Cal Hospital Compare/ Cal Quality Care Board of Directors Meeting

WEDNESDAY, SEPTEMBER 29, 2021

10:00AM PT

Proposed Agenda

- Welcome and Call to Order
- Cal Quality Care
- General Updates
- Measurement Changes
- Healthy Places Index
- Business Plan
- Wrap Up

Cal Hospital Compare & Cal Quality Care
Board of Directors Meeting Agenda
Wednesday, September 29, 2021, 10:00am – 12:30pm PT

Webinar Information
Webinar link: https://zoom.us/j/4437895416 | Phone: 1-669-900-6833
Access code: Code: 443 789 5416 | Passcode: **cyno#**

Time	Agenda Item	Presenters
10:00-10:05 *5 min.*	Welcome and call to order - Approval of past meeting summary	- **Ken Stuart** Board Chair - **Bruce Spurlock** Executive Director, CHC & CQC
10:05–10:25 *20 min.*	Cal Quality Care - Selecting CQC measures - Pros and cons of the decision making framework - Discuss LTAC feedback - Leveraging website design for consumer engagement	- **Debra Bakerjian** Director, UC Davis Health
10:25–10:35 *10 min.*	General Updates - A quantitative study of CA hospitals - 2021 Maternity Honor Roll announcement	- **Alex Stack** Director, CHC
10:35-10:50 *15 min.*	Measurement Changes	- **Mahil Senathirajah** Senior Director, IBM Watson Health
10:50-11:30 *40 min.*	Healthy Places Index	- **Mahil Senathirajah** Senior Director, IBM Watson Health
11:30-11:40 *10 min.*	Business Plan - Financial report	- **Bruce Spurlock** Executive Director, CHC
11:40–11:45 *5 min.*	Adjourn – Next meeting: Friday, October 29, 2021, from 10:00am to 12:30pm PST	- **Ken Stuart** Board Chair

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Cal Hospital Compare & Cal Quality Care
Board of Directors Meeting Summary
Wednesday, August 4, 2021, 10:00am – 12:30pm PT

Webinar Information
Webinar link: https://zoom.us/j/4437895416 | Phone: 1-669-900-6833
Access code: Code: 443 789 5416 | Passcode: **cyno#**

Attendees:

Summary of Discussion:

Time	Agenda Item
Welcome & call to order 10:00-10:05 *5 min.*	• Approval of past meeting summary • Introduction of Terry Hill, newest member

Organizational updates
 	
10:05-10:35
30 min.
	• Introductions –
	  ○ UC Davis Team
	  ○ Shanice Mzavas, Measurement Project Manager
	• Summary minutes – motion was approved
	• BOD Nominee – Gretchen Alima, position was approved
	• CalHospitalCompare.org data refresh
	  ○ Website is updated with most recent HAI information and new maternity measures
	• Impact of COVID-19 on Hospitals: Qualitative Study Planned
	  ○ Quantitative analysis is done, now moving on to qualitative methods
	• Integrating Cal Quality Care – UC Davis team is our data partner
	• Meeting Cadence
	  ○ Moving to get CQC website up by the end of the year
	  ○ Having monthly Cal Quality Care (CQC) TAC calls
	  ○ 2021 - October BOD meeting to focus on CQC activities; what might influence nursing home honor roll; doodle poll to be sent out for Oct. call
	  ○ 2022 – will meet quarterly, planning on two in-person meetings

Cal Hospital Compare
 	
10:35-11:20
45 min.
	using Healthy Places Index to identify hospitals at greatest social risk
	• Methodology – what drives HPI, data limitations
	  ○ Driving HPI – HPI weighted on an index
	  • Economic
	  • Education
	  • Healthcare
	  • Housing
	  • Neighborhood
	  • Clean environment
	  • Social
	  • Transportation
	  ○ Limitations: age of data and how we can utilize different indices; currently comparing it to the CDC's Social Vulnerability Index

	(SVI) which also has a recent update with minority info; how to quantify zip codes in relation to catchment areas; assuming this is a linear relationship
	• Distribution
	  ○ Lowest quartile = higher social need
	  ○ Feedback: data matches that market; need more data for catchment areas; hospital service areas experience wide variation
	• Correlation – less social risk is related to a higher measure
	• Focus on breastfeeding, sepsis, readmission & VBAC routinely available
	  ○ Breastfeeding: high performing hospitals in disadvantaged community's suggest a higher level of communication; a driver of performance is hospital influence; cultural beliefs are also important
	  ○ Readmissions: variation within quartiles; hospitals addressing social need could drive readmission rate
	• TAC discussion
	• Next steps: Validation process; looking beyond HPI; doing background research on SVI

Cal Quality Care
 	
11:20–12:03
43 min.
	• Recruiting for Cal Quality Care's Technical Advisory Committee
	• Scanning the measurement landscape
	  ○ SNF: Measures reflect that California has differences in standards; waivers are allowed;
	  ○ Legacy CQC Website Measures: 4 domains; first responsibility is to identify measures that is valuable to consumers; some measures can go on the website and others can be put into a report that can be distributed to other stakeholders
	  ○ Framework for measure selection: Overall CQC composite rating, nursing home watchlists, accreditation and how do we track it; categorizing residents
	  ▪ Staffing
	  ▪ Quality of Care
	  ▪ Quality of Facility
	  ▪ Cost of care
	  ○ Future Measures: COVID-19 infection and mortality; days of compliance;
	• Public reporting, what is it that consumers needed; goal is to provided added value; access to different providers; patient engagement, learning how to patients and family care givers are engaged in the entire process; how facilities and patients communicate with each other; staff continuing education; CAP survey for nursing homes; type of ownership and the predictive of challenges; cleanliness of
	• Development of Decision-Making Framework
	• Importance of CQC Website: address aging population; create a task force on aging preparedness
	• Timeline & deliverables – downloading and cleaning data; data measure delivered by December 2021

Business Plan & Financials	• Financial report

12:03-12:12 *9min.*	○ On target ○ Budget – meeting and travel to support people traveling to in-person meeting ○ possibly add a line item that is consumer facing • Timeline & Deliverables ○ Going live and having honor roll in December 2021
Next Meeting/Meeting Adjournment 12:12–12:03 *1min.*	The meeting formally adjourned at 12:03pm PST • Next meeting: Wednesday, September 29, 2021, from 10:00am to 12:30pm PST ○ Doodle poll going out for October BOD call (end of month)

