CHQI – Update and Presentations

Moderator:

Dr. Michael Ong, Associate Professor, UCLA David Geffen School of Medicine
Director, UCLA Connected Health

Dr. Wendy Anderson, UCSF
Dr. Maxime Cannesson, UCLA
Dr. Gregory Maynard, UCD
Dr. Michael Stamos, UCI

The IMPACT-ICU Project: Expanding Palliative Care Nursing Across University of California ICUs

Wendy Anderson MD MS, Project Lead

UCSF Division of Hospital Medicine & Palliative Care Program

CHQI Colloquium – Feb 16, 2017

IMPACT-ICU
INTEGRATING MULTIDISCIPLINARY PALLIATIVE CARE INTO THE ICU

UC HEALTH

Disclosures

Dr. Anderson has no relevant financial relationships to disclose.

IMPACT-ICU

Objectives & Aims

- Integrate palliative care into the ICU by training and supporting bedside nurses
- Targeted 2 ICUs in each of 5 University of California Medical Centers (2013-2015)

Aims:

1. Train ICU bedside nurses to facilitate palliative communication among families & clinicians
2. Support beside nurses in identifying and addressing patients' palliative care needs

IMPACT-ICU

Components

Communication Workshop

- 8-hour long small group workshop
- 527 nurses completed over 2-years
- Role-play: Palliative care communication

Rounding in Target ICUs

- Advance practice nurses and educators
- Mentored bedside nurses to assess and address palliative care needs

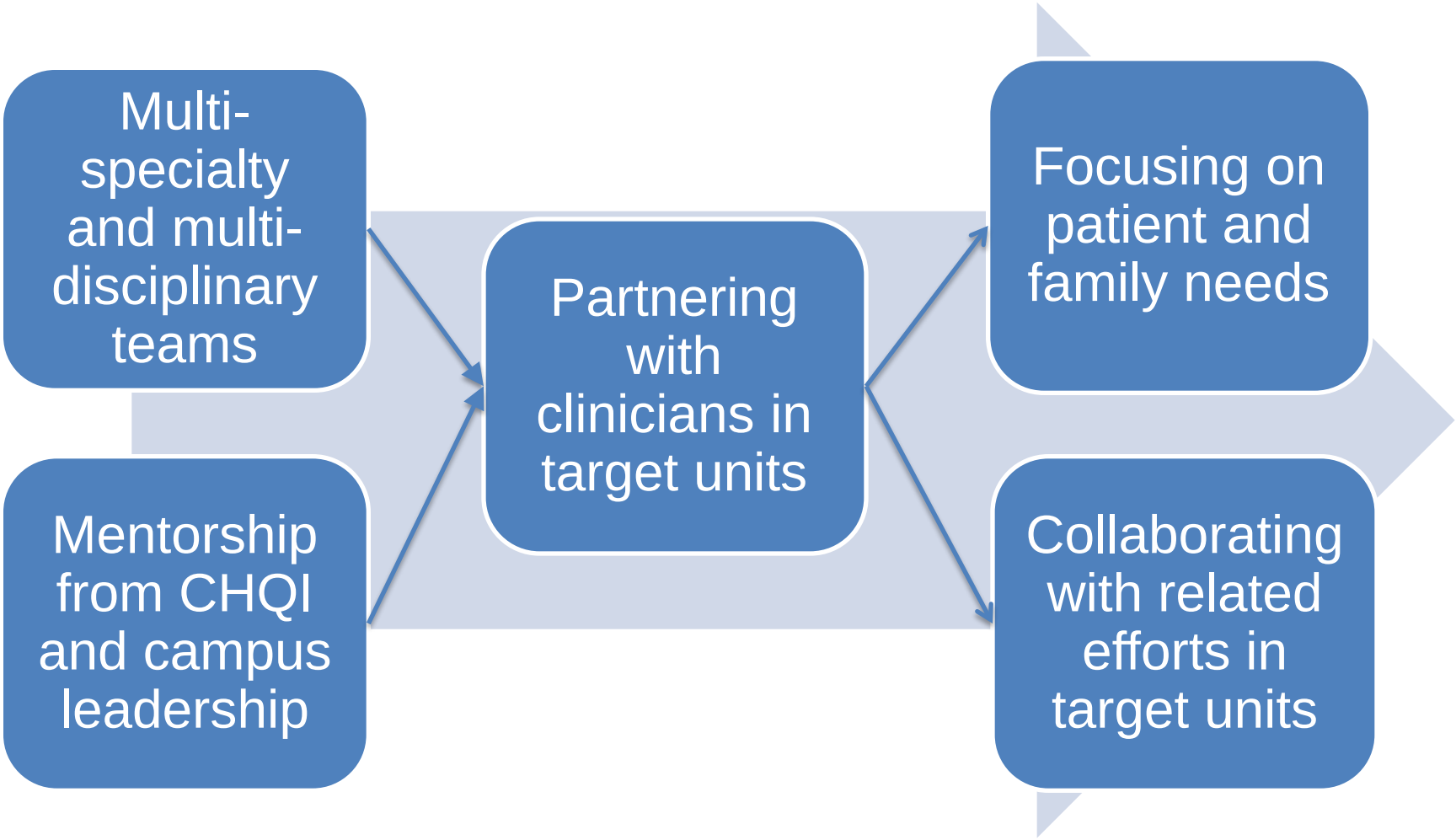
Integration into ICU Processes

- Multidisciplinary coordination of palliative care in ICU
- Act on nurses' identification of needs

Barriers to Implementation

- Expanding scope of palliative care
  - Is for all patients with serious illness
  - Provided by all clinicians, not only by specialist consult teams
- Identifying and addressing needs of patients with diverse diagnoses:
  - Medical, post-surgical, cardiac, oncologic, neurologic, transplant

Approach to Overcome Barriers



Sustainability & Ongoing Work

- Trained teams continue education & support of bedside nurses at each center
- UC-wide palliative care collaborations
- Further expansion of IMPACT-ICU
  - Other academic centers
  - Videos & Website
  - California Public Hospitals
  - Professional Society Partnerships

Acknowledgements

- CHQI, campus, critical care, and palliative care leadership at 5 UC medical centers
- Bedside nurses and all clinicians in our target ICUs:

  UC Davis: MICU, MSICU

  UC Irvine: CCU/MICU, NSICU

  UCLA: Ronald Reagan 4ICU, Santa Monica ICU

  UC San Diego: CCU, SICU, CVC-ICU

  UCSF: 9-ICU and 13-ICU

IMPACT-ICU

Team

- **UC Davis:** Janice Noort RN NP MS ACHPN, Diana Pearson RN MSN CCRN, Nathan Fairman MD MPH, John MacMillan MD, Eric Moore RN MBA NEA-BC
- **UC Irvine:** Deborah Boyle RN MSN FAAN AOCNS, Michelle Grywalski RN BSN, Solomon Liao MD
- **UCLA:** Jeannette Meyer RN MSN CCRN CCNS PCCN ACHPN, Edith O'Neil-Page RN MSN AOCNS, Bruce Ferrell MD
- **UC San Diego:** Julia Cain RN MSN ANP, Heather Herman RN MS ANP, Kyle Edmonds MD, William Mitchell MD
- **UCSF:** Wendy Anderson MD MS, Kathleen Puntillo RN PhD FAAN FCCM, Jenica Cimino BA, Susan Barbour RN WOCN ACHPN, Denah Joseph MFT BCC, Michelle Milic MD, Kathleen Turner RN CHPN CCRN-CMC, Steven Pantilat MD FAAHPM SFHM

Enhanced Recovery After Surgery

Maxime Cannesson MD PhD

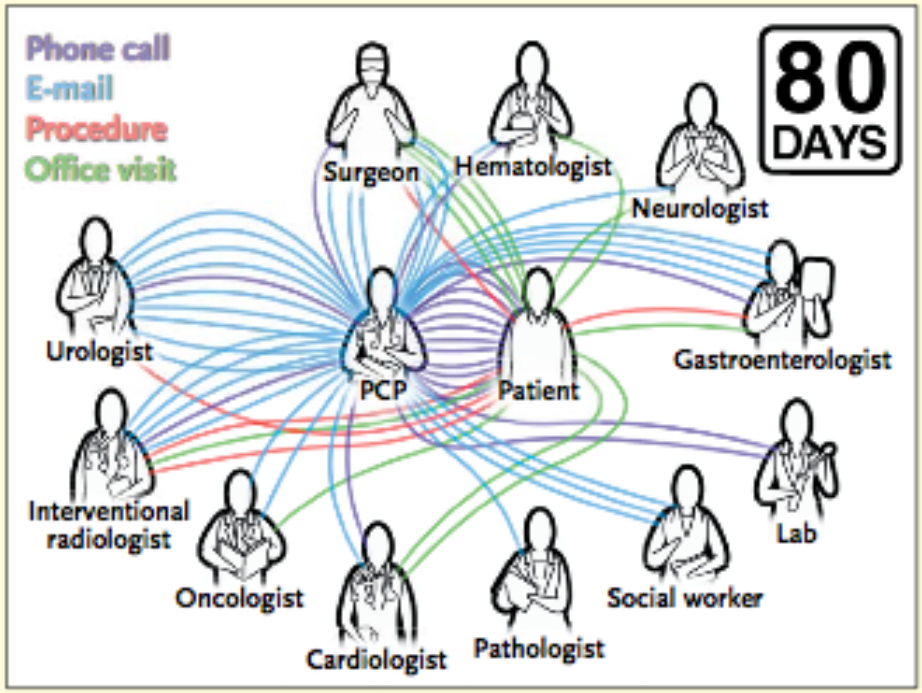
PROFESSOR of Anesthesiology and Vice Chair
CHQI Fellow 2013

Department of Anesthesiology & Perioperative Medicine
University of California Los Angeles

UCLA

Current Model of Perioperative Care

Current Care is:
- Fragmented
- Expensive
- Redundant
- Poorly Efficient



Instant Replay — A Quarterback's View of Care Coordination

Matthew J. Press, M.D.

