## CPETS: CALIFORNIA PERINATAL TRANSPORT SYSTEMS

2016 & 2017 Data Collection and Reports

What's New in The Neonatal Transport Data Program, 2018

### Presented by:

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  - Director: Southern California Perinatal Transport System

# **CONFLICTS OF INTEREST**

- I have no conflicts of interest to disclose.
- I will not be making any recommendations on medications, devices or equipment in this lecture.

# **OBJECTIVES**

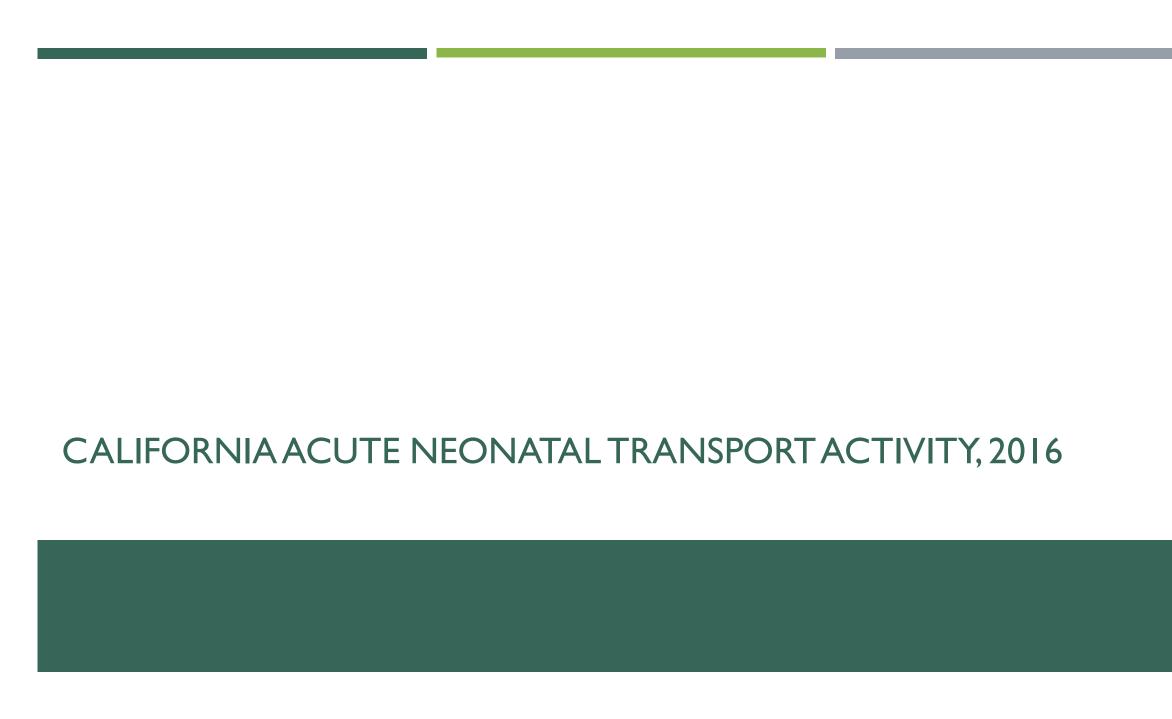
### Following the lecture, discussion and questions and answers, the participant will be able to:

- Evaluate acute neonatal transport activity in California with emphasis on issues with quality improvement potential at statewide, regional and hospital levels;
- Analyze CPeTS standard reports for neonatal transport data and list three potential quality improvement topics for implementation in the participant's practice or facility;
- Discuss facility plan for maintaining bed availability website; and
- Identify future topics for quality improvement and any necessary additional data points.

## CALIFORNIA PERINATAL TRANSPORT SYSTEM

Legislatively mandated by AB 4439 in 1976, required by California Perinatal Quality Care Collaborative (CPQCC), California Children's Services (CCS) and California Department of Public Health(CDPH), managed by Regional Perinatal Programs of California (RPPC).