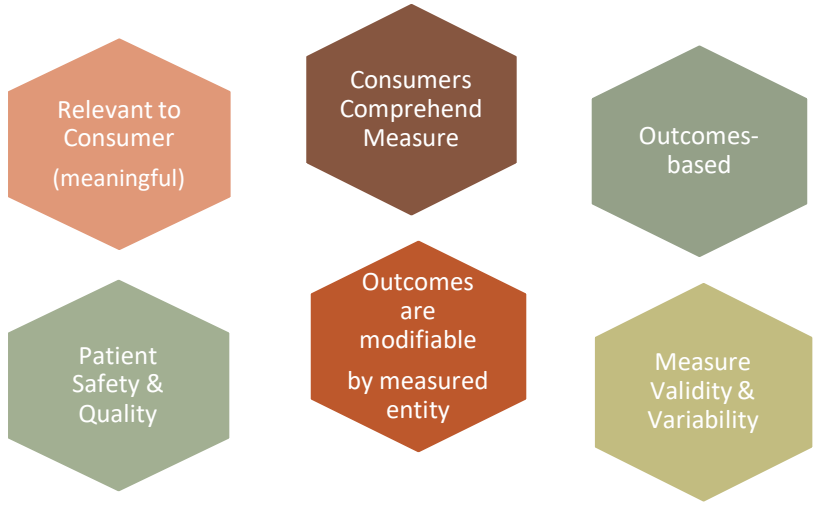
Cal Quality Care

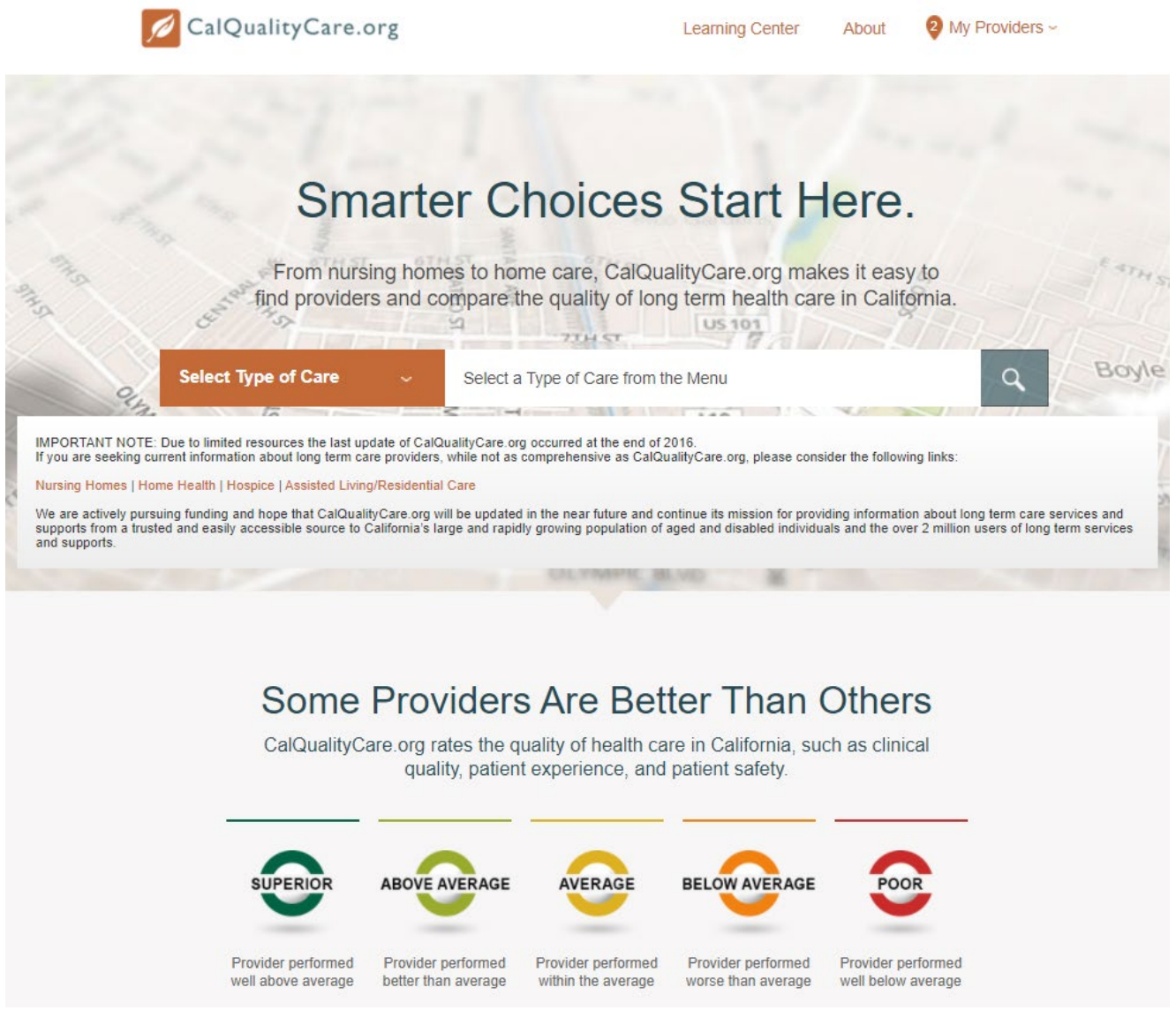
CQC Measure Selection Update

5 Domains on Legacy CQC Site

1. Overview – NH Characteristics
2. Quality of Care – CMS-based quality metrics
3. Quality of Facilities – Deficiencies/complaints
4. Staffing – Hours, turnover, wages
5. Cost & Finance - Expenditures, net income/loss, payment sources, operating margin

Criteria for Selecting Measures





http://cqc.hyperstaging.us/provider/?id=100000057&n=Eskaton+Care+Center+-+Greenhaven#t=nursinghome&q=95823

Cal Quality Care

Website Review

Summary of Domain Discussions

Overview: LTAC consensus for CMS star rating and "special focus" status
Most LTAC members favored resident characteristics (age, gender, race, "special needs")

Quality of Care: LTAC consensus for majority of legacy quality metrics
Concerns with gaming self-reported metrics
Strong interest in adding COVID vaccination rates

Quality of Facility: LTAC consensus for concept of state and federal inspections and complaints
Questions about value of individual category breakdowns
Questions about deficiency scope, severity and counts
Concern about open/closed investigations; process delays
UCD will present another option for balancing these

Summary of Domain Discussions

Staffing: LTAC consensus for reporting staff hours and turnover
Some LTAC members favor reporting staff wages/benefits (UCD does not)
Discussion about how this category should be scored

Cost & Finance: Variables will be reviewed at LTAC Oct. Meeting (e.g., expenditures, operating income/margin)
Some LTAC members favor reporting payer mix (Medicare days)
UCD recommends holding OTHER measures for future release after in-depth data review
(Concerns with wage variation by region, case mix, impact of ownership structure/LOS...
Is it fair, accurate, valuable to consumer decision making?)

Scope & Severity

Level 4 Immediate jeopardy to resident health or safety CMPs Required!	**J** POC Category 3 Required Cat. 1 & 2 Optional	**K** POC Category 3 Required Cat. 1 & 2 Optional	**L** POC Category 3 Required Cat. 1 & 2 Optional
Level 3 Actual harm that is not immediate	**G** POC Category 2 Required Cat. 1 Optional	**H** POC Category 2 Required Cat. 1 Optional	**I** POC Category 2 Required Cat. 1 & Temporary Management Optional
Level 2 No actual harm with potential for more than minimal harm that is not immediate jeopardy	**D** POC Category 1 Required* Cat. 2 Optional	**E** POC Category 1 Required* Cat. 2 Optional	**F** POC Category 2 Required* Cat. 1 Optional
Level 1 No actual harm with potential for minimal harm	**A** No POC No Remedies Not on 2567	**B** POC No Remedies	**C** POC No Remedies
	Isolated	**Pattern**	**Widespread**

*Required only when imposing remedy/remedies instead of or in addition to termination

Substantial Compliance

SQC – Any deficiency in § 483.13, § 483.15, or § 483.25 that constitutes: immediate jeopardy; pattern or widespread actual harm that is not immediate jeopardy; or no actual harm with widespread potential for more than minimal harm that is not immediate jeopardy

Next Steps for CQC

UCD investigating

- Case mix (for adjustment)
- Scoring method for three domains (quality of care, quality of facilities, staffing)
- Distributions and plausibility of data

Tentative October Board Meeting Agenda

- Review/approve LTAC recommendations across 5 domains

Tentative November Board Meeting Agenda

- Finish review of LTAC recommendations
- Approve Scoring method(s)
- Approve Honor Roll measure(s) and scoring

2021 Timeline

Deliverables/ Meetings	2021				
	Aug	Sept	Oct	Nov	Dec
Website Refresh					Go Live
Annual Nursing Home Honor Roll					X
CQC TAC Meeting	Aug 24	Sept 15	Oct 15	Nov 19	
BOD	Aug 4	Sept 29	Oct 29		Dec 1

2022 Timeline

Deliverables/ Meetings	2022					
	Jan	Feb	Mar	Apr	May	Jun
Website Refresh						Go Live
CQC TAC Meeting		Feb 24		Apr 14		
BOD			Mar 17			Jun 21

General Updates

A QUANTITATIVE STUDY OF CALIFORNIA HOSPITALS

Understanding the factors associated with hospital stress and response during the 2020 winter surge in COVID-19 cases

Maternity Honor Roll Announcement

California Health and Human Services Agency to announce honor roll hospitals late Sept. 2021.