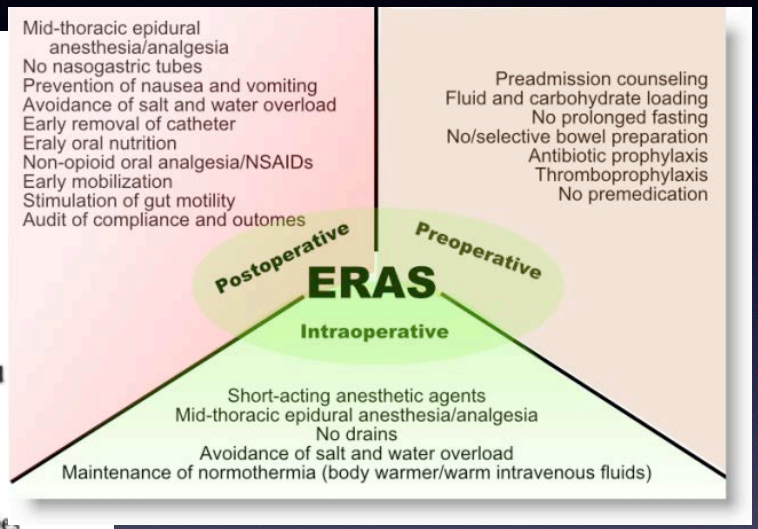
The NEW ENGLAND JOURNAL of MEDICINE

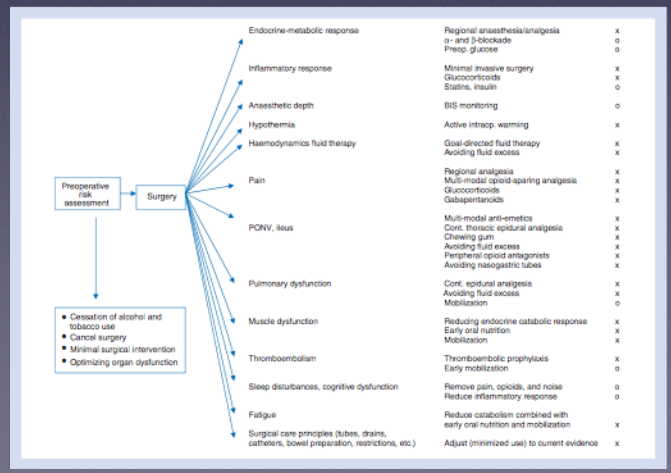
August 2014

aser

AMERICAN SOCIETY FOR ENHANCED RECOVERY

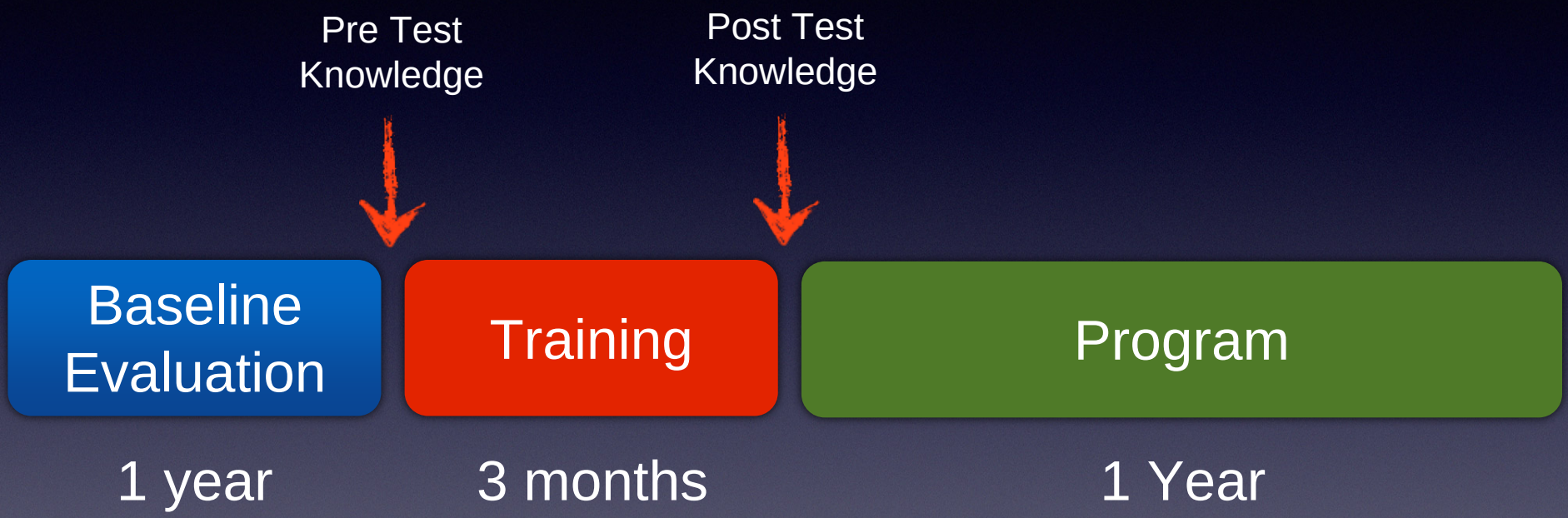
ERAS® Society





Timeline

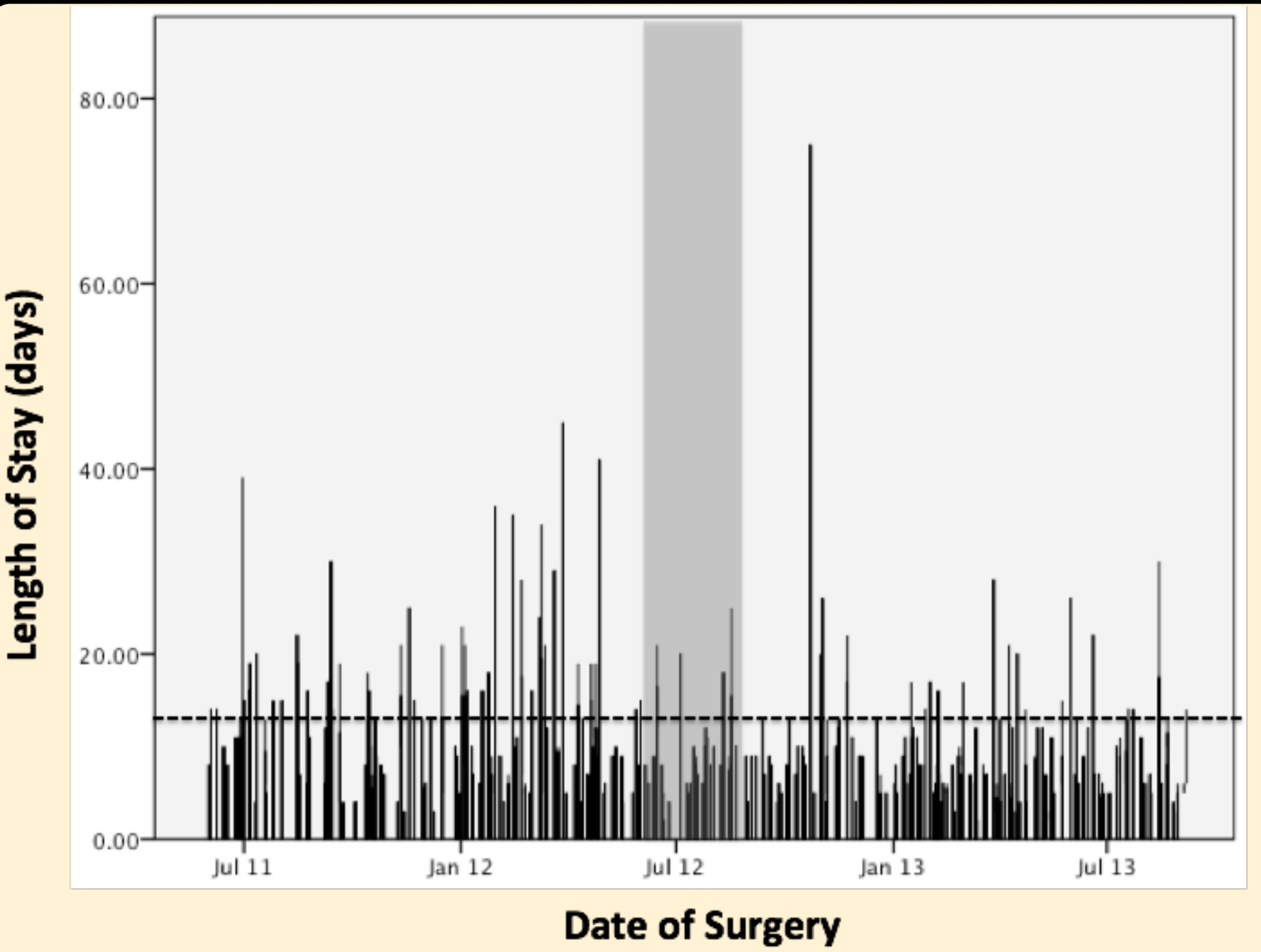
Historical - Prospective Study
Quasi experimental Design



