

August 13, 2021

NOTICE

The Board of Directors of the Kaweah Delta Health Care District will meet in a Quality Council Committee meeting at 7:00AM on Thursday, August 19, 2021, in the Kaweah Health Lifestyle Fitness Center Conference Room, 5105 W. Cypress Avenue, Visalia, CA 93277.

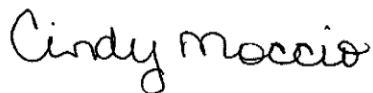
The Board of Directors of the Kaweah Delta Health Care District will meet in a Closed Quality Council Committee at 7:01AM on Thursday, August 19, 2021, in the Kaweah Health Lifestyle Fitness Center Conference Room, 5105 W. Cypress Avenue, Visalia, CA 93277, pursuant to Health and Safety Code 32155 & 1461.

The Board of Directors of the Kaweah Delta Health Care District will meet in an open Quality Council Committee meeting at 8:00AM on Thursday, August 19, 2021, in the Kaweah Health Lifestyle Fitness center Conference Room, 5105 W. Cypress Avenue, Visalia, CA 93277.

All Kaweah Delta Health Care District regular board meeting and committee meeting notices and agendas are posted 72 hours prior to meetings in the Kaweah Health Medical Center, Mineral King Wing entry corridor between the Mineral King lobby and the Emergency Department waiting room.

The disclosable public records related to agendas are available for public inspection at Kaweah Health Medical Center – Acequia Wing, Executive Offices (Administration Department) {1st floor}, 400 West Mineral King Avenue, Visalia, CA and on the Kaweah Delta Health Care District web page <https://www.kaweahhealth.org>.

KAWEAH DELTA HEALTH CARE DISTRICT
Garth Gipson, Secretary/Treasurer



Cindy Moccio
Board Clerk, Executive Assistant to CEO

DISTRIBUTION:

Governing Board, Legal Counsel, Executive Team, Chief of Staff
<http://www.kaweahhealth.org>

**KAWEAH DELTA HEALTH CARE DISTRICT BOARD OF DIRECTORS
QUALITY COUNCIL**

Thursday, August 19, 2021

5105 W. Cypress Avenue

Kaweah Health Lifestyle Fitness Center Conference Room

ATTENDING: Board Members; David Francis – Committee Chair, Mike Olmos; Gary Herbst, CEO; Keri Noeske, RN, BSW, DNP, Vice President & CNO; Monica Manga, MD, Chief of Staff; Daniel Hightower, MD, Professional Staff Quality Committee Chair; Tom Gray, MD, Quality and Patient Safety Medical Director; Sandy Volchko DNP, RN CLSSBB, Director of Quality and Patient Safety; Ben Cripps, Vice President, Chief Compliance and Risk Management Officer; Evelyn McEntire, Director of Risk Management; and Michelle Adams, Recording.

OPEN MEETING – 7:00AM

- 1. Call to order** – *David Francis, Committee Chair*
- 2. Public / Medical Staff participation** – Members of the public may comment on agenda items before action is taken and after it is discussed by the Board. Each speaker will be allowed five minutes. Members of the public wishing to address the Board concerning items not on the agenda and within the jurisdiction of the Board are requested to identify themselves at this time. For those who are unable to attend the beginning of the Board meeting during the public participation segment but would like to address the Board, please contact the Board Clerk (Cindy Moccio 559-624-2330) or cmoccio@kaweahhealth.org to make arrangements to address the Board.
- 3. Approval of Quality Council Closed Meeting Agenda – 7:01AM**
 - **Quality Assurance** pursuant to Health and Safety Code 32155 and 1461 – *Daniel Hightower, MD, and Professional Staff Quality Committee Chair;*
 - **Quality Assurance** pursuant to Health and Safety Code 32155 and 1461 – *Evelyn McEntire, RN, BSN, Director of Risk Management and Ben Cripps, Vice President & Chief Compliance and Risk Management Officer.*
- 4. Adjourn Open Meeting** – *David Francis, Committee Chair*

CLOSED MEETING – 7:01AM

- 1. Call to order** – *David Francis, Committee Chair & Board Member*
- 2. [Quality Assurance pursuant to Health and Safety Code 32155 and 1461](#)** – *Daniel Hightower, MD, and Professional Staff Quality Committee Chair*

3. [Quality Assurance pursuant to Health and Safety Code 32155 and 1461](#) — Evelyn McEntire, RN, BSN, Interim Director of Risk Management, and Ben Cripps, Chief Compliance Officer.

4. **Adjourn Closed Meeting** – *David Francis, Committee Chair*

OPEN MEETING – 8:00AM

1. **Call to order** – *David Francis, Committee Chair*

2. **Public / Medical Staff participation** – Members of the public wishing to address the Committee concerning items not on the agenda and within the subject matter jurisdiction of the Committee may step forward and are requested to identify themselves at this time. Members of the public or the medical staff may comment on agenda items after the item has been discussed by the Committee but before a Committee recommendation is decided. In either case, each speaker will be allowed five minutes.

3. **Written Quality Reports** – A review of key quality metrics and actions associated with the following improvement initiatives:

3.1. [Central Line Associated Blood Stream Infection \(CLABSI\) and MRSA Quality Focus Team Report](#)

4. [Cardiac Surgery Quality Update](#) – A review of key quality indicators and actions through the Society of Thoracic Surgeons (STS) Data Registry. *Leheb Araim, MD, Medical Director of Cardiac & Thoracic Surgery.*

5. [Cardiology Quality Update](#) – A review of key quality indicators and actions through the American College of Cardiology (ACC) Data Registry. *Ashok Verma, MD, Medical Director Cardiac Cath Lab.*

6. [Update: Clinical Quality Goals](#) - A review of current performance and actions focused on the fiscal year 2021 clinical quality goals. *Sandy Volchko, RN, DNP, Director of Quality and Patient Safety.*

7. **Adjourn Open Meeting** – *David Francis, Committee Chair*

In compliance with the Americans with Disabilities Act, if you need special assistance to participate at this meeting, please contact the Board Clerk (559) 624-2330. Notification 48 hours prior to the meeting will enable the District to make reasonable arrangements to ensure accessibility to the Kaweah Delta Health Care District Board of Directors committee meeting.



Central Line Blood Stream Infection (CLABSI) Quality Focus Team Report August 2021

Amy Baker, Director of Renal Services (Chair)

Emma Camarena, Advanced Practice Nurse (Co-Chair)

Shawn Elkin, Infection Prevention Manager (IP Liaison)

CLABSI Quality Focus Team and Kaizen Event Background

Background: Patients are acquiring CLABSIs at rates that exceed national benchmarks. The CLABSI SIR from July 2019 to December 2019 was 1.47 with a goal (CMS 50th percentile) of ≤ 0.784 ; the number of CLABSIs was higher than expected (9 observed, 6 expected). CLABSIs result in poor outcomes for patients, a negative public perception of care through publically reported safety scores and financially impact the organization through HAC and VBP programs as well as increased treatment costs and length of stay.

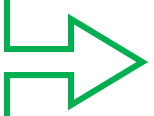
Current State (Kaizen Event) Review -

- Days between CLABSI from 4/2018 to 4/2020 is 18.74.
- CLABSIs are associated with both insertion practices and maintenance practices
- CLABSIs have not increased because we have more central lines or insert them under emergent circumstances
- We do not have consistency with best practices in CLABSI prevention
- No standard MD training on CLABSI prevention training
- The “Vital Few” are:
 - Central Line site: IJ or Femoral
 - Bath not received
 - Line necessity was not addressed
 - Hemodialysis
 - Expired peripheral IV
- CLABSIs are not isolated to one unit or unit type
- The weekly HAI audit (for best practices) has not helped consistency in bundle practices or reduced CLABSI

Analysis:

Identified Root Causes (in order from most significant to least):

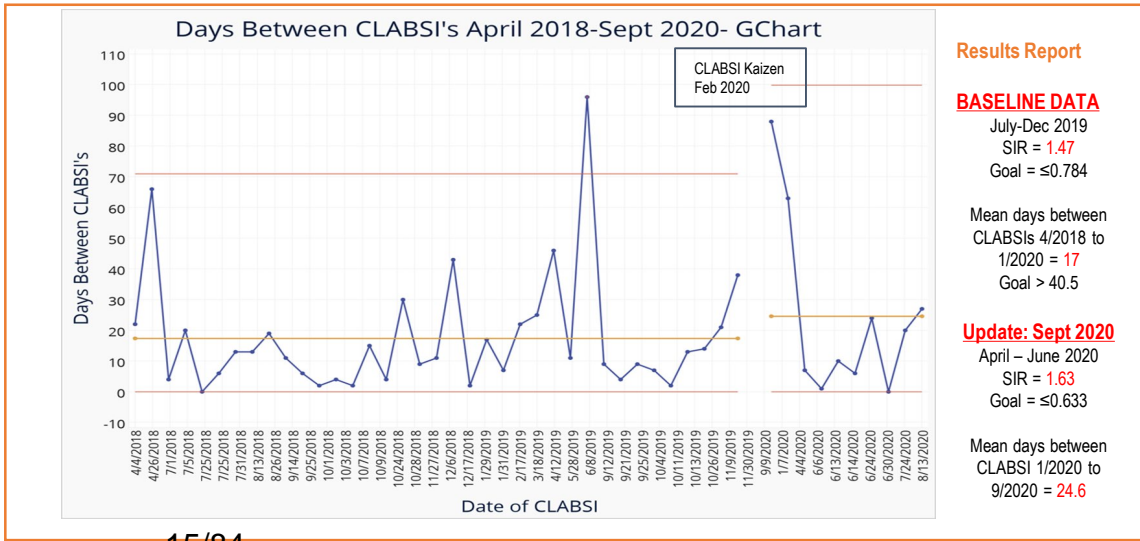
1. Line Necessity
2. Bundle Practice
3. Education
4. Cultures
5. Central Line Insertion
6. Bathing
7. Leadership Standard Work
8. Documentation
9. Human Factors



Kaizen improvement strategies focused on addressing the top 4 root causes

Action Plan: Goal CLABSI SIR ≤ 0.633 (new) and Mean Days Between CLABSI > 40.5

Improvement Strategy	Who?	When?
Line Necessity –Implementation of interventions delayed due to COVID-19 pandemic	Emma C. Joetta D.	March 31, 2020 (TPN orders 7/2020)
Bundle Practice –Implementation of interventions delayed due to COVID-19 pandemic	Amy Baker	March 31, 2020
Education –Implementation of interventions delayed due to COVID-19 pandemic priorities	Eileen P. Enri S.	March 31, 2020 (Comp Fair 6/20)
Blood Cultures: The Culture of Culturing	Dr. Gray & Shawn Elkin	
Leadership Standard Work	Mary Laufer	
Improve location and par of central line supplies <ul style="list-style-type: none"> • Include in manager communication plan; • Include in RN & CNA education that they need to follow up with CN or manager that PAR level needs to be adjusted; also talk to manager & central distribution 	Kaizen Team Education Team	
Email Take-Always after CLABSI committee review of events	Amy Baker	
Insertion: New site = New kit to be included with MD/resident education with Dr. LeDonne— Conference cancelled due to COVID-19 pandemic.	Dr. Gray Shawn Elkin	



Post Kaizen- Gemba Data

CLABSI Committee Dashboard

Measure Description	Benchmark/Target	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21
OUTCOME MEASURES														
Number of CLABSI	0	0	5	2	1	2	0	1	2	1	2	0	0	1
FYTD SIR	≤ 0.633		1.63			1.28*			1.2*			0.933		
PROCESS MEASURES CL Gemba Rounds														
% of pts with bath within 24 hrs	99%	78%	80%	84%	88%	88%		95%	96%	96%	96%	96%	97%	93%
% of CL with valid rationale order	100%	93%	97%	96%	95%	96%		98%	98%	97%	99%	98%	98%	98%
% of CL dressings clean, dry and intact	100%	92%	95%	91%	92%	95%		97%	95%	94%	97%	95%	95%	97%
% of CL that had drsg change no > than 7 days	100%	90%	90%	89%	96%	98%		98%	98%	99%	99%	99%	99%	98%
% of patients with proper placed gardiva patch	100%	81%	93%	90%	89%	92%		93%	94%	94%	93%	95%	94%	94%
% of CL pts with app & complete documentation	100%	81%	86%	86%	87%	87%		92%	91%	93%	95%	90%	91%	94%
# of Pt Central Line days rounded on	n/a	1050	1315	1194	1087	1372		1084	1194	1067	1010	1179	1198	968
		Better than Target			Jan-Jul: Within 10% of Target As of Aug: Within 5% of Target			Does not meet Target						

*SIR manually calculated

Total Number of Patient Central Line Days Rounded on = 13,718

Continued focus in areas on CLABSI reduction – prioritizing the initiatives.

Improvements from first 3 months of Gemba vs last 3 months:

- Bath within 24 hrs: 81% to 95%
- CL with order: 95% to 98%
- Dressing Clean: 92% to 96%
- Dressing change: 90% to 99%
- Gardiva Patch: 88% to 94%
- Complete documentation: 83% to 92%

Clabsi QFT- Plans for Improvement

- Subcommittees have formed to help reduce different aspects of CLABSI
 - Culture of Culturing Committee- work on reduce number of pan culturing and discuss TPN utilization related to CLABSI's
 - HAI Review Committee- Review each CLABSI case to identify learning opportunities, barriers and identify root causes
 - MRSA Subcommittee- develop plan to address MRSA infections. Discussing nasal decolonization

In addition to subcommittees the CLABSI QFT has been

- Reviewing unit specific action plans to address CLABSI's- for example 4 North auditing compliance of CHG bathing for high risk infection patients with central lines
- Remediating education as needed
- Ensuring materials are available on the units for communication
- Working on Power Plan to create ease of use and understanding
- Update policy with Lippincott links so staff can see video's of central line dressing changes
- Working with shared governance teams to get feedback on barriers facing each unit

End of Fiscal Year Performance

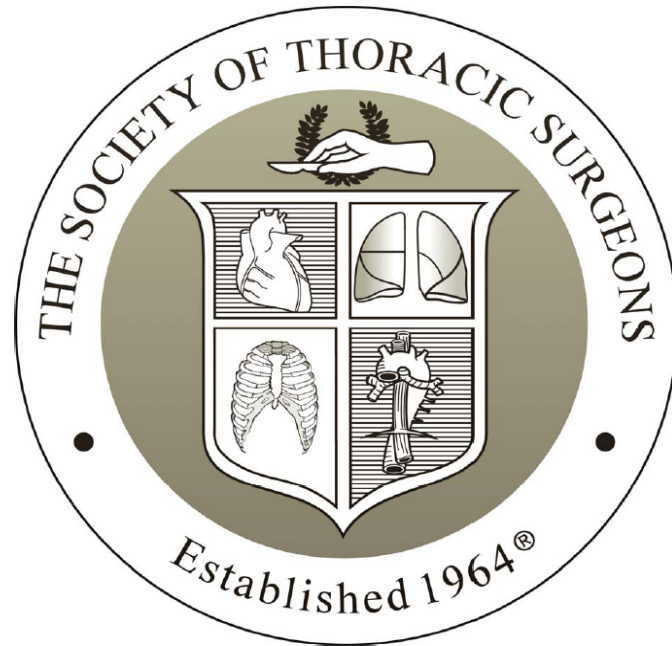
	July 2020	Aug 2020	Sept 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	June 2021	Estimated Annual Number Not to Exceed to Achieve Goal*	FYTD SIR** (number of actual/ number expected)	FY21/ FY22 Goal	FY20
CAUTI Catheter Associated Urinary Tract Infection	1	0	1	1	1	1	0	1	0	3	1	1	20	52%↓ 0.542	≤0.727 ≤0.676	1.12
CLABSI Central Line Associated Blood Stream Infection	2	1	1	0	1	2	1	2	0	0	1	1	16	38%↓ 0.745	≤0.633 ≤0.596	1.2
MRSA Methicillin-Resistant Staphylococcus Aureus	1	3	2	2	1	1	2	2	1	2	0	0	6	147%↑ 2.782	≤0.748 ≤0.727	1.02

Lower is Better

QUESTIONS?

Cardiac Surgery Data

2020 Risk-Adjusted Data



DATA ANALYSES BY THE SOCIETY OF THORACIC SURGEONS
NATIONAL ADULT CARDIAC SURGERY DATABASE

*Comparison STS reporting period 01/01/2020 through 12/31/2020
20/84

Star Ratings 2020

Isolated Coronary Artery Bypass Grafting

Star Ratings are only calculated ending Q2 & Q4 each year

Domain	Rating	Participant		STS				
		Score	98% CI	Score	Min - Max	10th	50th	90th
Overall	★ ★	96.57%	(94.98-97.77)	96.68%	(91.08-98.92)	95.12%	96.86%	97.98%
Absence of Mortality	★ ★	97.03%	(94.78-98.50)	97.42%	(92.79-99.19)	96.22%	97.56%	98.44%
Absence of Morbidity	★ ★	90.13%	(85.52-93.69)	89.31%	(73.20-96.33)	84.71%	89.79%	93.25%
Use of IMA	★ ★	98.65%	(96.02-99.77)	99.34%	(88.84-99.99)	98.56%	99.65%	99.92%
Medications	★ ★	96.98%	(93.25-99.11)	94.37%	(44.56-99.96)	85.92%	97.18%	99.47%

★ Worse than Expected. Participant's performance is significantly worse than expected for their specific case-mix.
★ ★ As Expected. Participant's performance is not statistically different than expected for their specific case-mix.
★ ★ ★ Better than Expected. Participant's performance is significantly better than expected for their specific case-mix.

Note: Each participant's composite score and star rating are an estimate of their performance for their specific case-mix (e.g., patient acuity and severity) compared with overall, national STS outcomes for a similar mix of patients. Because a participant's composite score and star rating apply only to their case-mix, they cannot be directly compared with the composite score and star rating of another participant with a different case-mix.
Star ratings for previous time periods reflect the results obtained at that time.

Star Ratings 2020

Aortic Valve Replacement

Star Ratings are only calculated ending Q2 & Q4 each year



The Society
of Thoracic
Surgeons

STS AVR Composite Quality Rating

Participant: 30045

STS Period Ending Jun 2020

Domain	Rating	Participant		STS				
		Score	95% CI	Score	Min - Max	10th	50th	90th
Overall	★ ★	96.5%	(94.6-97.8)	95.7%	(86.1-98.6)	93.6%	95.9%	97.4%
Absence of Mortality	★ ★	98.2%	(96.6-99.2)	98.0%	(93.0-99.5)	96.8%	98.1%	98.9%
Absence of Morbidity	★ ★	90.9%	(86.9-94.1)	89.9%	(77.1-95.9)	86.2%	90.3%	93.1%

- ★ Worse than Expected. Participant's performance is significantly worse than expected for their specific case-mix.
- ★ ★ As Expected. Participant's performance is not statistically different than expected for their specific case-mix.
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Star ratings for previous time periods reflect the results obtained at that time.

Star Ratings 2020

CABG w/ Aortic Valve Replacement

Star Ratings are only calculated ending Q2 & Q4 each year

Domain	Rating	Participant		STS				
		Score	95% CI	Score	Min - Max	10th	50th	90th
Overall	★ ★	92.61%	(89.24-95.28)	92.34%	(79.23-97.60)	88.73%	92.78%	95.39%
Absence of Mortality	★ ★	95.77%	(92.43-98.00)	96.05%	(86.09-99.10)	93.71%	96.40%	97.95%
Absence of Morbidity	★ ★	84.22%	(77.54-89.77)	83.12%	(62.60-93.74)	76.73%	83.68%	88.82%

★ Worse than Expected. Participant's performance is significantly worse than expected for their specific case-mix.
★ ★ As Expected. Participant's performance is not statistically different than expected for their specific case-mix.
★ ★ ★ Better than Expected. Participant's performance is significantly better than expected for their specific case-mix.

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Star ratings for previous time periods reflect the results obtained at that time.