Cal Hospital Compare

Measurement Changes

CMS Final Rule for FY 2022

- On August 2, CMS issued Final Rule for Fiscal Year 2022
- Fact Sheet: https://www.cms.gov/newsroom/fact-sheets/fiscal-year-fy-2022-medicare-hospital-inpatient-prospective-payment-system-ipps-and-long-term-care-0

New Measures

- "Maternal Morbidity Structural Measure", shortened CY 2021
- "COVID-19 Vaccination Coverage Among Health Care Personnel" measure, CY 2021 (Oct – Dec)
- "Hybrid Hospital-Wide All-Cause Risk Standardized Mortality" measure
  - Voluntary reporting period: July 2022 to June 2023
  - Mandatory reporting period: July 2023 to June 2024
- Medication Adverse Event Measures (eCQMs)
  - Hospital Harm – Severe Hypoglycemia (NQF #3503e)
  - Hospital Harm – Severe Hyperglycemia (NQF #3533e)

…CMS Final Rule for FY 2022

Removed Measures

- Exclusive Breast Milk Feeding (NQF #0480)
  - "because of the availability of a measure that is more strongly associated with patient outcomes" (i.e., the Maternal Morbidity Structural Measure)
- Admit Decision Time to ED Departure Time (NQF #0497)
  - "costs associated with this measure outweigh the benefits"
- Discharged on Statin Medication eCQM (NQF #0439)
  - No specific reason provided, "identified as appropriate for removal"

…CMS Final Rule for FY 2022

CMS Hospital Compare Reporting Caveat

- "CMS will also calculate measure rates for all measures and publicly report those rates where feasible and appropriately caveated"

Measure Suppression

- CMS also identified "Measure Suppression" policies for the Hospital Readmission Reduction Program (HRRP), Hospital Acquired Condition (HAC) Program and Hospital Value-Based Purchasing (VBP) program
- See Appendix A for details

CMS Final Rule: Focus on Equity

Excerpt from Fact Sheet:

"Closing the Health Equity Gap in CMS Quality Programs

In the final rule, CMS sought stakeholder input, via a request for information (RFI), on ideas to make reporting of health disparities based on social risk factors and race and ethnicity more comprehensive and actionable for hospitals, providers, and patients. CMS sought comment from stakeholders on future potential additional stratification of quality measure results by race, Medicare/Medicaid dual eligible status, disability status, LGBTQ+, and socioeconomic status.

CMS sought comment from stakeholders on the possible collection of a minimum set of demographic data elements by hospitals at the time of admission, and using electronic data definitions to permit nationwide, interoperable health information exchange, for the purposes of incorporating into measure specifications and other data collection efforts relating to quality.

CMS also sought comment on the potential development of a health equity score measure modeled off the Health Equity Summary Score applied to Medicare Advantage contracts/plans' data, but adapted to the context of risk-adjusted hospital outcome measures and potentially other hospital quality measures used in CMS programs. CMS received many comments in response to this RFI, reflecting the importance of these policies. We will consider this input carefully in developing future policies."

Healthy Places Index

Social Needs Index – Analytic Steps

Overall Goal: Develop and evaluate the use of a hospital-level index of social need

1. Compare methodology of most commonly used indices:
   - **California Healthy Places Index (HPI)**: Public Health Alliance of Southern California
   - **Social Vulnerability Index (SVI) :** Centers for Disease Control
   - **Area Deprivation Index (ADI):** Health Resources and Services Administration (HRSA), now maintained by University of Wisconsin
2. Develop methodology to create hospital-level index
   - Based on population served by hospital; not geographic location/market area in which hospital resides (e.g., Dartmouth Atlas Hospital Service Areas)
3. Generate hospital-level index scores based on 1) CMS Medicare data and 2) OSHPD All Payer data – compare results
4. Do SVI and HPI produce similar results?

…Social Needs Index – Analytic Steps

5. Which measures are most impacted by social need?
6. What type of hospitals have high social needs?
7. Determine if more actionable information can be developed by examining the components of indices
8. Identify best social needs index to use in CalHospitalCompare
9. Best Practices: Identify hospitals that exhibit high performance in serving populations with high social risk around specific measures

Overall Findings To-Date

- It's possible to create a hospital-level index based on the (estimated) social needs of the patients served by hospital (as opposed to general market are social needs)
- Medicare and All Payer versions are very similar
- The HPI and SVI produce consistent results
- Some measures are more highly impact by social needs than others

No "showstoppers" so far

Feedback from TAC

Overall: TAC feedback was that work was innovative and important and should continue

- Some key points:
  - Variation in hospital-level HPI within San Diego region had face validity
  - A couple of hospitals on TAC noted they drill down within zip code to find local pockets of social need
  - OSHPD to start collecting address information potentially enabling further drill down
  - Regarding Patient Experience findings, discussion of "halo" effect of hospital physical appearance on scores
  - Regarding Knee Surgery Volume findings, discussion of difficulty members with high social need may have taking time off from work
  - Regarding NTSV C-Section, further analysis may show differences in rates across high and low social needs hospitals masked by correlation

Analysis generated a lot of engaged discussion

Comparison of HPI and SVI: Methodology

	HPI	SVI
Developer	Public Health Alliance of Southern California, Virginia Commonwealth University	Centers for Disease Control
Geographic Range	California Only	National
Purpose	"improving community conditions and health"	"help local officials identify communities that may need support before, during, or after disasters"
Time Period of Data	2011 - 2015 depending on data source	2018
Frequency of Update	?	Every 2 years
Number of Data Sources	7	1
Outcome Variable	Life expectancy at birth (LEB)	N/A
Number of Component Measures	25	15
Number of Domains	8	4
Domains	Economics, Education, Healthcare Access, Housing, Neighborhood Conditiions, Clean Environment, Social, Transportation	Socioenomic Status, Household Composition and Disability, Minority Status and Language, Housing Type and Transportation
Domain Weighting	Based on prediction of LEB	Equal
Standardization	Percentile Ranking/Z Score	Percentile Ranking
Final Score	Apply weights to z-scores and rank by percentile	Summed percentiles for each metric, ordered tracts, then calculated overall percentile rankings
Directionality	Higher social need = lower score	Higher social need = higher score

NOTE: **Standard HPI does <u>not</u> include race/ethnicity**

✓ Version including race/ethnicity described in documentation but data not yet found

✓ See Appendix B for component measures

Calculation of Hospital-Level HPI and SVI

Obtained patient origin data:

- Hospital-level admissions by patient zip code from:
  - From CMS based on Medicare FFS and Advantage
  - From OSHPD based on All Payer data

Linked to HPI and SVI by zip code

- For HPI: data set has HPI by census tract mapped to zip code. Calculated zip-code-level HPI, weighting by census tract population
- For SVI: data available at zip code-level

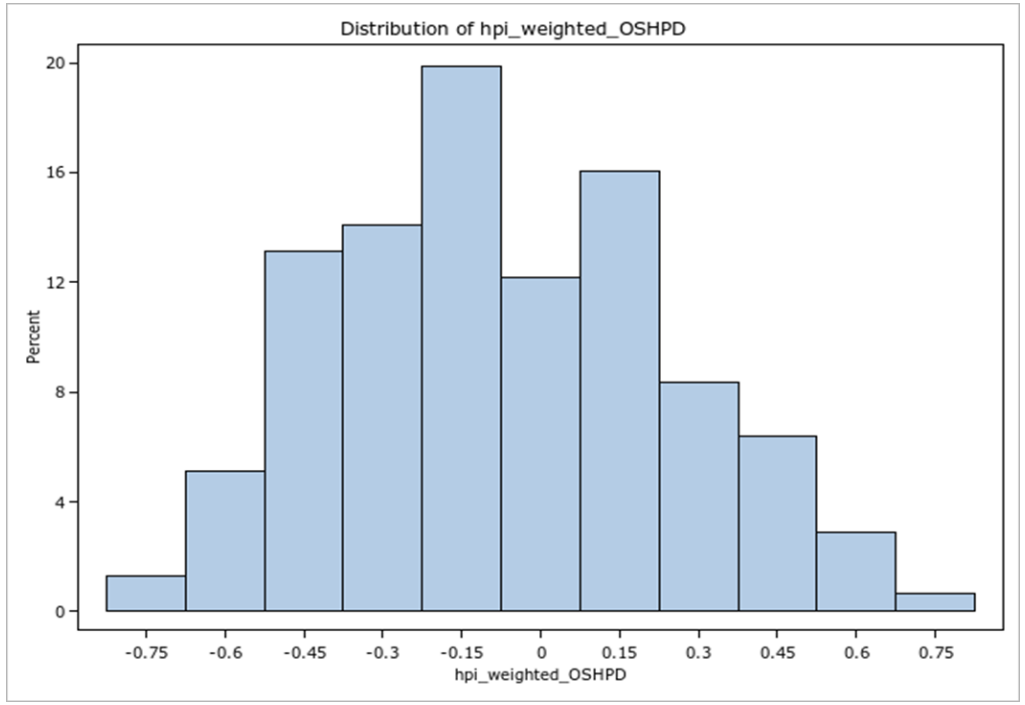
Calculated hospital-level HPI and SVI by weighting zip-code-level values by proportion of hospital admissions by zip code

