

CCORP Data Quality Efforts

Hospitals report all CABG cases to CCORP using CORC (Cardiac Online Reporting for California).

The CORC system evaluates and edits data and generates errors and warning in five categories:

Transitional – (ex: problems with data layout)

Licensing – (ex: wrong surgeon license number)

Standard – (ex: problems with data layout)

Comparison – (ex: all values for a data element coded the same)

Relational – (ex: parent/child fields do not correspond)

CCORP Data Quality Efforts

Data Quality Reports (DQRs) are generated in CORC each time a hospital submits data that is accepted. The reports are available for review in the GET HOSPITAL REPORTS.

Data Discrepancy Reports (DDRs) compare the hospital's submitted CCORP data to their hospital administrative data source, the Patient Discharge Data (PDD).

Risk-Factor Coding Reports (RFCs) identify values that may be extreme by comparing the hospital reported prevalence rates in the current year to prior years for both CCORP and PDD data sources.

Data Quality Reports (DQR)

Each time a hospital's data is submitted (test or official) and accepted a detailed report of the hospital's submitted data (the DQR) is available. This report shows the number and percentage of all valid values for each of the submitted data elements. The top of the report also provides the number and percentage of CABG surgeries performed by surgeon in the submitted data. The surgeon's name is a hyperlink and if clicked, will display the DQR for the selected surgeon. DQRs can be viewed in CORC under GET HOSPITAL REPORTS and can be exported and saved as a PDF.

The screenshot displays the CORC (Cardiac Online Reporting for Illinois) web application interface. The header includes the CORC logo, the text "Office of Statewide Health Planning and Development", and the "osbpd" logo. Below the header are navigation tabs for "Home", "My Data", and "My Settings".

The main content area is titled "Access Custom Reports". It contains the text: "Here hospitals will find special reports like the 'Data Discrepancy Report', [Click Here](#) Operative Mortality R". Below this text is a form with the following elements:

- Report Name: **Data Quality Report** (dropdown menu, circled in red)
- By Surgeon: View All (dropdown menu)
- View Report (button, with a mouse cursor pointing to it)

The left sidebar contains the following sections:

- REPORTING PROFILE**
 - Galactic Health - 997654
 - CABG
 - 7/1/2012 - 12/31/2012
 - Logout
- DATA TRANSMITTAL**
 - Submit My Data
 - Get My Results
 - View My Errors
 - See My Cases
 - Enter Cases in CORC
 - Get Hospital Reports** (circled in red)
 - View Posted Files

Sample DQR

CORC Central Online Reporting for California
Office of Statewide Health Planning and Development **osbpd**

Home My Data My Settings

REPORTING PROFILE

Galactic Health - 987654
CABG
7/1/2011 - 12/31/2011

Logout

DATA TRANSMITTAL

- Submit My Data
- Get My Results
- View My Errors
- See My Cases
- Enter Cases in CORC
- Get Hospital Reports
- View Posted Files

RELATED LINKS

- Contact CCORP
- System FAQ's
- Computer Based Training
- CORC Home
- CA Med Board

Access Custom Reports

Here hospitals will find special reports like the "Data Discrepancy Report", your hospital's "Operative Mortality Report", and any other reports.

Report Name: **Data Quality Report** By Surgeon: **View All** [View Report](#)

1 of 5 100% Find | Next Select a format Export

Data Quality Summary Report

987654 Galactic Health Report Period 7/1/2011 - 12/31/2011

Responsible Surgeon CA License Number		
	Hospital	
987654 (Surgeon 1 Data)	18	60.00 %
987654 (Surgeon 2 Data)	7	23.33 %
987654 (Surgeon 3 Data)	5	16.67 %

Isolated CABG		
	Hospital	
No	13	43.33 %
Yes	17	56.67 %

Valve Procedure		
	Hospital	
No	18	60.00 %

Statewide DQR

Once CORC is open for Stage 2 submissions, each time a hospital's data is submitted and accepted a statewide DQR is available. This report includes a column of Statewide numbers and percentages for each data element response based on data submitted by all hospitals reporting CABG data in the selected Report Period. This report can be exported and saved as a pdf by the hospital.