- Bed Availability and Direct Referral Information
- Neonatal Data System
  - Collection and Entry
  - Standardized Reports
    - Transports In
    - Transports Out
  - Tools and Support Materials
- Maternal Transport Data System Development

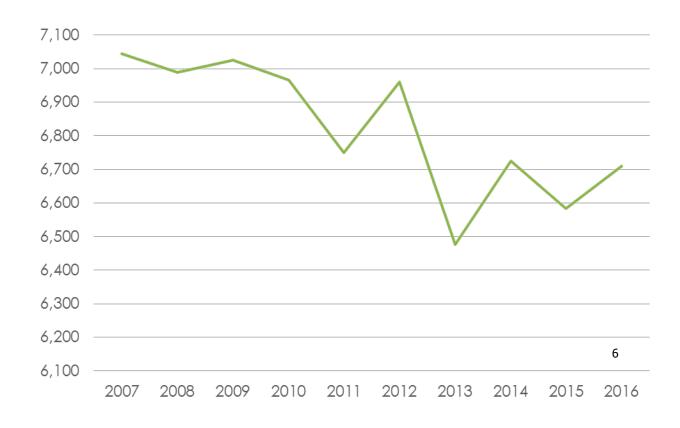


# QUALITY CALIFORNIA NEONATAL TRANSPORT DATA

72,423 total records over 11 years, averaging 6,823 per completed year.

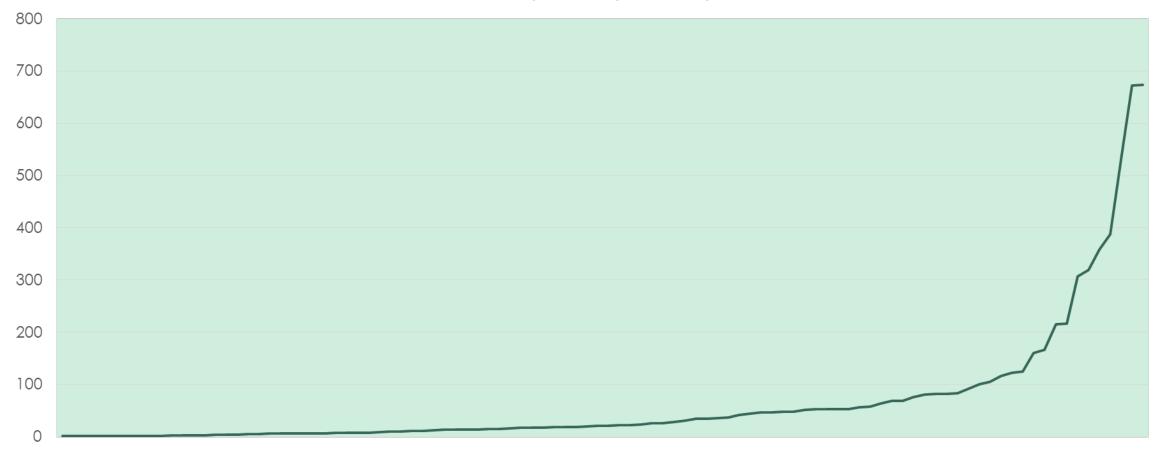
Year	Total Transports	Unknowns	Number of Entries per Record
2017 (YTD)	4,193	1.2	1.3
2016	6,710	1.3	1.7
2015	6,584	1.4	1.9
2014	6,724	2.5	1.9
2013	6,477	1.6	1.9
2012	6,961	1.4	2.3
2011	6,750	1.6	2.7
2010	6,965	1.9	3.3
2009	7,025	2.1	3.6
2008	6,989	2.6	35
2007	7,045	4.9	4.0

California Acute Transport Volume, 2007 to 2016



# NEONATAL TRANSPORTS BY FACILITY, 2016

Number of Acute Transports by Facility, 2016, California



# CALIFORNIA ACUTE TRANSPORT ACTIVITY BY FACILITY, 2016

- Total Acute Transports 6,710
- I38 member facilities
- 100 facilities reporting acute transports
- Range I to 674, Average 67. I
- Transport Volume
  - 38 facilities reporting no transports,
  - 30 facilities with ≤10 acute transports/year,
  - 38 facilities with 10-50 acute transports/year,
  - 16 facilities with 51-100 acute transports/year,
  - 16 facilities with > 101 acute transports/year.

## DESTINATION OF FIRST ACUTE TRANSPORT BY LEVEL OF CARE

Destination of First Transport, 2015									
Receiving Hospital Type	Number (%) Transported In* rounded independently								
Non-CCS ICNN	58/0.8%								
Intermediate NICU	82/1.2%								
Community NICU	2006/30%								
Regional NICU	4438/67%								
Total	6584 (100%)								

# VLBW INFANTS MAKE UP ONLY 13% OF ACUTE TRANSPORTS, CONSISTENTLY

Acute Neonatal Transports, by Birthweight Category, California, 2016								
VLBW (<1,500 grams)	847							
LBW + ABW (> 1,500 grams)	5,897							
Total	6,710							

- Daily hospital updates of Neonatal, ECMO and High Risk Maternity **Beds**
- **Monthly** reports from Regional **CPeTS** on Update Compliance
- **Quarterly** and as needed updates of Contact Information
- Kaiser integrated into main **Northern and Southern California Bed Availability** Lists



#### Home Northern California Southern California Bed Availability Northern California Southern California External Reference Search Quality Improvement Tools Neonatal Transport Data

Hospital:

System

Help

\* Admin - Kaiser Hospitals Password:

Login

# California Perinatal Transport System

















Add New Hospital | Remove Hospital | Update Bed Availability

#### View Bed Availability - Southern California

To obtain more detailed information about each provider, including contacts and phone numbers, click on the name of that center in the first column.