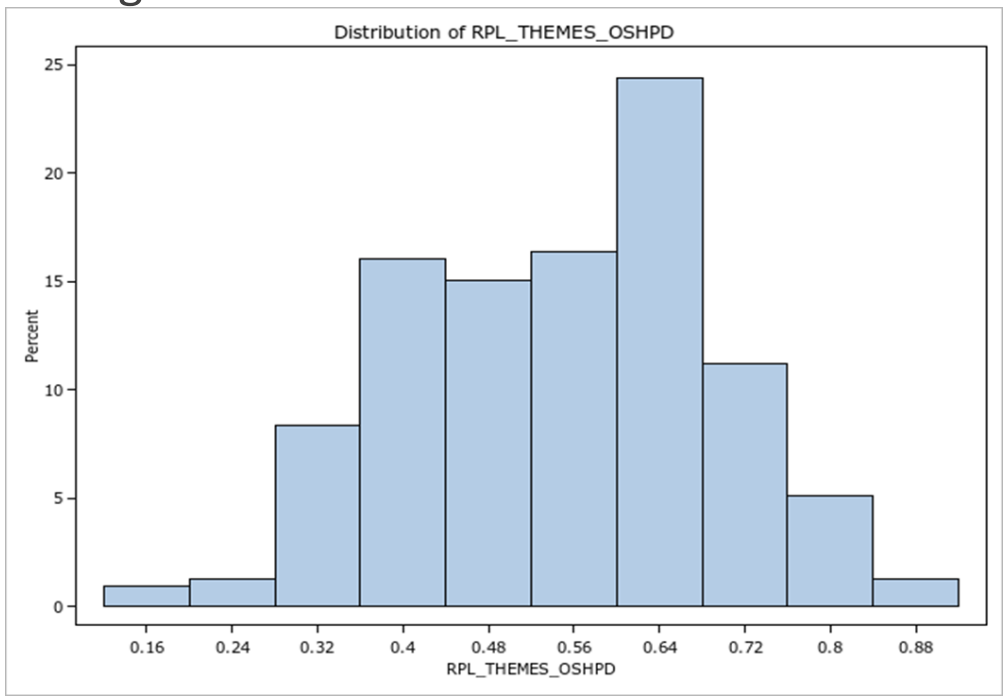
Four versions of hospital-level social needs index calculated:

- Hospital SVI: Medicare and All Payer
- Hospital HPI: Medicare and All Payer

Distributions – All Payer HPI and SVI

Relatively normal distributions, slight skew towards high social need for both SVI and HPI





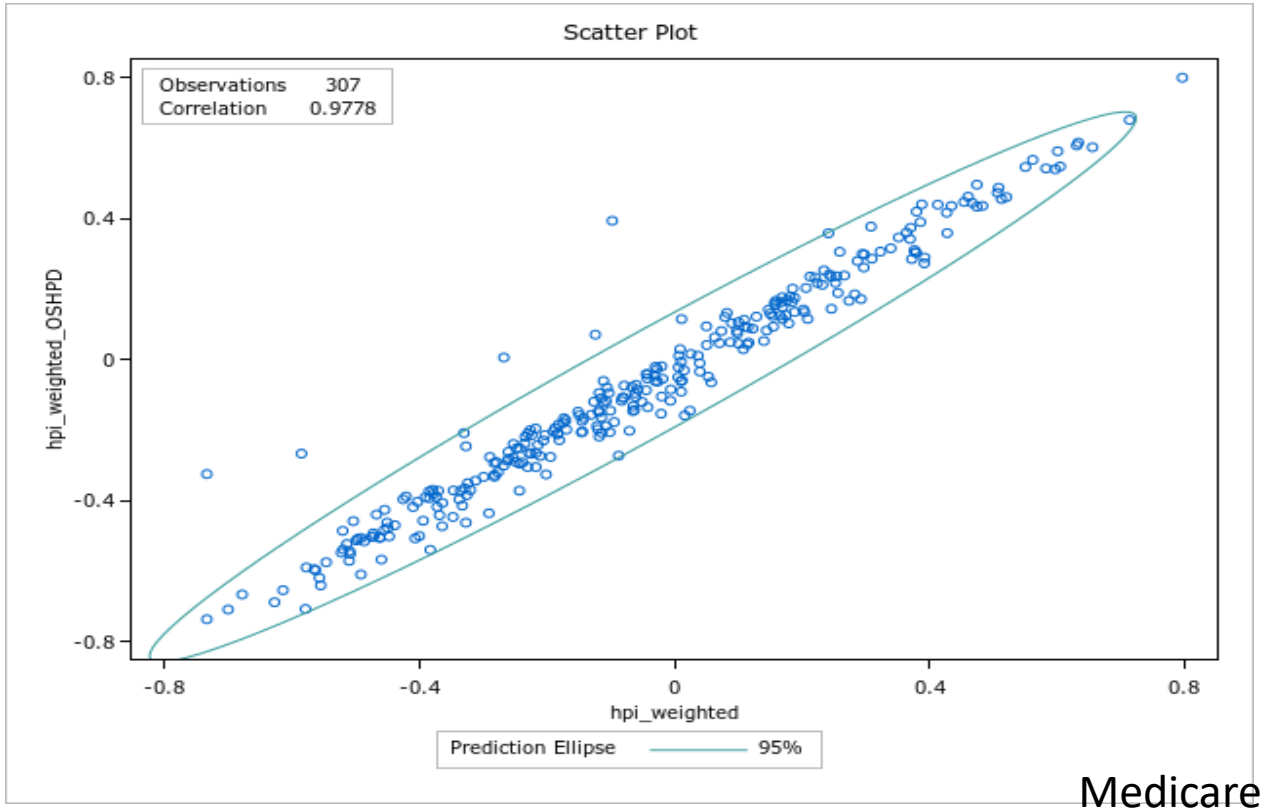
All Payer HPI									
N	Mean	Std Dev	Minimum	p10	Q1	50th Pctl	Q3	p90	Maximum
312	-0.08	0.32	-0.74	-0.50	-0.30	-0.11	0.15	0.36	0.80

All Payer SVI								
N	Mean	Std Dev	Minimum	Q1	50th Pctl	Q3	p90	Maximum
312	0.55	0.15	0.17	0.43	0.55	0.65	0.73	0.87

Comparison of Medicare and All Payer Versions - HPI

Pearson Correlation Coefficient = 0.976

All Payer



Medicare

Comparison of Medicare and All Payer Versions - SVI

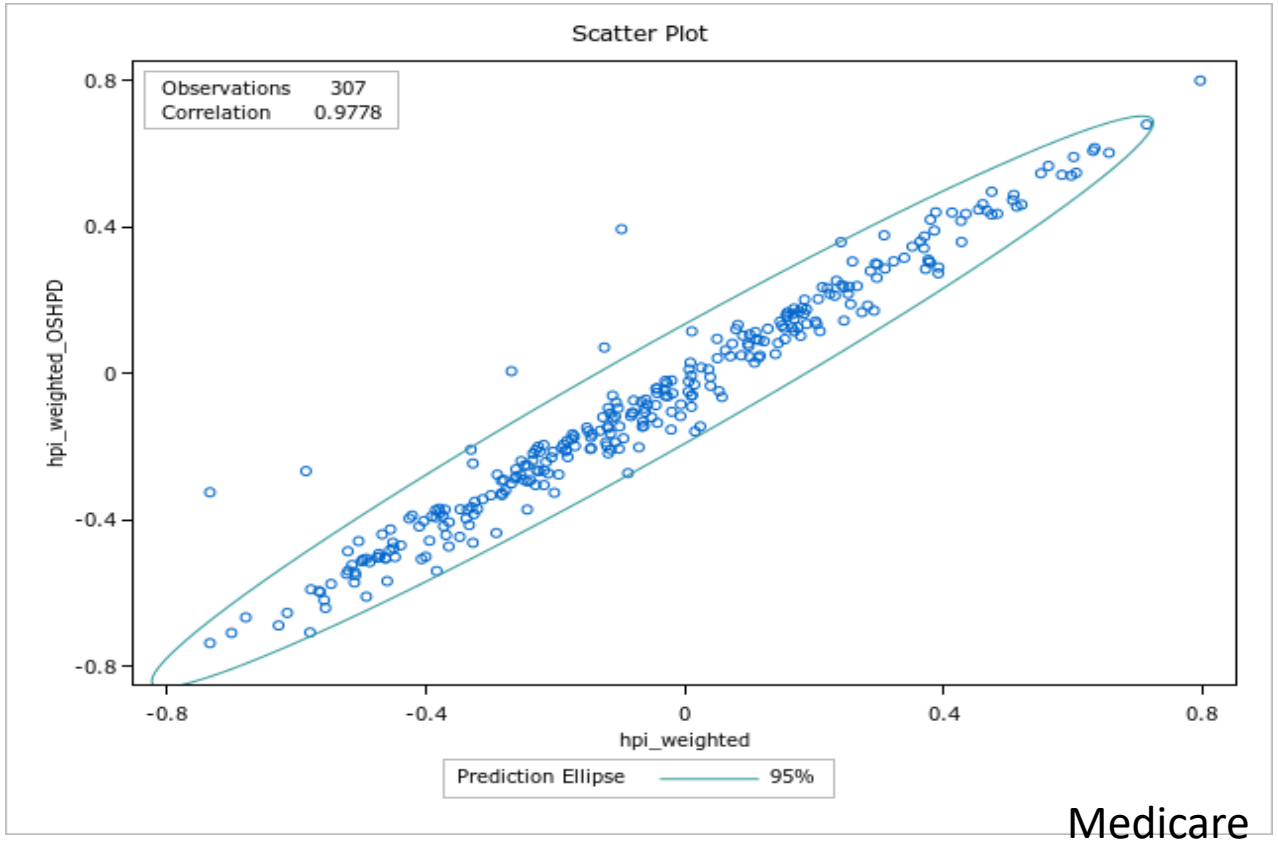
Pearson Correlation Coefficient = 0.977

For both HPI and SVI, very high correlation between Medicare and All Payer versions

