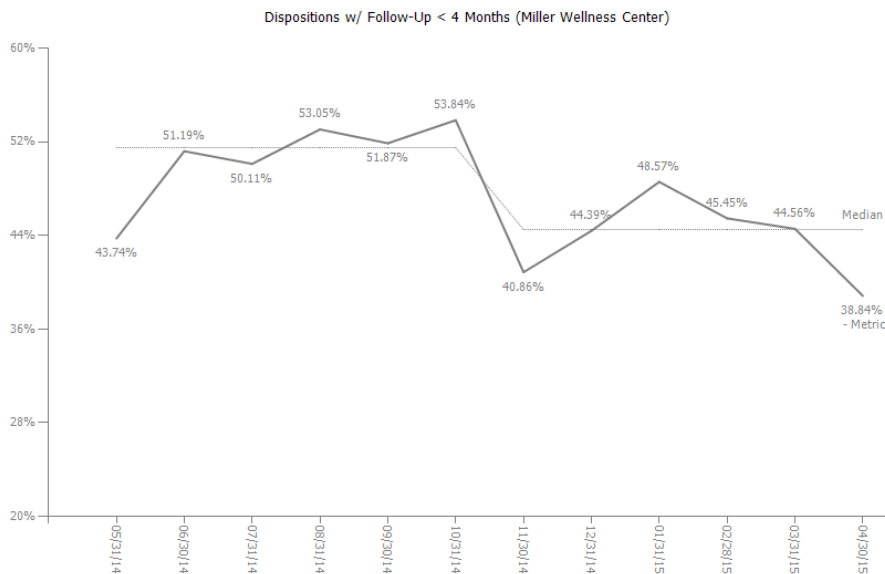
The patient-centric continuity rate increased 6-7% over 7 months in one pilot clinic...



... and increased by 9 percentage points in a 2nd pilot clinic since it opened in Spring of 2014.



Appointment Disposition, less than 4 months



Take Away

Without all of our staff pulling together – organization leaders, providers and other front line staff - to make the system better for our patients, large systemic change and population health improvement will not be realized.

DSRIP Impact

- The need to meet long-term stretch targets attached to financial incentives ensured our improvement momentum
- DSRIP leadership and oversight structure created is scalable for oversight of other quality improvement efforts
- Improvement Academy created to train DSRIP teams first, then mid-level managers on improvement principles

DSRIP Impact

- Lean education provided to management; Kaizen rapid improvement events utilized to create standard work to support the overall improvement efforts on hospital units and in clinics.
- Non-DSRIP teams now requesting kaizen events and PDSA training and support to improve internal processes

DSRIP Impact

- Dashboards originally created to monitor DSRIP measures have since been created for all clinics, the ED, providers, and quality management.
- Improvement work started set stage for participation in public and private grants to continue affiliated improvement work.
- Supports 5 year strategic plan. Sets stage for establishing organizational priorities and supporting key initiatives, including additional capability goals such as Six Sigma training.



Questions?