California Cardiovascular Outcomes Reporting Program (CCORP)
Clinical Advisory Panel
Minutes of November 3, 2023, Meeting

Meeting locations:
Department of Health Care Access and Information
2020 West El Camino Avenue
Room 1237
Sacramento, CA 95833

Ronald Reagan UCLA Medical Center, Center for Health Sciences
10833 Le Conte Ave
Bel-Air Conference Room (CHS 17-323)
Los Angeles, CA 90095

Clinical Advisory Panel Members present:

Ralph Brindis, M.D., MPH, FACC, Chair	Mamoo Nakamura, M.D.
Joanna Chikwe, M.D.	Andrew Rassi, M.D.
Vincent DeFilippi, M.D.	Rita F. Redberg, M.D.
Gordon L. Fung, M.D., Ph.D.	Maribeth Shannon, M.S.
Hon Lee, M.D.	Richard Shemin, M.D.

HCAI Staff and Others present:

Scott Christman, HCAI Chief Deputy Director	Chris Krawczyk, Ph.D., Healthcare Analytics Branch Manager
Holly Hoegh, Ph.D., Healthcare Analytics Branch	Mark Kishiyama, Ph.D., Healthcare Analytics Branch
Asha Jennings, Assistant Chief Counsel	

1. Call to Order, Roll Call/Establishment of Quorum, Welcome and Meeting Minutes

Ralph Brindis, M.D., Chairperson, called the meeting to order at 8:34 a.m. Panel members introduced themselves and welcomed a new member, Vincent DeFilippi, M.D. A quorum was present to conduct business.

Dr. Redberg made the motion to approve minutes from the April 5, 2023, meeting. Dr. Shemin seconded the motion. The motion was unanimously approved.

2. Swearing in of New Panel Member – Scott Christman, Chief Deputy Director, Department of Health Care Access and Information

Chief Deputy Director Christman administered the Oath of Office to one new panel member, Vincent DeFilippi, M.D.

3. HCAI Director’s Office Report – Scott Christman, Chief Deputy Director, Department of Health Care Access and Information

Chief Deputy Director Christman provided updates from the 2023-2024 state budget. He noted the changes to the Nominal Services Act and highlighted funding for the workforce programs and the 50th anniversary of the Song-Brown Health Care Workforce Training Act. HCAI’s CalRx program that was first launched to focus on low-cost insulin has now allocated $30,000,000 to support the acquisition of low-cost Naloxone. The Distressed Hospital Loan Program was also funded to avoid closures in California.

Recent legislation impacting HCAI included:

- SB 779 - revised existing requirements for primary care clinics and expanded reporting data elements to include additional patient demographic information, information about Medi-Cal and county indigent programs, as well as labor and workforce development data.

- AB 1392 - amended the existing law related to the Hospital Supplier Diversity reporting. In 2025, hospitals we be required to submit an annual plan to increase procurement from minority women, LGBT, and disabled veteran business enterprises. HCAI will conduct outreach and aid various groups to implement recommendations of the Hospital Supplier Diversity Commission.

- SB 525 - set a $25 per hour minimum wage for healthcare workers in California. Larger employers are expected to reach this by 2025, while smaller employers have until 2033. HCAI is responsible for publishing a list of healthcare organizations that qualify for various classifications as well as a list of hospitals specifically with threshold percentages of Medi-Cal and Medicare.

The Office of Health Care Affordability has been implemented with a goal of slowing the growth in healthcare spending in California. The Health Care Affordability Board met monthly, while the Health Care Affordability Advisory Committee met quarterly to discuss how to fulfill the statutory mandate. The first spending target is expected to be set in the spring of 2024 and the regulations for Cost and Market Impact Review (CMIR) are out for public review. This review looks at proposed mergers and acquisitions of healthcare entities across California to access impacts on market competition and access for consumers.

On behalf of Director Landsberg, Chief Deputy Director Christman acknowledged the Office of Information Services (OIS) for implementing the Healthcare Payments Data Program and expressed appreciation for the members of the Panel.