Implication: Medicare patient origin is representative of All Payer patient origin

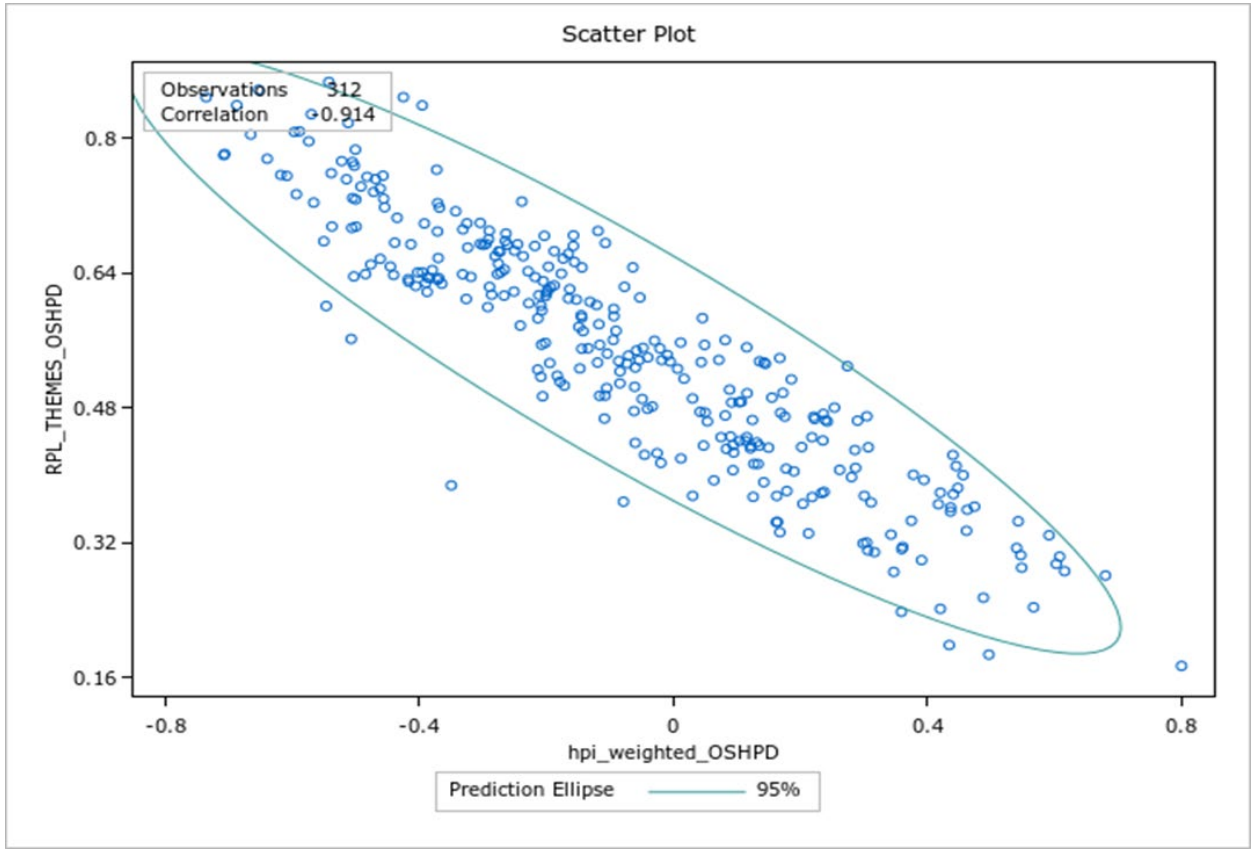
Use All Payer version since based on complete hospital patient population.

All Payer



Medicare

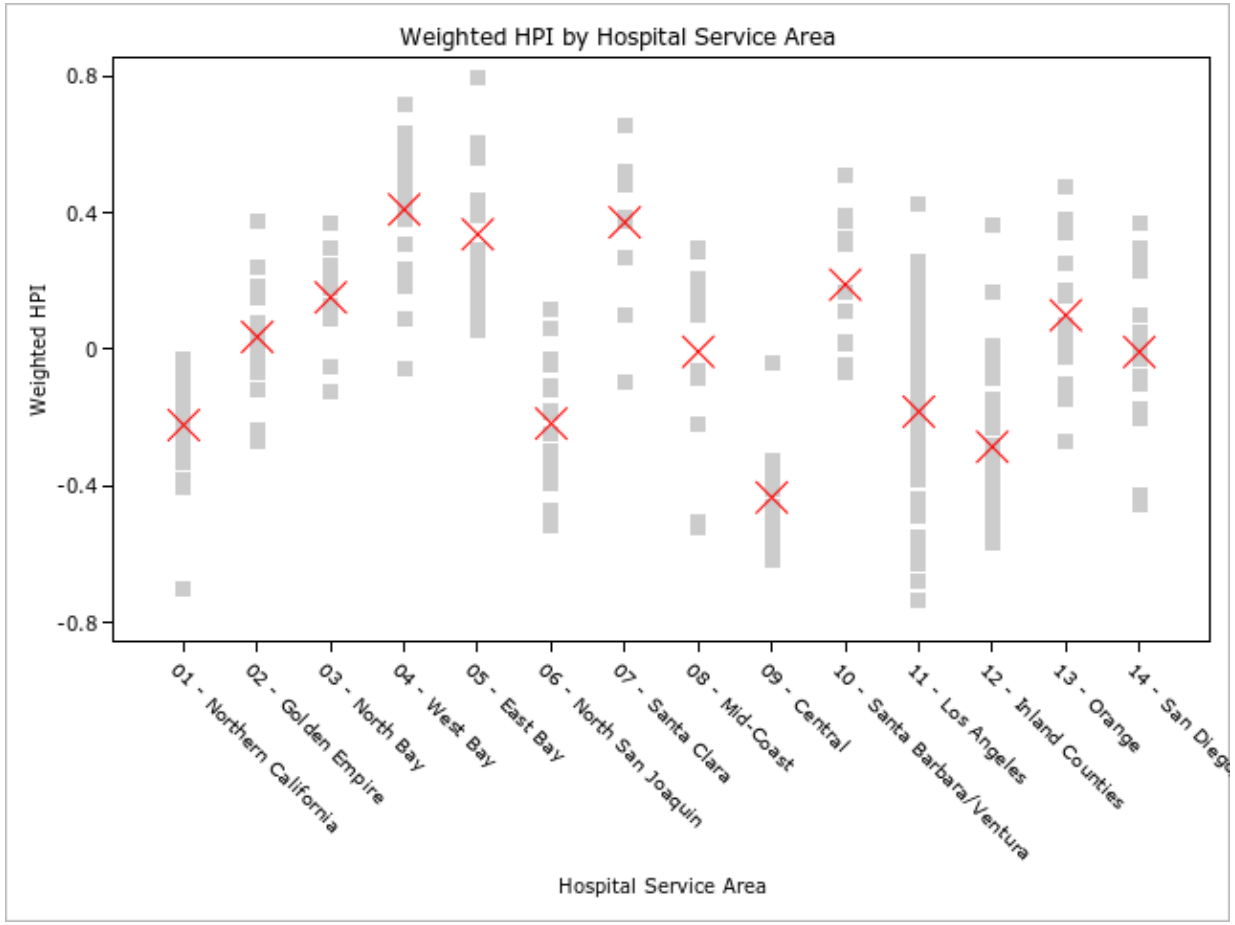
Correlation between All Payer HPI and SVI