REGIONAL Centers	Beds Available					
<u>Hospital</u>	City	<u>Neonatal</u>	<u>ECMO</u>	High Risk Maternity	Last Update	
Cedars Sinai Medical Center	Los Angeles	2	open	open	10/2/2017 8:11:21 AM	
Children's Hospital of Los Angeles	Los Angeles	1	open	n/a	10/2/2017 6:55:43 AM	
Children's Hospital of Orange County	Orange	5 or more	open	n/a	10/1/2017 7:27:38 AM	
Desert Regional Medical Center	Palm Springs	2	n/a	n/a	10/2/2017 7:27:15 AM	
Harbor UCLA Medical Center	Torrance	3	n/a	open	8/8/2017 1:05:47 PM	
Huntington Memorial Hospital	Pasadena	2	open	open	10/2/2017 12:04:18 AM	
Kaiser Permanente Los Angeles Medical Center (Sunset)	Los Angeles	1	n/a	open	10/2/2017 7:58:07 AM	
LAC/USC Medical Center	Los Angeles	4	n/a	n/a	10/2/2017 8:42:19 AM	
Loma Linda University Children's Hospital	Loma Linda	3	open	n/a	8/8/2017 11:25:48 AM	
Mattel Children's Hospital at UCLA	Los Angeles	2	open	n/a	10/2/2017 7:26:25 AM	
Miller Children's Hospital	Long Beach	5 or more	n/a	open	10/1/2017 11:29:33 AM	
Rady Children's Hospital San Diego	San Diego	1	open	n/a	10/2/2017 8:13:39 AM	
Sharp Mary Birch Hospital for Women and Newborns	San Diego	3	n/a	open	10/2/2017 11:28:52 AM	
UC Irvine Medical Center	Orange	5 or more	n/a	open	9/14/2017 12:44:27 PM	
UC San Diego Medical Center	San Diego	2	n/a	closed	10/2/2017 7:24:14 AM	

COMMUNITY Centers	Beds Available				
<u>Hospital</u>	City	<u>Neonatal</u>	<u>ECMO</u>	High Risk Maternity	Last Update
	Line				10/2/2017

Direct Referral and Contact Information.
Updated quarterly and as needed by hospitals. Accessed by clicking on facility name in main listing.



<u>Home</u>

Northern California Southern California Bed Availability

Northern California
Southern California

External Reference

Search |

Quality Improvement

Tools

Neonatal Transport Data

<u>System</u> <u>Help</u>

#### Hospital:

\* Admin - Kaiser Hospitals 🔻

Password:

Login

### California Perinatal Transport System





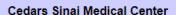












Last updated on 6/7/2017 1:30:44 PM

Hospital: Cedars Sinai Medical Center

City: Los Angeles

Type: REGIONAL

Address1: 8700 Beverly Boulevard Address2: Los Angeles 90048-1804

Main NICU 310-423-4451 telephone/Fax:

Main L&D 310-423-3601 telephone:

NICU Transport Coordinator

Name: Phone: 310-423-8369 Email:

OB Transport —

Name: Phone: 310-423-2400 Email:

—NICU Medical Director-

Name: CHARLES SIMMONS Phone: 310 885-4301 Email: CHARLES.SIMMONS@CSHS.ORG

—NICU Nurse Manager-

Name: SELMA Phone: 310 423-4451 Email: SELMA.BRAZIEL@CSHS.ORG

OB Medical Director

Sarah

Name: Kilpatrick, MD, Phone: 310 423-7433 Email: sarah.kilpatrick@cshs.org PhD

L&D Nurse Manager-

Name: PAULETTE Phone: 310 423-4451 Email: PAULETTE.ANEST@CSHS.ORG

Data Contact-

All materials and support documents accessible at perinatal.org website



# California Perinatal Transport System

















#### Home

Northern California Southern California Bed Availability

Northern California Southern California

External Reference

Search

Quality Improvement

Neonatal Transport Data

System Help

#### Hospital:

\* Admin - Kaiser Hospitals V

Password:

Login

### Neonatal Transport Data System

CPeTS Transport paper forms are no longer available from the Regional Offices. Please download and copy the forms as needed from this website

#### 2017 Materials

2017 Neonatal-Transport-Form(Word)

2017 Neonatal-Transport-Form(PDF)

2017 Color-coded Neonatal-Transport-Form(Word)

2017 Color-coded Neonatal-Transport-Form(PDF)

2017 CPeTS/CPQCC Neonatal Transport Data Report

Request(Word)

2017 CPeTS/CPQCC Neonatal Transport Data Report

Request(PDF)

2017 CPeTS-CPQCC-Neonatal-Transport-Data-Sytem-

Manual 2017(Word)

2017 CPeTS-CPQCC-Neonatal-Transport-Data-Sytem-

Manual 2017(PDF)

# MATERIALS AND RESOURCES

## **RESOURCES**

- Perinatal.org
- CPQCC.org
- Southern California CPeTS: 714 921-9755
  - Lisa Bollman: Lisa@perinatalnetwork.org
  - Kevin Van Otterloo: Kevin@perinatal.org
- Northern California CPeTS: 650 736-2210
  - Te Guerra: teguerra@Stanford.edu
  - Leona Dang-Kilduff: leonad@Stanford.edu

# CHANGES IN CPETS DATA COLLECTION FOR 2018

None

# DATA COLLECTION FORM

Data collection is the joint responsibility of the sending and receiving hospitals.

Sending

Receiving

Both

	RE CPETS	ACUTE INTE	R-FACILITY-	NEONATAL TRANSPOR	T FORM - 2018	PLEASE P	RINT CLEARLY		
PATIENT DIAGNOSIS							_		
Special Situations: None Deli				<del></del>			f		
C.1 Transport type Requested Deliv					C.7 Maternal Da	te of Birth			
C.2. Indication Medical Services Surgery Insurance Bed Availability									
CRITICAL BACKGROUND INFORMA	TION								
C.3 Birth weight grams, C.3a.	Birth Head C	ircumferenc	e am C.	4 Gestational Age	weeks days C	.5 Male	Female Quok		
C.6 Prenatally Diagnosed Congenital A	nomalies 🔲 '	Yes No [	Unknown	Describe:					
C.7.a. Rupture of Membranes > 18 hou	rs 🗆 Yes	□ No	Unknown	C.7b. Labor Type [	Spontaneous [	Induced	Unknown		
C.7c. Delivery Mode	us Vaginal [	Operativ		Cesarean Unk					
C.8a. Antenatal Steroids TYes No	Unknow	vn □N/A	C.8b. Ante	natal Magnesium Sulfa	ite 🗆 Yes 🗆 No	Unkno	wn		
TIME SEQUENCE					Date		Time		
C.10 Maternal Admission to Perinatal	Unit or Labor	& Delivery			T 2222	-			
C.12 Infant Birth	01111 01 20001	u Damay			+				
	Delivery Roon	ı 🗌 Nurser	y ∐ N/A _	Unknown					
C.14 Referral									
C.15 Acceptance									
C.16 Transport Team Departure from T	ransport Tear	n Office/NIC	U for Sending	Hospital					
C.17 Arrival of Team at Sending Hospit	al/Patient Bed	fside							
C.18 Initial Transport Team Evaluation									
C.19 Arrival at Receiving NICU									
INFANT C	ONDITION				REFERRAL PR	DCE88			
Modified TRIPS Score: to be recorded		thin 15 minu	tes of arrival	C.30 Sending Hospit		00200			
at sending hospital and admit to NICU.	un resentat, wi	21111 10 11111112	ico oi dilittai	Previous CPQCC ID:					
	Referrel	Initial	NICU	Sending Hospital N		formation N	ama/Talanhona		
		Transport	Admit	Containing Free phase in	aroning constant in		amor receptions		
C.20 Responsiveness   O				C.31a Previously Tra C.31b From:	insported? □Yes [	□No			
C.21 Temperature C*				C.32 Birth Hospital N	lame				
C. 21.a. Too low to register	∐Yes	∐Yes	∐Yes	C.33Transport Tean	On-Site Leader (d	theck only or	ie)		
C.21.b. Was the infant cooled?	YN	Y_N	□Y□N	☐Sub-specialist Phy					
C.21.c. Method of cooling+				Neonatal Nurse P	ractitioner 🏻 Trans	port Special	st Nurse		
C.22 Heart Rate				0.34- 7 5	Transition Hami		a Unanited		
				C.34a Team From [ Contract Service	Kecerving Hospi	talbendir	ig Hospital		
C.23 Respiratory Rate				C.34b Describe (nan	ne of Contract Serv	ice): I			
C.24 Oxygen Saturation				and a second control					
C.25 Respiratory Status ◆				C.35 Mode Groun	d Helicopter	Fixed Wing			
C.26 Inspired Oxygen Concentration				Death No Yes	Prior to Tear	n Arrival	Prior to Departure		
C.27 Respiratory Support ls.				from Sending Hospit	al Prior to Arriv	al at Receiv	ing NICU		
C.28 Blood Pressure				Transport Team Inf	ormant Names/Te	lephone Nu	mbera		
Systolic /									
Diastolic Mean									
Micalii				Comments					
C.28.a. Too low to register	∐Yes	□Yes	∐Yes						
C.29 Eressors	□Y□N	□Y□N	□Y□N						
Responsiveness: 0=Death 1=None, Seizure, Muscle Relaxant 2=Lethargic, no ony 3=Vigorously withdraws, cry + Method of cooling for HIE: Passive, Selective Head, Whole Body, Other, Unknown Respiratory Status: 1=Respirator 2= Severe (apnea, gasping, intubated not on respirator) 3=Other									
Respiratory Rate: HFOV = 400 & Respiratory Support: 0 = None, 1 = Hood Positive Airway Pressure, 3 = Endotrachea		e, Blowby 2:	= Nasal Continu	ious					
This data is mandatory for all infants tra	insported in th	ne State of C	alifornia per C	alifornia Perinatal Tran	sport System.		Rev 10/201		