Healthgrades

Specialty Clinical Quality Awards & Ratings

Hospital Quality Awards



America's 250 Best Hospitals Award™ (2021, 2020, 2019)

Top 5% in the nation for consistently delivering clinical quality

Specialty Clinical Quality Awards



America's 50 Best Hospitals for Cardiac Surgery Award™ (2021, 2020, 2019)

Superior clinical outcomes in heart bypass surgery and heart valve surgery

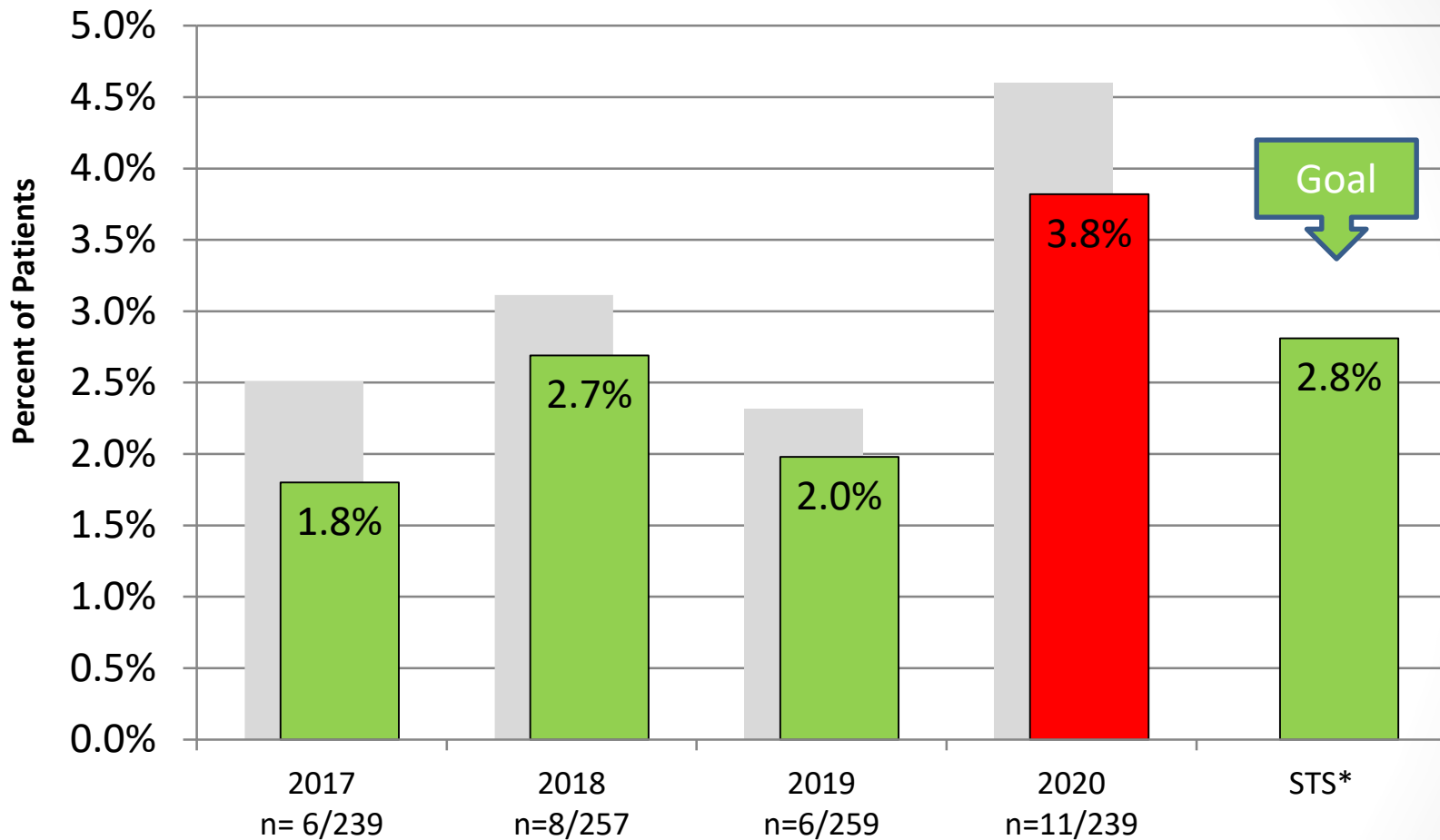


America's 100 Best Hospitals for Cardiac Care Award™ (2019)

Superior clinical outcomes in heart bypass surgery, coronary interventional procedures, heart attack treatment, heart failure treatment, and heart valve surgery

All Operative Mortality¹

Risk Adjusted in Color



Kaweah Delta Medical Center

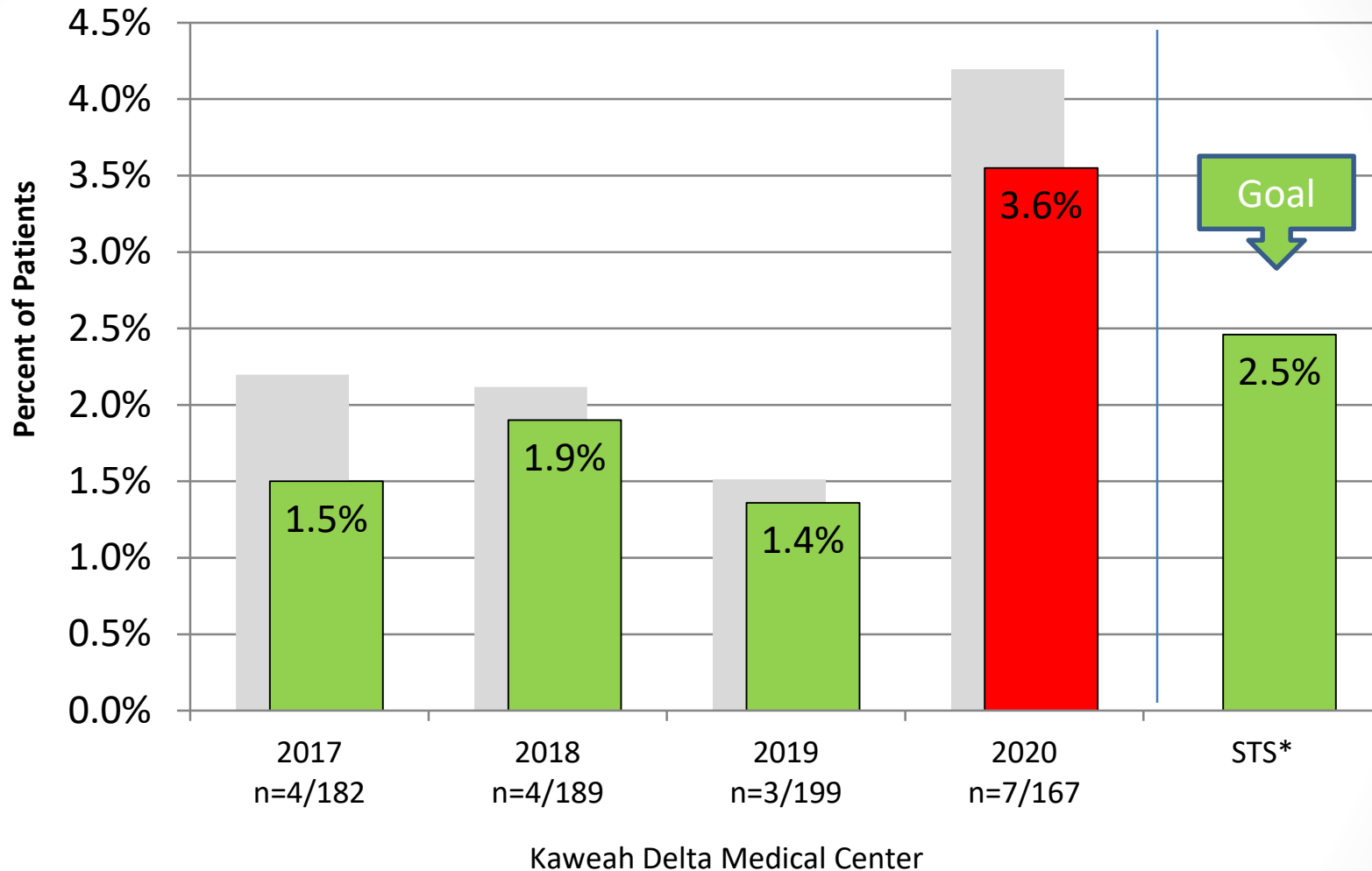
2020 O/E risk-adjusted = 1.3

- STS Comparison reporting period 1/1/2020 through 12/31/2020

1- Includes all 7 Major Procedure Categories (CABG, AVR, AVR+CABG, MVR, MVR+CABG, MVP, MVP+CABG)
 Excludes Other category procedures
 25/84

CABG Operative Mortality

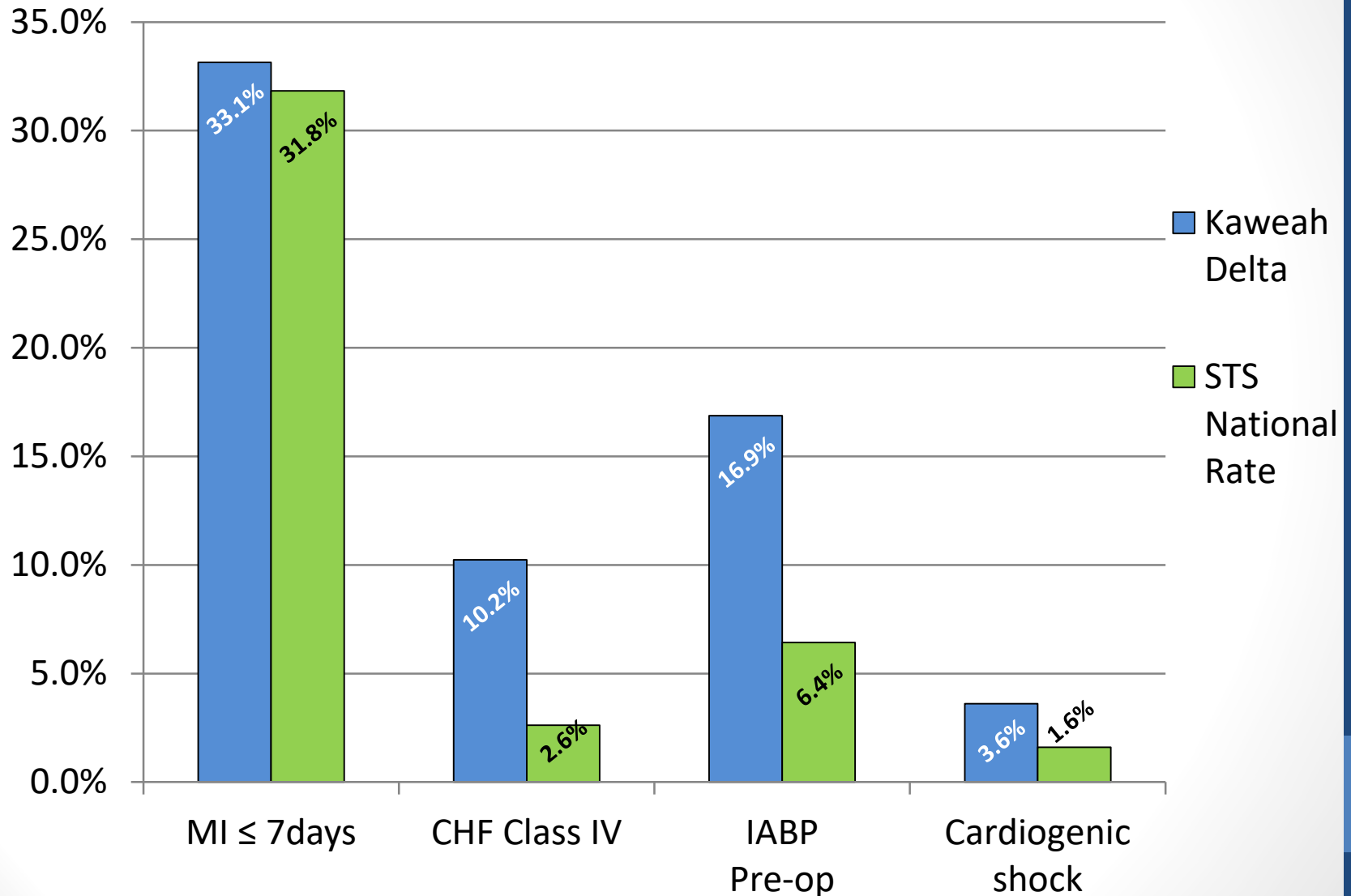
Risk Adjusted in Color



2020 O/E risk-adjusted = 1.4

- STS Comparison reporting period 1/1/2020 through 12/31/2020

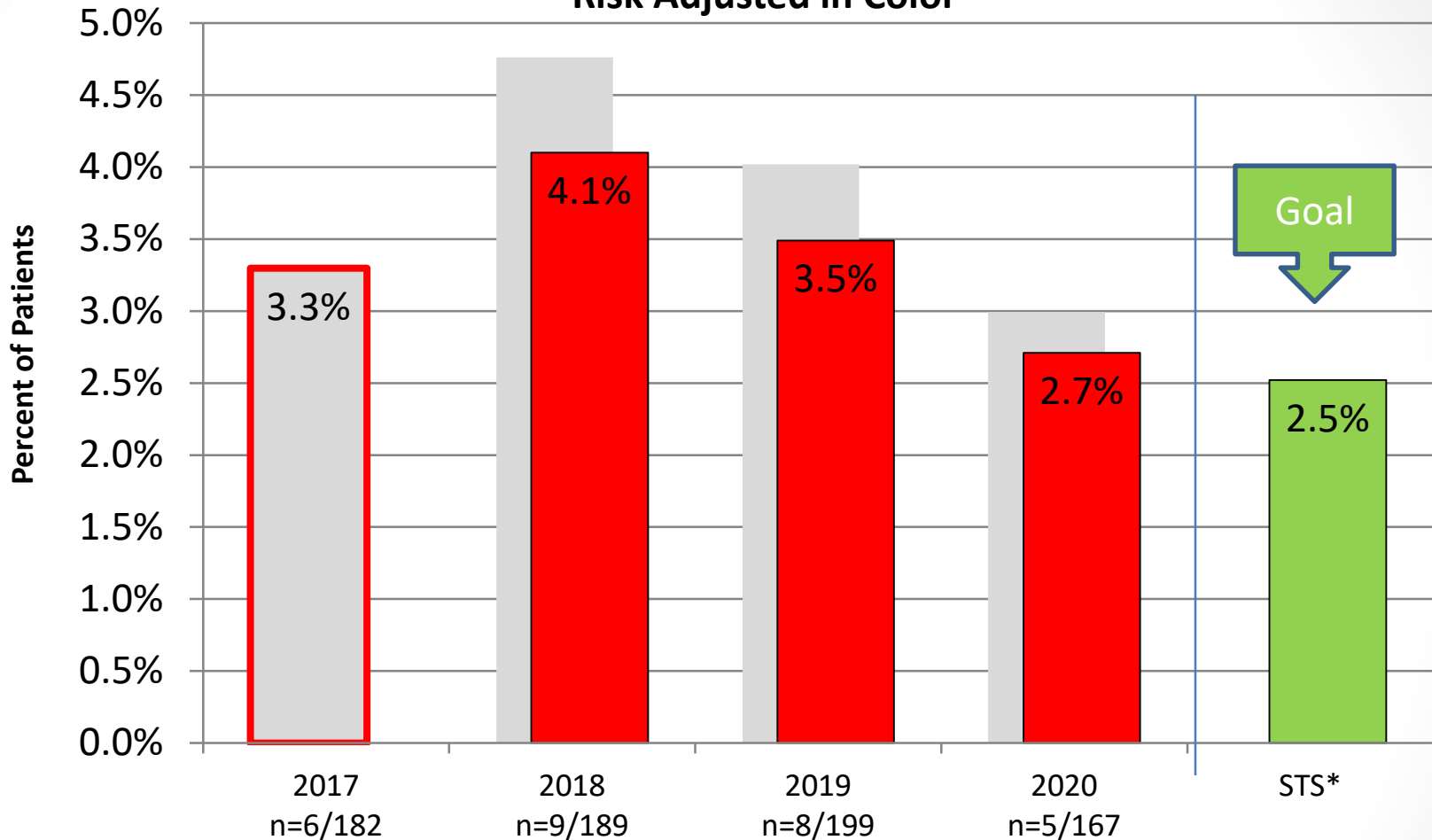
KH Patient Population



*Comparison reporting period 1/1/2020 through 12/31/2020– Isolated CABG cases ONLY

CABG Re-Operation¹

Risk Adjusted in Color



Kaweah Delta Medical Center

2020 O/E risk-adjusted = 1.1

- STS Comparison reporting period 1/1/2020 through 12/31/2020

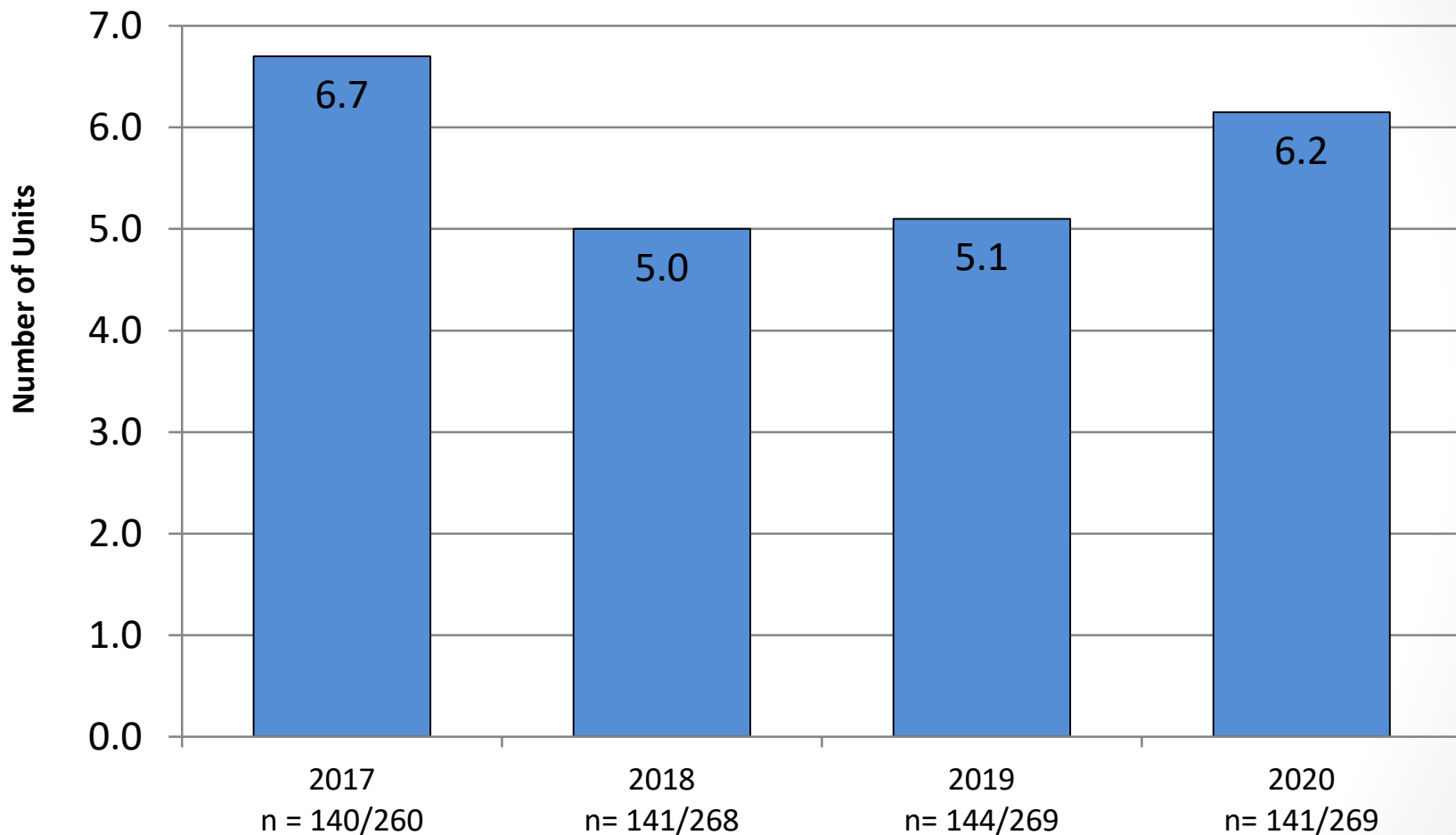
¹Surgeries include Reoperation for bleeding/tamponade, valvular dysfunction, unplanned coronary artery intervention, aortic reintervention or other cardiac reasons

Quality Initiative: Intra-operative Patient Safety

- Time out performed with entire surgical team
- Surgeon led briefing on procedure with entire surgical team
- Minimize trips to the Sterile Core by Nursing staff
- Minimize OR traffic (i.e.: switching staff for breaks)
- Noise reduction implemented:
 - Discussions about current surgical case only
 - Avoid conversations about other cases or other issues
 - Music to be calming and at a lower volume
 - All phones & beepers at the Nurses desk
- Perfusion check list completed each case

Blood Usage - Average Units / Pt. receiving products¹

(No National Comparison Data)

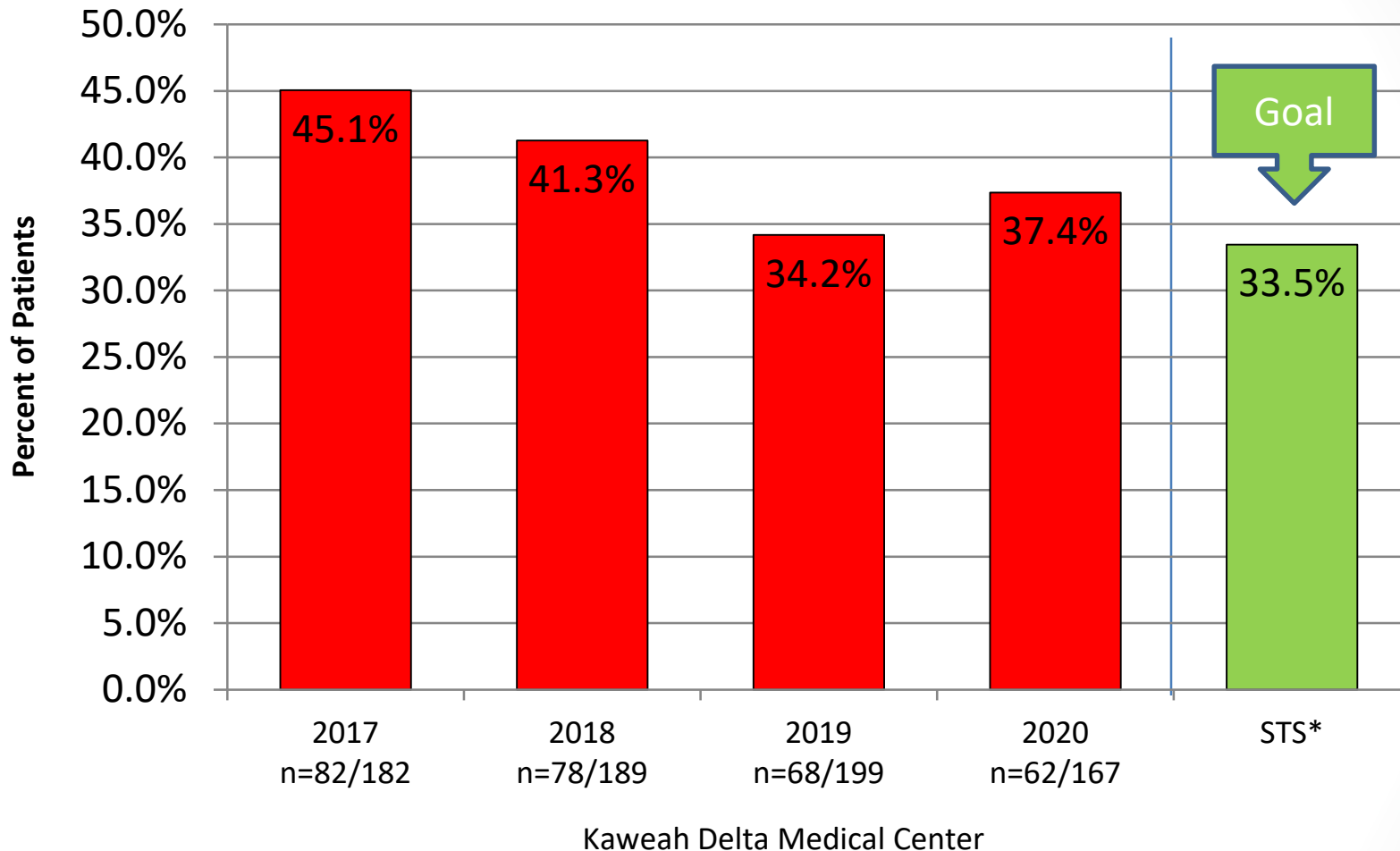


Kaweah Delta Medical Center

¹ All STS surgeries – Includes any blood products given Intra-op and Post-op (Excludes patients that did not receive any blood products; excludes pre-op Hgb<8 and Emergent/Salvage)