Pearson Correlation Coefficient = 0.91

Although based on different methodologies and component measures, **HPI and SVI produce consistent results**

Variation in HPI Across and Within HSA Geographic Regions



- ✓ Grey squares show general number of hospitals in HAS
- ✓ "X" is the average hospital-level HPI in the HSA
- ✓ Substantial **variation** in average HPI **across HSA regions**
- ✓ Also, substantial **variation** in hospital-level HPI **within HSA regions**

Example of Social Need Variation Within HSA – San Diego, HPI

Hospital Name	All Payer HPI	Hospial Service Area
Pioneers Memorial Healthcare District	-0.43	14 - San Diego/Imperial
El Centro Regional Medical Center	-0.40	14 - San Diego/Imperial
Paradise Valley Hospital	-0.33	14 - San Diego/Imperial
Sharp Chula Vista Medical Center	-0.17	14 - San Diego/Imperial
Scripps Mercy Hospital	-0.14	14 - San Diego/Imperial
Sharp Coronado Hospital and Healthcare Center	-0.08	14 - San Diego/Imperial
Alvarado Hospital Medical Center	-0.07	14 - San Diego/Imperial
Tri-City Medical Center	-0.06	14 - San Diego/Imperial
Sharp Grossmont Hospital	-0.05	14 - San Diego/Imperial
Palomar Medical Center Escondido	-0.03	14 - San Diego/Imperial
Kaiser Permanente San Diego	0.04	14 - San Diego/Imperial
Sharp Memorial Hospital	0.08	14 - San Diego/Imperial
Sharp Mary Birch Hospital for Women and Newborns	0.09	14 - San Diego/Imperial
UC San Diego Health - LA Jolla, Jacobs Medical Center and Sulpizio Cardiovascular Center	0.10	14 - San Diego/Imperial
Scripps Memorial Hospital - Encinitas	0.21	14 - San Diego/Imperial
Scripps Memorial Hospital - La Jolla	0.30	14 - San Diego/Imperial
Scripps Green Hospital	0.31	14 - San Diego/Imperial
Palomar Medical Center - Poway-Pomerado Hospital	0.34	14 - San Diego/Imperial

✓ Hospitals serving the same Market Area (HSA) can have populations with very different social needs

Example of Social Need Variation Within HSA – East Bay, HPI

Hospital Name	All Payer HP	Hospial Service Area
Highland Hospital	-0.06	05 - East Bay
Sutter Delta Medical Center	0.05	05 - East Bay
St. Rose Hospital	0.08	05 - East Bay
Kaiser Permanente San Leandro Medical Center	0.12	05 - East Bay
Contra Costa Regional Medical Center	0.14	05 - East Bay
Eden Medical Center	0.14	05 - East Bay
Alta Bates Summit Medical Center - Summit Campus (Hawthorne)	0.14	05 - East Bay
Kaiser Permanente Antioch Medical Center	0.16	05 - East Bay
Kaiser Permanente Oakland Medical Center	0.17	05 - East Bay
John Muir Medical Center - Concord Campus	0.17	05 - East Bay
Alameda Hospital	0.19	05 - East Bay
Alta Bates Summit Medical Center - Alta Bates Campus	0.29	05 - East Bay
Kaiser Permanente Fremont Medical Center	0.42	05 - East Bay
Washington Hospital Healthcare System	0.44	05 - East Bay
John Muir Medical Center - Walnut Creek Campus	0.54	05 - East Bay
Kaiser Permanente Walnut Creek Medical Center	0.55	05 - East Bay
Stanford Health Care - ValleyCare - Pleasanton	0.57	05 - East Bay
San Ramon Regional Medical Center	0.80	05 - East Bay

- ✓ Hospitals serving the same Market Area (HSA) can have populations with very different social needs
- ✓ Less social need in East Bay compared to San Diego

Hospital Characteristics – All Payer HPI and SVI Correlation

Pearson Correlation Coefficients

Variable	All Payer SVI	All Payer HPI
Percent Hispanic	0.74	-0.63
Percent Medi-Cal	0.55	-0.48
DSH	0.52	-0.45
Percent Black	0.30	-0.29
Total Margin	0.00	-0.07
Teaching Hospital	0.02	-0.03
Total Census Days	-0.01	0.00
Percent Male	0.00	0.01
Occupancy Rate	0.02	0.03
System Size - Number of Hospitals	-0.14	0.13
Percent Asian	-0.11	0.25
Percent Medicare	-0.36	0.30

Blue: As expected, DHS and hospitals with higher Hispanic, black and Medi-Cal populations have higher social need

Green: Margin, teaching hospital status, size, gender, occupancy not correlated with social need

HPI: Lower = higher social need
SVI: Higher = higher social need

Limited set of characteristics examined to date. Future work to examine other characteristics.

Question for TAC: Are there other characteristics we should be sure to include (i.e., those likely related to social need)?

Measure Performance – All Payer HPI and SVI

- IBM ran correlations between all **90** CalHospitalCompare reported measures for both All Payer HPI and SVI
- Previously, we had examined readmissions, mortality, maternity and sepsis measures
- Measures with 1) strongest correlations and 2) little correlation appear on next two slides
- Conceptual Approach:
  - Some measures impacted by social needs more than others
  - Can social needs support be made more effective by focusing on related structure/processes?
  - Are they measures that extend beyond the hospital's walls?

Measures Most Impacted by Social Need

Higher social need correlated with poorer performance/lower surgical volume

			SVI	HPI
Label	Domain	N	Composite	Composite
"Higher Rate is Better Measures"				
Breastfeeding Rate	Mother & Baby	211	-0.61	0.59
Patients who reported that their doctors always communicated well	Patient Experience	301	-0.44	0.47
Would recommend hospital	Patient Experience	301	-0.48	0.45
Esophageal Resection - Number of Cases	Other Surgery	23	-0.37	0.41
Surgical Site Infections - Cardiac	SSI Cardiovascular/Thoracic	25	-0.32	0.34
Primary and Revision Hip Surgery Volume	Hip and Knee	302	-0.35	0.32
Patients who reported that their nurses always communicated well.	Patient Experience	301	-0.38	0.32
Information and education	Patient Experience	301	-0.31	0.29
Pancreas Cancer Volume	Cancer Surgery Volumes	119	-0.28	0.29
Pancreatic Resection - Number of Cases	Other Surgery	82	-0.30	0.28
Primary and Revision Knee Surgery Volume	Other Conditions	302	-0.28	0.26
"Lower Rate is Better Measures"				
Patients who reported they understood their care when they left the hospital	Patient Experience	301	0.34	-0.31
Rate of readmission after discharge from hospital (hospital-wide)	Re-hospitalizations	303	0.30	-0.32
Heart Failure Potentially Preventable Readmissions	Heart Conditions	263	0.38	-0.37
Abdominal Aortic Aneurysm Repair - Mortality Rate	Other Surgery	32	0.48	-0.40

Patient Experience (yellow) and Hospital Volume Measures (grey) emerge as impacted by social need

- ✓ Higher social need correlated with poorer
- ✓ Patient Experience scores, including communication and information
- ✓ Higher social need correlated with lower surgery volumes – pancreatic and hip/knee
- ✓ HPI and SVI have very similar correlations
- ✓ Further evidence that both indices capture similar levels of social need
- ✓ "Understood Care" measure is an anomaly

SVI: Lower scores = higher social need
HPI: Higher scores = higher social need
Sorted highest to lowest HPI

“Doctor Communication” by HPI Quartile

Patients who reported that their doctors always communicated well										
Quartile	Number of Hospitals	Mean	Std Dev	Minimum	p10	Q1	50th Pctl	Q3	p90	Maximum
Overall	**301**	77.3	5.0	64	71	74	78	81	83	98
1	76	73.8	4.0	64	68	71	74	76.5	79	82
2	76	77.4	5.1	64	71	75	78	80	82	93
3	75	77.6	3.9	70	71	75	78	81	82	85
4	74	80.6	4.5	72	75	78	81	83	85	98

Higher performance in hospitals with lower Social need

Lower HPI Quartile = higher social risk

- ✓ Median in fourth quartile is 7% higher than first quartile (74% to 81%)
- ✓ Interquartile range is also 74% to 81%
- ✓ 7% difference in this measure is meaningful

“Doctor Communication” Variation within Quartile

- ✓ Substantial difference between 1st and 4th quartile
- ✓ Little difference between 2nd and 3rd quartile
- ✓ However, dramatic differences across hospitals within all four quartiles
- ✓ Can best practices be drawn from hospitals with high performance and high social need?