Pre Implementation: 06/01/2011 to 06/01/2012
Training: 06/01/2012 to 09/15/2012
Post Implementation: 09/15/2012 to 09/15/2013

IRB approval HS# 2011-8140
UCI

	Pre implementation (n = 128)	Post implementation (n = 203)	p value	Odd Ratio (95 % CI)
Primary Outcome				
LOS in the hospital (nights)	10 [6 - 16]	7 [5 - 11]	...	...
LOS in the hospital Log transformed (nights)	2.31 ± 0.62	2.03 ± 0.57	0.00005*	...
Secondary outcomes				
LOS in the ICU (nights)	1 [1 - 3]	1 [0 - 2]	...	...
LOS in the ICU (Log 1+ LOS ICU) (nights)	0.97 ± 0.98	0.72 ± 0.68	0.004*	...
PRBC transfusion - no. (%)	56 (43.8)	65 (32.2)	0.04**	0.64 (0.37 - 1.10)
Units of PRBC transfused per patients transfused (n)	2 [1 - 4]	2 [1 - 3]	0.34$	...
Extubation within 6 hours after surgery - no. (%)	102 (79.7)	174 (86.1)	0.129#	...
NSQIP complication - no. (%)	50 (39.1)	50 (24.8)	0.007#	0.56 (0.32 - 0.97)
Type of complication - no. (%)				
Atrial fibrillation	0 (0.0)	1 (0.5)	...	...
AKI	2 (1.6)	2 (1.0)	...	...
Delirium	0 (0.0)	1 (0.5)	...	...
DVT	4 (3.1)	3 (1.5)	...	...
Illeus	3 (2.3)	11 (5.4)	...	...
Myocardial infarction	0 (0.0)	2 (1.0)	...	...
Stroke	4 (3.1)	2 (1.0)	...	...
Pneumonia	11 (8.6)	7 (3.5)	...	...
Sepsis	0 (0.0)	1 (0.5)	...	...
SSI	21 (16.4)	17 (8.4)	...	...
UTI	6 (4.7)	5 (2.5)	...	...
30-days readmission - no. (%)	35 (27.3)	38 (18.8)	0.077#	...
30-days mortality - no. (%)	1 (0.8)	2 (1.0)	0.713#	...


Length of Stay (days)
80.00
60.00
40.00
20.00
0.00
Jul 11
Jan 12
Jul 12
Jan 13
Jul 13
Date of Surgery

HOME ABOUT EXPERTS MED CENTERS SCHOOLS PRIME INNOVATION CENTER

UC HEALTH

Spotlight | News | Profile | Issues | Did you know? | In the media | Impact

CATEGORY: Spotlight

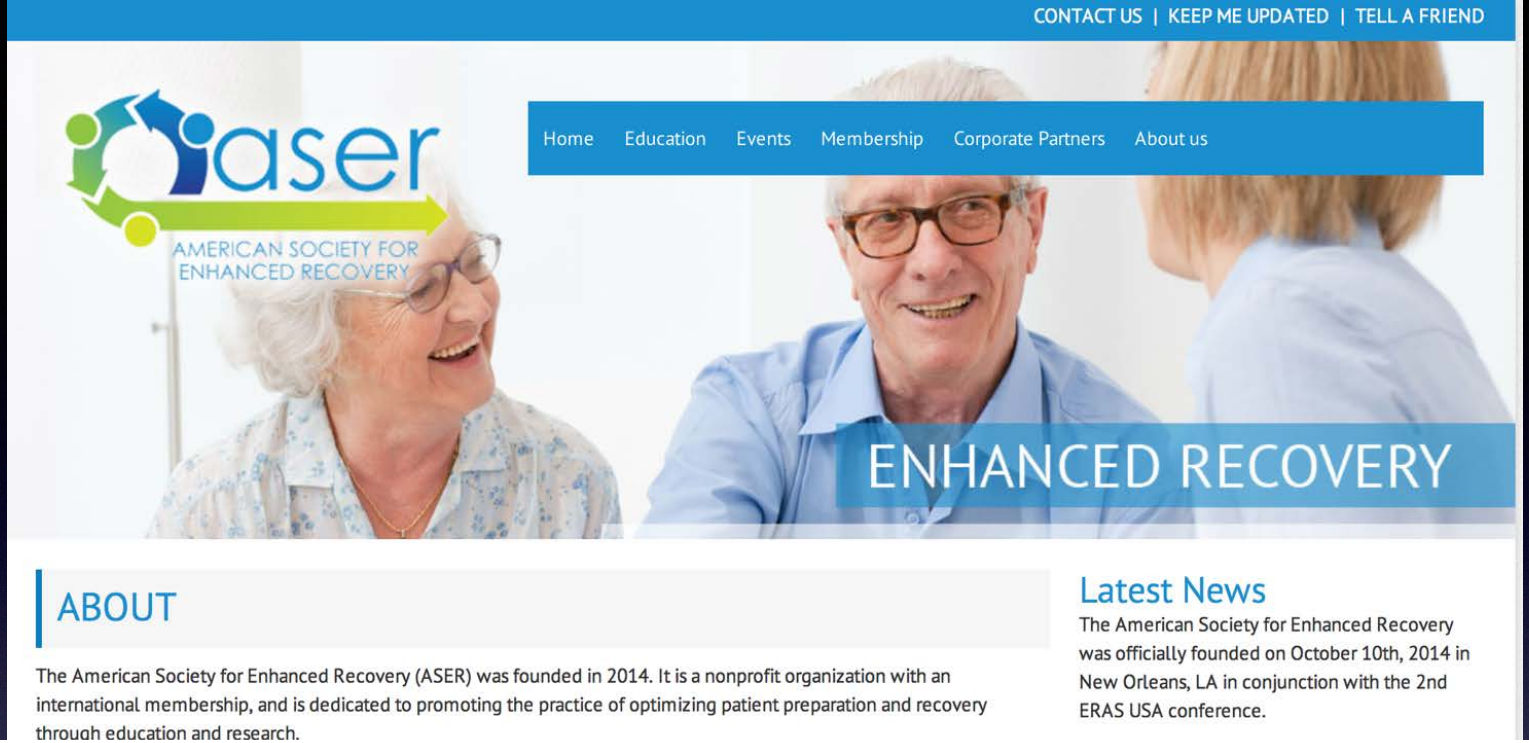
UC innovation grants produce healthy returns

September 17, 2014. Tags: Innovation, Patient care

Report finds return on investment of more than 5 to 1.

- A project at UC Irvine reduced the median length of stay for high-risk abdominal surgery patients by two days, resulting in fewer complications and projected annual savings of $816,000 (Maxime Cannesson).

- The 2012 UC San Diego colorectal postoperative program reduced length of stay by 4.5 days for high-risk surgical patients and 0.9 days for moderate-risk patients, resulting in projected annual savings of $553,000 (Elisabeth McLemore).



ABOUT

The American Society for Enhanced Recovery (ASER) was founded in 2014. It is a nonprofit organization with an international membership, and is dedicated to promoting the practice of optimizing patient preparation and recovery through education and research.

Latest News

The American Society for Enhanced Recovery was officially founded on October 10th, 2014 in New Orleans, LA in conjunction with the 2nd ERAS USA conference.

Mission

To advance the practice of perioperative enhanced recovery, to contribute to its growth and influence, and to foster and encourage research, education, public policies and programs and scientific progress.

Founding members

Tong Joo Gan, MD, MHS, FRCA

Professor and Chairman
Department of Anesthesiology
SUNY at Stony Brook
Stony Brook, NY

Timothy Miller, MD

Assistant Professor of Anesthesiology
Duke University Medical Center
Durham, NC

Julie K. Marosky Thacker, MD, FACS, FASCRS

Assistant Professor, Department of Surgery
Duke University School of Medicine
Medical Director, Evidence Based Perioperative Care, Duke University Hospital
Durham, NC

Roy Soto, MD.