## **ALTERNATE FORM**

Some items on the CORE CPeTS form were added over the years to improve CPQCC Admit/Discharge form data acquisition of difficult items on transported babies. There are not directly input into the neonatal transport database.

FI CO	ORE CPETS	Acute Inte	R-FACILITY-	NEONATAL TRANSPORT	Form - 2018					
PATIENT DIAGNOSIS   Special Situations: None Delivery Attendance Transport by Sending Hosp. Transport from ER Safe Surrender										
C.1 Transport type Delivery Attendance Emergent Urgent Scheduled C.2. Indication Medical Surgical Insurance Bed Availability										
CRITICAL BACKGROUND INFORMATION										
C.3 Birth weight grams C.4 Gestational Age weeks days C.5 Infant Sex Male Female Unik										
C.6 Prenatally Diagnosed Congenital Anomalies Yes No Unknown Describe:										
C.7 Maternal Date of Birth Unknown C.8a. Antenatal Steroids Yes No Unknown N/A										
C.8b. Antenatal Magnesium Sulfate										
TIME SEQUENCE					Date	Time				
C.10 Maternal Admission to (Perinatal	Unit or) Labo	r & Delivery								
C.12 Infant Birth										
C.9/13 Surfactant (first dose)	Delivery R	oom Nur	sery N/A	Unknown						
C.14 Referral (and Sending Hospita	l Evaluation T	ime)								
C.15 Acceptance										
C.16 Transport Team Departure from T	ransport Tear	m Office/NIC	U for Sendin	g Hospital						
C.17 Arrival of Team at Sending Hospit				- ·						
C.18 Initial Transport Team Evaluation										
	d Receiving N	ICU Admissi	on Evaluation	n)						
INFANT CONDITION				REFERRAL PROCESS						
Modified TRIPS Score: data should	Referral	Initial	NICU	C.30 Sending Hospital	Name					
be collected within 15 minutes of:		Transport	Admit	1						
C.20 Responsiveness ♥				Previous CPQCC Infan	t Record ID#					
0.04 T										
C.21 Temperature C°				Sending Hospital Nursing Contact Information Name/Telephone						
C. 21.a. Too low to register	□Yes	Yes	□Yes	C.31a Previously Transported? □Yes □No						
				C.31b From:						
C.21.b. Infant cooled for HIE?	□Y □N	YN	□Y □N	C.32 Birth Hospital Name						
C.21.c. Method of cooling +				C.33Transport Team On-Site Leader (check only one)						
C.22 Heart Rate						n Other MD/Resident				
C.23 Respiratory Rate				Neonatal Nurse Practitioner Transport Specialist Nurse						
C.24 Oxygen Saturation				C.34a Team Base T Contract Service (Na		isending Hospital				
C.25 Respiratory Status ◆				<del>                                     </del>						
C.26 Inspired Oxygen Concentration				C.35 Mode Ground Transport Team Infor						
C.27 Respiratory Support &				Transport realitimon	mant reamour rorop	MICHO HUMBERO				
C.28 Blood Pressure										
C.28.a. Systolic /				Comments						
C.28.b. Diastolic										
C.28.c. Mean Too low to register										
C.29 Pressors	Yes	Yes	Yes	-						
Additional Information for CPQCC A	dmit and Disc	harne Forn	Only							
-	umit anu Dis	unarge Form	Only	Labor Tree Court	naana 🗖 ladaaa	I Dilabanus				
Birth Head Circumference cm			_	Labor Type Sponta						
Delivery Mode Sppnt Vaginal C										
Death No Yes Prior to Teal OResponsiveness: 0=Death, 1=None, Sei					to Amival at Receivi	ing NICU				
3=Vigorously withdraws, cry, 9= Unknow	n	-								
+Method of cooling: Passive, Selective He										
*Respiratory Status: 1=Respirator 2= Ser respirator), 3=Other, 9= Unknown	vere (apnea, ga	sping, intubati	ed not on							
Respiratory Rate: HFOV = 400										
Respiratory Support: 0 = None, 1 = Hoo										
Continuous Positive Airway Pressure, 3 = 8 NOTE: C11. Omitted intentionally	Enuotracheal Ti	ube , 9= UNKN	DWI							
This data is mandatory for all infants tra	ansported in th	ne State of C	alifornia per	California Perinatal Transc	oort System.	Rev 10/2017				