X = Average within quartile
Grey – individual hospitals

“Knee Surgery Volume" by HPI Quartile

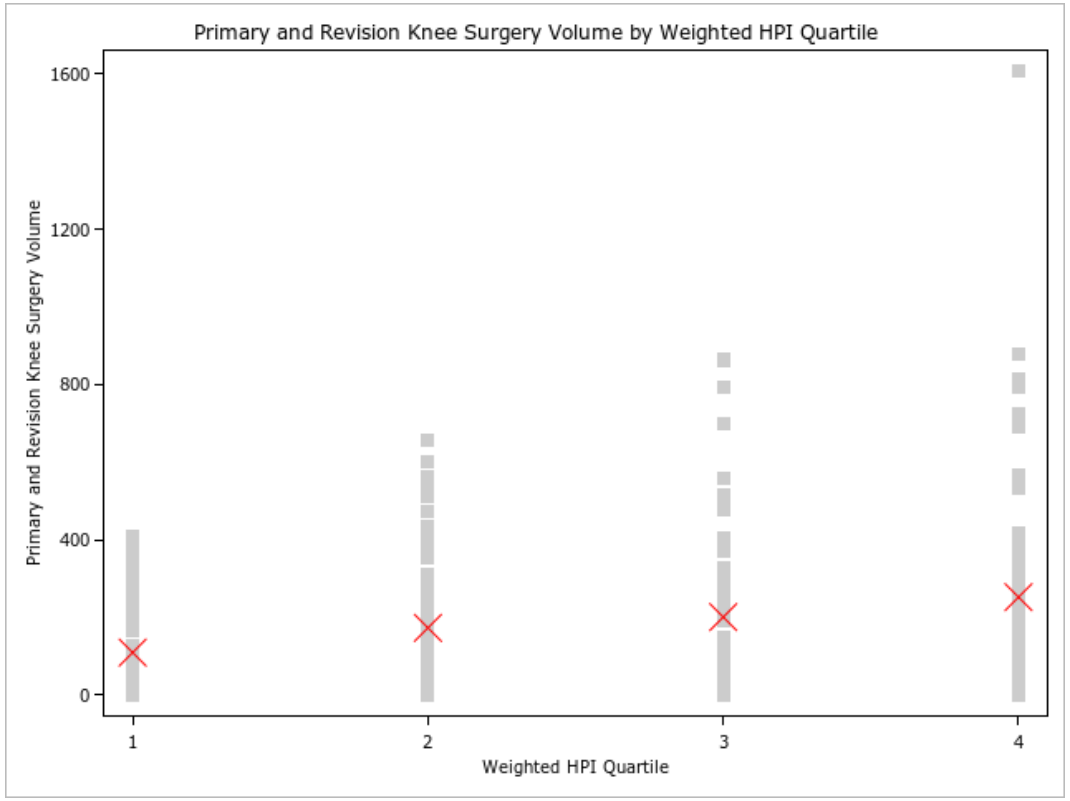
Higher volume in hospitals with lower social need

Primary and Revision Knee Surgery Volume										
Quartile	Number of Hospitals	Mean	Std Dev	Minimum	p10	Q1	50th Pctl	Q3	p90	Maximum
Overall	302	184	204	0	2	33	113	287	419	1,608
1	76	110	119	0	0	12	58	205	304	411
2	77	174	186	0	0	18	81	312	435	656
3	76	201	207	0	2	40	131	301	479	866
4	73	253	259	0	28	69	196	329	558	1,608

Lower HPI Quartile = higher social risk

- ✓ Median in fourth quartile (196) is substantially higher than first quartile (58)
- ✓ Interquartile range is 33 to 287

“Knee Surgery Volume” Variation within Quartile



- ✓ No very high volume hospitals in 1st quartile
- ✓ Little difference between quartiles 3 and 4

X = Average within quartile
Grey – individual hospitals

Measures Least Impacted by Social Need

			SVI	HPI
Label	Domain	N	Composite	Composite
Surgical Site Infections - Gallbladder	SSI Gastrointestinal	123	-0.06	0.05
Surgical Site Infections - Gastric	SSI Gastrointestinal	79	-0.03	0.05
Surgical Site Infections - Knee Prosthesis	SSI Orthopedic	118	-0.05	0.05
Vancomycin-Resistant Enterococci Bloodstream Infections	Infections	107	-0.08	0.04
Surgical Site Infections - CABG w/ Chest & Donor Site Incision	SSI Cardiovascular/Thoracic	58	-0.09	0.04
Accidental Lung Puncture	Patient Safety	277	-0.04	0.03
Clostridium difficile (C.diff.) Laboratory-identified Events (Intestinal infections)	Infections	280	-0.06	0.03
Surgical Site Infections - Cesarean Section	SSI OB/GYN	109	-0.08	0.02
Central line-associated bloodstream infections (CLABSI) in ICUs and select wards	Infections	224	0.00	0.02
Surgical Site Infections - Abdominal	SSI Gastrointestinal	127	-0.04	0.01
Healthcare workers given influenza vaccination	Patient Safety	128	-0.01	0.00
Catheter-associated urinary tract infections (CAUTI) in ICUs and select wards	Infections	242	0.05	-0.01
Percutaneous Coronary Intervention -Mortality Rate	Other Conditions	163	0.05	-0.02
Surgical Site Infections - Appendix	SSI Gastrointestinal	91	-0.02	-0.03
NTSV C-Section Rate	Mother & Baby	217	0.04	-0.04
Surgical Site Infections - Bile Duct/Liver/Pancreatic	SSI Gallbladder-Liver	58	0.09	-0.05

Yellow = HAI

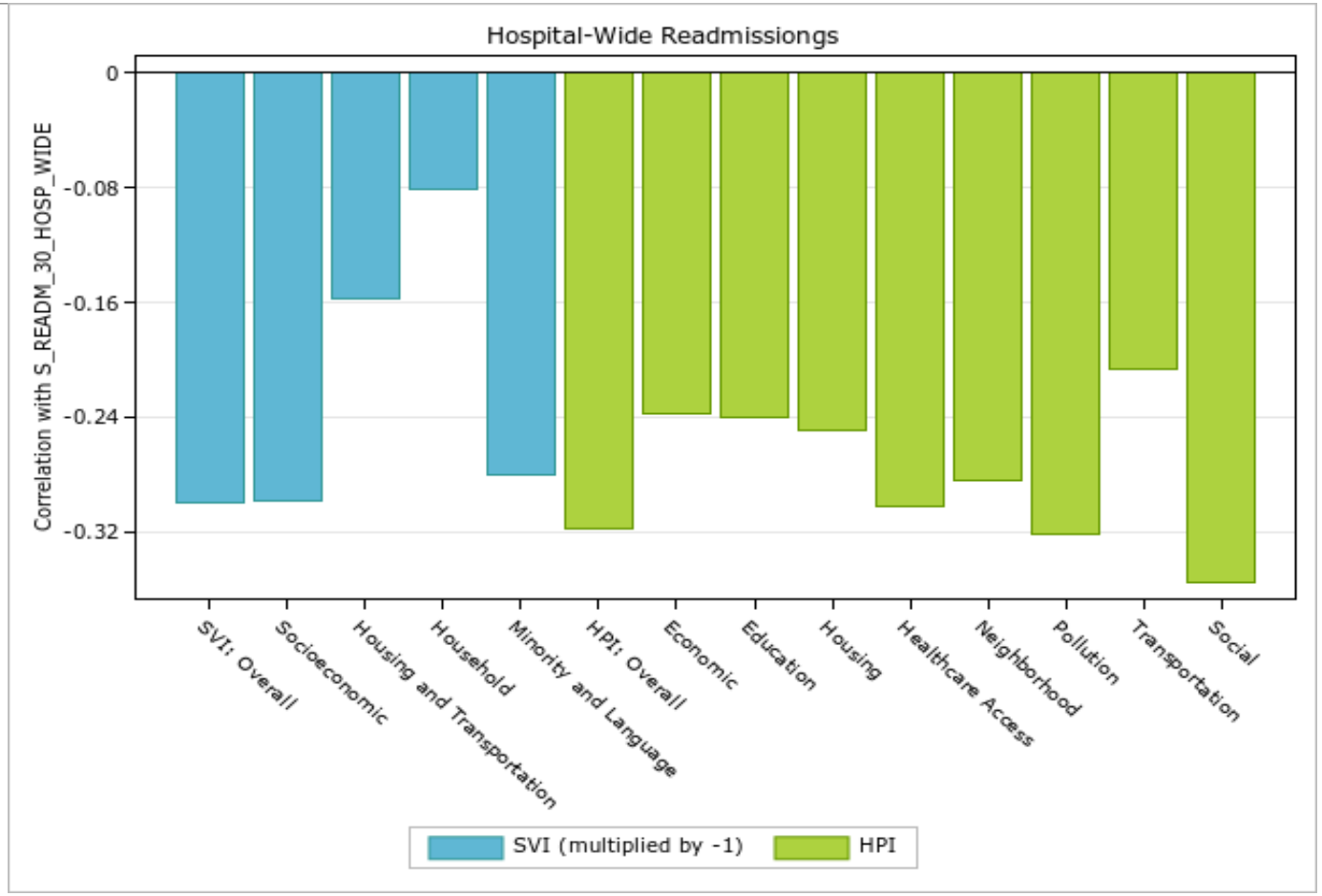
- ✓ HAIs relative unaffected by social need
- ✓ NTSV C-Section as well
- ✓ Hypothesis: Controllable within "hospital
- ✓ Walls"?