Professor and Residency Program Director
Department of Anesthesiology
Oakland University William Beaumont School of Medicine
Royal Oak, MI

Anthony J. Senagore, MD, MBA

Professor of Surgery
Michigan State University
Vice President of Research and Education
Spectrum Health System
Saginaw, MI

Monty Mythen, MD

Smiths Medical Professor of Anesthesia & Critical Care
University College London
London, England

Conor Delaney, MD, PhD

Professor and Division Chief, Colorectal Surgery
University Hospitals
Case Western Reserve University Medical Center
Cleveland, OH

Liane S. Feldman, MD, FRCS(C), FACS

Professor of Surgery and Chief of the Division of General Surgery
McGill University, Montreal, Quebec

Maxime Cannesson, MD, PhD

Professor of Anesthesiology
Department of Anesthesiology & Perioperative Care
University of California Irvine
Irvine, CA

Critical Success Factors

- Executive and Clinical Champions and Leaders
- Surgeon, anesthestist, nurse, and executive management are essential
- Consensus building during introduction of the ERAS program
- Continuous, rolling education of staff, junior doctors and other members
- Value of feedback to clinical teams
- Testing on a small scale
- ERAS program will fail without team work
- Measurements and audit are essential

UC-Wide VTE Prevention Effort Progress and Lessons Learned

Greg Maynard MD, MS, MHM
CQO, UC Davis Medical Center

UC Collaborative to Reduce HA VTE
Project Leaders

UCSD

Greg Maynard, Ian Jenkins

UC Irvine

Alpesh Amin

UC San Francisco

Andy Auerbach, R Khanna

UC Davis

Richard White, Greg Maynard (again)

UCLA

Nasim Afsarmanesh

Specific Aims for adult medical / surgical / ortho / oncology population

Objectives:

Maximize the quality of VTE prophylaxis

Reduce incidence of HA VTE at UC hospitals by at least 20%.

1. Build a UC wide VTE QI collaborative
2. Measure the quality of VTEP and VTE outcomes
3. Intervene to improve quality of VTEP
4. Cooperatively collect data on HA VTE and post discharge VTE, serve as focal point for related research / QI efforts.

Collaborative infrastructure

- Interactive webinars with screen sharing
- E-mail
- Dropbox for sharing of non-PHI related tools
- Common project management tools
- Common measures with REDCap and UHC data

- Emulate Society of Hospital Medicine “Mentored Implementation” programs

Measures

- Adequacy of VTE prophylaxis and prophy patterns
  - Audits of 30 non-ICU and 15 ICU patients / month
- HA VTE rates – UHC data, including patients readmitted within 30 days of prior hospitalization
  - Surg vs Med, Cancer related vs non-Cancer
  - DVT vs PE
  - Calf vs more proximal DVT
- Concurrent risk assessment / measures aka measure-vention
- Adherence to prescribed prophylaxis
- Order set utilization, TJC core measures, etc.

Interventions

- Standardized VTE risk assessment embedded in order sets
  - Common principles, but not identical at each site
- Active surveillance / measure-vention
- Education, audit and feedback
- Measure / improve adherence to mechanical prophylaxis
- Improve coding and Doppler / US inconsistencies

- Innovations at each site
  - Optimizing use of PICC lines
  - Dynamic risk assessment at UC Davis with Moore Foundation help
  - Activity / mobility
  - RCA driven interventions / insights

RESULTS

Total - CY 2011 vs 2014

Calendar Year	2011	2014
Adult Inpatients	73,941	79,565
Leg DVT and PE	667 (363 PE, 304 DVT)	546 (309 PE, 237 DVT)
% w/ VTE	0.90	0.69

Adequate VTE prophylaxis reached 89% by 2014

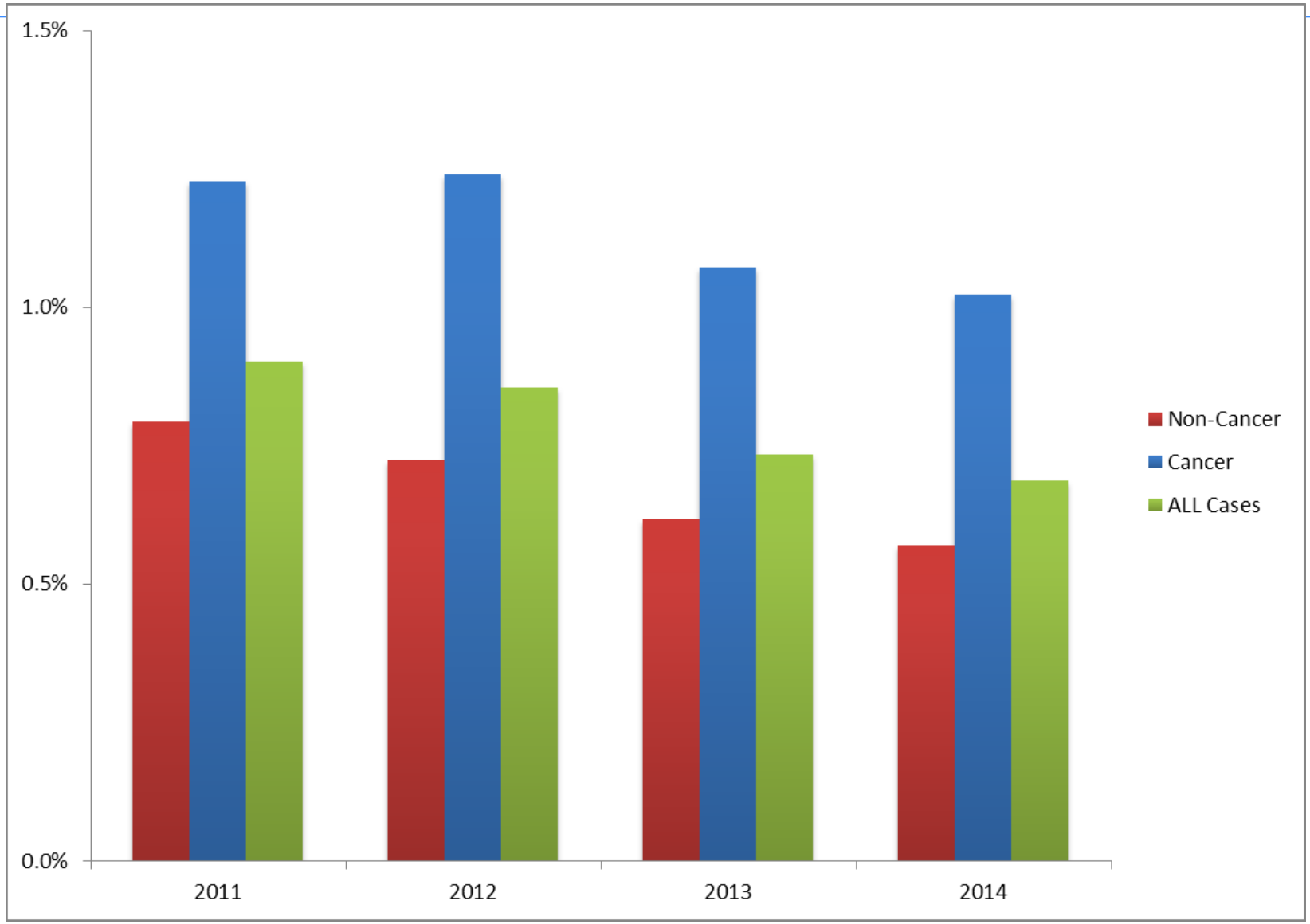
23.9% relative reduction in leg DVT / PE in 2014 vs 2011