Form used for primary care facilities to request their transport out data.

Form found on perinatal.org website.

CPeTS/CPQCC Neonatal Transport Data Report Request

Name of Person Requesting Data	
Hospital Affiliation/Region	
Full Hospital Address	
E-mail Address to send report to	
Date Needed (allow 2 weeks)	

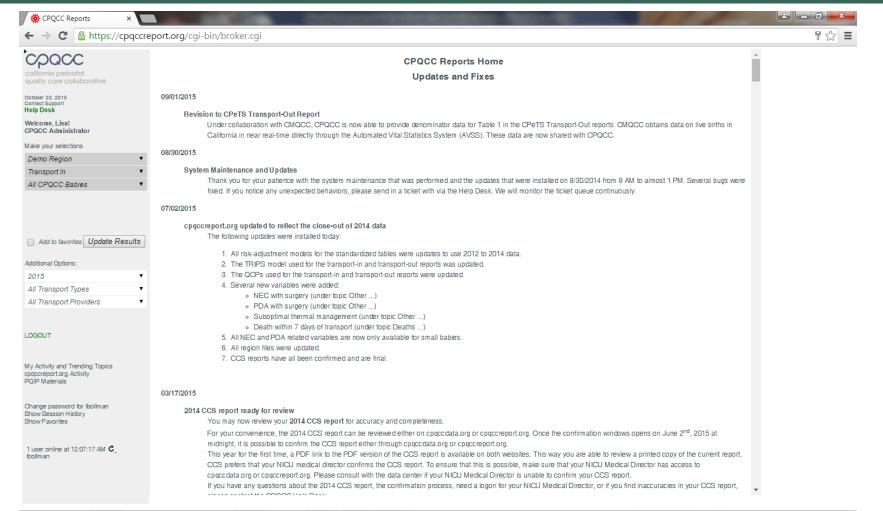
Please be as specific as possible when requesting reports. Please check all applicable and complete one set of information for each report requested. Send completed request to Lisa@perinatalnetwork.org

Select One From Below			Select One Transport Type		
CPQCC Member Facility Number	QCC Member Facility Number All Transp				
Non-CPQCC Facility OSHPD Number			Delivery Room Requested		
Perinatal Region					
Select One			Urgent		
Transport In			Scheduled		
Transport Out		Select	One Transport Provider Type		
Select One Data Year			Receiving Facility		
2010			Referring Facility		
2009			Contract Service		
2008					

.1

Sel	Select One From Below			Select One Transport Type		
	CPQCC Member Facility Number			All Transports		
	Non-CPQCC Facility OSHPD Number			Delivery Room Requested		
	Perinatal Region			Emergent		
Sel	ect One			Urgent		
	Transport In			Scheduled		
	Transport Out	Select One Transport Provider T				
Sel	ect One Data Year			Receiving Facility		
	2010			Referring Facility		
	2009			Contract Service		
	2008					