SVI: Lower scores = higher social need
HPI: Higher scores = higher social need

Sorted highest to lowest HPI

Hospital-Wide Readmissions: Correlation with HPI and SVI Components

- ✓ Some components more highly correlated with measure rate
- ✓ **Next Step**: Run multi-variate regression analysis that will address any collinearity
- ✓ **Ultimate Goal**: determine if more actionable info can be developed. What social needs, if addressed, would most improve performance



Next Steps

Next Steps

- Correlation with expanded set of hospital characteristics
- Examine hospitals with differences between HPI and SVI
- Run multivariate regression on Hospital-wide Readmissions measure to examine contribution of components to see if actionable info can be developed
- Complete all steps for the Area Deprivation Index
- Identify best social needs index to use in CalHospitalCompare

Potential Use of Hospital Social Needs Index

Discussion Questions for TAC

If methodological development/assessment is successful, how should a social needs index be used in CalHospitalCompare?

- Simple reporting of hospital's social need index (relative to other hospitals)
- Stratified reporting of performance
- Risk adjustment of measures based on social needs index
- Analytic reports to stakeholders to help drive targeted 1) performance improvement and 2) reduction in disparities

Is this information of value to consumers?

Wrap Up

2021 CHC/CQC BOD Call Schedule

(all times are Pacific Time zone)

Friday, October 29	**10:00am to 12:30pm**
Wednesday, December 1	10:00am to 12:30pm

2022 CHC/CQC BOD Call Schedule

(all times are Pacific Time Zone)

Thursday, March 17	10:30am to 2:30pm in Sacramento
Tuesday, June 21	11:00am to 2:00pm – virtual
Tuesday, September 13	11:00am to 2:00pm in Bay Area
Tuesday, December 13	10:00am to 1:00pm – virtual

2022 Meeting Cadence (Quarterly)

Meeting	CY 2022											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Cal Quality Care Technical Advisory Committee (2 hrs)		Feb 24		Apr 14			Jul 20			Oct 12		
Cal Hospital Compare Technical Advisory Committee (2 hrs)		Feb 15			May 10			Aug 16			Nov 15	
Board of Directors Virtual = 3 hrs In person = 4 hrs			Mar 17 In person			Jun 21 Virtual			Sep 13 In person			Dec 13 Virtual

Thank you!

Appendix A:

CMS Final Rule Program Updates

CMS Final Rule for FY 2022 – Hospital Program Updates

Hospital Readmissions Reduction Program (HRRP)

- Adopt a measure suppression policy and suppress the Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate following Pneumonia Hospitalization measure (NQF #0506) beginning with the FY 2023 program year; and
- Modify the remaining five condition-specific readmission measures to exclude COVID-19 diagnosed patients from the measure denominators, beginning with the FY 2023 program year.

Hospital-Acquired Condition (HAC) Reduction Program

- Establishing a measure suppression policy which will suppress the third and fourth quarters of CY 2020 CDC National Healthcare Safety Network Healthcare-Associated Infection (HAI) and CMS PSI 90 data from performance calculations for the FY 2022 and FY 2023 program years.

…CMS Final Rule for FY 2022

Measure Suppression Policy

Hospital Value-Based Purchasing (VBP) Program

- Establish the measure suppression policy described above ***for the duration of the COVID- 19 PHE***;
- Suppress the Hospital Consumer Assessment of Healthcare Providers and Systems survey, Medicare Spending Per Beneficiary, and five HAI measures, for the FY 2022 program year;
- Suppress the Pneumonia (PN) 30-Day Mortality Rate measure for the FY 2023 program year; and
- Remove the Patient Safety and Adverse Events Composite (CMS PSI 90) measure beginning with the FY 2023 program year.

Appendix B:

HPI and SVI Component Measures

…Comparison of HPI and SVI: Metrics

	California HPI		CDC SVI	
	Domain	**Metric**	**Domain**	**Metric**
1	Economic	Percent of the population with an income exceeding 200% of federal poverty level	Socioeconomic	Percentage of persons below poverty estimate
2	Economic	Percentage of population aged 25-64 who are employed	Socioeconomic	Unemployment Rate estimate (age 16+)
3	Economic	Median Household Income	Socioeconomic	Per capita income estimate
4	Education	Percentage of population over age 25 with a bachelor's education or higher	Socioeconomic	Percentage of persons with no high school diploma (age 25+)
5	Education	Percentage of 15-17 year olds enrolled in school	Household Composition /Disability	Percentage of persons aged 65 and older estimate
6	Education	Percentage of 3 and 4 year olds enrolled in pre-school	Household Composition /Disability	Percentage of persons aged 17 and younger estimate
7	Healthcare	Percentage of adults aged 18 to 64 years currently insured	Household Composition /Disability	Percentage of civilian noninstitutionalized population with a disability estimate
8	Housing	Percentage of occupied housing units occupied by property owners	Household Composition /Disability	Percentage of single parent households with children under 18 estimate

…Comparison of HPI and SVI: Metrics

	California HPI		CDC SVI	
	Domain	**Metric**	**Domain**	**Metric**
9	Housing	Percent of households with complete kitchen facilities and plumbing	Minority Status /Language	Percentage minority (all persons except white, non-Hispanic) estimate,
10	Housing	Percentage of low income homeowners paying more than 50% of income on housing costs	Minority Statu s/Language	Percentage of persons (age 5+) who speak English "less than well" estimate
11	Housing	Percentage of low income renter households paying more than 50% of income on housing costs	Housing Type/Transportation	Percentage of housing in structures with 10 or more units estimate
12	Housing	Percentage of households with less or equal to 1 occupant per room	Housing Type/Transportation	Percentage of mobile homes estimate
13	Neighborhood	Percentage of the population living within ½ -mile of a park, beach, or open space greater than 1 acre	Housing Type/Transportation	Percentage of occupied housing units with more people than rooms estimate
14	Neighborhood	Population-weighted percentage of the census tract area with tree canopy	Housing Type/Transportation	Percentage of households with no vehicle available estimate
15	Neighborhood	Percentage of the urban and small town population residing less than 1/2 mile from a supermarket/large grocery store, and the percent of the rural population living less than 1 miles from a supermarket/large grocery store	Housing Type/Transportation	Percentage of persons in group quarters estimate
16	Neighborhood	Percentage of the population residing within ¼ mile of an off-site sales alcohol outlet		

…Comparison of HPI and SVI: Metrics

	California HPI		CDC SVI	
	Domain	**Metric**	**Domain**	**Metric**
17	Neighborhood	Combined employment density for retail, entertainment, and educational uses (jobs/acre)		
18	Clean Environment	Spatial distribution of gridded diesel PM emissions from on-road and non-road sources for a 2012 summer day in July (kg/day)		
19	Clean Environment	Cal EnviroScreen 3.0 drinking water contaminant index for selected contaminants		
20	Clean Environment	Mean of summer months (May-October) of the daily maximum 8-hour ozone concentration (ppm), averaged over three years (2012 to 2014).		
21	Clean Environment	Annual mean concentration of PM2.5 (average of quarterly means, µg/m3), over three years (2012 to 2014)		
22	Social	Percentage of registered voters voting in the 2012 general election		
23	Social	Percentage of family households with children under 18 with two parents		
24	Transportation	Percentage of households with access to an automobile		
25	Transportation	Percentage of workers (16 years and older) commuting by walking, cycling, or transit (excluding working from home)		