*Data is not reported on the National Outcomes Report

CABG Intra & Post-Op Red Blood Cell Usage¹



2020 O/E = 1.1

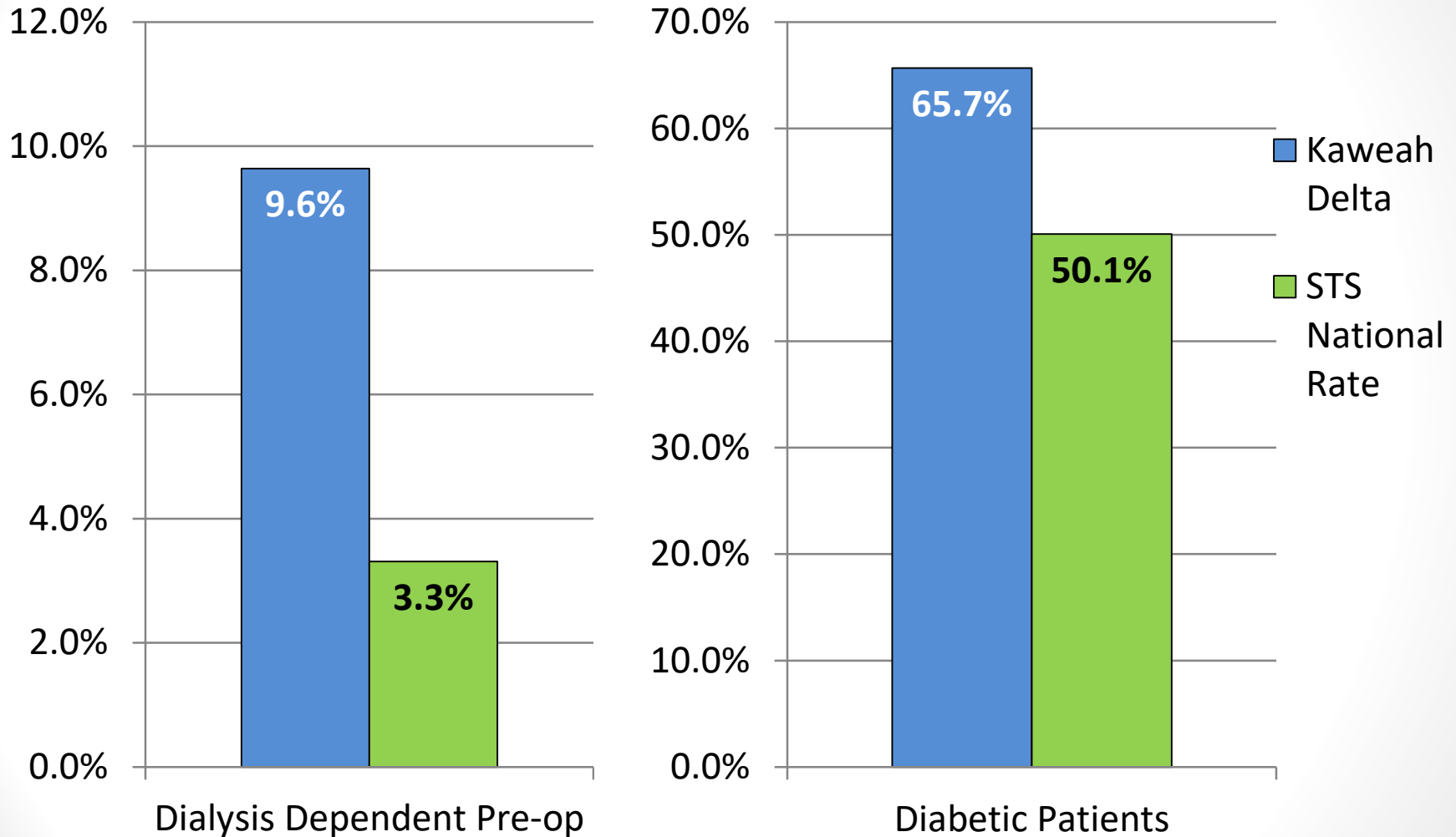
- **STS Comparison reporting period 1/1/2020 through 12/31/2020**

¹Surgeries where at least one unit of Red Blood Cell was given Intra-and/or Post-operatively. *Excludes Fresh Frozen Plasma, Platelets and Cryoprecipitate* 31/84

Quality Initiative: Bleeding, blood usage

- Quarterly review of blood usage throughout Pt. stay
- TEG coagulation monitoring
- Antifibrinolytic agents
- Heparin monitoring
- Heparin coated circuits
- Hemostasis achieved during procedure
- Cell saver utilized during surgery
- Restrictive transfusion criteria
- Surgeon approval of each transfusion
- Treatment of pre-operative anemia or transfusion as needed

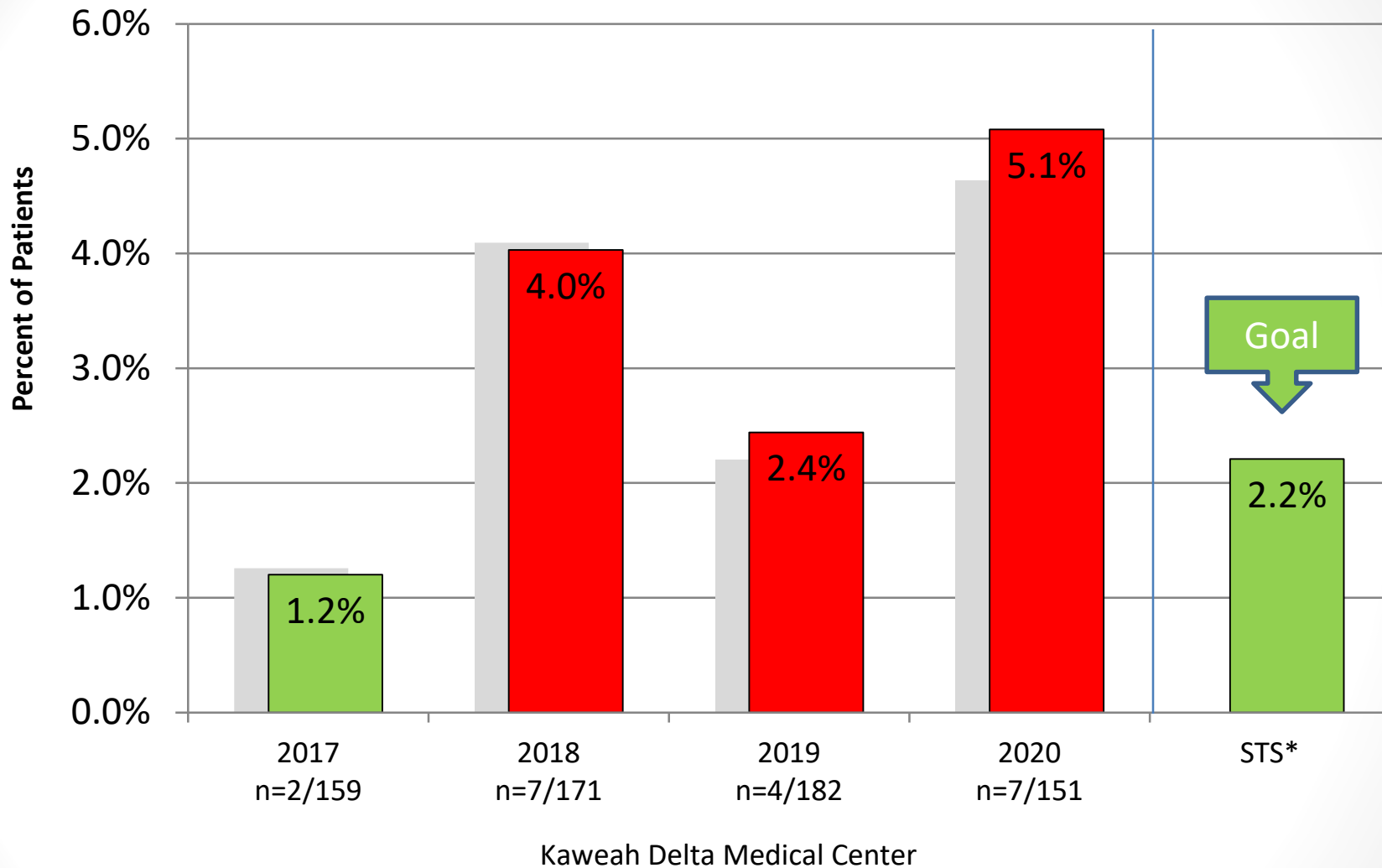
KH Patient Population



*Comparison reporting period 1/1/2020 through 12/31/2020 – Isolated CABG cases ONLY

CABG Post-Op Renal Failure¹

Risk Adjusted in Color



2020 O/E risk-adjusted = 2.3

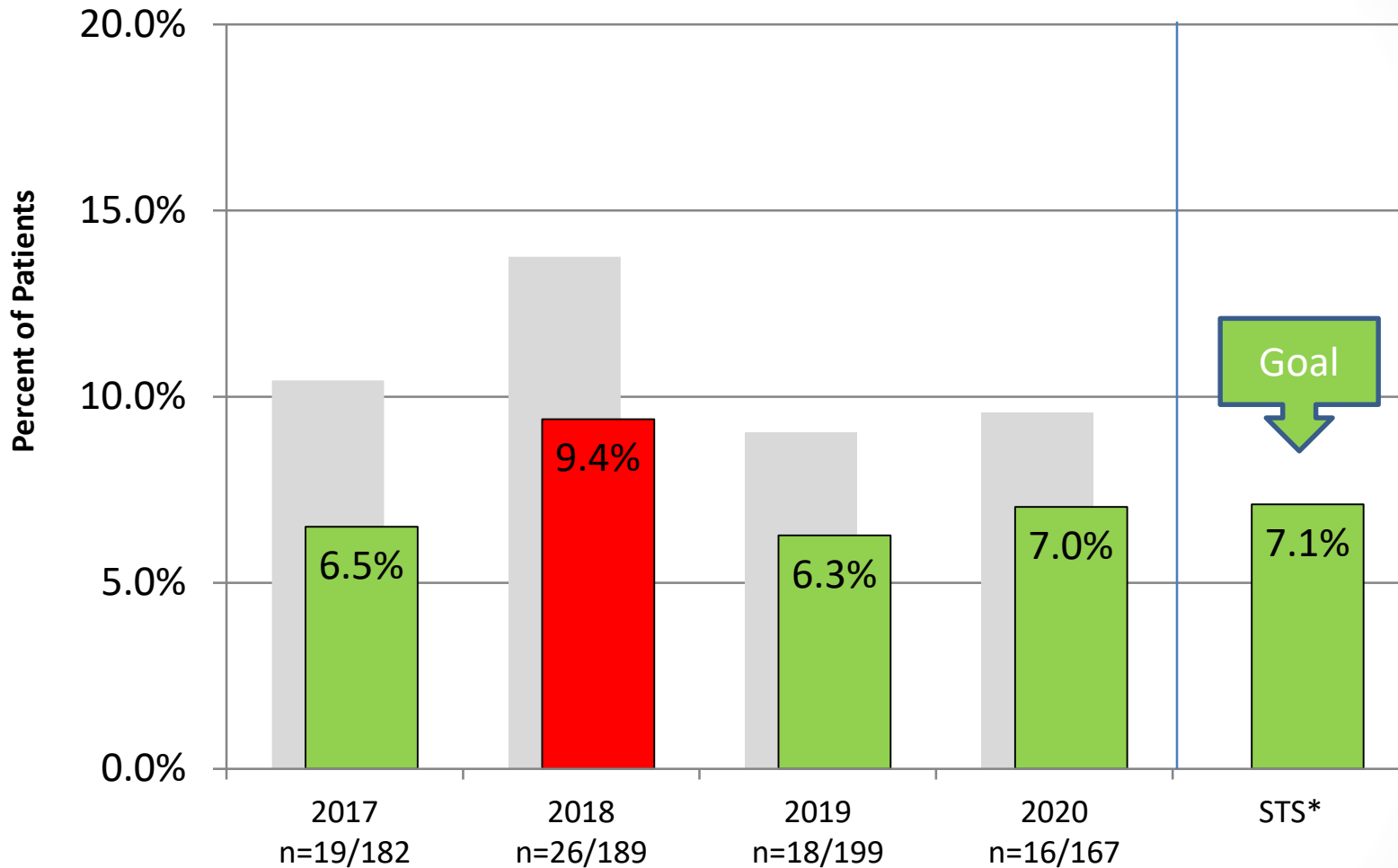
- STS Comparison reporting period 1/1/2020 through 12/31/2020

¹ – Excludes patients with preoperative dialysis or preoperative Creatinine ≥ 4

Quality Initiative: Renal Failure Prevention

- Risk factor evaluation pre-operatively
- Timing of surgery considered
- Diabetes control
- Liberal hydration
- Intra-operative blood flow & pressure controlled by perfusion and anesthesia
- Blood pressure management peri-operatively

CABG Prolonged Ventilation Risk Adjusted in Color



Kaweah Delta Medical Center

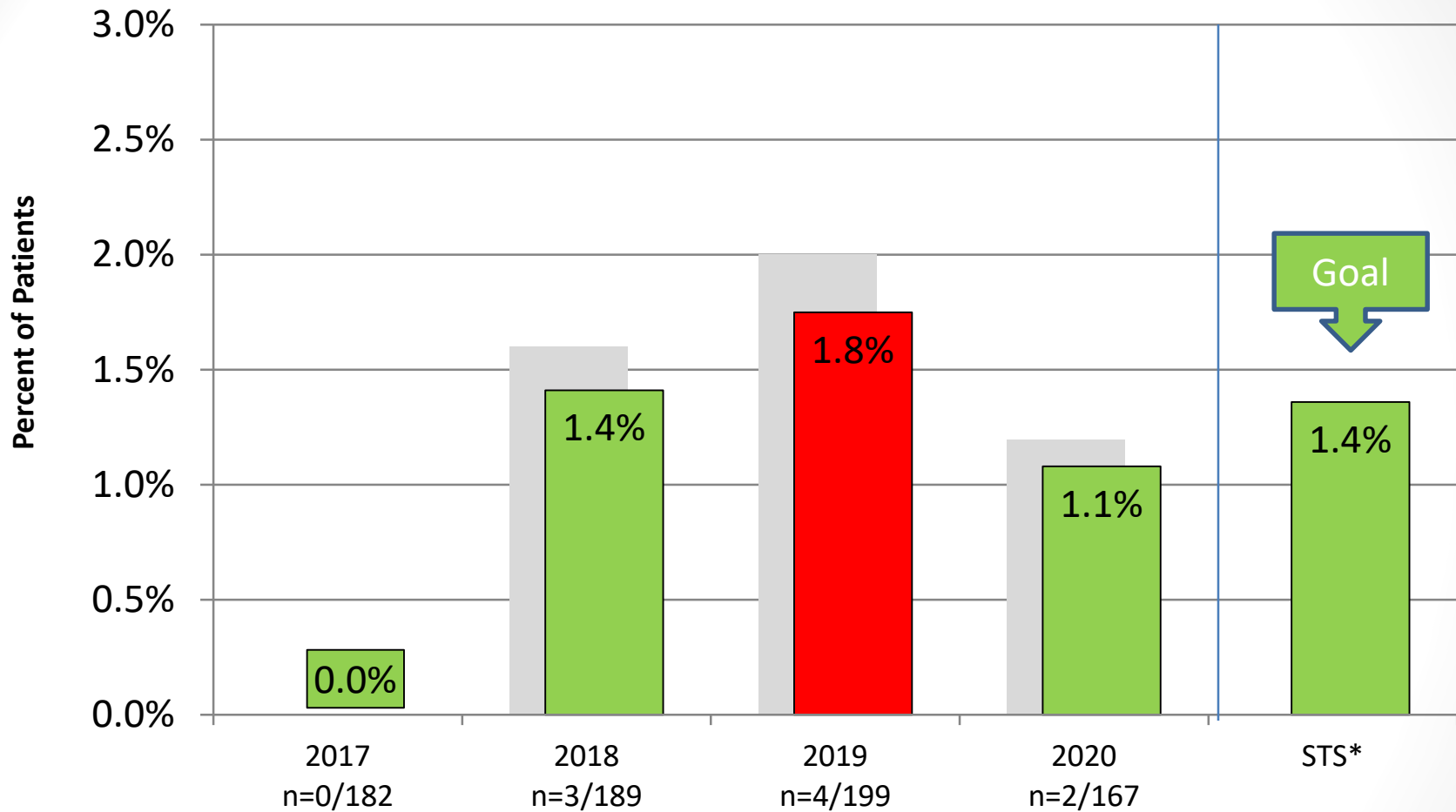
2020 O/E risk-adjusted = 1.0

- STS Comparison reporting period 1/1/2020 through 12/31/2020

Quality Initiative: Prolonged Ventilation

- Monthly audit & analysis of prolonged ventilation times and delayed Extubation cases due to medical necessity
- Action Plan for 100% compliance in completing Cardiac Extubation Tool ~ followed daily by CVICU nurse manager
- Sedation and Analgesia to be used in an appropriate and conservative manner
 - Avoid Benzodiazepines and narcotic drips
 - To illicit calm awakening utilize Propofol & precedex drips when medically necessary
- Address ventilation time of each Pt. in rounds and shift reports by RN, RT & MD
- Promote Respiratory Therapy Education Tool for patients
- Review of Anesthesia Protocols
 - Positive Base excess or > -2.0 on CVICU arrival
 - Core Temperature $> 36.0^{\circ}\text{C}$ on CVICU arrival

CABG Post Op Permanent Stroke Risk Adjusted in Color



Kaweah Delta Medical Center

2020 O/E risk-adjusted = 0.8

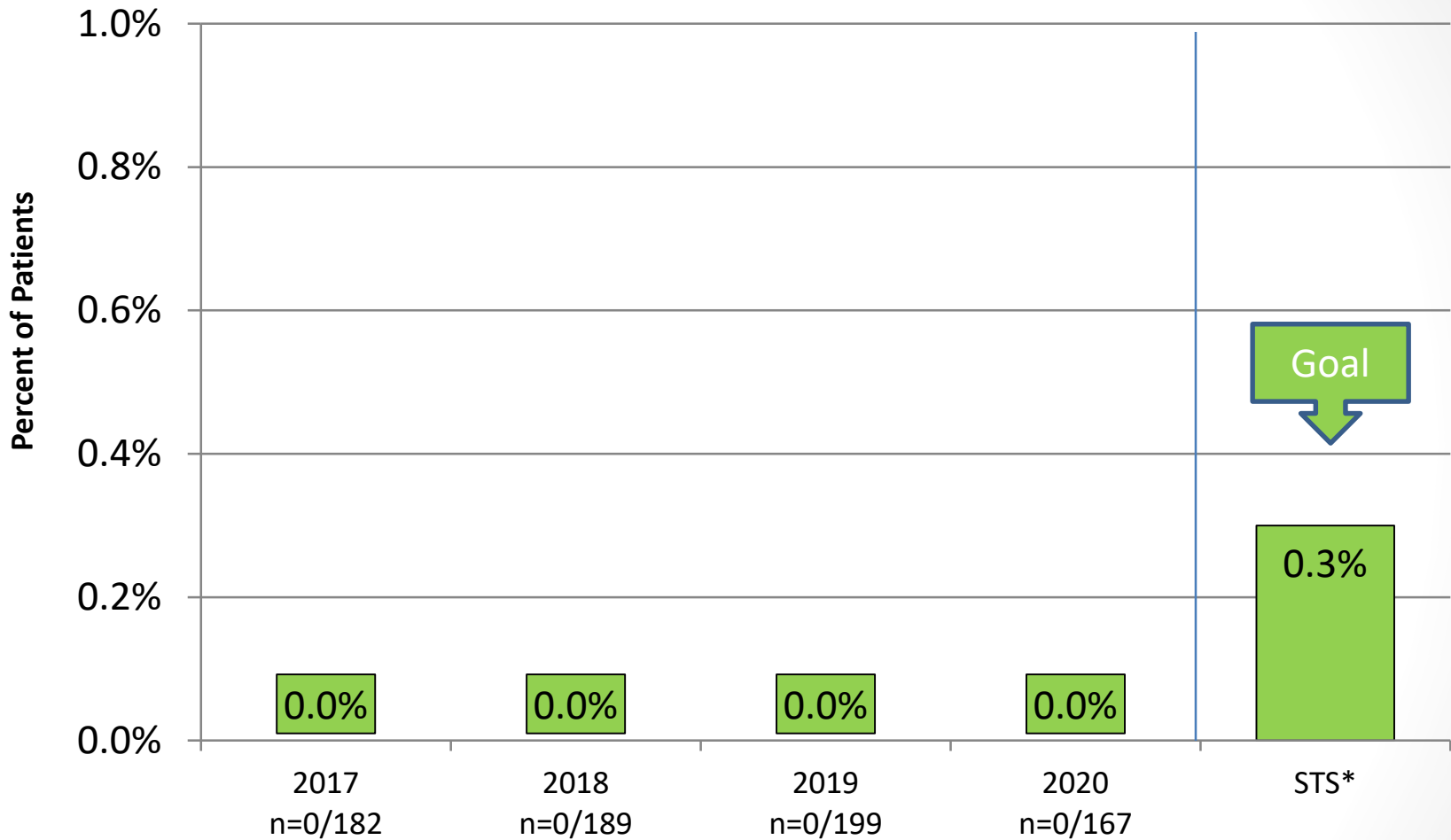
- STS Comparison reporting period 1/1/2020 through 12/31/2020

Quality Initiative: Stroke prevention

- Risk factor, neurological evaluation
- TEE, CT of the aorta with evaluation as needed
- Carotid Doppler ~ Ultrasound
- Invox cortical brain monitoring
- Intraoperative blood flow & pressure control by perfusion and anesthesia
- Intraoperative temperature control