The screenshot displays the CORC website interface. At the top, the logo for CORC (Cardiac Online Reporting for Illinois) is visible, along with the text 'Office of Statewide Health Planning and Development' and 'osbpd'. Below the logo, there are navigation buttons for 'Home', 'My Data', and 'My Settings'. The main content area is titled 'Access Custom Reports' and contains the text: 'Here hospitals will find special reports like the "Data Discrepancy Report", your hospital's "Operative Click Here" report, and any other'. Below this text, there is a 'Report Name' dropdown menu with 'Statewide Data Quality Report' selected, a 'By Surgeon' dropdown menu with 'View All' selected, and a 'View Report' button. A red circle highlights the 'Report Name' dropdown menu, and a red callout box points to the 'Click Here' link. The left sidebar contains a 'REPORTING PROFILE' section for 'Galactic Health - 987654 CABG' with the date range '1/1/2011 - 6/30/2011' and a 'Logout' link. Below this is a 'DATA TRANSMITTAL' section with links for 'Submit My Data', 'Get My Results', 'View My Errors', 'See My Cases', 'Enter Cases in CORC', and 'Get Hospital Reports' (circled in red).

Sample Statewide DQR



Office of
Statewide Health Planning and Development **osbpd**

Home
My Data
My Settings

REPORTING PROFILE

Galactic Health - 987654
CABG
1/1/2011 - 6/30/2011

→ Logout

DATA TRANSMITTAL

- Submit My Data
- Get My Results
- View My Errors
- See My Cases
- Enter Cases in CORC
- Get Hospital Reports
- View Posted Files

RELATED LINKS

- Contact CCORP
- System FAQ's
- Computer Based Training
- CORC Home
- CA Med Board
- Security Information

Access Custom Reports

Here hospitals will find special reports like the "Data Discrepancy Report", your hospital's "Operative Mortality Report", and any other custom queries of your data.

Report Name: Statewide Data Quality Report By Surgeon: View All View Report

1 of 4 100% Find | Next Select a format Export

CCORP Hospital Data Summary Report

9876554 Galactic Health Report Period 1/1/2011 - 6/30/2011

Isolated CABG				
	Hospital		State	
No	21	50.00 %	2073	24.77 %
Yes	21	50.00 %	6296	75.23 %

Sex				
	Hospital		State	
Female	5	11.90 %	2225	26.59 %
Male	37	88.10 %	6144	73.41 %

Race-White				
	Hospital		State	
No	7	16.67 %	2240	26.83 %
Yes	35	83.33 %	6108	73.17 %

Data Discrepancy Reports

OSHPD links each hospital's CCORP data with their administrative patient discharge data (PDD) that is also submitted to OSHPD. A Data Discrepancy Report (DDR) is created for each hospital. Hospitals are asked to review and account for discrepancies between the two data sources via patient medical chart review to verify that:

- 1) all CABG surgeries discharged were reported
- 2) each CABG was accurately coded as isolated or non-isolated CABG surgery
- 3) coding of Discharge Status was consistent
- 4) Resuscitation occurred prior to CABG surgery
- 5) coding of Post-Operative Complications (including strokes) was consistent