4. HCAI Office of Information Services Update – Christopher Krawczyk, Ph.D., Chief Analytics Officer

Dr. Krawczyk thanked Dr. MacMillan for the leadership and insights he brought to the Panel and CCORP. He continued with an update on HCAI expansions and a summary of work in the Healthcare Analytics Branch (HAB). Healthcare Payments Data Program (HPD) released their first two products this year, and the third product, on prescription costs, is expected to be released soon. Reporting priorities were identified in collaboration with the Health Care Payment Data Advisory Committee and incorporated into the analytic portfolio planning for 2024. HCAI is working on a data release process for eligible audiences to request and receive record-level data for personal analysis. A secure data enclave is under development where approved users can access the data.

Recent legislation established the Hospital Equity Measures Program which requires hospitals (facility level and system level) to submit an equity report to HCAI. Regulations are under development that will outline the required 18 measures (selected from 30 measures recommended by the Hospital Equity Measures Advisory Committee). The reports must identify disparities and include an action plan to address them. The first reports will be due September 2025.

Recent product releases include a visualization on CABG readmissions and complications looking at different patient characteristics. Upcoming products will include pediatric quality indicators and a visualization using the Healthy Places Index.

Dr. Krawczyk introduced the Outreach and Engagement Team, who conducts annual formal outreach to stakeholders. This year the emphasis was on county health officers and local government, while next year will target associations and consumer groups. Once input is collected and combined, HCAI conducts internal planning to come up with a strategic plan for the upcoming year.

5. Quality and Performance Section Update – Holly Hoegh, Ph.D.

Dr. Hoegh gave an update on cardiovascular outcomes reporting. The 2021 hospital level CABG outcomes report was released in September and the 2022 CABG data audit was underway. She noted that access to electronic health records is becoming increasingly difficult.

Dr. Hoegh provided an update on transcatheter aortic valve replacement (TAVR) outcomes reporting. TAVR hospitals with 2022 data in the National Cardiovascular Data Registry (NCDR) Society of Thoracic Surgery (STS)/American College of Cardiology (ACC) Transcatheter Valve Therapies (TVT) Registry completed their data sharing agreements. Three hospitals had not joined the registry in time to have their 2022 data included in the public report and one additional hospital did not get their data submitted in time to be included in the public report. The risk-models for TAVR outcomes reporting will be presented today. HCAI also gets data from NCDR for the Elective Percutaneous

Coronary Intervention (PCI) Program and is currently working on the model development for 2022 outcomes.

HCAI recently released data visualizations on CABG readmissions related to complications and diagnostic catheterization trends by social determinants. Another visualization on CABG volume per capita and mortality trends will be released soon.

Dr. Hoegh presented updated slides on cardiovascular procedure trends highlighting the continued increase in volume of TAVR (over 8,000 in 2022). There has been a decline in PCI volume recently and the panel discussed the utility of PCI for both acute coronary syndrome and stable coronary disease. Dr. Rassi explained the technology of fractional flow reserve which helps interventionalists review lesions accurately and gauge whether fixing a lesion is going to benefit a patient.

6. Chair's Report, Ralph Brindis, M.D., M.P.H., F.A.C.C.

Dr. Brindis focused his presentation on TAVR. There are over 800 TAVR sites in the U.S. and over 800,000 patients in the TVT Registry. Over 90 sites have received ACC accreditation and over 40 percent of sites have volunteered to participate in public reporting. National patterns for valve procedure utilization are similar to the California patterns with over 87,000 TAVRs in 2021. The cross-over point between volume of isolated surgical aortic valve replacement (SAVR) and TAVR for aortic stenosis occurred in 2015.

TAVR mortality has decreased over time for in-hospital (1.2 percent in 2022), 30-day (2.2 percent in 2022) and one year, which mostly reflects the addition of intermediate and low-risk patients. TAVR stroke rates decreased over time with 2022 rates at 1.4 percent for in-hospital stroke and 2.0 percent for 30-day stroke. Dr. Brindis shared the TAVR mortality and stroke trends for low-, medium- and high-risk patients. He highlighted the increase in TAVR for failed SAVR (currently about 4,700 a year) as well as the increase for TAVR in failed TAVR.