CABG Post Op Deep Sternal Wound Infection

Risk Adjusted in Color



Kaweah Delta Medical Center

2020 O/E risk-adjusted = 0

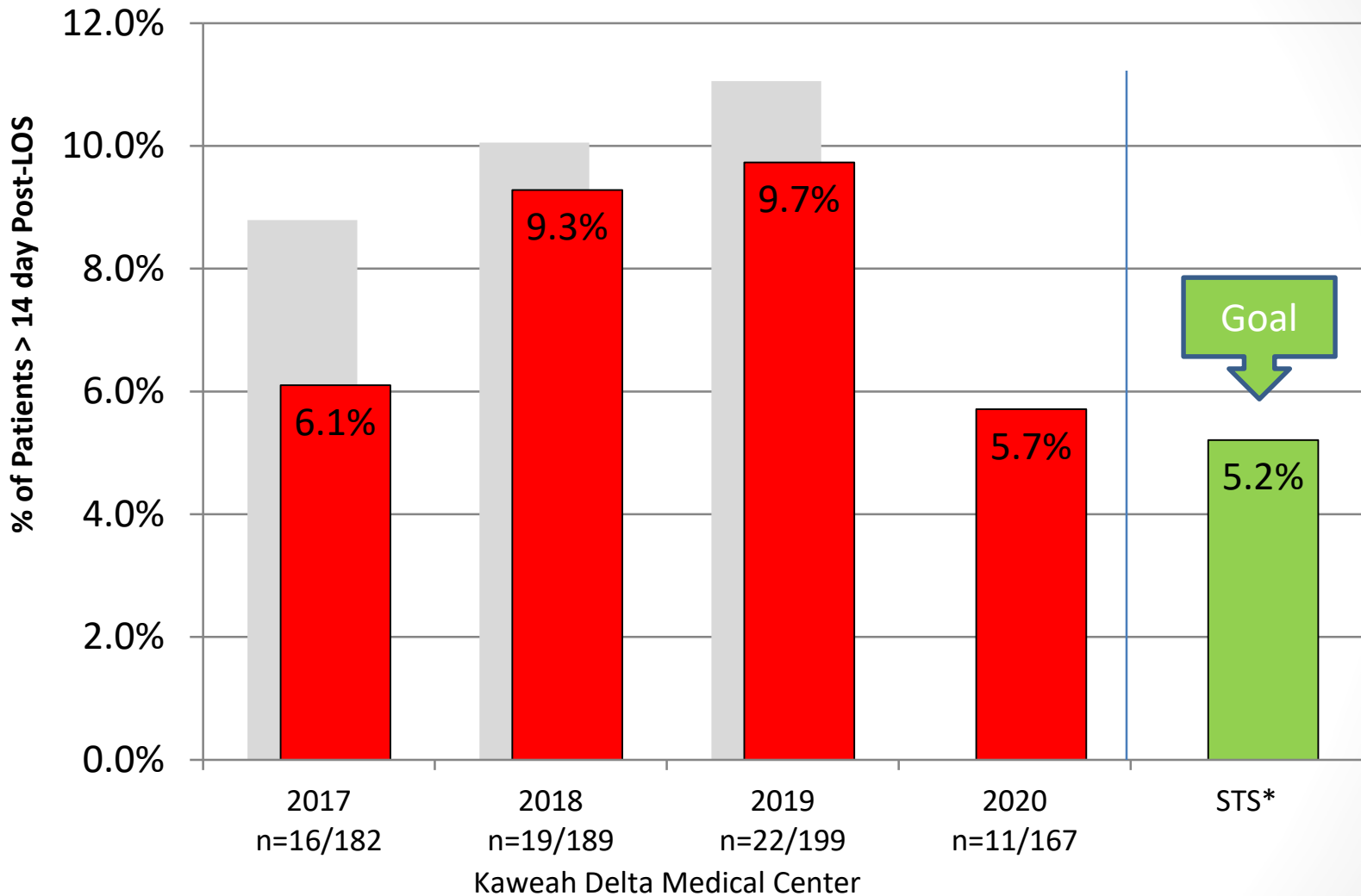
- STS Comparison reporting period 1/1/2020 through 12/31/2020

Quality Initiative: Infection Prevention

- Glucose control w/ Glucommander – insulin drip or subcutaneous
- Two Chlorhexidine baths prior to surgery
- Chlorhexidine mouth wash used morning of surgery
- MRSA screening of each patient
- Terminal cleaning of operating rooms monitored daily
- Disposable ECG monitoring cables on each patient
- Use of Early closure technique for vein harvest incisions
- Vancomycin paste for sternal application
- Prevena suction dressing applied to sternum
- Prophylactic antibiotic treatment for 48 hours
- Early removal of central lines and Foley catheter

CABG Post Op Length of Stay >14 Days

Risk Adjusted in Color

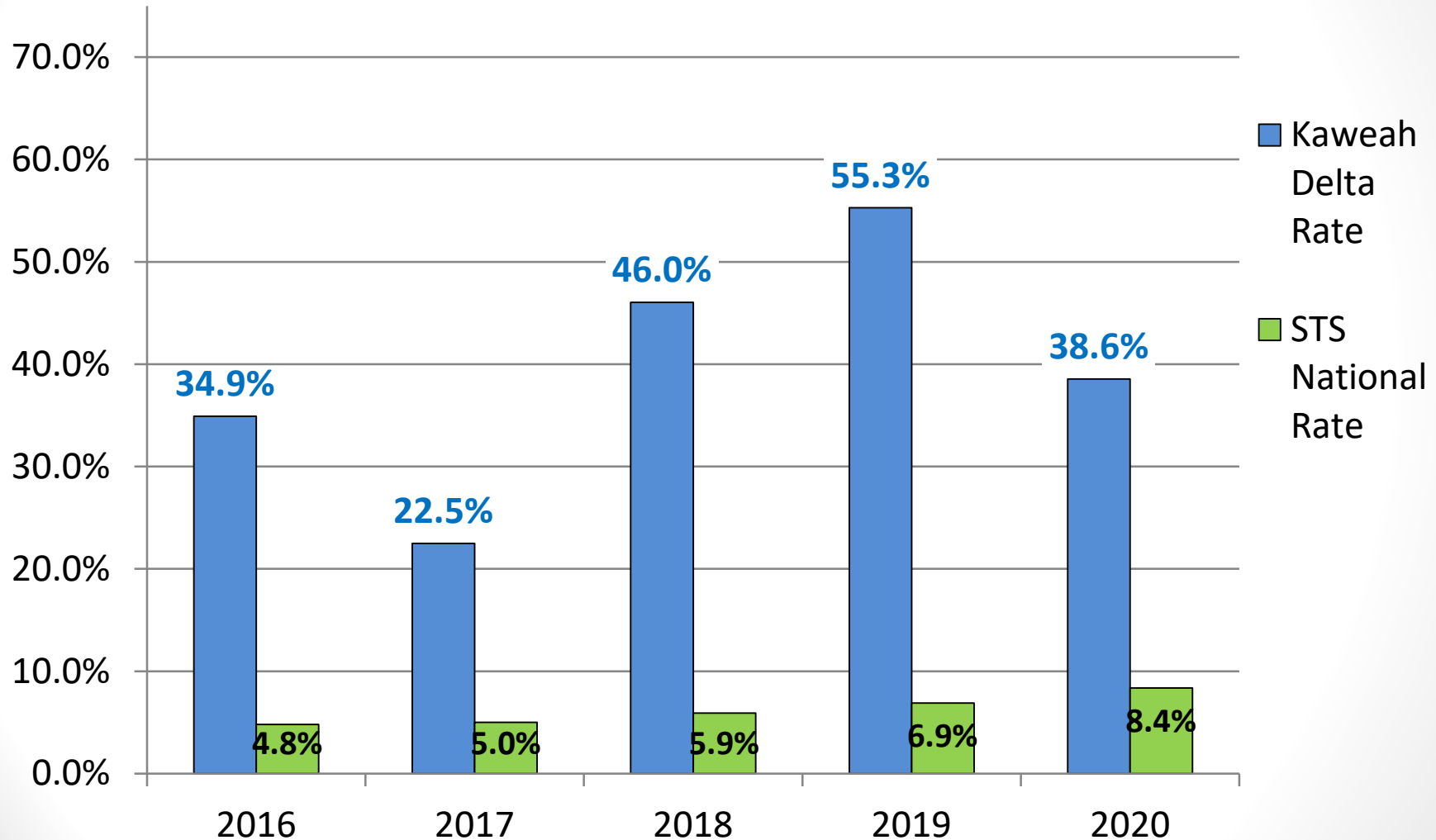


2020 O/E risk-adjusted = 1.1

- STS Comparison reporting period 1/1/2020 through 12/31/2020

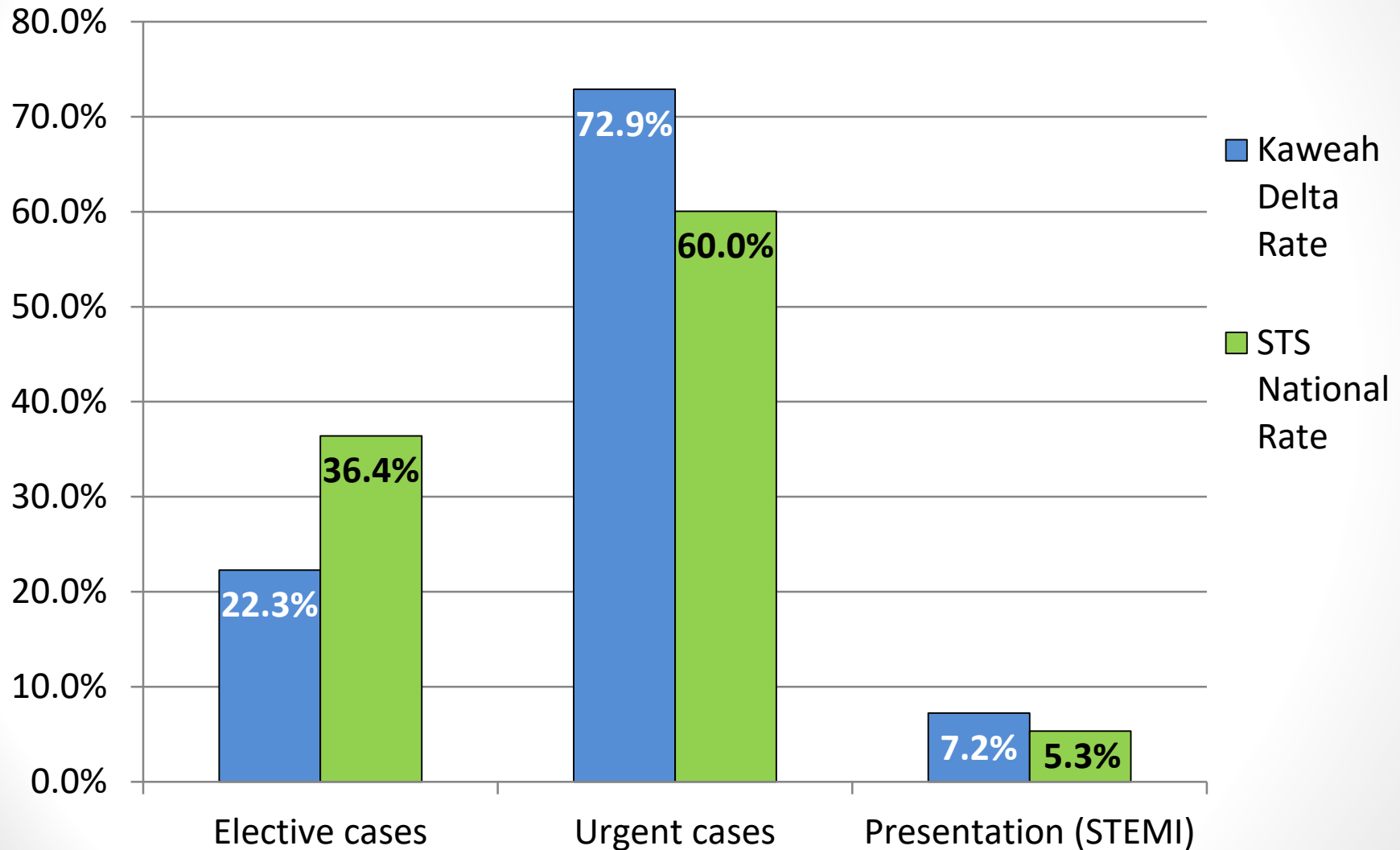
Post-operative Length of Stay: Long Stay is greater than 14 days (PLOS > 14 Days)

KH Radial Artery Usage



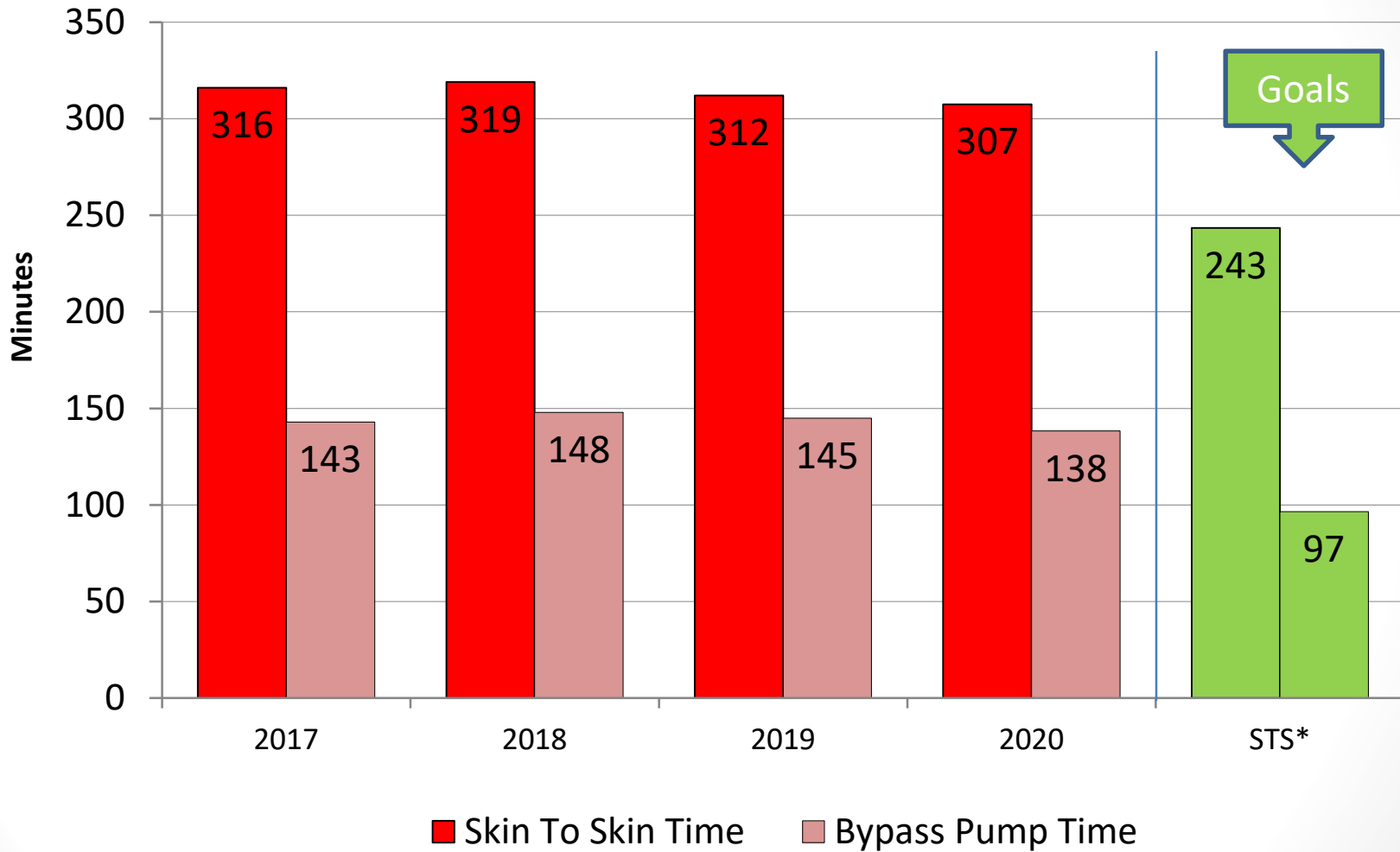
Comparison reporting period - 1/1 through 12/31 of each year – Isolated CABG cases ONLY

KH Patient Population



*Comparison reporting period 1/1/2020 through 12/31/2020 – Isolated CABG cases ONLY

CABG Skin-to-Skin and Bypass Pump Durations ¹

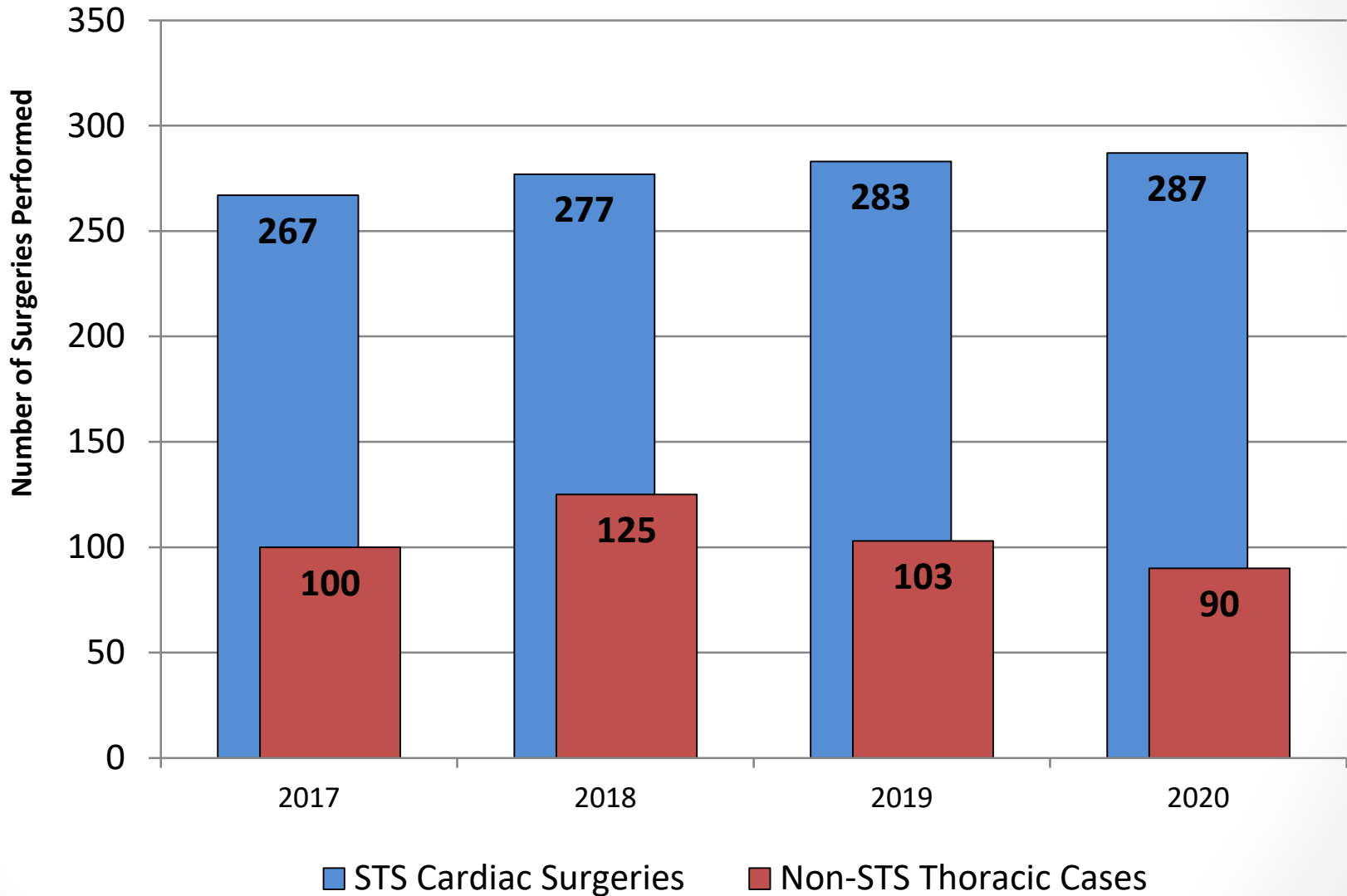


2020 O/E Skin Times = 1.3

2020 O/E Pump Times = 1.4

• STS Comparison reporting period 1/1/2020 through 12/31/2020

Cardiothoracic Surgery Volumes ¹



¹ Cardiac surgery as defined per STS database. Includes all 7 Major Procedure Categories (**CABG, AVR, AVR+CABG, MVR, MVR+CABG, MVP, MVP+CABG**) + Other Heart only procedures. 46/84

U.S. News & World Report



- Kaweah Delta Medical Center is the Highest Ranked Hospital in the Central Valley for *Cardiology & Heart Surgery*
- Kaweah Delta Medical Center achieved the Recognition of being Ranked in California. Only three institutions among the 46 Central Valley Hospitals and Clinics reviewed by U.S. News & World Report achieved this honor

Resource 2/17/2021: <https://health.usnews.com/best-hospitals/rankings/cardiology-and-heart-surgery/the-central-valley-ca>