DDRs are posted in CORC under VIEW POSTED FILES

Data Discrepancy Reports

Front page
of DDR

2014 FIRST HALF CCORP DATA DISCREPANCY REPORT

GENERAL INFORMATION	FOR EACH SECTION BELOW PLEASE REVIEW DATA ELEMENT DEFINITIONS IN 2011 DATA ABTRACTOR TRAINING MANUAL available at http://www.oshpd.ca.gov/HID/SubmitData/CCORP_CABG/TrainingManual_2ndHalf2011.pdf
CABG-REPORTING	Verify ALL CABG surgeries are reported in your CCORP database. Non-CABGs should be deleted from CCORP database. Missing CABGs should be added to CCORP database.
ISOLATED CABG REPORTING	Verify CABG cases are accurately coded as ISOLATED or NON-ISOLATED in your CCORP database.
RESUSCITATION	Review Resuscitation cases in your CCORP database. If Resuscitation cannot be verified, revise coding in CCORP database.
DISCHARGE STATUS	Verify deaths at the time of discharge reported in your CCORP database.
NEURO-STROKE PERMANENT	Review Post-Operative Stroke cases NOT reported in your CCORP database. Revise coding in CCORP database if necessary.
RENAL-DIALYSIS REQUIREMENT	Review Dialysis Requirement cases NOT reported in your CCORP database. Revise coding in CCORP database if necessary.
PULM-VENTILATION PROLONGED	Review Prolonged Ventilation cases NOT reported in your CCORP database. Revise coding in CCORP database if necessary.
REOPERATION FOR BLEED	Review Reoperation for Bleed cases NOT reported in your CCORP database. Revise coding in CCORP database if necessary.
DEEP STERNAL INFECTION	Review Deep Sternal Infection cases NOT reported in your CCORP database. Revise coding in CCORP database if necessary.
REINTERVENTION GRAFT OCCLUSION	Review Graft Occlusion cases NOT reported in your CCORP database. Revise coding in CCORP database if necessary.
Contact for questions:	Email as ccorp@oshpd.ca.gov Phone number as 916-326-3865

Data Discrepancy Reports

Summary page
for each type
of discrepancy

2014 FIRST HALF CCORP DATA DISCREPANCY REPORT CABG-REPORTING

VERIFY ALL CABG SURGERIES HAVE BEEN REPORTED IN YOUR CCORP DATABASE.

Missing CABG cases.	58
NON-CABG cases.	2

Possible under
reported
CABGs

Possible over
reported
CABGs

2014 FIRST HALF CCORP DATA DISCREPANCY REPORT ISOLATED CABG-REPORTING

VERIFY CABG CASES ARE ACCURATELY CODED AS ISOLATED IN YOUR CCORP DATABASE.

Change cases to ISOLATED.	4
Change cases to NON-ISOLATED.	1

CABGs that
may or may
not be isolated

Data Discrepancy Reports

Detailed page
for each
discrepancy

2014 FIRST HALF CCORP DATA DISCREPANCY REPORT CABG-REPORTING

CASE # 1 SHOULD THIS CASE BE ADDED TO CCORP?			
Patient MRN		Surgery Date	12/31/2013
Patient SSN		Discharge Date	01/14/2014
Patient Sex	Male	Death Date	.
Birth Date		Surgeon	

DETAILED INFORMATION FOR CASE # 1		
DIAGNOSIS	PROCEDURE(PX)	PX DATE
410.71: acute myocardial infarction, subendocardial infarction, initial episode of care	36.15: single internal mammary-coronary artery bypass	12/31/2013
482.2: pneumonia due to hemophilus influenzae (h. influenzae)	37.22: left heart cardiac catheterization	12/28/2013
518.81: acute respiratory failure	36.12: (aorto)coronary bypass of two coronary arteries	12/31/2013
785.51: cardiogenic shock	39.61: extracorporeal circulation auxiliary to open heart surgery	12/31/2013
414.01: coronary atherosclerosis of native coronary artery	88.56: coronary arteriography using two catheters	12/28/2013
414.2: chronic total occlusion of coronary artery	88.53: angiocardiography of left heart structures	12/28/2013
799.02: hypoxemia	88.48: arteriography of femoral and other lower extremity arteries	12/28/2013
250.00: diabetes mellitus without mention of complication, type ii or unspecified type, not stated as uncontrolled	89.64: pulmonary artery wedge monitoring	12/31/2013
401.9: unspecified essential hypertension	88.72: diagnostic ultrasound of heart	12/31/2013
272.4: other and unspecified hyperlipidemia	99.04: transfusion of packed cells	12/30/2013
305.1: nondependent tobacco use disorder	88.72: diagnostic ultrasound of heart	12/31/2013
V65.49: other specified counseling	.	.