# CPQCCREPORT.ORG















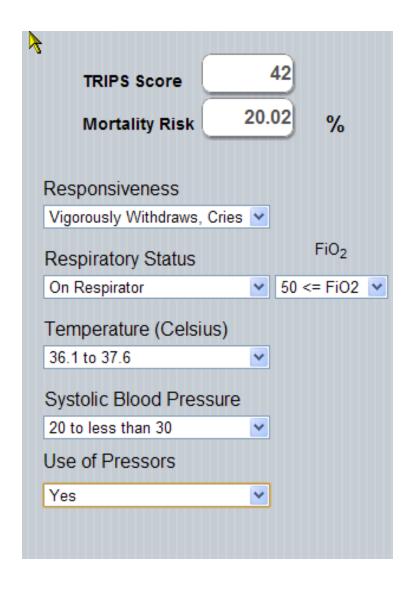




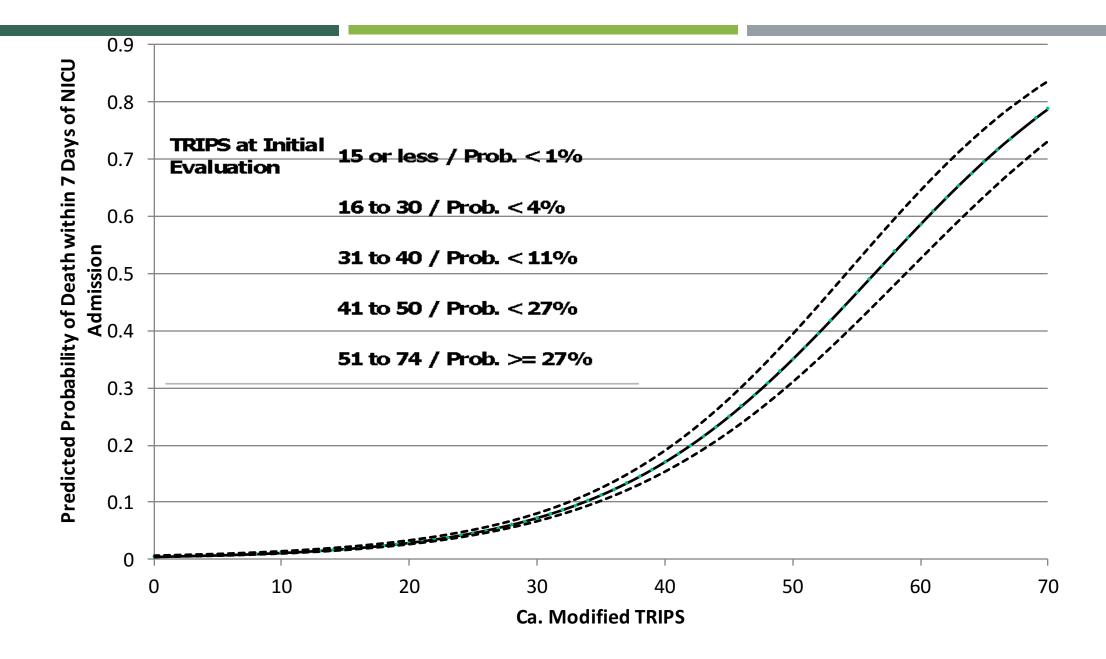












# REPORT CONTENT

## NEONATAL QUALITY IMPROVEMENT ISSUES

The Neonatal Transport Database was designed to inform quality improvement efforts on the following issues as well as many more.

- Perceived underutilization of maternal transport;
- Perceived delay in decision to transport infant;
- Difficulty in obtaining transport placement/ acceptance;
- Delay in effecting transport following decision; and
- Consistent referring facility competency regarding infant stabilization prior to the transport team's arrival, as well
  as transport team competency.

# STANDARDIZED REPORTS

- Statewide
- Regional
- Hospital
  - Transport In
  - Transport Out

# **TOOLS & MATERIALS**

# Neonatal Transports OUT Report: Infants born between 01/01/2016 and 12/31/2016 California Perinatal Quality Care Collaborative (CPQCC) and California Perinatal Transport System (CPeTS)

REFERRING LOCATION: SAMPLE FACILITY This report is final.