Quality Improvement
for Institutions



AMERICAN
COLLEGE of
CARDIOLOGY

Kaweah Health Medical Center PCI Data Quality Analysis

Q2 2020 – Q1 2021

Green = In the Top 10% of the Nation

Yellow = Better or Equal to the National Average

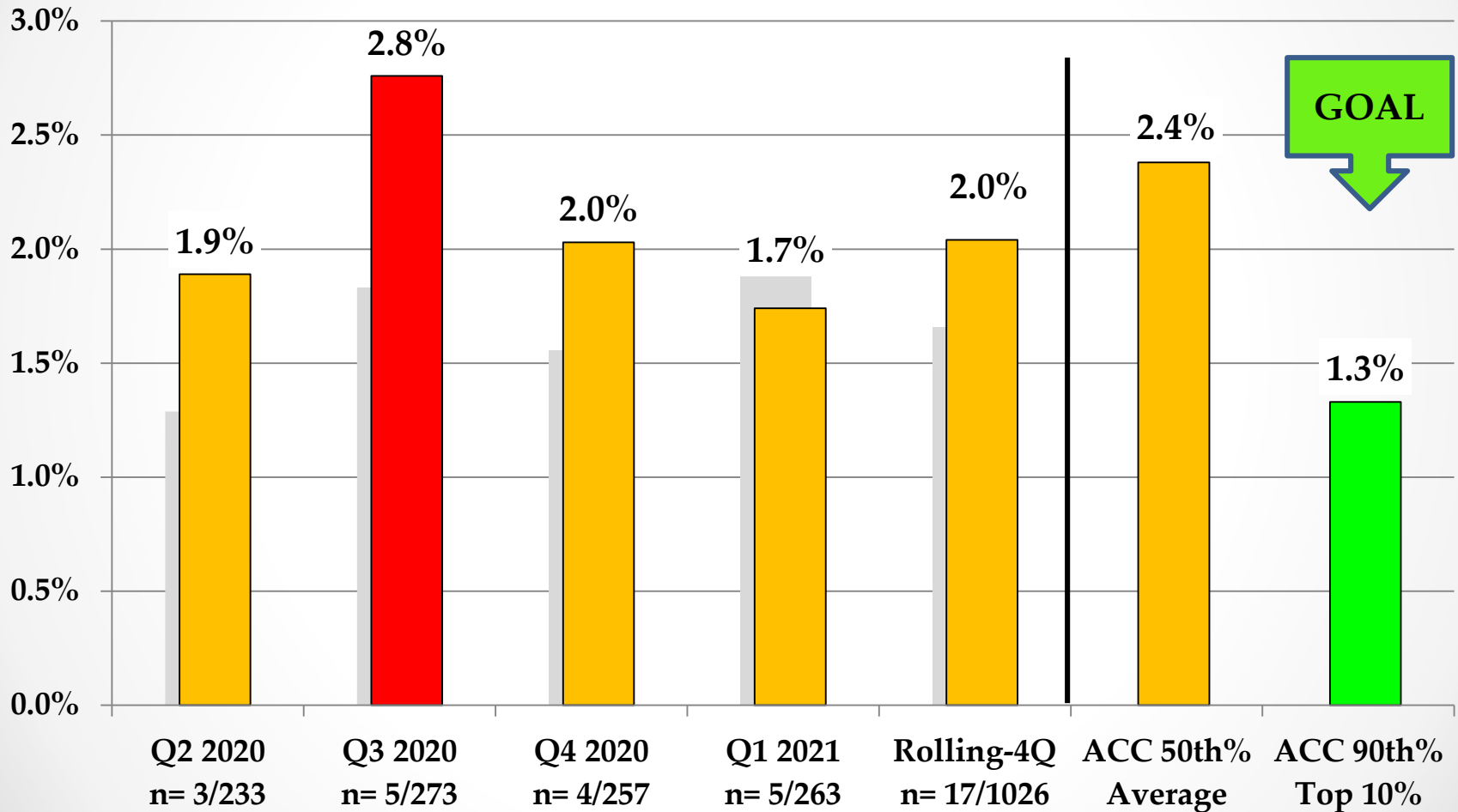
Red = Worse than National Average

Gray = Non-Risk Adjusted Value (for Reference only)

*Comparison reporting period Varies per Metric

PCI In-Hospital Mortality Rate¹

Risk Adjusted^{InColor} (All patients)



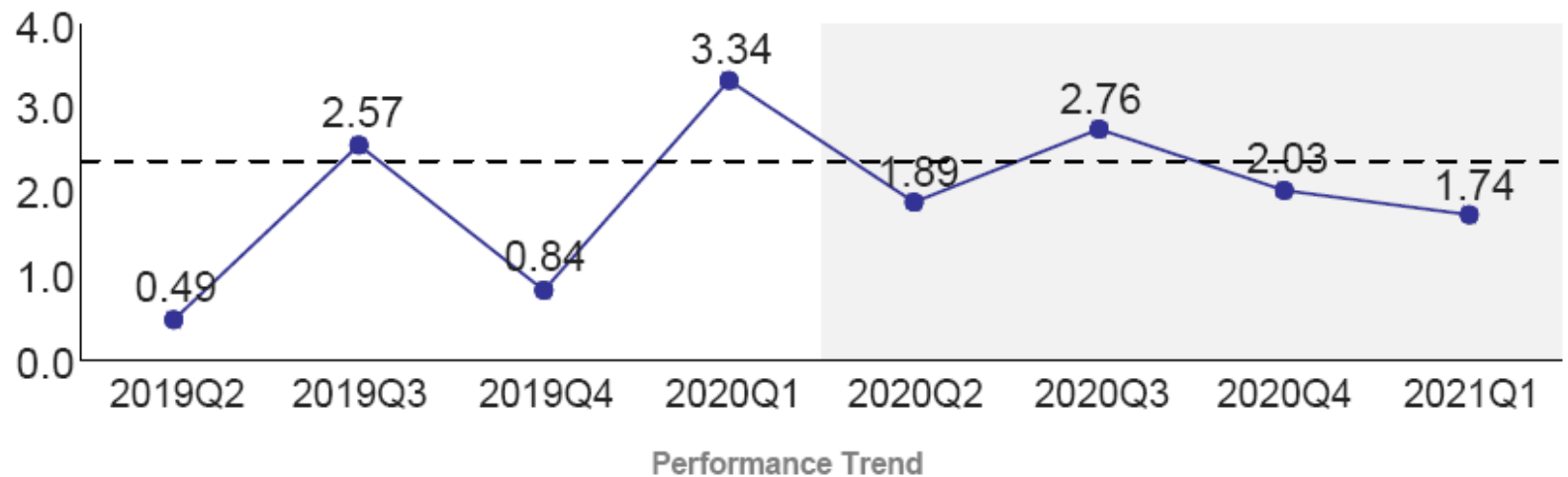
R4Q Risk Adjusted O/E = 0.9

¹ PCI in-hospital mortality rate for all patients, risk adjusted. Exclusions include patients with a discharge location of "other acute care hospital." (ref: 4739, 4736)

*Comparison reporting period is 04/01/20 through 03/31/21

PCI In-Hospital Mortality Rate¹ Risk Adjusted (All patients)

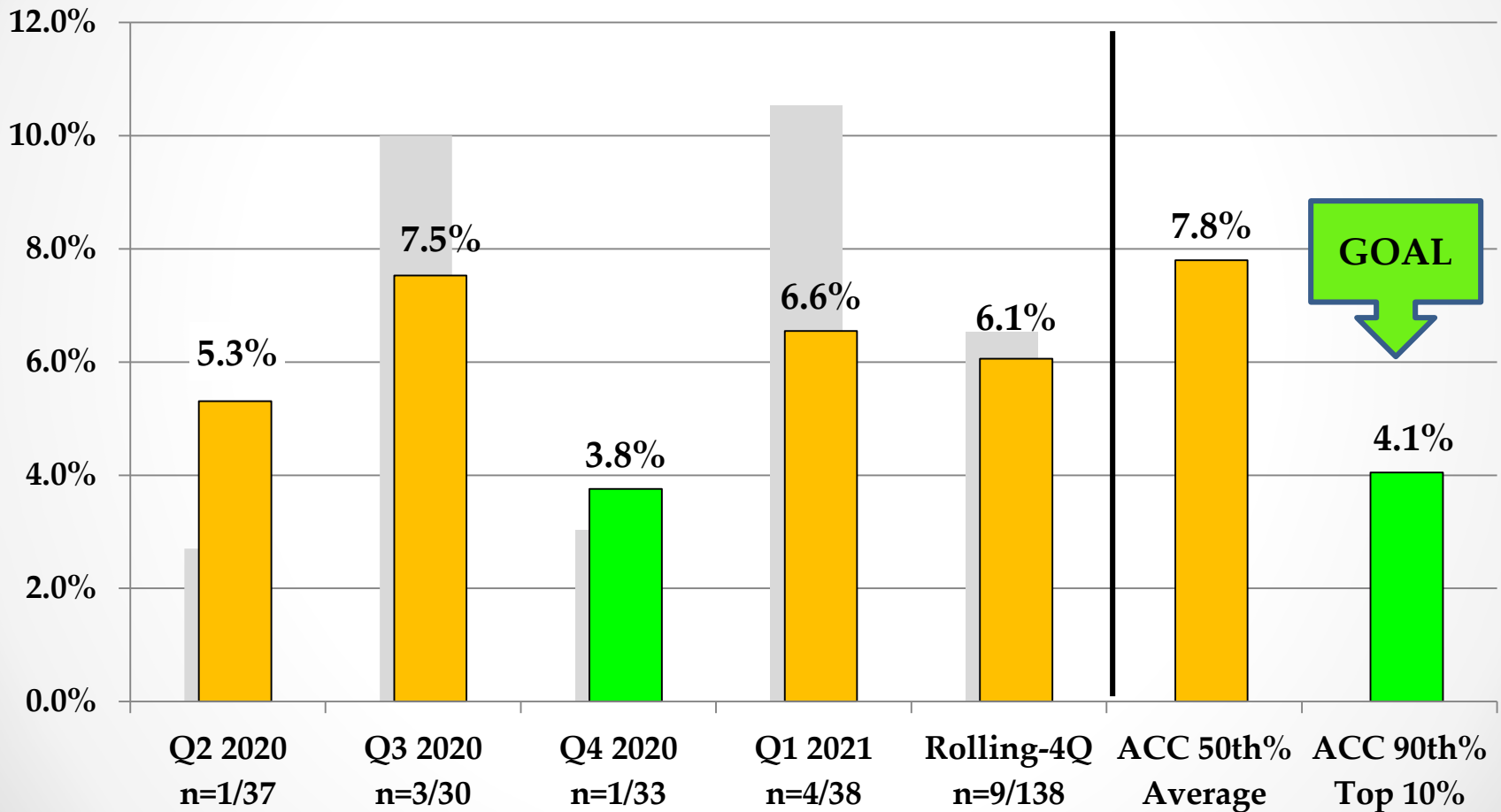
- TWO-YEAR TRENDING



¹ PCI in-hospital mortality rate for all patients, risk adjusted. Exclusions include patients with a discharge location of "other acute care hospital." (ref: 4739, 4736)

PCI In-Hospital Mortality Rate¹

Risk Adjusted^{InColor} (STEMI patients)



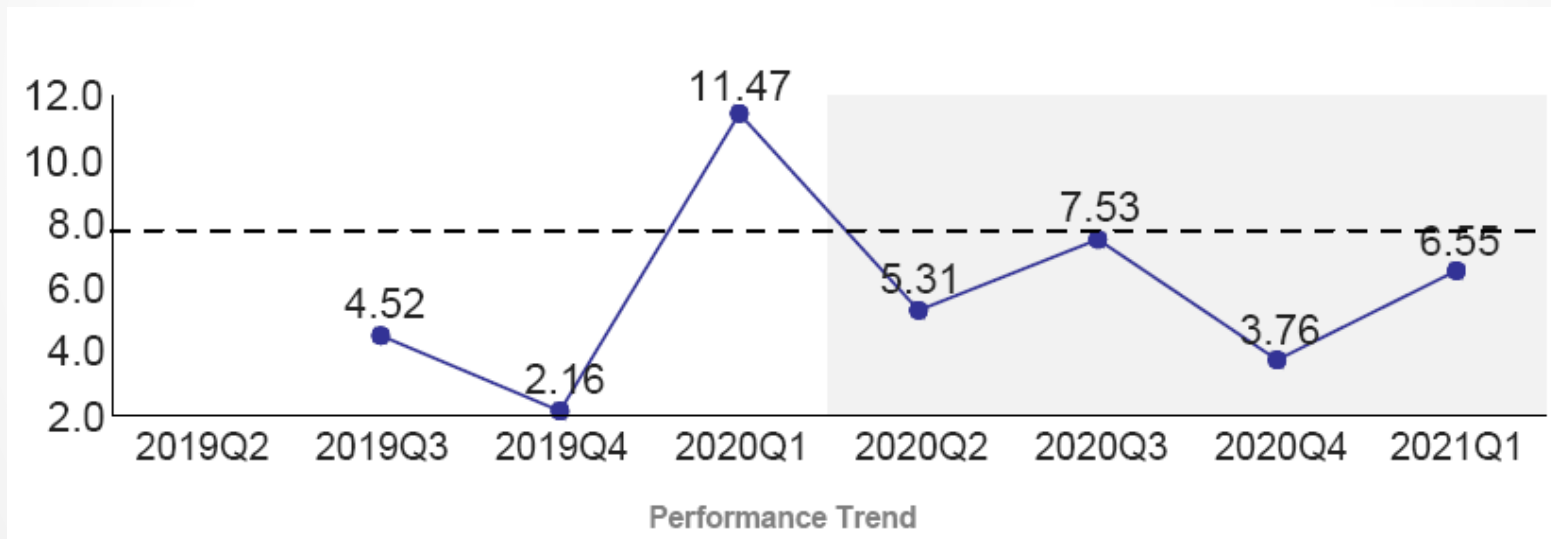
R4Q Risk Adjusted O/E = 0.85

¹ PCI in-hospital mortality rate for STEMI Pt.'s. (ref: 4740, 4734)

* Comparison reporting period is 04/01/20 through 03/31/21 51/84

PCI In-Hospital Mortality Rate¹ Risk Adjusted (STEMI patients)

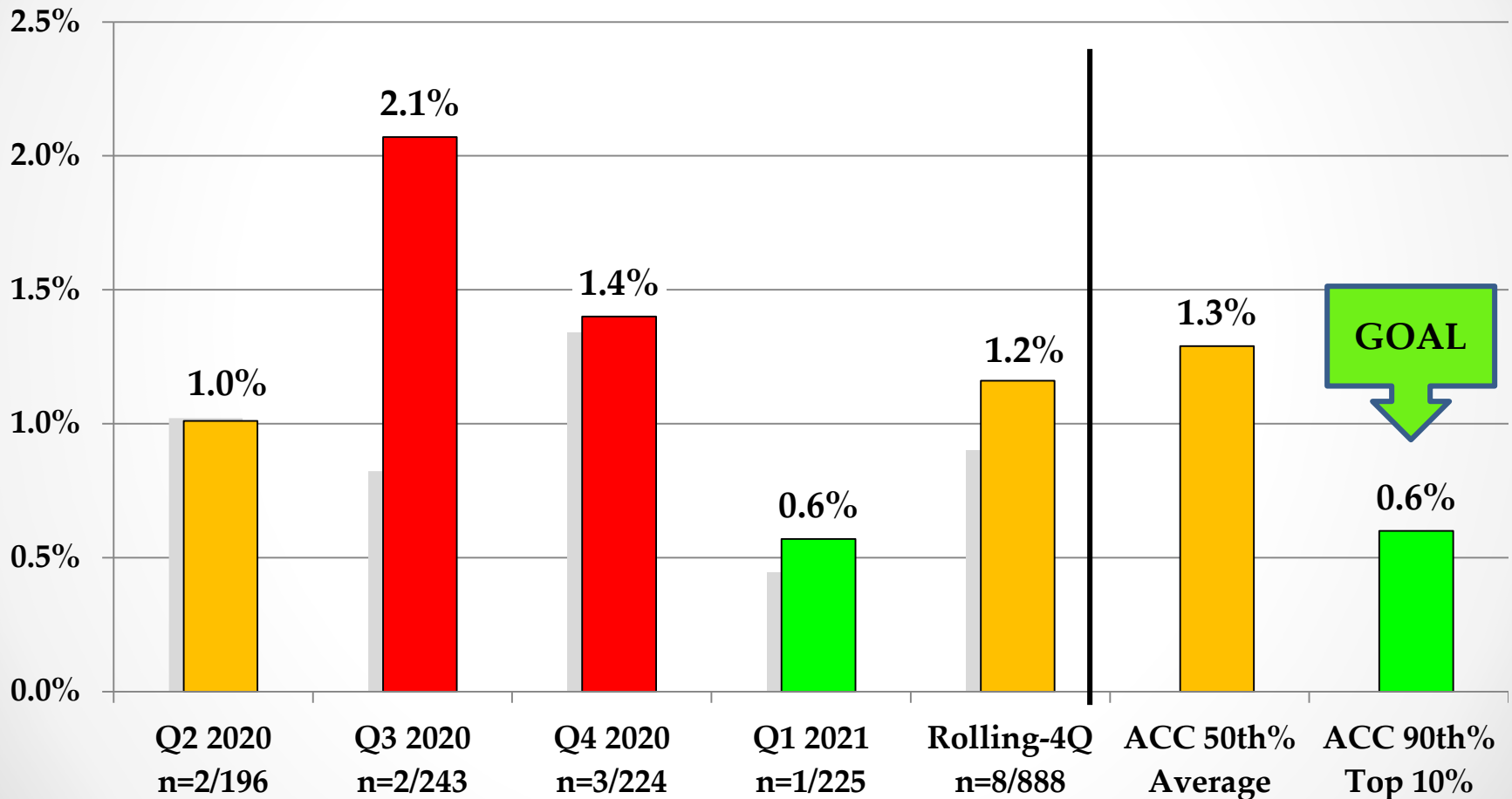
- TWO-YEAR TRENDING



¹ PCI in-hospital mortality rate for STEMI Pt.'s. (ref: 4740, 4734)

PCI In-Hospital Mortality Rate¹

Risk Adjusted^{InColor} (NSTEMI, unstable angina, electives)



R4Q Risk Adjusted O/E = 1.02

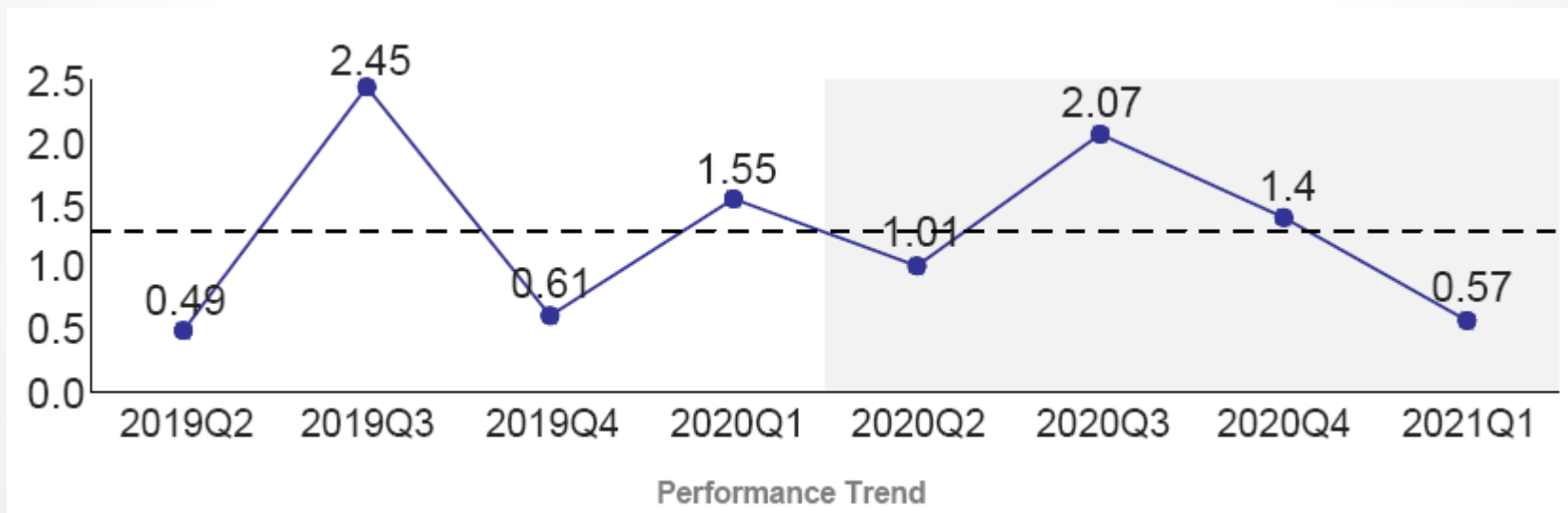
¹ PCI in-hospital mortality rate for all patients Excluding STEMI. Exclusions include patients with a discharge location of "other acute care hospital." (ref: 4741, 4735)

* Comparison reporting period is 04/01/20 through 03/31/21

PCI In-Hospital Mortality Rate¹

Risk Adjusted (NSTEMI, unstable angina, electives)

- TWO-YEAR TRENDING



¹ PCI in-hospital mortality rate for all patients Excluding STEMI. Exclusions include patients with a discharge location of "other acute care hospital." (ref: 4741, 4735)

STEMI Triage Guidelines

Thoughtful Pause

- Should go to CVICU first, not the Cath Lab
 - Cardiac Arrest with CPR \geq 20 minutes and un/minimally responsive
 - Cardiogenic Shock, age \geq 80
 - STEMI \geq 24 hours without Chest Pain
 - Excess risk of bleeding (e.g. active internal bleed, ICH $<$ 3 mos, Hct $<$ 22, PLT $<$ 30K)
 - Altered Mental Status
 - Apparent sepsis or other conditions (other than pure cardiogenic shock) that would markedly increase the risk of dying within 30 days
 - Pre-existing DNR / No Code Status
- ❖ Consider lytic agents for symptoms $<$ 3 hours, anticipated DTB time $>$ 120 minutes and low risk of bleeding
- ❖ These are intended as guidelines, not to supersede clinical judgement

Adopted from The Cleveland Clinic Heart Institute: Triage Guidelines for STEMI patients.