Equivalent to averting 81 PE and 89 DVT per year

Annual cost savings $2 million / year

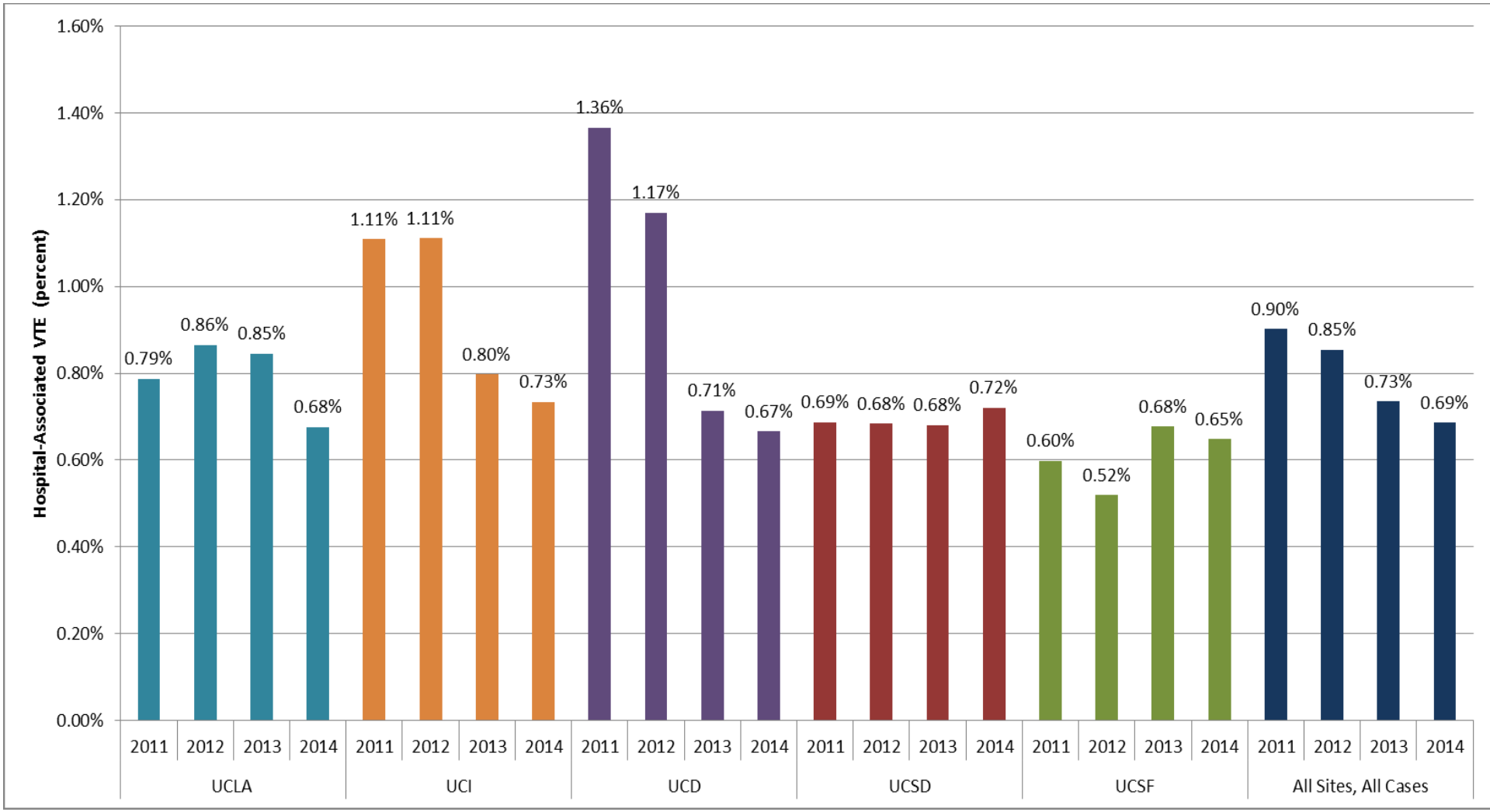
Cancer is a dominant risk factor

Journal of Hospital Medicine Vol 11 S2 December 2016



Variable baseline and improvement

Journal of Hospital Medicine Vol 11 S2 December 2016



UC Wide DVT Prevention Collaborative Successes

- Successful in preventing leg DVT / PE
- Designated CDC HA-VTE Prevention Champion
- Three publications
- Results sustainable
- Methods shown portable to other large health systems
- Sustainable thus far

Challenges

- Variable baseline and results
- Medical Patients
- Measures
- Five cooperating hospitals, different systems
- Competing health system (Dignity) achieved even better results across 9 medical centers (more efficiently than we did)

University of California CHQI Colorectal Collaborative

Michael J. Stamos, MD FACS FASCRS
Interim Dean
Professor of Surgery
John E. Connolly Endowed Chair
University of California, Irvine School of Medicine

UC Irvine Health

Background

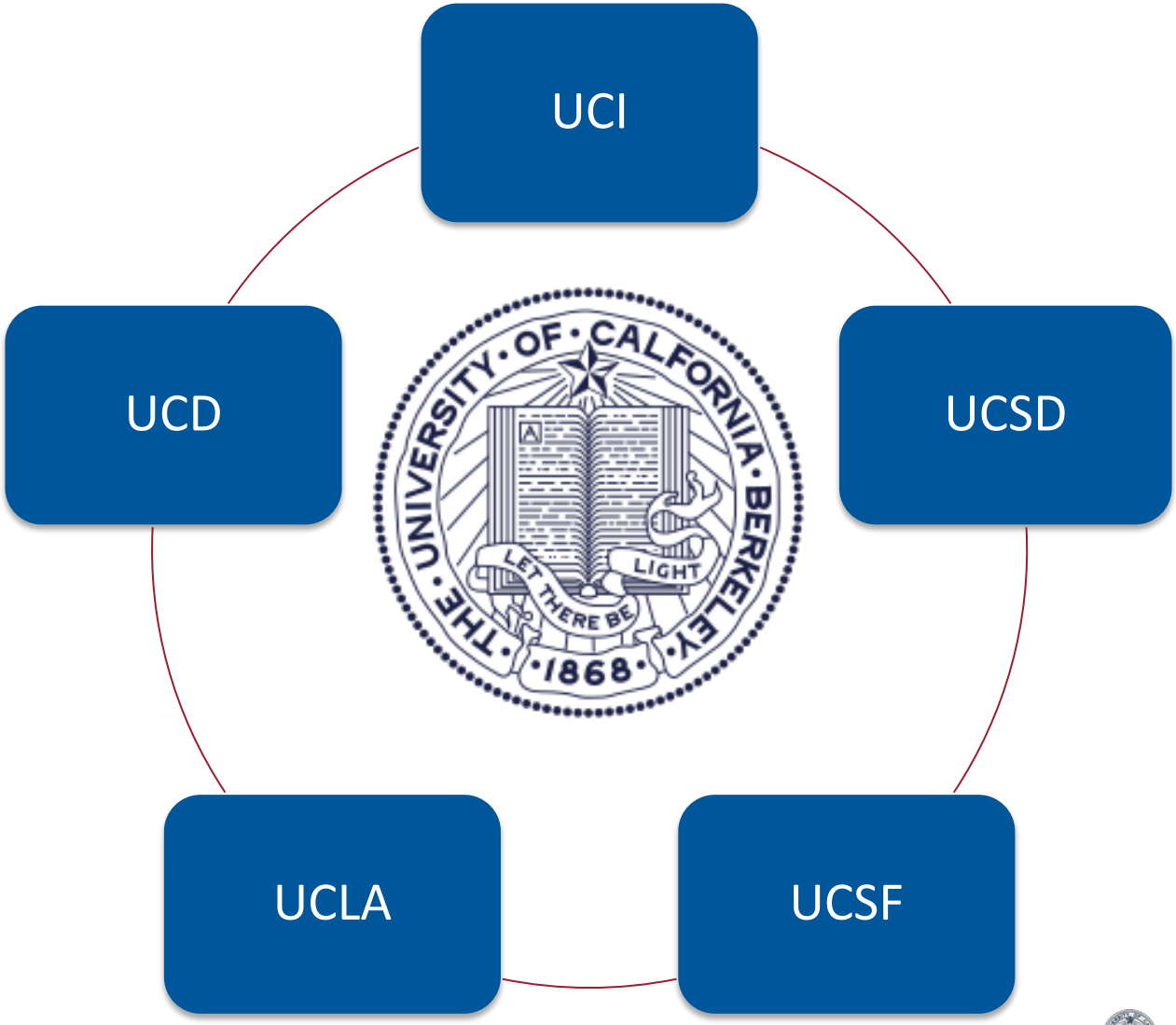
- Colorectal surgery (CRS) is commonly performed for benign and malignant disorders, and carries significant morbidity and mortality.
- The University of California (UC) Colon & Rectal Surgery Collaborative comprises the CRS services of the five UC medical campuses.
- Significant variation was seen in all the outcomes of CRS across the UCs, implying opportunity to adopt “best practices” that could improve the overall quality of CRS care at UC health.

Purpose

- Collaborative of the 5 UC Health campuses to target delivery of care at the preoperative, intraoperative and postoperative levels by adopting new colorectal care bundles and patient education processes

- Improve outcomes(NSQIP) and patient satisfaction-Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)]

UC Health System



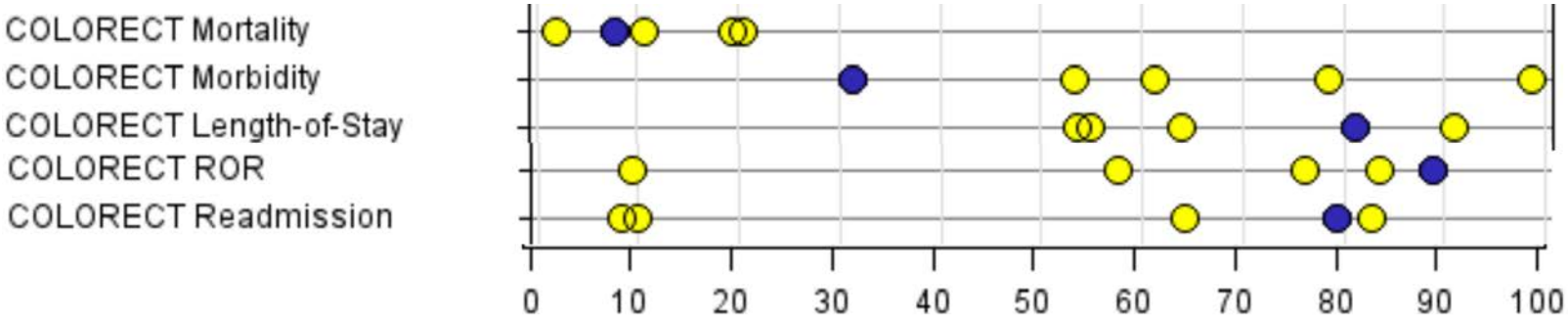
UC Irvine Health

Data collection from American College of Surgeons National Quality Improvement Program (NSQIP)

- Nationally validated risk-adjusted outcomes-based program to measure quality of surgical care
- Creation of Collaborative Agreement between the 5 sites to collect aggregate UC Colorectal Surgical Data
- Data collection performed by each site's NSQIP Site Coordinator(s) (SCR)
- SCRs to submit colectomy/proctectomy data quarterly to UCI

UC CHQI Percentile Rank of Collaborative Hospitals (UCI)

Baseline 07/01/2013-06/30/2014



UCI

Other UCs

UC Irvine Health

Key Objectives

- Improve quality of health care delivered to high-risk CRS patients
- Early risk-assessment and improved communication with patients
- Anticipation and prevention of readmission following surgery