ICD-9 indicates
a CABG was
done. This
case needs to
be added!

Data Discrepancy Reports

Detailed page
for each
discrepancy

2014 FIRST HALF CCORP DATA DISCREPANCY REPORT

CABG-REPORTING

CASE # 3 SHOULD THIS CASE BE REMOVED FROM CCORP?			
Patient MRN		Surgery Date	01/08/2014
Patient SSN		Discharge Date	01/12/2014
Patient Sex	Male	Death Date	.
Birth Date		Surgeon	

DETAILED INFORMATION FOR CASE # 3		
DIAGNOSIS	PROCEDURE(PX)	PX DATE
424.1: aortic valve disorders	35.21: open and other replacement of aortic valve with tissue graft	01/08/2014
584.9: acute kidney failure, unspecified	38.14: endarterectomy of aorta	01/08/2014
414.00: coronary atherosclerosis of unspecified type of vessel, native or graft	88.72: diagnostic ultrasound of heart	01/08/2014
V45.81: postsurgical aortocoronary bypass status	99.00: perioperative autologous transfusion of whole blood or blood components	01/08/2014
433.10: occlusion and stenosis of carotid artery without mention of cerebral infarction	99.05: transfusion of platelets	01/08/2014
250.00: diabetes mellitus without mention of complication, type ii or unspecified type, not stated as uncontrolled	99.06: transfusion of coagulation factors	01/08/2014
272.0: pure hypercholesterolemia	00.40: procedure on single vessel	01/08/2014
403.90: unspecified hypertensive kidney disease without chronic kidney disease stage i through stage iv, or unspecified	.	.
585.9: chronic kidney disease, unspecified	.	.
V58.63: encounter for long-term (current) use of antiplatelets/antithrombotics	.	.
787.91: diarrhea	.	.
440.0: atherosclerosis of aorta	.	.

ICD-9 indicates
no CABG,
valve only.
This case
needs to be
deleted!

Data Discrepancy Reports

2014 FIRST HALF CCORP DATA DISCREPANCY REPORT

ISOLATED CABG-REPORTING

Detailed page
for each
discrepancy

CASE # 2 Change to ISOLATED CABG?			
Patient MRN		Surgery Date	04/21/2014
Patient SSN		Discharge Date	04/28/2014
Patient Sex	Female	Death Date	.
Birth Date		Surgeon	

ICD-9 indicates
CABG was
done on a
different day
than valve.
This case
should be
isolated

DETAILED INFORMATION FOR CASE # 2		
DIAGNOSIS	PROCEDURE(PX)	PX DATE
424.1: aortic valve disorders	35.21: open and other replacement of aortic valve with tissue graft	04/21/2014
410.91: acute myocardial infarction, unspecified site, initial episode of care	37.22: left heart cardiac catheterization	04/18/2014
511.9: unspecified pleural effusion	36.13: (aorto)coronary bypass of three coronary arteries	04/18/2014
496.: chronic airway obstruction, not elsewhere classified	39.61: extracorporeal circulation auxiliary to open heart surgery	04/18/2014
287.5: unspecified thrombocytopenia	34.91: thoracentesis	04/23/2014
555.9: regional enteritis of unspecified site	34.91: thoracentesis	04/25/2014
285.1: acute posthemorrhagic anemia	34.91: thoracentesis	04/28/2014
780.2: syncope and collapse	88.56: coronary arteriography using two catheters	04/28/2014
305.1: nondependent tobacco use disorder	88.53: angiocardiology of left heart structures	04/28/2014
782.0: disturbance of skin sensation	99.04: transfusion of packed cells	04/21/2014
790.5: other nonspecific abnormal serum enzyme levels	.	.
401.9: unspecified essential hypertension	.	.
733.00: unspecified osteoporosis	.	.
397.0: diseases of tricuspid valve	.	.
799.3: unspecified debility	.	.