Predicted Mortality Risk Factors

- STEMI
- Age >70
- BMI
- Cerebral Vasc. Disease
- Peripheral Vasc. Disease
- Chronic Lung Disease
- Previous PCI
- NIDDM
- IDDM
- GFR
- Renal Failure / Dialysis
- Ejection Fraction
- Cardiogenic Shock
- NYHA Class I/II/III
- NYHA Class IV
- Cardiac Arrest
- Thrombosis w/in 1 month
- PCI of Prox LAD
- PCI of LM
- ≥ 2 VD
- Total Chronic Occlusion

*Risk Factors taken from the American College of Cardiology inclusion list for their Risk Model for Predicted Mortality: version 4.4

Quality Initiative:

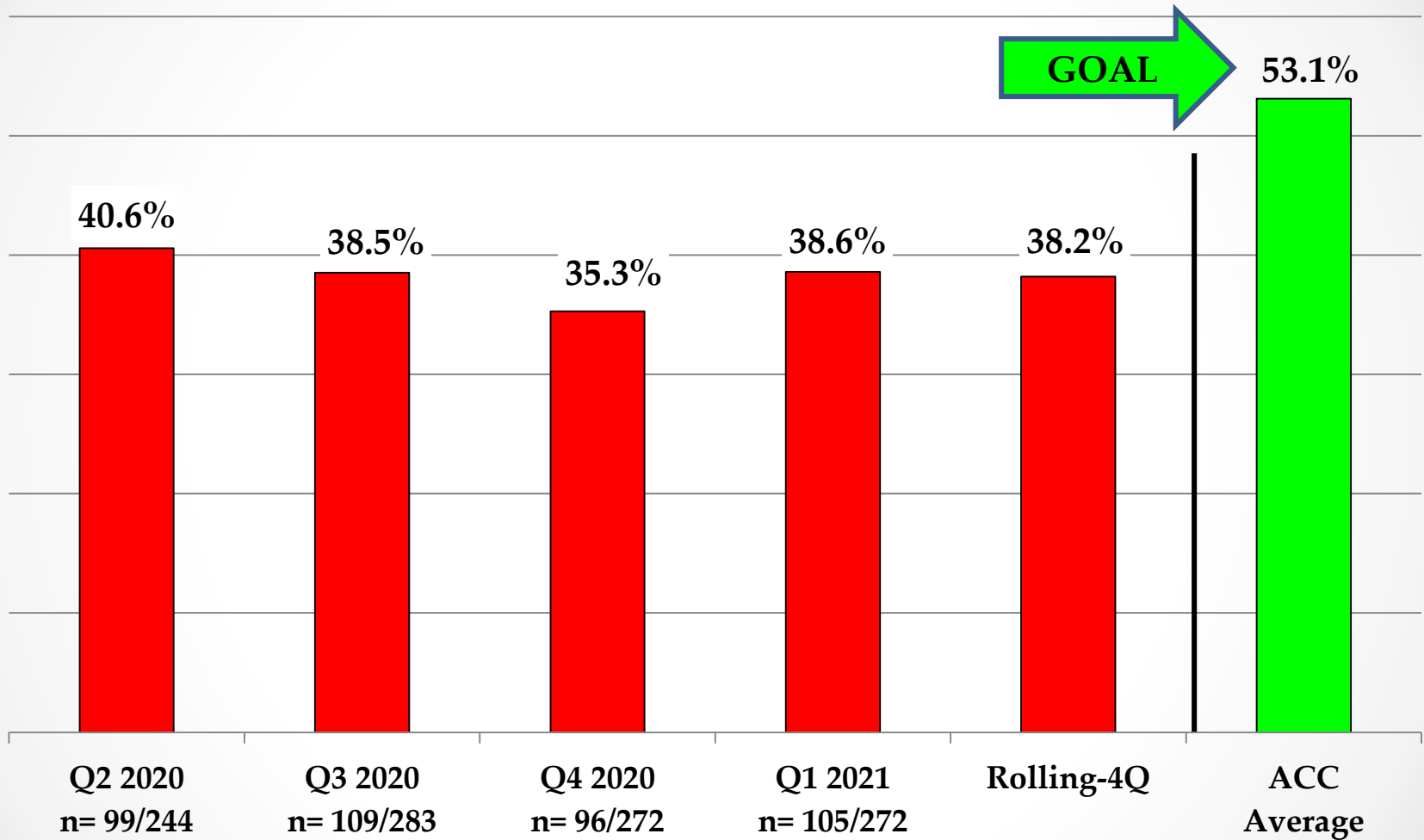
Treatment Algorithm for Invasive Cardiac Procedures

- Targeted Temperature Management
 - Immediate hypothermia measures to be implemented on cardiac arrest patients
- 12-Lead ECG must be done within 10 minutes of arrival to hospital
- ACT initiated – (Do not delay cooling measures)
 - Assessment for unfavorable resuscitation features
 - Consultation between ED, Critical Care and Cardiology physicians
 - Transport to CathLab urgently when consensus reached

Quality Initiative: Vitaly Important Steps

- Physician collaboration & coordination between departments is required
- Cardiologist must participate in all thoughtful pause discussions
- ED physician and Cardiologist will consult with an Intensivist as needed for difficult cases
- Intensivist will respond to the ED for thoughtful pauses as requested
- Thoughtful pause must be documented in patient's EMR by a physician
- Families must be given aggressive treatment options with their corresponding prognosis or futility
- Honest communication between all parties required to maintain transparency and trust

PCI Radial Artery Access

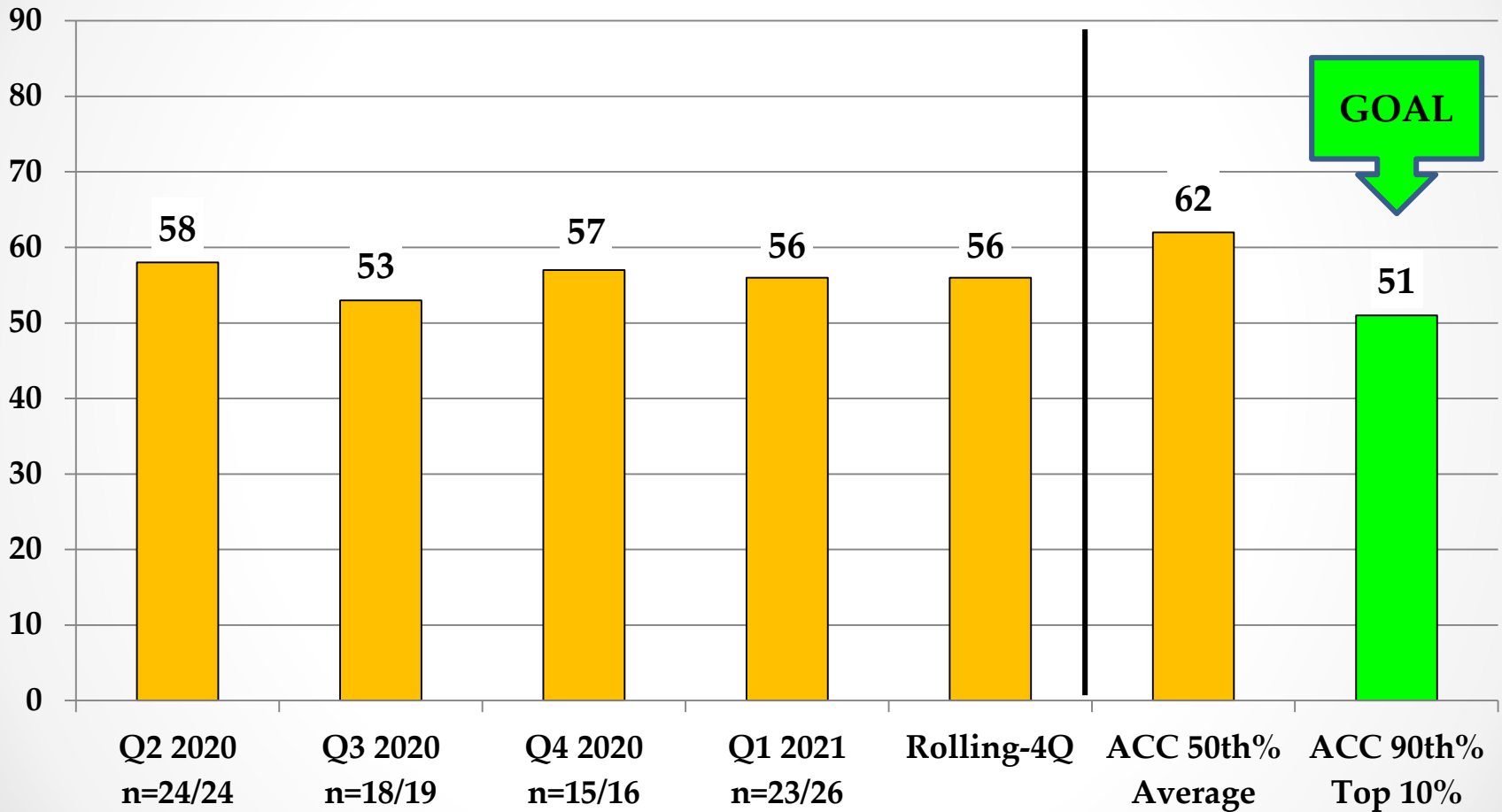


R4Q O/E = 0.7

(ref: NCDR Detail Line 4163)

* Comparison reporting period is 04/01/20 through 03/31/21

Immediate PCI for STEMI (in minutes)¹

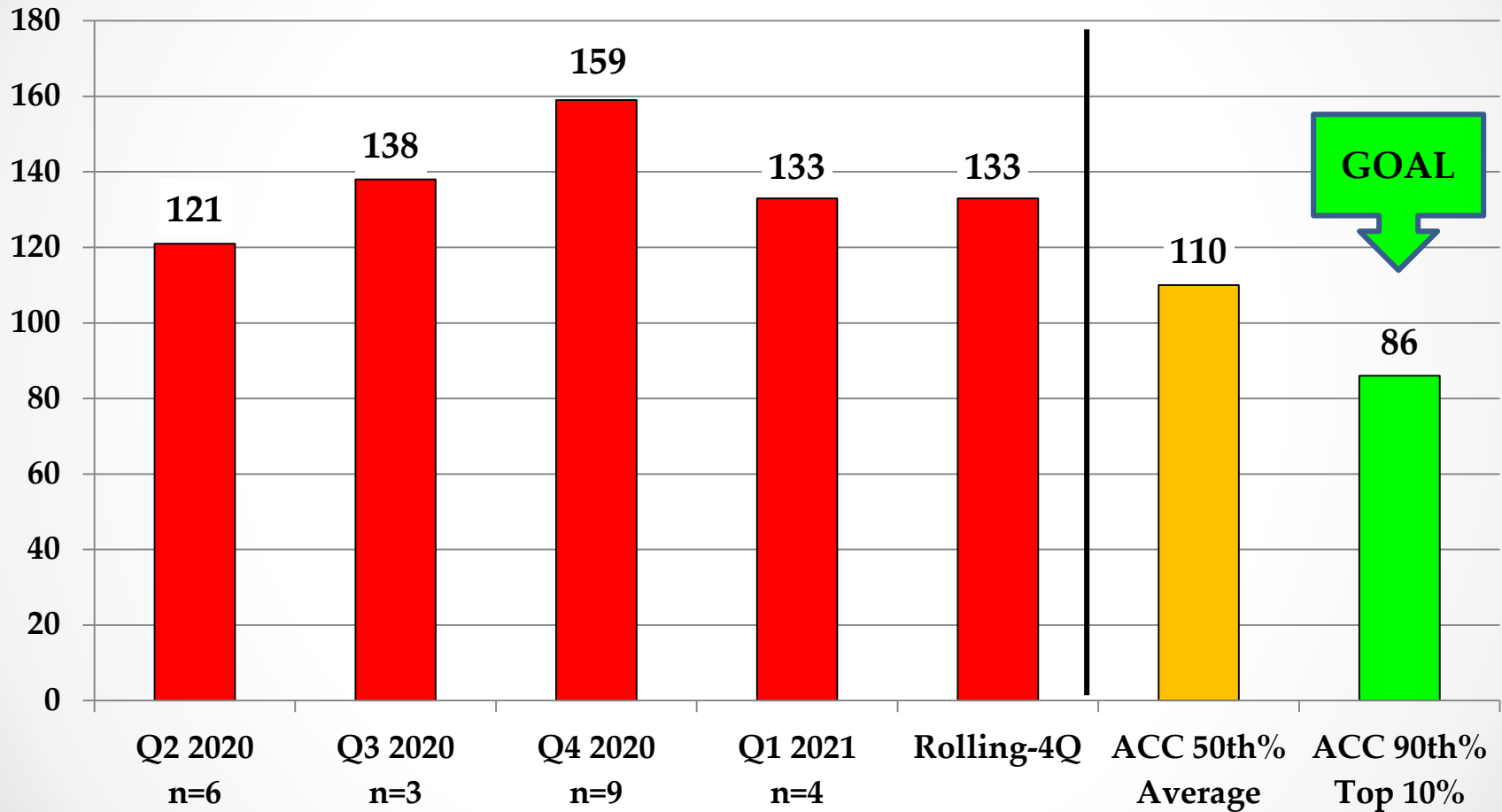


R4Q O/E = 0.9

¹ Median time frame from hospital arrival to immediate PCI for STEMI pts in minutes. Exclusions: Patients transferred in from another acute care facility; Reasons for delay does not equal none. N= pt.'s receiving PCI within 90 minutes. (ref:4448)

* Comparison reporting period is 04/01/20 through 03/31/21 60/84

Immediate PCI for STEMI Transfers (in minutes)¹



R4Q O/E = 1.2

¹ Median time from ED arrival at STEMI transferring facility to immediate PCI at STEMI receiving facility among transferred patients (excluding reason for delays); Reasons for delay does not equal none. (ref:4452, 10888)

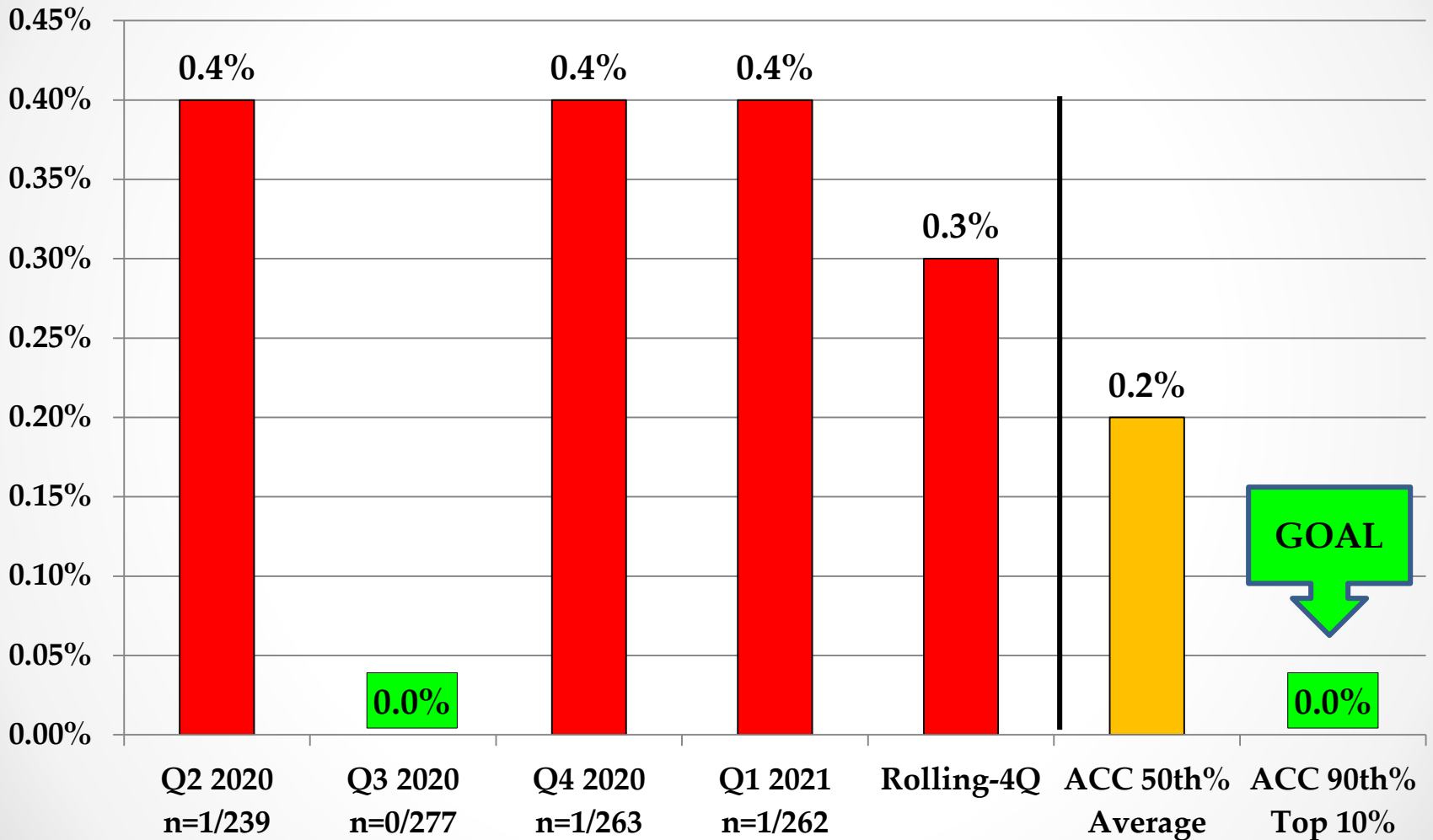
* Comparison reporting period is 04/01/20 through 03/31/21 61/84

Quality Initiative:

Best Practice in Door to Balloon

- 4 Staff on call at all times with crew response time of 20 minutes
- Recognition of staff with a monthly fastest Door to Balloon award to incentivize staff
- Cardiac Alerts to be called at the time of leaving transferring hospitals
- ED EKG to be placed in EMR or Tracemaster
- STEMI taskforce with ED, Quality, Cath Lab to review ED STEMI hand off including STEMI's called in the field and from other facilities
- Cardiac Alerts called within 10 minutes of ED arrival unless Thoughtful Pause is documented in the EMR

Stroke Post PCI¹



R4Q O/E = 1.4

¹ Exclusions: Patients with an Intervention this admission (Surgery, EP, Other); Pt's discharged to *Other Acute Care Facility* (ref: 4235) * Comparison reporting period is 04/01/20 through 03/31/21

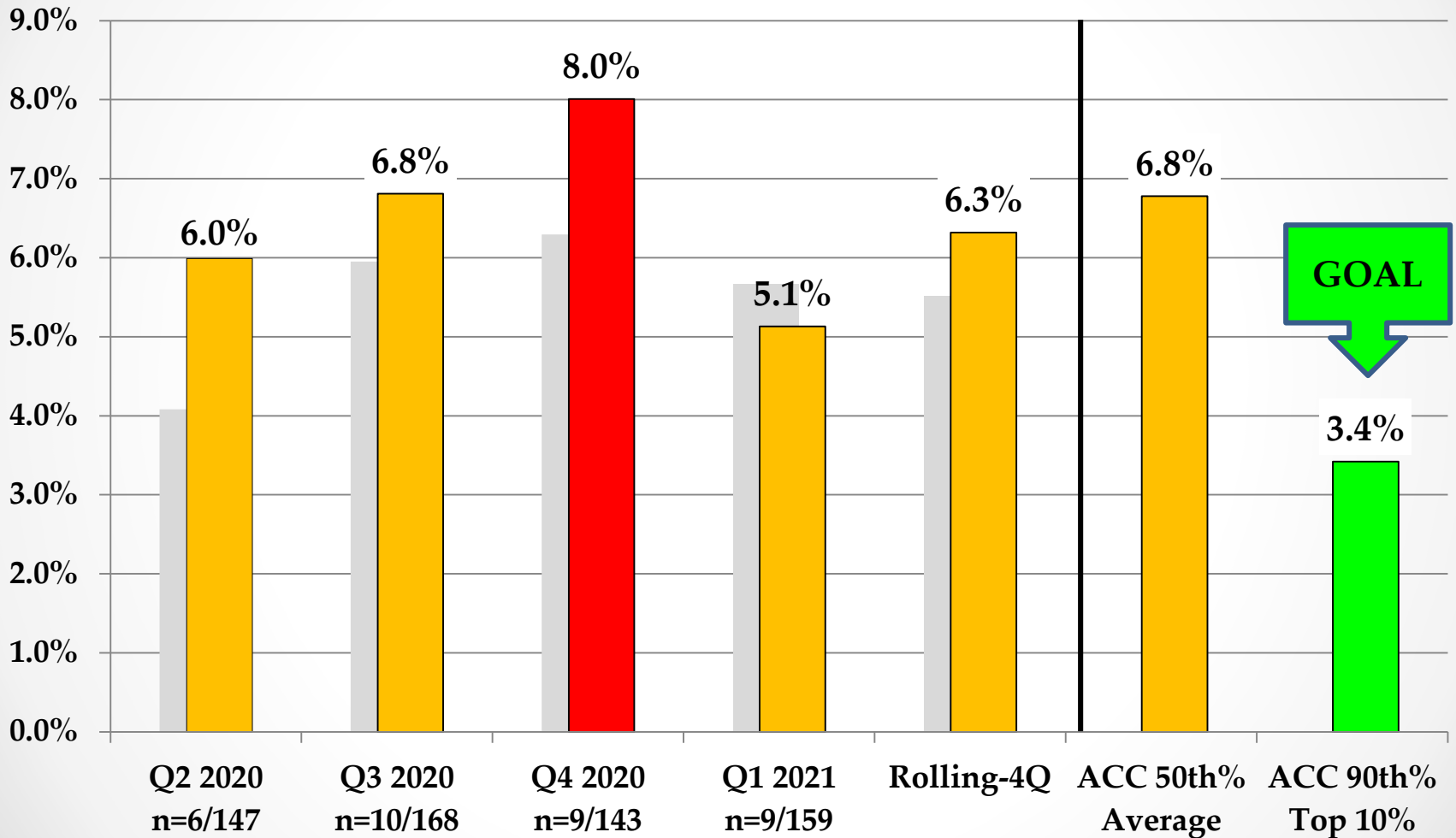
Quality Initiative:

Stroke Recognition and Treatment

- Assess Stroke Risk factors in PCI for each patient
 - Age, gender, history of CVA, End Stage Renal Disease, Diabetes, Hypertension, Peripheral Vascular Disease, Smoking, Congestive Heart Failure, Atrial Fibrillation, CABG surgery or emergent PCI
- Rapid recognition of stroke symptoms in Cath Lab
- Use of the clear protocol for recognition and interventions will facilitate efficient care in the unlikely event of a stroke in Cath Lab