Study time line

HCAHPS

➢ Preoperative UC education videos

- Educating patients about their planned procedures
- Increasing the patients' knowledge level, reducing their anxiety, and improving their self-care

Post discharge questions

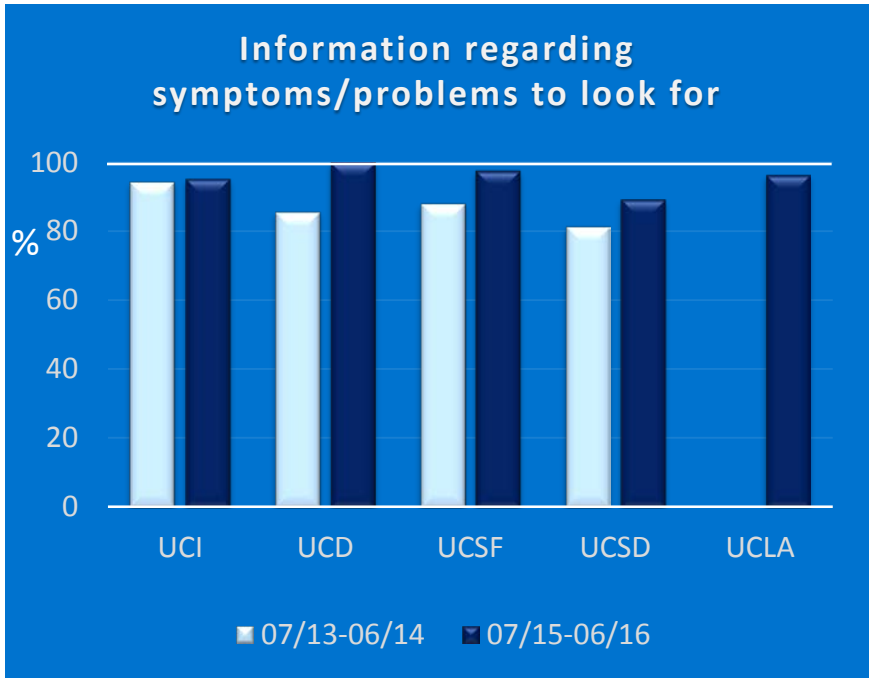
1. “During this hospital stay, how often did doctors explain things in a way you could understand?”

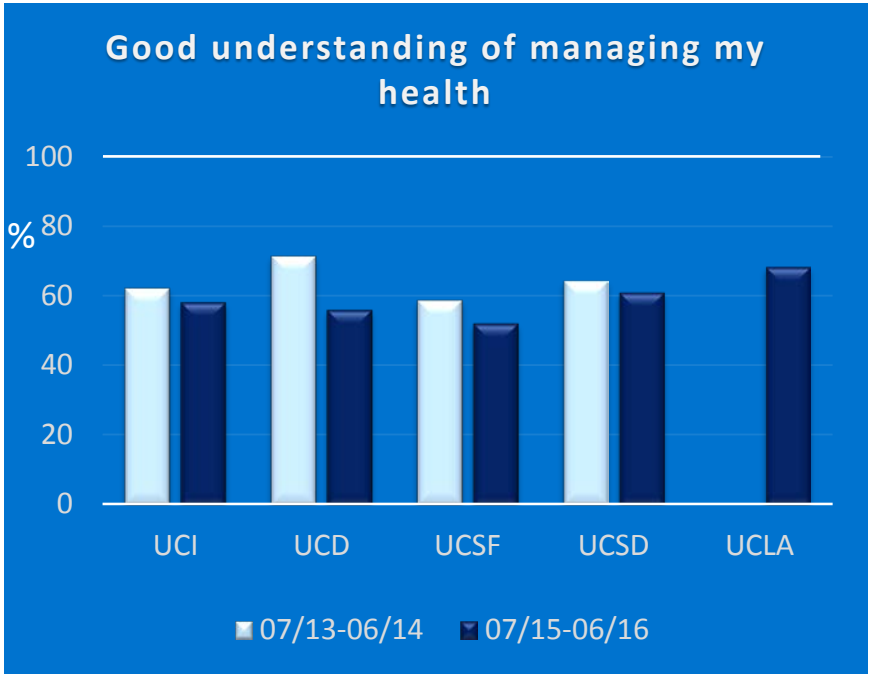
2. “During this hospital stay, did you get information in writing about what symptoms or health problems to look out for after you left the hospital?”

3. “During this hospital stay, staff took your preferences into account in deciding what your health care needs would be when you left”

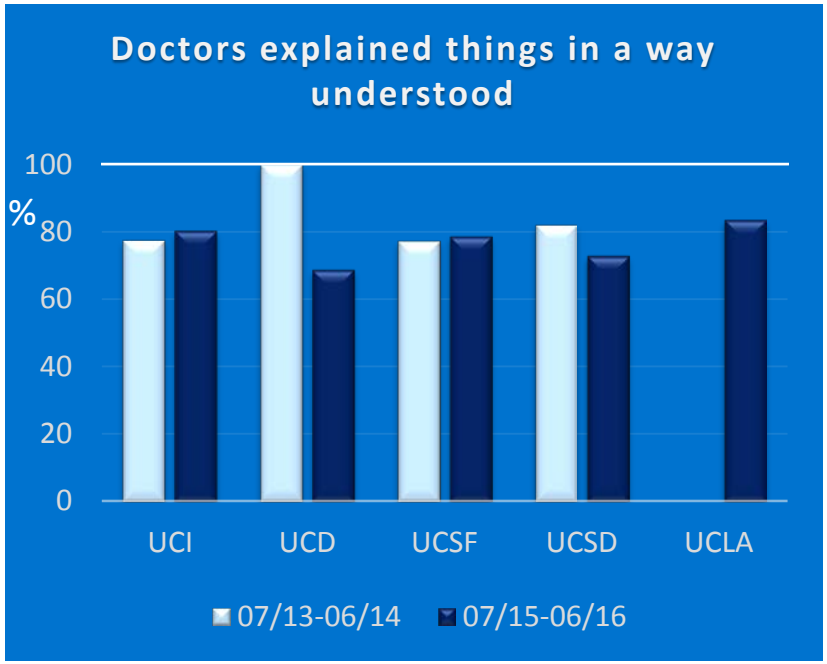
4. “When I left the hospital, I had a good understanding of the things I was responsible for in managing my health (Assesses recovery post-discharge)”