Dr. Brindis discussed shared decision making for aortic valve replacement and shared a PDF from the CardioSmart ACC website that emphasized patients learning, and understanding aortic stenosis, what their treatment options are, and what that actually means for their care.

He also shared information on quality improvement initiatives. One example is the Michigan Structural Heart Consortium with over 130 cardiologists and heart surgeons from 30 hospitals. In addition to reports that highlight quality improvement opportunities for each hospital, there are committees and meetings that focus on sharing, mentoring, educating, creating a culture of quality and collaboration at all levels including TAVR micro-focused physician meetings.

Dr. Shemin noted the University of California Cardiac Surgery Consortium where the chiefs of cardiac surgery of the five UC's meet to pre-share best practices, outcomes of

financial, as well as clinical, seeking best practices and trying to resolve problems together. They now include cardiologists doing TAVR.

The panel discussed shared decision making with some concerns expressed regarding TAVR durability and appropriateness. It was noted that some of the increased volume of TAVR is due to the addition of patients that were previously not eligible or may not have chosen to have a SAVR.

7. 30-day Mortality as a Risk-adjusted Outcome for Transcatheter Aortic Valve Replacement (TAVR) – Mark Kishiyama, Ph.D., HCAI (Action Item)

Dr. Kishiyama first presented background on the TAVR data acquired from the TVT Registry. For 2022, there were 8,223 TAVRs submitted by 83 hospitals with 187 deaths for an observed 30-day mortality rate of 2.27 percent. He next presented the methods used for the risk-adjustment model development. Risk factors from the TVT Registry public reporting effort and the Blue Cross Blue Shield of Michigan Cardiovascular Consortium were considered. After a bivariate analysis and a stepwise logistic regression, the final model included 10 risk factors with a c-statistic of 0.7948.

The panel discussed why some risk factors were significant and why others were not. Dr. Kishiyama, Dr. Hoegh and Dr. Krawczyk further explained how the risk-adjustment model process works, including reference categories, the significance of p-values and the effect of positive and negative coefficients in developing a parsimonious model.

Public comments further addressed specific risk factors.

Action: The Clinical Advisory Panel unanimously approved the 30-day risk-adjusted mortality model methods for TAVR.

8. Post-operative Inpatient Stroke as a Risk-Adjusted Outcome for Transcatheter Aortic Valve Replacement (TAVR) – Mark Kishiyama, Ph.D., HCAI (Action Item)

Dr. Kishiyama noted that the 30-day mortality methodology was also used for 30-day stroke risk-adjustment. The final model included 12 risk factors and the c-statistic was 0.6576.

The panel discussed the difficulty of predicting stroke and why some risk factors, especially atrial fibrillation, were not included in the model. Some time was spent discussing access site and whether that should be considered a patient risk factor. Further discussions evaluated the performance of the model and considerations for future years.

Action: The Clinical Advisory Panel unanimously approved the 30-day risk-adjusted stroke model methods for TAVR.

9. Upcoming TAVR Hospital Level Report – Holly Hoegh, Ph.D. (Action Item)

Dr. Hoegh outlined the process for creating the public report which includes a hospital 60-day review. The proposed contents for the 2022 public report:

- 2022 risk-adjusted TAVR 30-day mortality rates.
- 2022 risk-adjusted TAVR post-operative 30-day stroke rates.

HCAI will consider the panel recommendation to include TAVR volume based on HCAI administrative data in the report technical note.

Action: The Clinical Advisory Panel unanimously approved the contents of the 2022 public report.

10. Public Comment

A member of the public asked for a clarification on the timeline for hospital review of the preliminary report.

11. Adjourn

Dr. Brindis thanked everyone and adjourned the meeting at 12:06 p.m.