Risk Factor Coding Reports

OSHPD also reviews hospital's data from previous report periods from both CCORP and PDD. A Risk Factor Coding Report (RFC) is created for each hospital. The RFC identifies possible extreme values (include missing values) when compared to the state average, to PDD values, and to values from previous report periods. Hospitals are asked to review the RFC and when necessary, correct miscoded data elements.

Risk Factor Coding Reports

Sample RFC for missing values

CCORP Missing Values Report Report Period: 2014 January to June Missing Values of Data Elements

Data Element	Database Field Name	Data Values Assessed	Volume	Number Missing	Hospital Percent (Missing /Volume)	California Percent (Missing /Volume)	Ratio Hospital Percent /California Percent
Total Bilirubin	TotBilirubin	Range 0.1 to 50.0	68	5	7.4	15.2	0.5
Total Albumin	TotAlbumin	Range 1.0 to 10.0	68	5	7.4	12.5	0.6
INR	INR	Range 0.5 to 30.0	68	1	1.5	4.1	0.4
Warfarin Use	WarfUse	Yes(1), No(2)	68	5	7.4	1.6	4.7
PA Systolic Pressure Measured	HDPAD	Yes(1), No(2)	68	0	0.0	.	No Missing Values

AS EXPECTED

Ratio of Hospital Percent to California Percent is Less Than 2.5

HIGHER THAN EXPECTED

Ratio of Hospital Percent to California Percent is Between 2.5 and 3.5

MUCH HIGHER THAN EXPECTED

Ratio of Hospital Percent to California Percent is 3.5 or Larger

Risk Factor Coding Reports

Sample RFC for risk factors

CCORP Risk Factor Coding Report Report Period: 2014 January to June Risk Factor Values

Data Element	Database Field Name	Data Values Assessed	Volume	Hospital Occurrence	Hospital Percent (Occurrence /Volume)	California Percent (Occurrence /Volume)	Ratio Hospital Percent /California Percent
Pre-Operative Dialysis	Dialysis	Yes(1)	68	5	7.4	4.9	1.5
Chronic Lung Disease	ChrLungD	Moderate(3), Severe(4)	68	31	45.6	8.9	5.1
Immunocompromise	ImmSupp	Yes(1)	68	3	4.4	2.8	1.6
Peripheral Arterial Disease	PVD	Yes(1)	68	18	26.5	12.4	2.1
Cerebrovascular Disease	CVD	Yes(1)	68	11	16.2	14.3	1.1
Myocardial Infarction Timing	MiWhen	<= 6 hrs(1), > 6 hrs but < 24 hrs(2)	68	1	1.5	3.5	0.4
Heart Failure	CHF	Yes(1)	68	26	38.2	30.1	1.3
NYHA Classification	ClassNYH	Class IV(4)	68	2	2.9	8.9	0.3
Resuscitation	Resusc	Yes(1)	68	0	0.0	.	Data Not Reported
Arrhythmia	Arrhyth	> 30 days(2), <= 30 days(3)	68	16	23.5	17.6	1.3
Number Diseased Vessels	NumDisV	Three(4)	68	47	69.1	69.3	1.0
Ejection Fraction	HDEF	<= 25.0	68	0	0.0	.	Data Not Reported
Mitral Insufficiency	VDInSufM	Moderate(3), Severe(4)	68	6	8.8	13.8	0.6
Status -Emergent Salvage	Status	Emergent(3), Emergent Salvage(4)	68	0	0.0	.	Data Not Reported