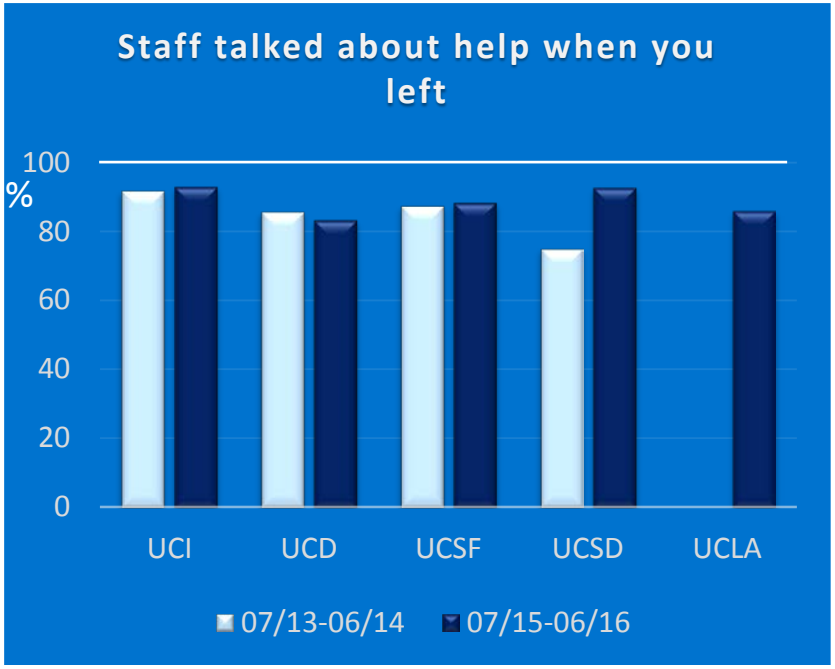
Patient Satisfaction Results





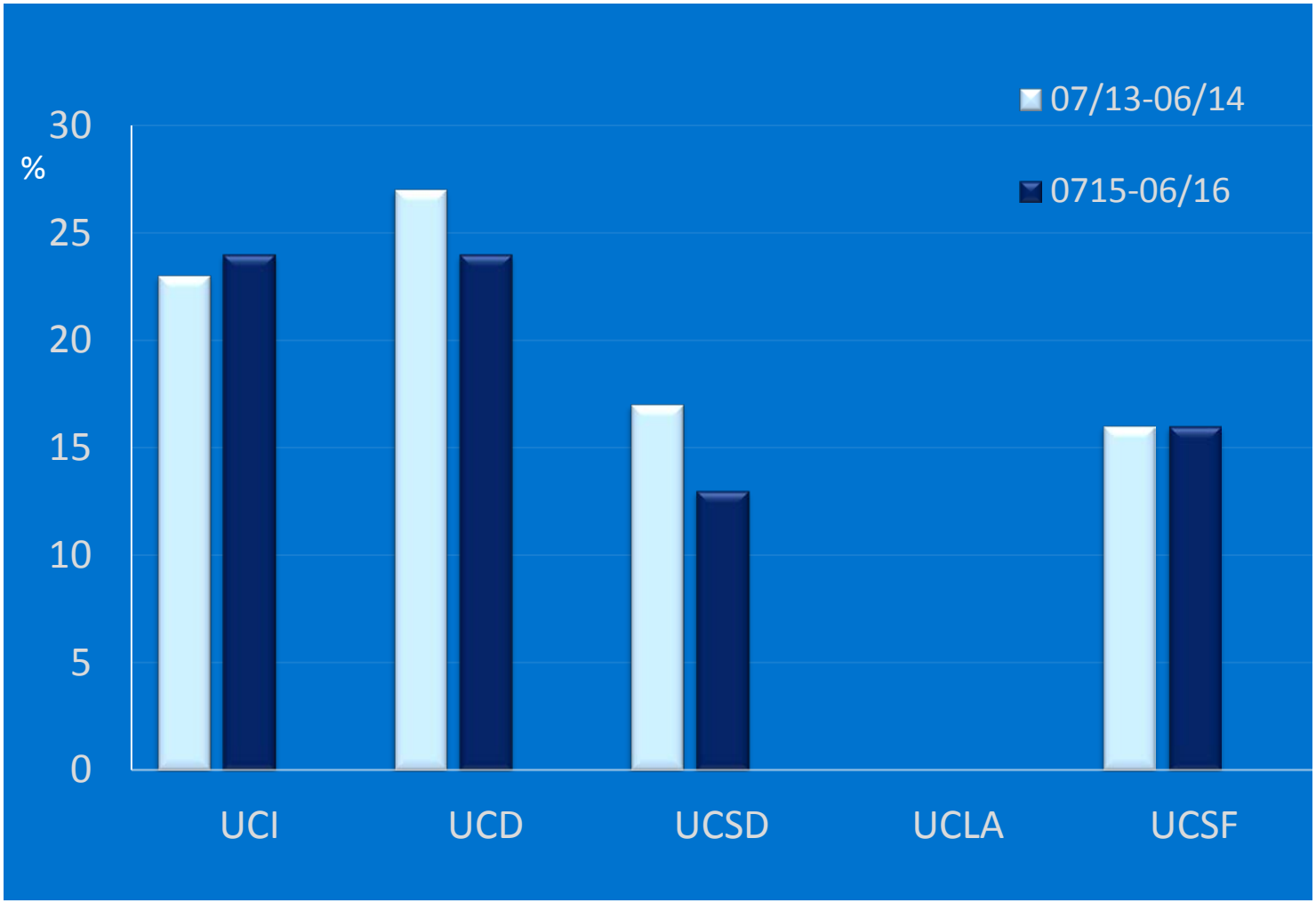
UC Irvine Health





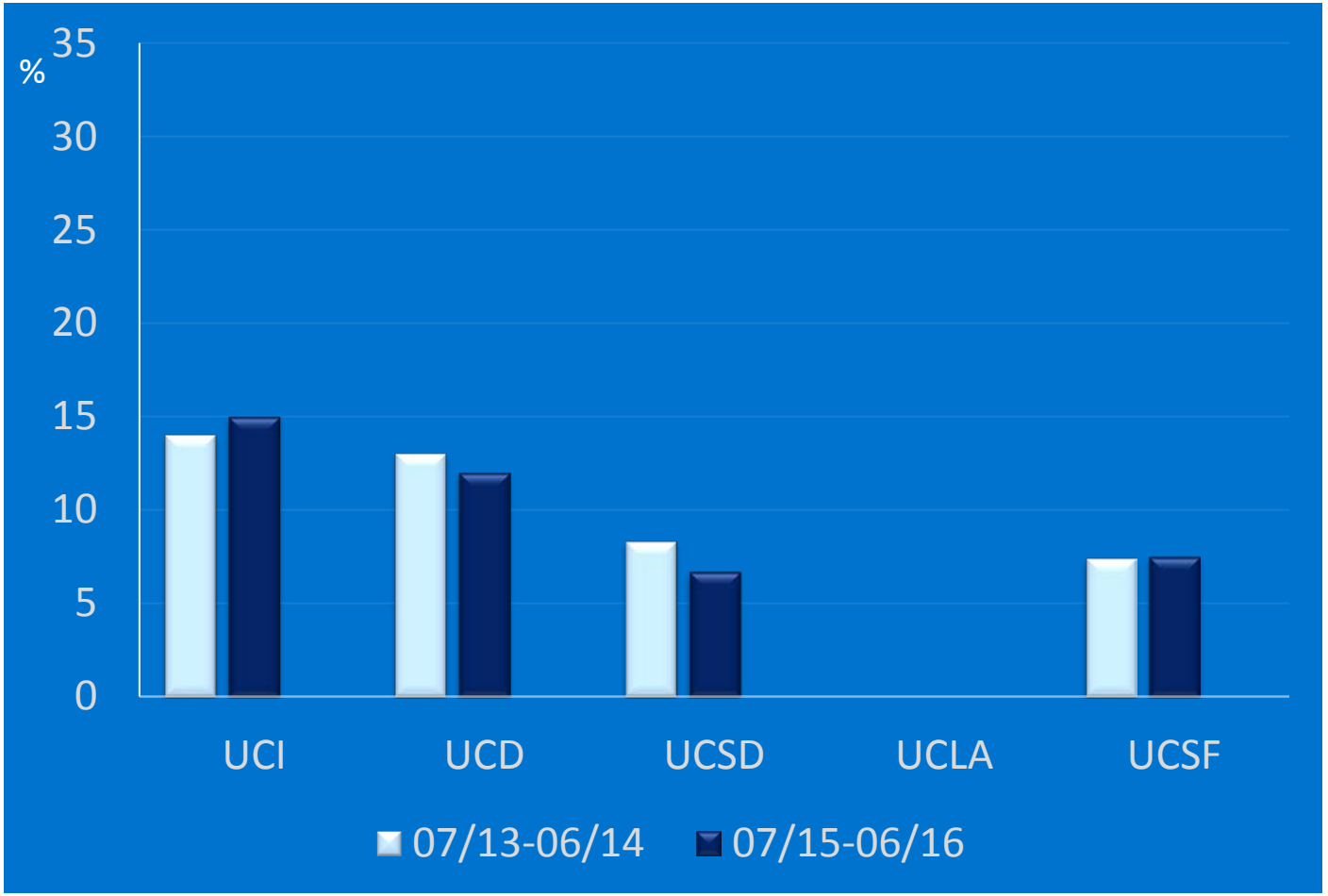
UC Irvine Health

NSQIP Post op Outcomes
Overall Morbidity



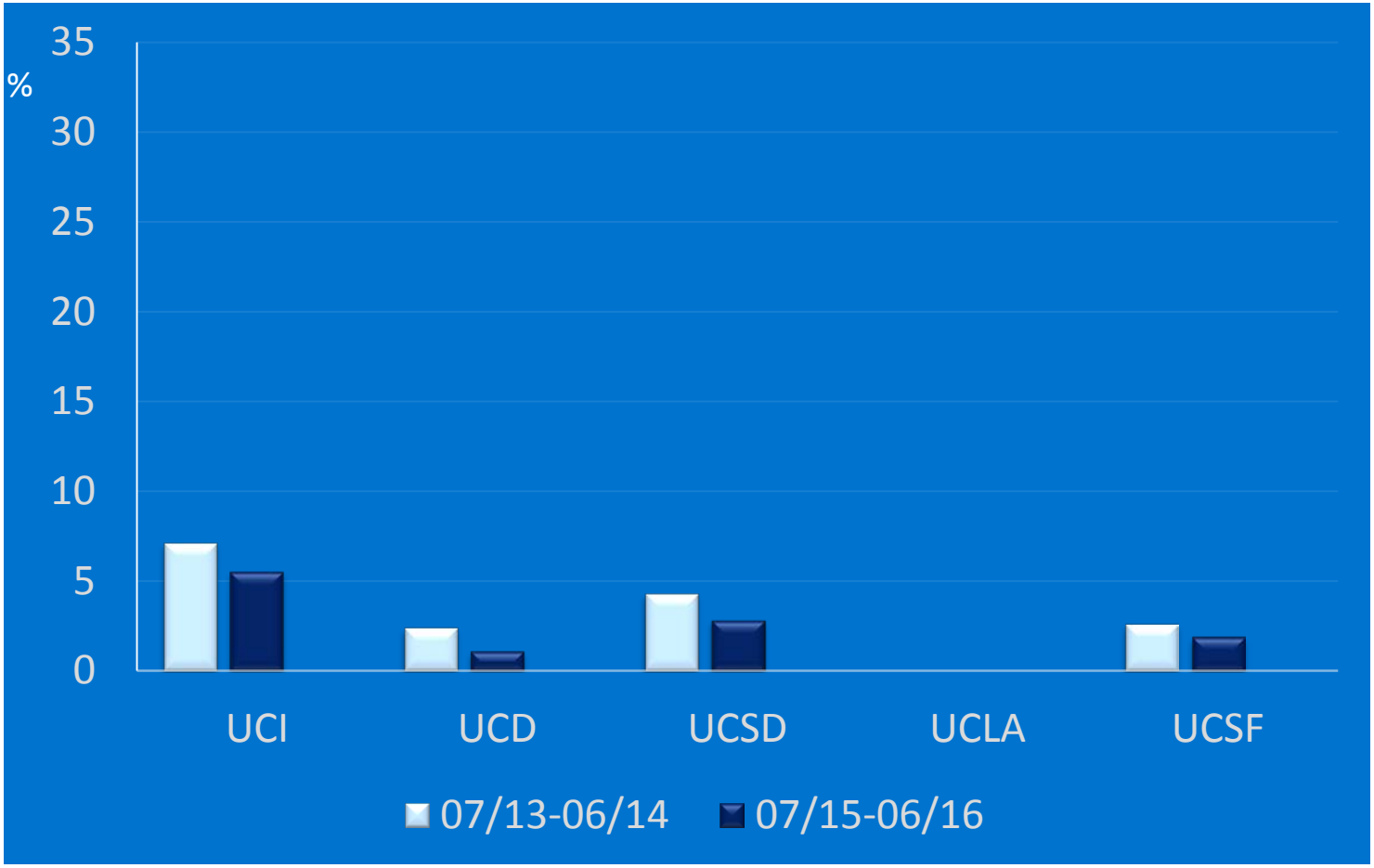
UC Irvine Health

Readmission Within 30 Days



UC Irvine Health

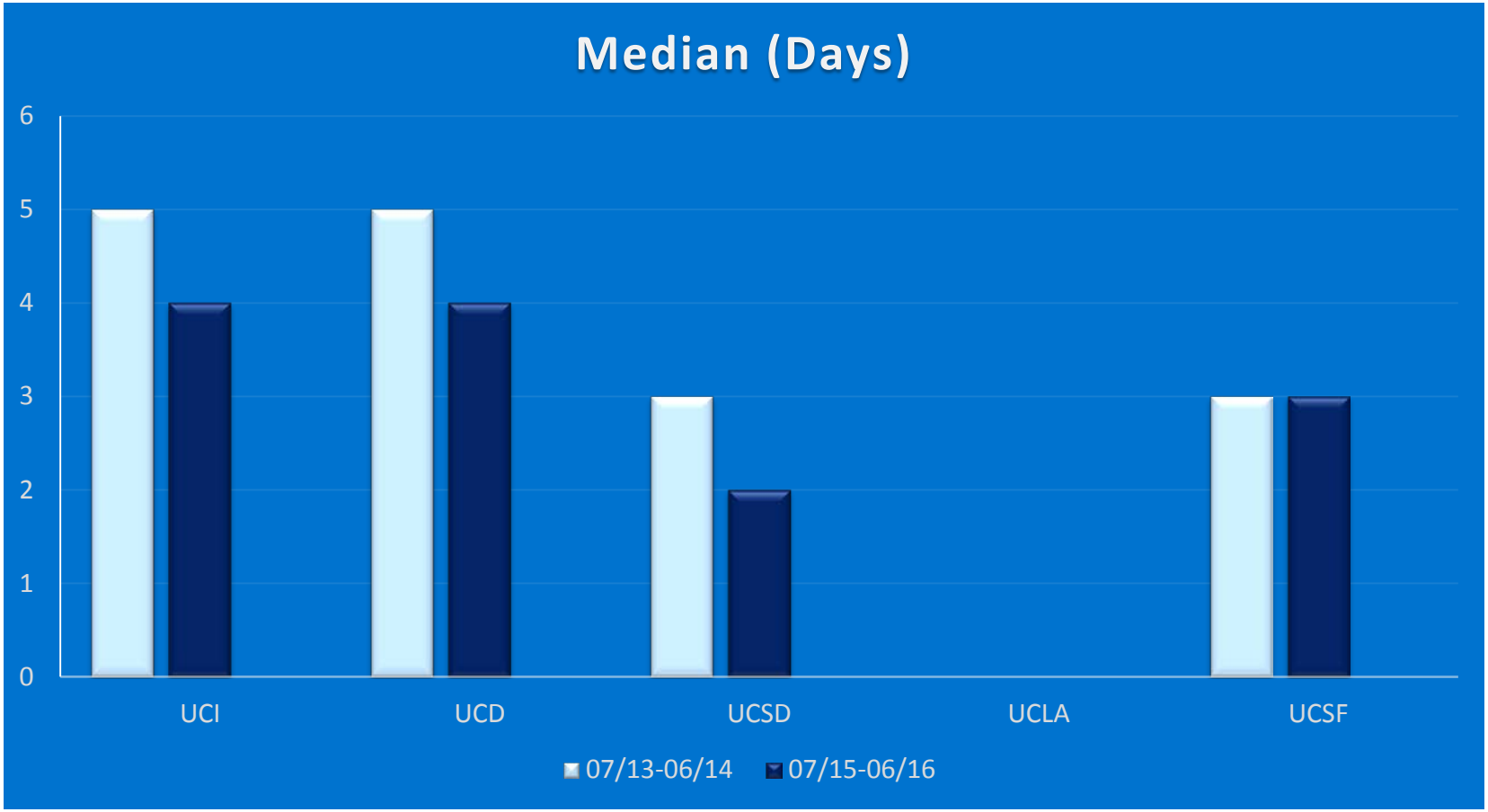
Return to Operating Room Within 30 Days



UC Irvine Health

NSQIP Post Operative Outcomes

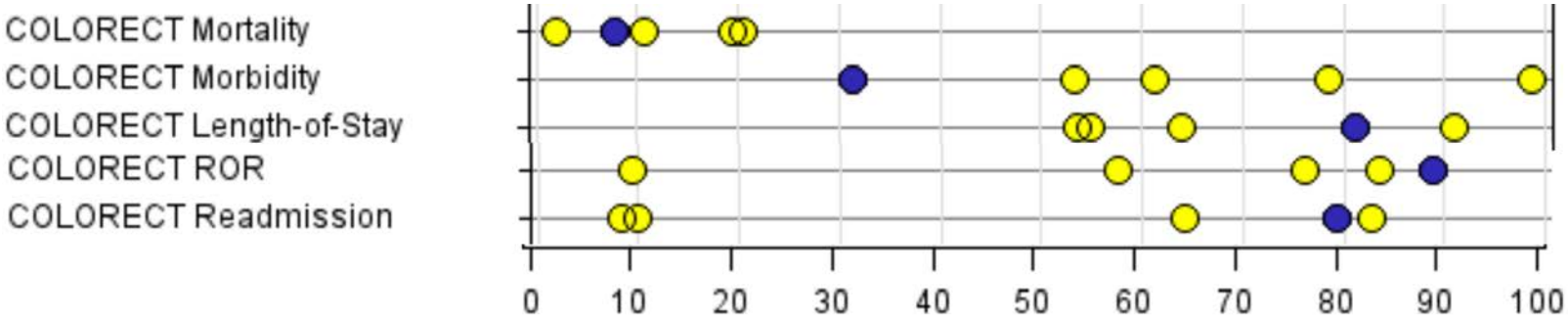
Length of Stay



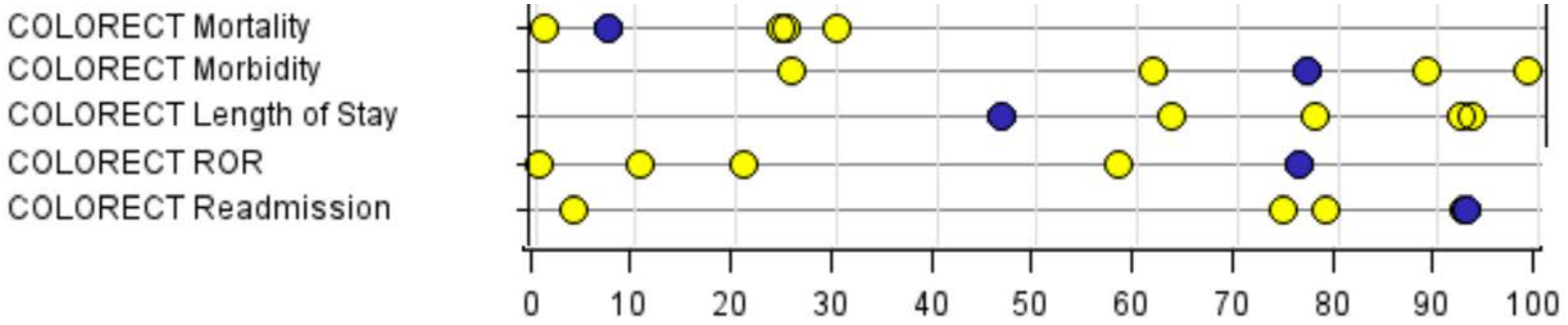
UC Irvine Health

UC CHQI Percentile Rank of Collaborative Hospitals (UCI)

Baseline 07/01/2013-06/30/2014



Full Intervention 07/01/2015-06/30/2016



UCI Other UCs

UC Irvine Health

Conclusion

Why did we not move the dial further?

- High baseline performance/inability to decipher reasons for variability
- Population differences and imperfect risk adjustment
- Changes in division leadership
- Lack of institutional commitment and inadequate support
- Bandwidth

Conclusion

Upside?

- Improvement in LOS and patient satisfaction
- Sharing of best practices
- Collaborative interactions
- Adoption of ERAS
- Interest in clinical research

Thank you

UC Irvine Health