Acute Kidney Injury¹ Post PCI

Risk Adjusted^{InColor}



R4Q Risk Adjusted O/E = 0.86

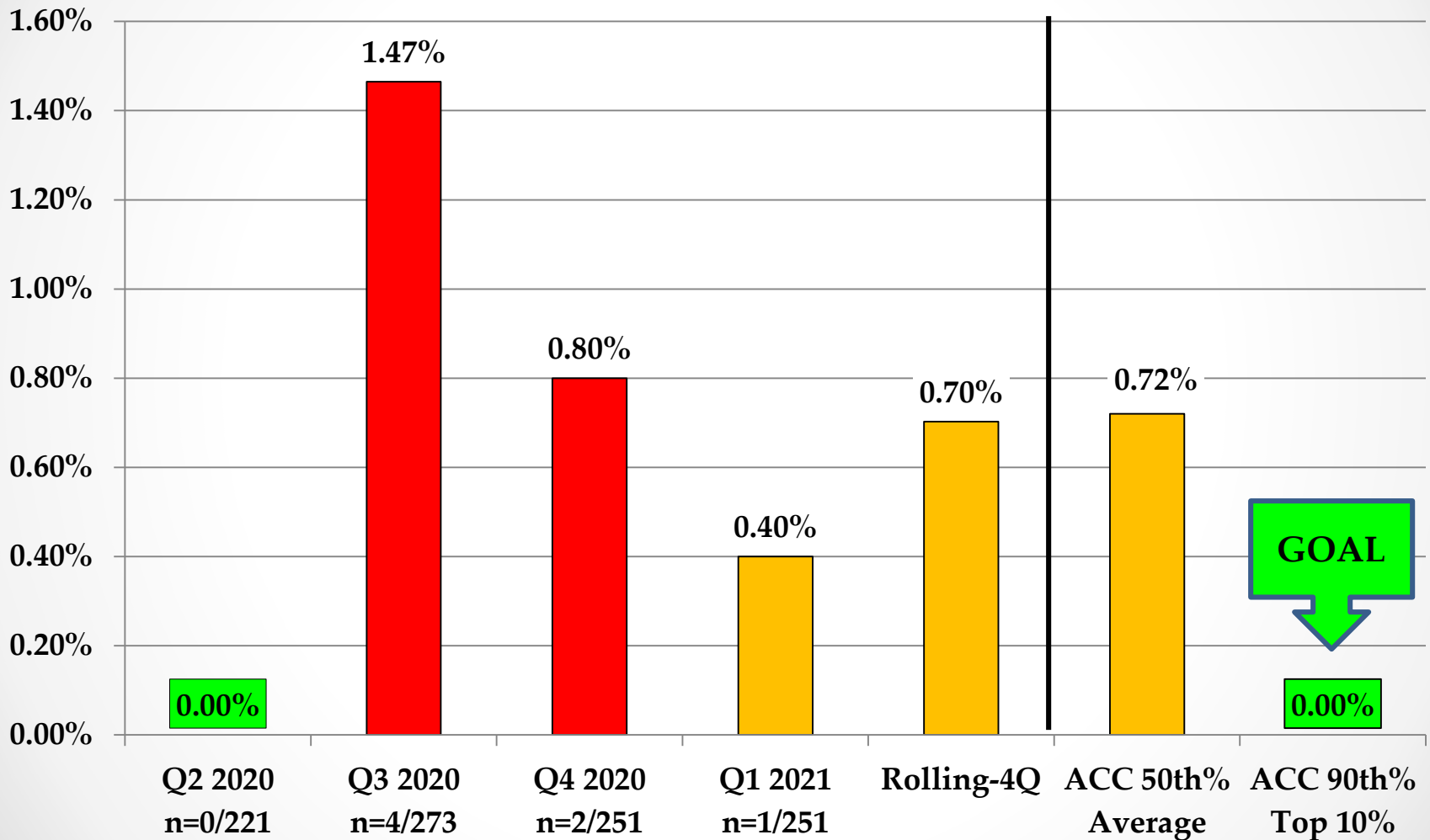
¹ Proportion of pt's with a rise of serum creatinine of > 50% or ≥0.3 mg/dL over the pre-procedure baseline; all pt's w/ New Requirement for Dialysis. Exclusions: pt's on dialysis pre-procedure; pt's second PCI within this episode of care; same day discharges. (ref: 4882) * Comparison reporting period is 04/01/20 through 03/31/21

Quality Initiative:

Contrast Induced Nephropathy

- Renal impairment = estimated glomerular filtration rate \leq 60mL/min
- Hydration Needs
 - Pre procedure: Normal Saline at 250 ml/hour to be started upon arrival
 - Intra procedure:
 - LVEDP $<18 \rightarrow$ NS 500 mL/hr for 4 hours
 - LVEDP $>19 \rightarrow$ NS 250 mL/hr for 4 hours
 - Post procedure: Normal Saline at 250 ml/hour for 6-24 hours
- For outpatients, an increase in oral hydration is encouraged the day before arrival. The patients are encouraged to drink clear liquid up to 2 hours before procedure
- Post procedure labs must be ordered
- Metabolic panel ordered one day post procedure
- Track and Report contrast utilization for Diagnostic and Interventional procedures

Transfusion Post-PCI of RBCs¹



R4Q O/E = 1.0

¹ Proportion of pt's who receive a transfusion of whole blood or RBCs during or after, but within 72 hours of PCI procedure.

Exclusions: Patients on dialysis; EP study or CABG or other major surgery during the same admission; Pt.'s with a pre-procedure hemoglobin <8g/dL or no value. (ref: 4288) * Comparison reporting period is 04/01/20 through 03/31/21

Guidelines for Usage of Blood Products (Release Criteria)

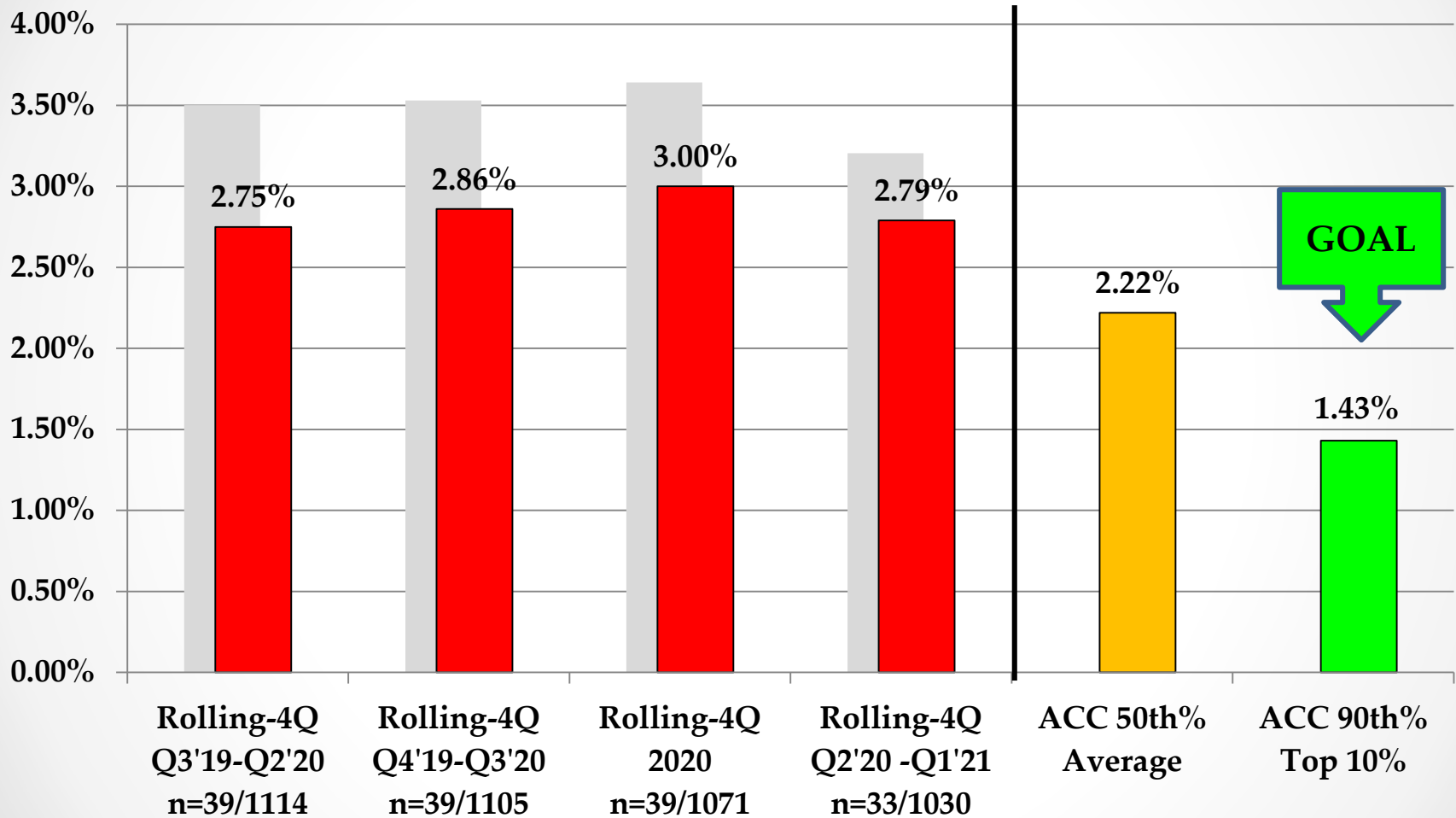
Policy Number: TR-00036 / Date Approved: 09/08/2015

APPROPRIATE USE OF RED BLOOD CELLS

- A. Pre-transfusion hematocrit of less than 24% or hemoglobin less than 8 grams/dl.

- B. Transfusion may be administered when hemoglobin levels are 8-10 grams/dl in the following circumstances:
 - 1. Acute Blood Loss/Active Bleed
 - 2. Presence of Symptomatic Anemia
 - 3. HGB <9 w/ Chemotherapy
 - 4. HGB <10 w/ Radiation Treatment

Risk Standardized Bleeding Rate¹



R4Q O/E = 1.4 ¹ Pt's with a Bleeding event defined as 1) occurring within 72 hours of procedure (Bleeding at access site, hematoma at access site, retroperitoneal bleed, GI, GU or any transfusion) 2) occurring during hospitalization (hemorrhagic stroke, tamponade, Hgb drop ≥ 4 g/dL requiring transfusion, or a procedural intervention/surgery to reverse/stop or correct the bleeding)

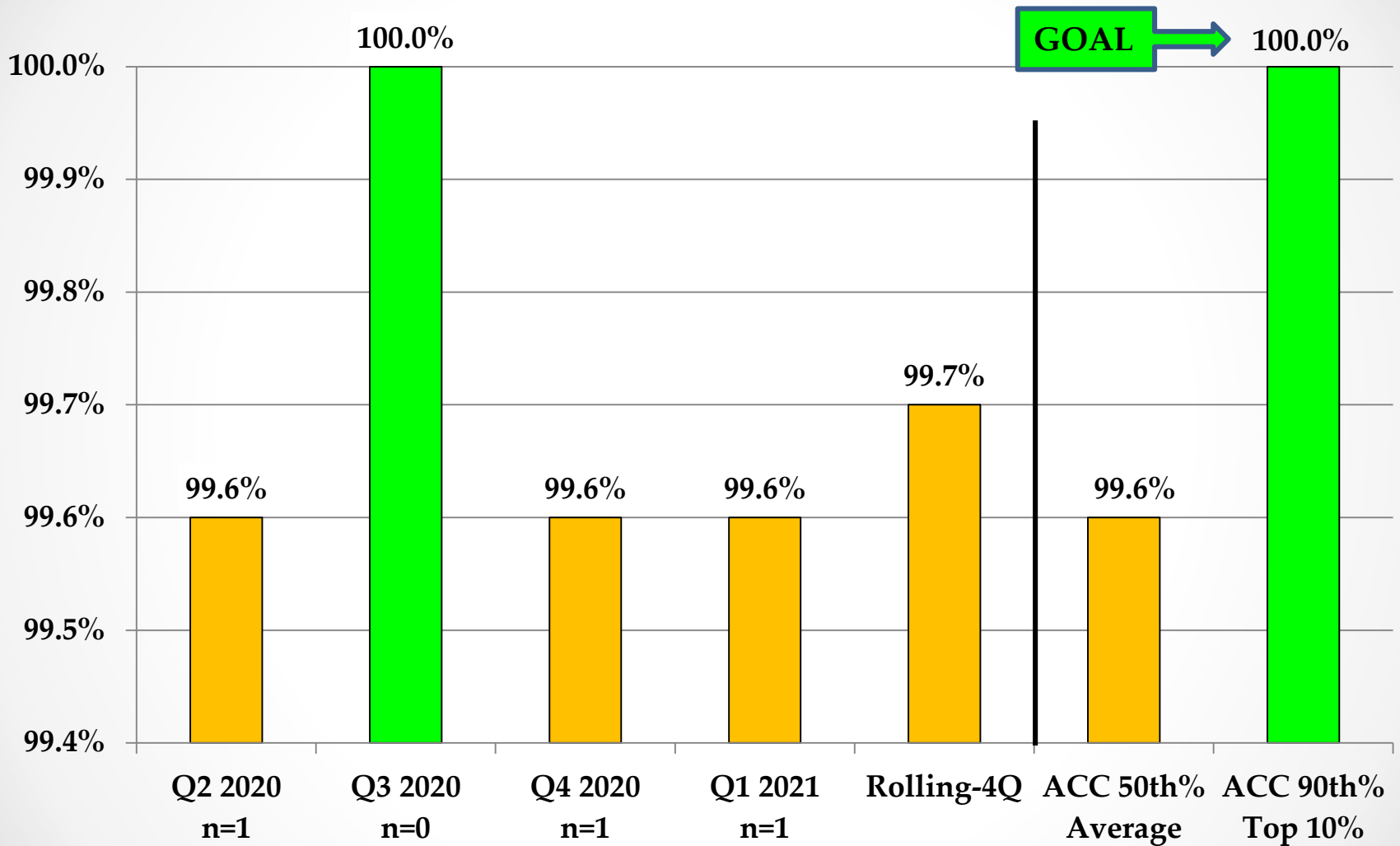
Exclusions: subsequent PCI procedures, death w/in 24 hours, CABG this hospitalization, transfusion in presence of mechanical support. (ref: 4934) * Comparison reporting period is 04/01/20 through 03/31/21

Quality Initiative:

Bleeding Protocol

- Establish a vascular site protocol in accordance with SCAI safe femoral access guidelines
 1. Radial first
 2. Use of ultrasound guidance
 3. Use of fluoroscopy to mark the femoral head
 4. Use of micro puncture needle

ASA Prescribed at DC¹

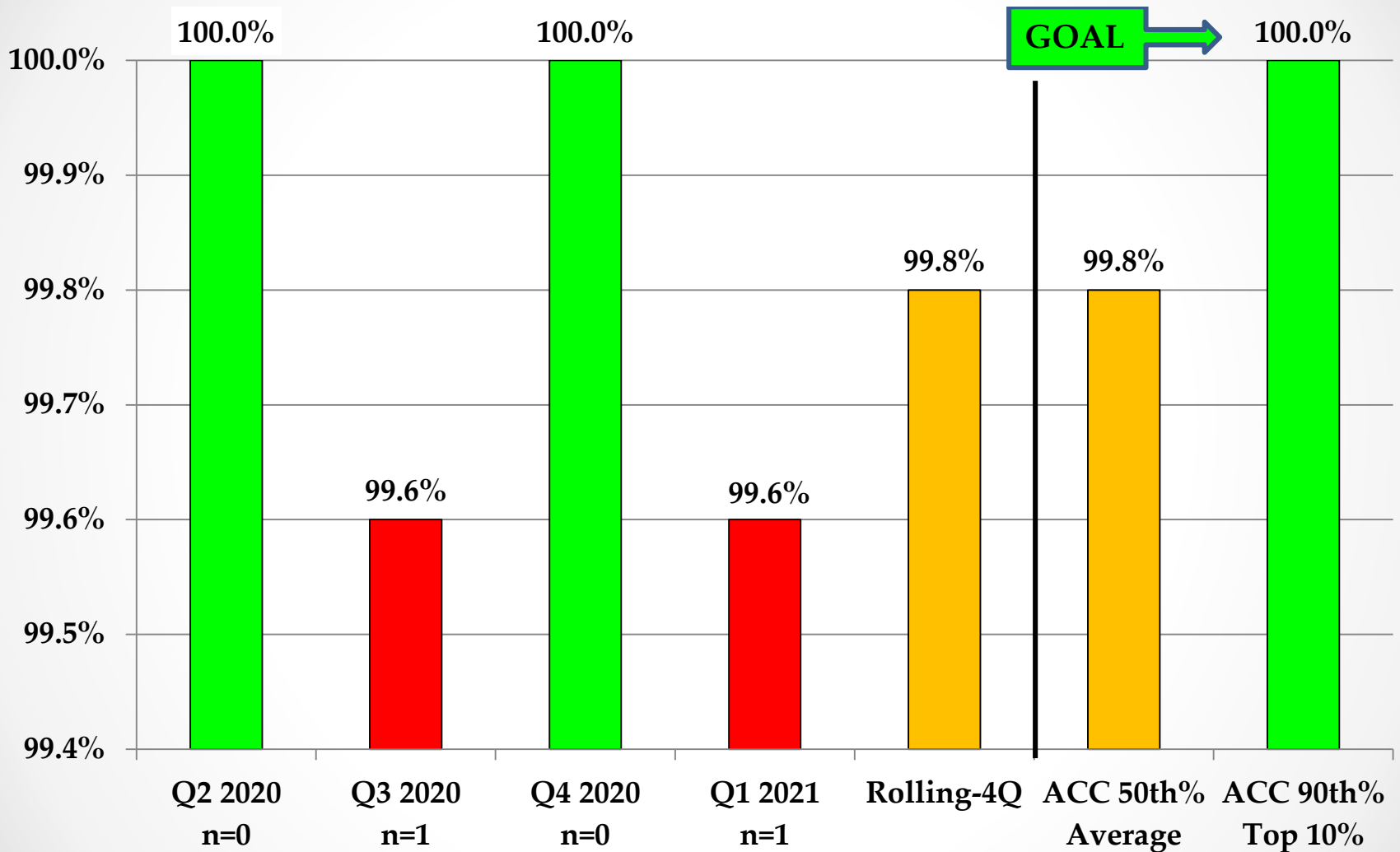


R4Q O/E = 1.0

¹ Proportion of pt.'s (without a documented contraindication) with a PCI attempted or performed that were prescribed aspirin at discharge. Exclusions: pt.'s that were discharged on Comfort Measures only; discharged to "Other acute care hospital", "Hospice", "Left against medical advice (AMA)" or deaths. (ref: 4702)

* Comparison reporting period is 04/01/20 through 03/31/21 71/84

P2Y12 Inhibitor Prescribed at DC¹

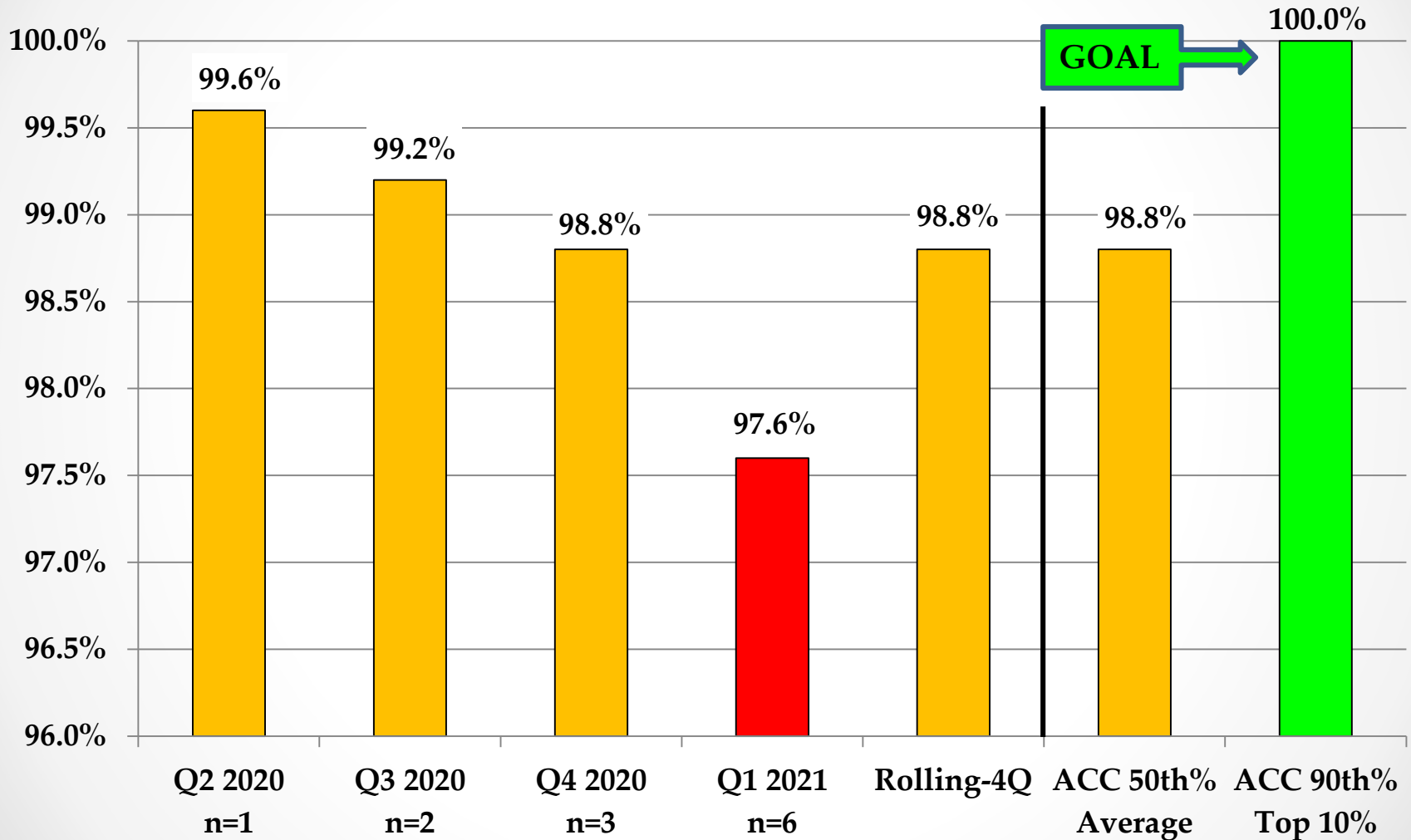


R4Q O/E = 1.0

¹ Proportion of pt.'s (without a documented contraindication) with a cardiac stent placed that were prescribed a thienopyridine/P2Y12 inhibitor at discharge. Exclusions: pt.'s that were discharged on Comfort Measures only; discharged to "Other acute care hospital", "Hospice", "Left against medical advice (AMA)" or deaths (ref: 4714)

* Comparison reporting period is 04/01/20 through 03/31/21

Statins Prescribed at DC¹



R4Q O/E = 1.0

¹ Proportion of pt.'s (without a documented contraindication) with a PCI attempted or performed that were prescribed a statin at