AS EXPECTED

Ratio of Hospital Percent to California Percent is Less Than 2.5

HIGHER THAN EXPECTED

Ratio of Hospital Percent to California Percent is Between 2.5 and 3.5

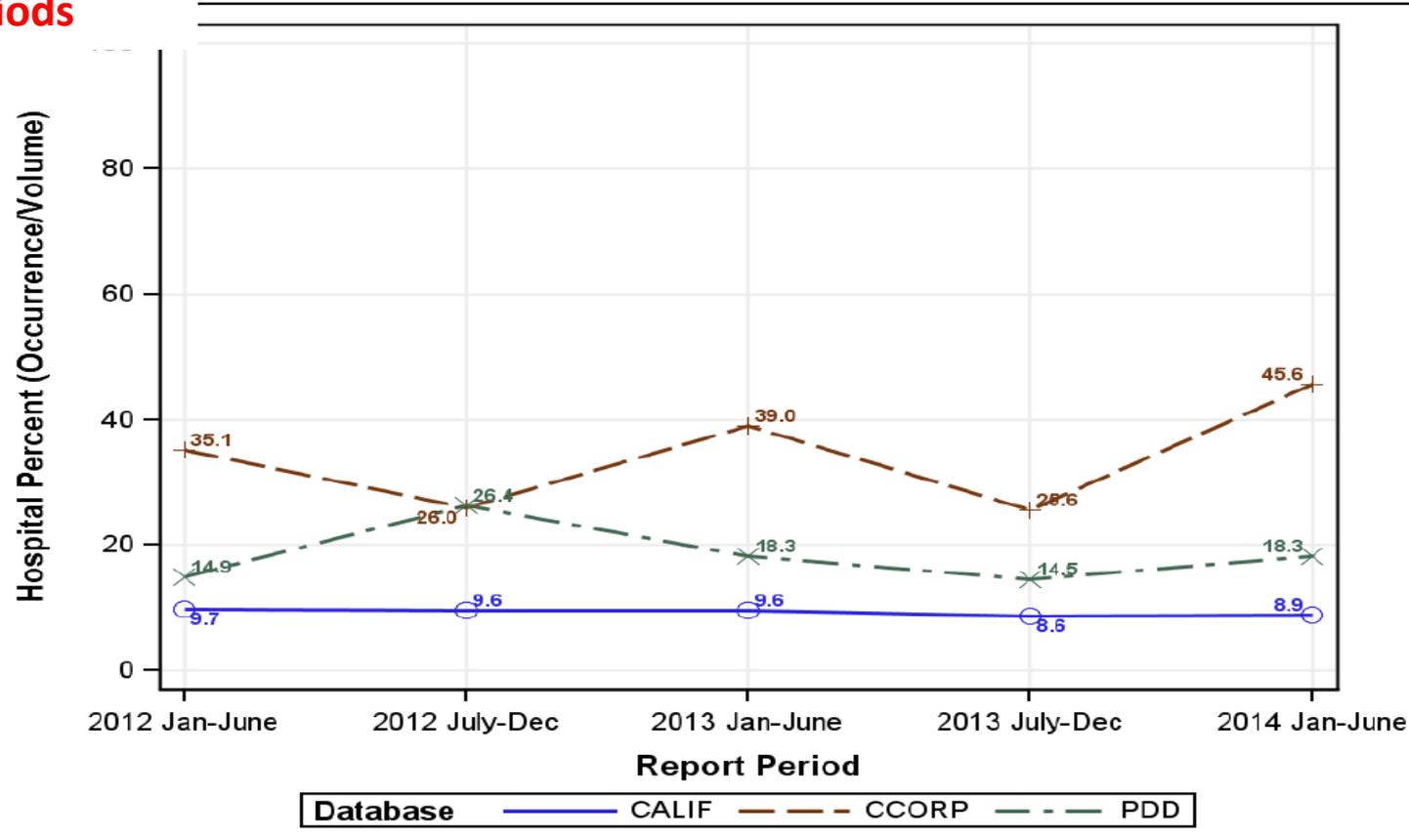
MUCH HIGHER THAN EXPECTED

Ratio of Hospital Percent to California Percent is 3.5 or Larger

Risk Factor Coding Reports

Sample RFC
comparison to
previous report
periods

Compare ChrLungD Rate Over Time



Database	2012 Jan-June	2012 July-Dec	2013 Jan-June	2013 July-Dec	2014 Jan-June
CALIF	9.7%	9.6%	9.6%	8.6%	8.9%
CCORP	35.1%	26.0%	39.0%	25.6%	45.6%
PDD	14.9%	26.4%	18.3%	14.5%	18.3%