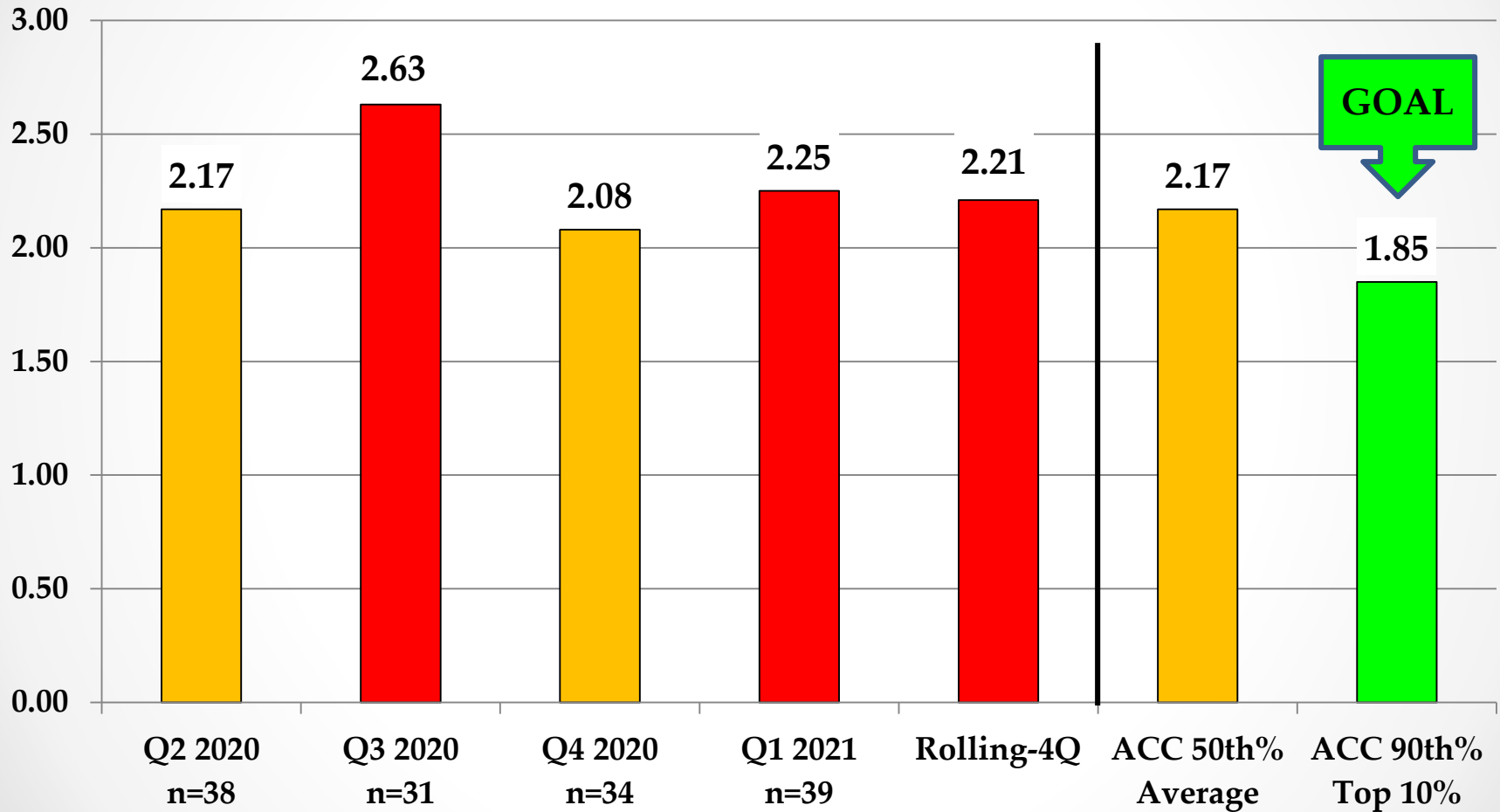
discharge. Exclusions: pt.'s that were discharged on Comfort Measures only; discharged to "Other acute care hospital", "Hospice", "Left against medical advice (AMA)" or deaths. (ref: 4707) * Comparison reporting period is 04/01/20 through 03/31/21

Quality Initiative:

Discharge Medications

- Develop and implement PCI specific discharge order set
- Re-educate Hospitalists and Nurse Practitioners on importance of specific discharge medications in this patient population and utilization of new Order Set.
- Track utilization of order set
- Contact Lead Hospitalist or Nurse Practitioner with all fallouts and track
- Improving Clinical documentation in the Discharge Summary of any contraindications
- Improving Clinical documentation in the Discharge Summary clarifying any pending diagnosis (i.e. possible NSTEMI, possible MI)

Post-PCI Length of Stay¹ – STEMI

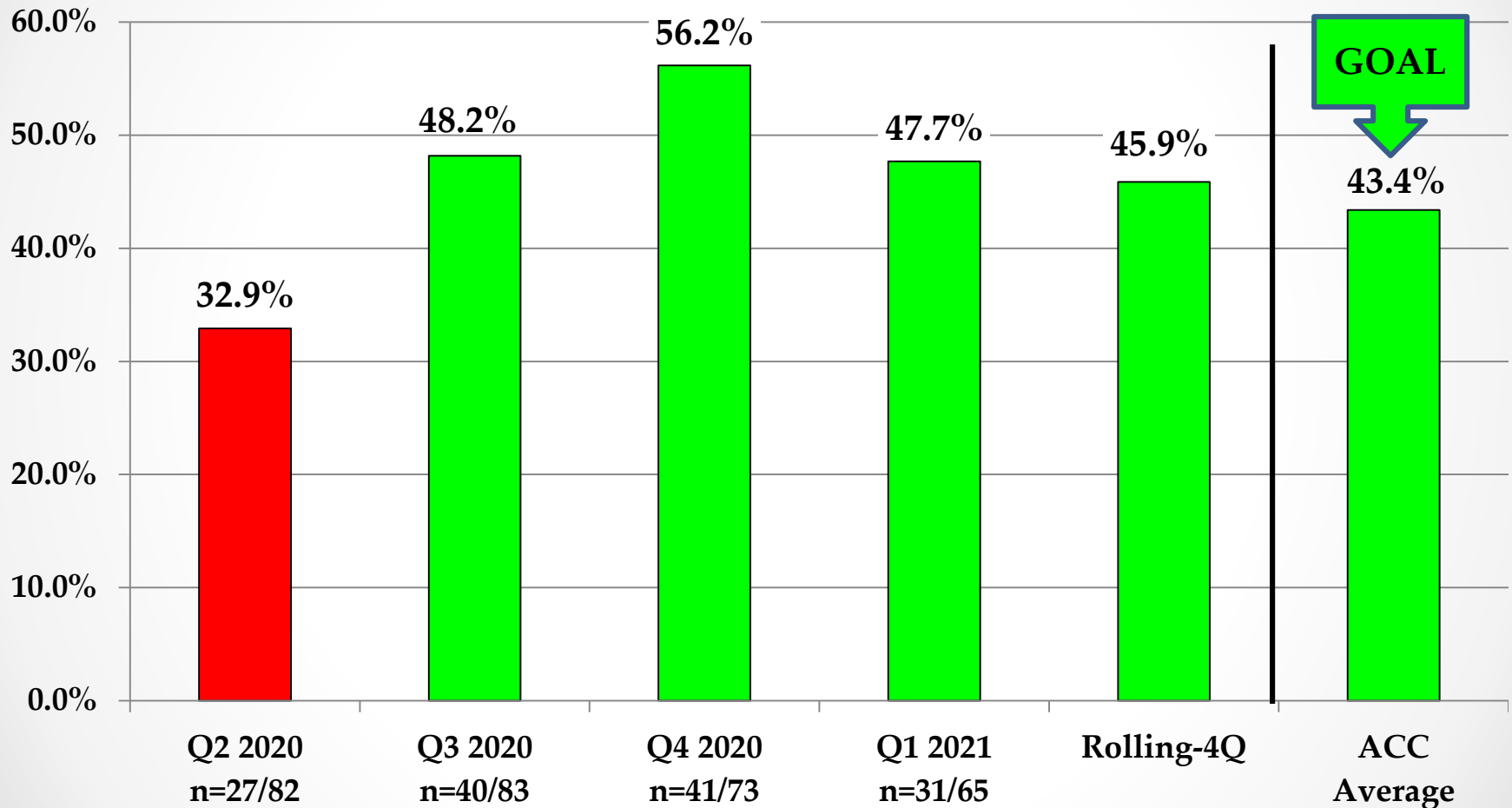


R4Q O/E = 1.0

¹ Median Post-procedure length of stay in STEMI patients. Exclusions: pt.'s discharged to Another Acute Care Facility; death during procedure (ref:4340, 10894)

* Comparison reporting period is 04/01/20 through 03/31/21 75/84

Post-PCI Same Day Discharge - Electives



R4Q O/E = 1.1

¹ Elective patients discharged on the same day as procedure. Exclusions: mortalities and pt.'s discharged to Another Acute Care Facility or AMA (ref:4971)

* Comparison reporting period is 04/01/20 through 03/31/21 76/84

Clinical Quality Goal Update

August 2021



FY 21 Clinical Quality Goals

Fiscal Year 2021

Higher is Better

FY21 Goal

FY20

Last 6 Months
FY20

SEP-1 (% Bundle Compliance)	74%	≥ 70%	67%	69%
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Our Mission

Health is our passion.
Excellence is our focus.
Compassion is our promise.

Our Vision

To be your world-class
healthcare choice, for life

Percent of patients with this serious infection complication that received “perfect care”. Perfect care is the right treatment at the right time for our sepsis patients.

	July 2020	Aug 2020	Sept 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	June 2021	Estimated Annual Number Not to Exceed to Achieve Goal*	FYTD SIR** (number of actual/ number expected)	FY21/ FY22 Goal	FY20
CAUTI Catheter Associated Urinary Tract Infection	1	0	1	1	1	1	0	1	0	3	1	1	20	52%↓ 0.542	≤0.727 ≤0.676	1.12
CLABSI Central Line Associated Blood Stream Infection	2	1	1	0	1	2	1	2	0	0	1	1	16	38%↓ 0.745	≤0.633 ≤0.596	1.2
MRSA Methicillin-Resistant Staphylococcus Aureus	1	3	2	2	1	1	2	2	1	2	0	0	6	147%↑ 2.782	≤0.748 ≤0.727	1.02

*based on FY21 NHSN predicted

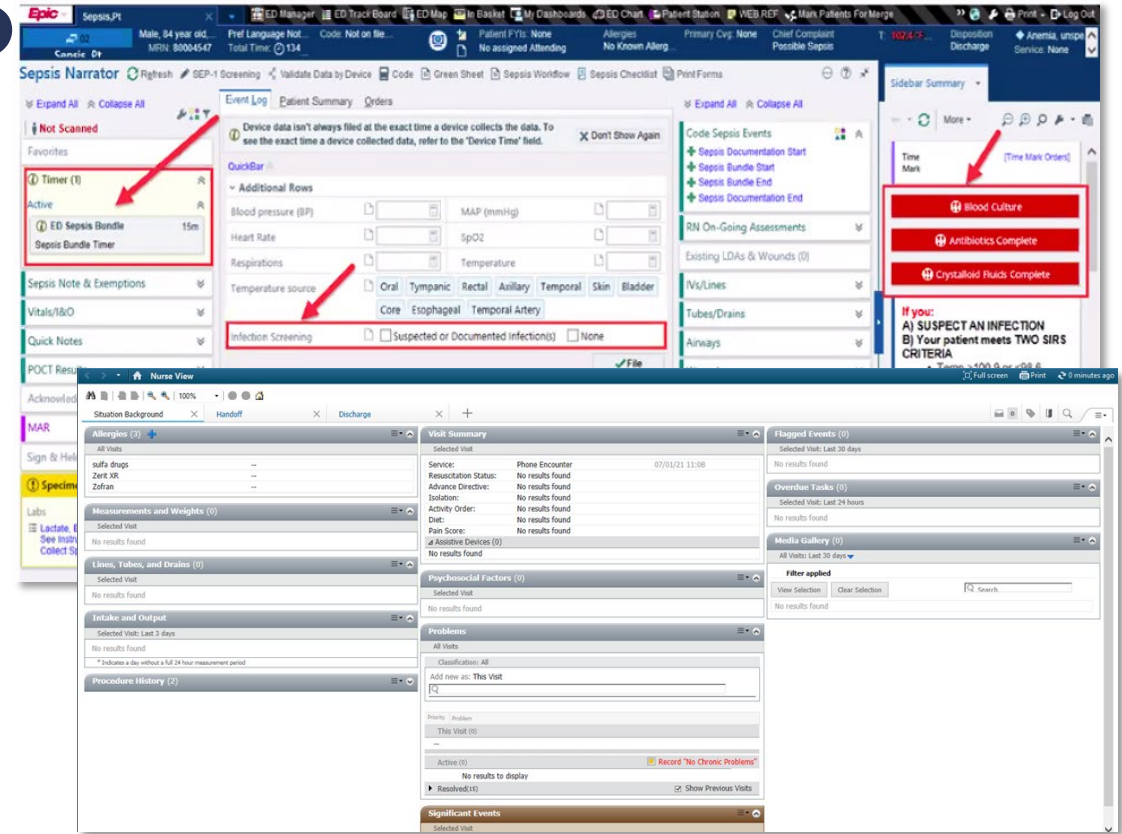
**Standardized Infection Ratio is the number of patients who acquired one of these infections while in the hospital divided by the number of patients who were expected.

Key Strategies

Sepsis

IN PROCESS ACTION:

- Exploring “Resident Sepsis Resource” for Coordinator off hours with Dr. Winston
- Sepsis handoff checklist or “Active Dashboard”, which is used to identify any remaining CMS SEP-1 elements needed for the treatment of patients suffering from severe sepsis.
 - Checklist or active dashboard used as a handoff from nurse to nurse, and identifies the remaining elements needed to fulfill SEP-1 requirements.
 - Ideal for instances when a patient transitions from the ED to their respective inpatient bed, or upon transitioning from a previous inpatient location to a new inpatient location (e.g., patients transitioning to a higher level of care).



Key Strategies

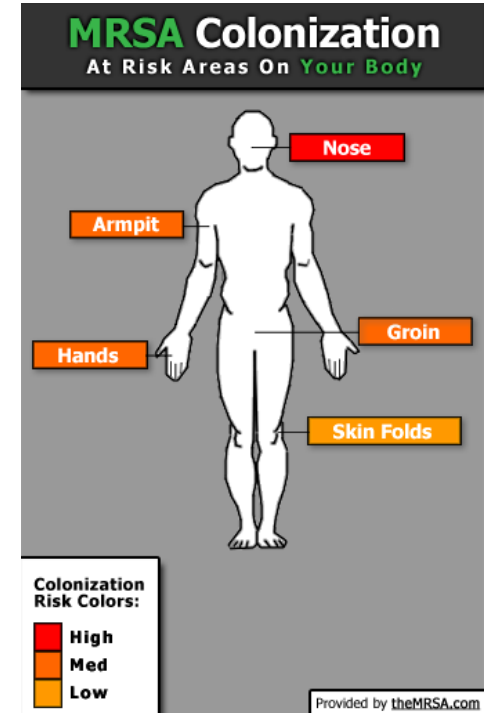
CAUTI & CLABSI

- Gemba's! And trialing handoff process using Gemba elements
- Task force for retention management
- Letter to providers who were involved with a CAUTI event, going to physician leaders for approval
- EMR changes to improve catheter appropriateness, adherence to bundle elements and to manage retention
- New alternatives to catheter products trials
- Including peripheral IVs to critical care gemba (evaluating “just in case lines” and care practices)
- Evaluating new midline dressing kits (current kits missing necessary items)
- Education on CAUTI & CLABSI prevention for all residents completed and on annual schedule!
- Increasing midline insertion in ED through EM Resident and PICC team partnership

Key Strategies

Planned Interventions to reduce MRSA Bloodstream infection

1. Hand Hygiene – BioVigil and Non-BioVigil areas, 95% compliance and consistent use of the BioVigil system
2. High Risk Patient Decolonization
 - Patients who are colonized with MRSA means they carry it in their nose or on your skin but are not sick with a MRSA infection. Hospitalization is a high risk time for patients, this MRSA that patients carry with them can travel to wounds or lungs, and other areas of patient's bodies that can lead to poor outcomes during hospitalization
 - Decolonization therapy is the administration of antimicrobial or antiseptic agents to eradicate or suppress MRSA carriage. – includes an Intranasal antibiotic or antiseptic (e.g., mupirocin, povidone-iodine) – Topical antiseptic (e.g., chlorhexidine)
 - For Kaweah this means:
 - Decolonization with CHG Bathing (topical antiseptic) for all at risk MRSA positive patients
 - Decolonization with Mupirocin (Antibiotic)

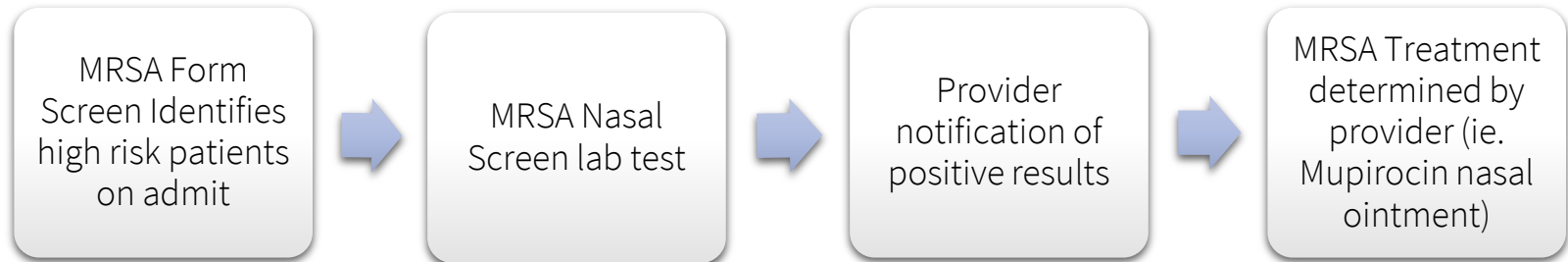


Key Strategies

Planned Interventions to reduce MRSA Bloodstream infection

CURRENT STATE

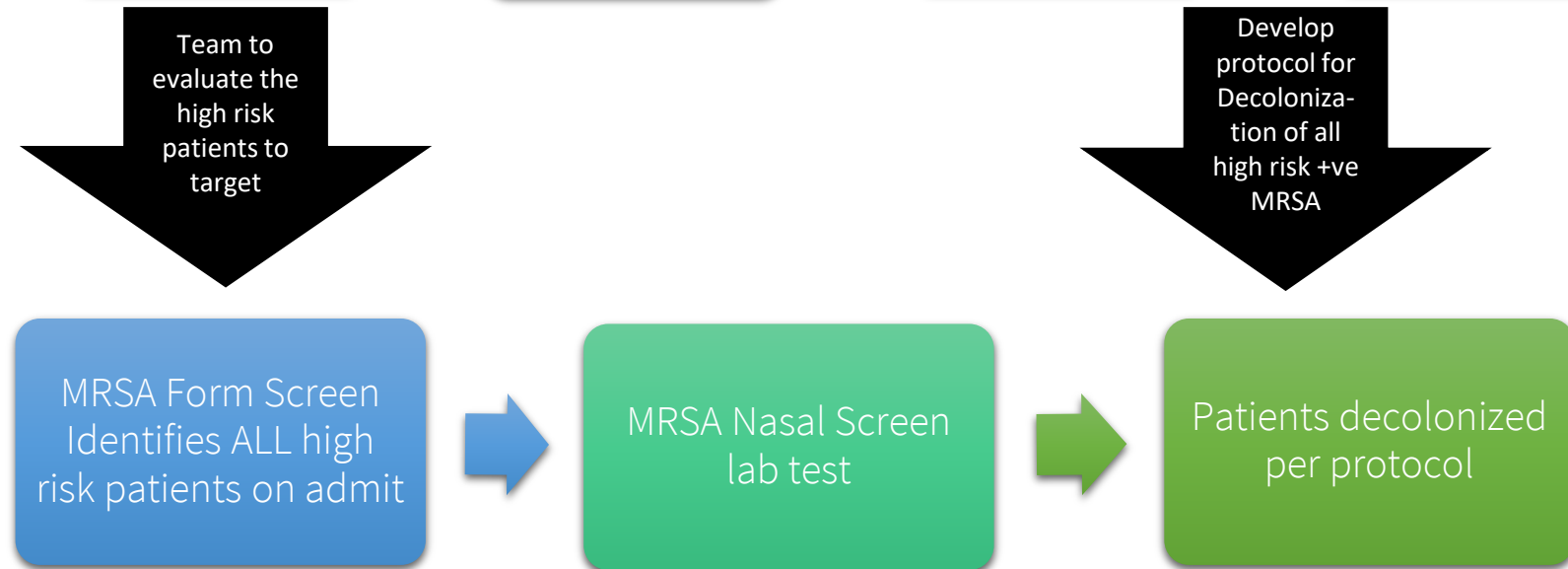
PC157
MRSA Nasal Swabbing
Process (MRSA Screening)



NEW INTERVENTIONS

FUTURE STATE

PC157
MRSA Nasal Swabbing
Process (MRSA Screening)



FY22 Clinical Quality Goals

Our Mission
Health is our passion. Excellence is our focus. Compassion is our promise.

Our Vision
To be your world-class healthcare choice, for life

Performance Measure	Baseline	FY22 Goal	FY23 Goal	FY24 Goal
Standardized Infection Ratio (SIR) CAUTI, CLABSI, MRSA (CMS Data)	CAUTI 0.84 CLABSI 1.33 MRSA 2.53	CAUTI ≤ 0.676 CLABSI ≤ 0.596 MRSA ≤ 0.727	tbd	tbd
Percent Sepsis Bundle Compliance (SEP-1) (CMS Data)	75% (July-Dec2020)	≥75%	≥80%	≥82%
Hospital Readmissions (%)	(FY2019) AMI – 12.34 COPD – 16.09 HF – 18.22 PN Viral/Bacterial – 14.13	AMI – 9.99 COPD – 10.30 HF – 11.66 PN Viral/Bacterial – 9.04	TBD	TBD
Decrease Mortality Observed/Expected Rates	(2019) AMI - 0.75 COPD – 2.40 HF – 1.78 PN Bacterial – 1.85 PN Viral – 1.34	AMI - 0.67 COPD – 1.00 HF – 1.14 PN Bacterial – 1.18 PN Viral - 0.96	TBD	TBD
Home Medication List Review of High Risk Patients (inpatient admission)	57% (Avg Oct 2020 and Feb 2021)	100%	100%	100%
Complete Initial Home Medication w/in 12 hours of Inpatient Admission	N/A	100%	100%	100%
Outpatient Medication Reconciliation w/in 30 days Post Discharge (MRP)	N/A	44%	55%	78%
Team Round Implementation	MICU currently does this	Design & Pilot on 1-2 units	Roll out expectations for 2 additional units and measure at 6 months % adherence	80% Adherence for 3-4 units and roll out for units with hospital-based groups and measure at 6 months % adherence

Questions?

Live with passion.

Health is our passion. Excellence is our focus. Compassion is our promise.