### **Contents:**

Table 1: Acute Transport OUT Activity, by Birth Weight

Table 2: Acute Transport OUT Activity by Transport Type and by Birth Weight

Table 3: Acute Transport OUT Activity by Transport Provider and by Birth Weight

Table 4: Time from Maternal Admission to Infant Birth

Table 5: Mean Time from Maternal Admission to Infant Birth, by Birth Weight

Table 6: Median Time from Maternal Admission to Infant Birth, by Birth Weight

Table 7: Time from Birth to Referral

Table 8: California TRIPS at Referral

Table 9: Mean California TRIPS at Referral, by Birth Weight

Table 10: Time from Referral to Acceptance

Table 11: Time from Acceptance to Transport Team Departure for Referring Hospital

Table 12: Time from Acceptance to Transport Team Arrival at Referring Hospital

Table 13: Time from Referral to Transport Team Arrival at Referring Hospital

Table 14: Mean Change in California TRIPS from Referral to Initial Evaluation, by Birth Weight

Table 15: Mean Change in California TRIPS from Initial Evaluation to NICU Admission, by Birth Weight

# Neonatal Transports IN Report: Infants born between 01/01/2016 and 12/31/2016 California Perinatal Quality Care Collaborative (CPQCC) and California Perinatal Transport System (CPeTS)

RECEIVING LOCATION: SAMPLE HOSPITAL This report is final.

#### Contents:

Table 1: Acute Transport IN Activity, by Birth Weight

Table 2: Acute Transport IN Activity by Transport Type and by Birth Weight

Table 3: Acute Transport IN Activity by Transport Provider and by Birth Weight

Table 4: Acute Transport IN Activity by Transport Mode and by Birth Weight

Table 5: Time from Referral to Initial Eval at Referring Hospital, Emergent Transports Only

Table 6: Time from Acceptance to Team Departure for Referring Hospital, Emergent Transports Only

Table 7: Time from Transport Team Departure to Initial Evaluation at Referring Hospital

Table 8: Time from Transport Team Departure to NICU Admission at Receiving Hospital

Table 9: Missing TRIPS by TRIPS Time and Birth Weight

Table 10: California TRIPS at Referral

Table 11: Mean California TRIPS at Referral, by Birth Weight

Table 12: California TRIPS at Initial Evaluation

Table 13: Mean California TRIPS at Initial Evaluation, by Birth Weight

Table 14: California TRIPS at NICU Admission

Table 15: Mean California TRIPS at NICU Admission, by Birth Weight

Table 16: Mean Change in California TRIPS from Referral to Initial Evaluation, by Birth Weight

Table 17: Mean Change in California TRIPS from Initial Evaluation to NICU Admission, by Birth Weight

# DATA MINING USING STANDARDIZED REPORTS AS SCREENING TOOLS

- Variations in practice between your facility and region, or level of care or total CPQCC network
- Outliers in practice
- Data that seems unlikely or incorrect
- Areas where quality improvement activities for the unit are underway
- Areas where expansion or change in level of care are anticipated
- Keep in mind small numbers can be misleading. Using multiple years of data can provide clarity in these situations.

## TRANSPORT IN STANDARDIZED REPORTS

Neonatal Transports IN Report: Infants born between 01/01/2016 and 12/31/2016

California Perinatal Quality Care Collaborative (CPQCC) and California Perinatal Transport System (CPeTS)

RECEIVING LOCATION: SAMPLE HOSPITAL This report is final.

### **Contents:**

- Table 1: Acute Transport IN Activity, by Birth Weight
- Table 2: Acute Transport IN Activity by Transport Type and by Birth Weight
- Table 5: Time from Referral to Initial Eval at Referring Hospital, Emergent Transports Only
- Table 6: Time from Acceptance to Team Departure for Referring Hospital, *Emergent Transports Only*
- Table 8: Time from Transport Team Departure to NICU Admission at Receiving Hospital
- Table 9: Missing TRIPS by TRIPS Time and Birth Weight
- Table 11: Mean California TRIPS at Referral, by Birth Weight
- Table 13: Mean California TRIPS at Initial Evaluation, by Birth Weight
- Table 15: Mean California TRIPS at NICU Admission, by Birth Weight
- Table 16: Mean Change in California TRIPS from Referral to Initial Evaluation, by Birth Weight
- Table 17: Mean Change in California TRIPS from Initial Evaluation to NICU Admission, by Birth Weight

# VOLUME: IS VOLUME ADEQUATE TO MAINTAIN COMPETENCY? FOR SMALL BABIES, LARGE BABIES? IS BIRTHWEIGHT OF TRANSPORTED IN BABIES APPROPRIATE FOR LEVEL OF CARE?

**Table 1: Acute Transports IN Activity, by Birth Weight** 

Dirth Woight (grams)	Cen	ter	CPQCC I	Network	<b>Community NICUs</b>		
Birth Weight (grams)	N	%	N	%	N	%	
All Birth Weights	82	100	6,710	100	2,085	100	
500 or less	0	0.0	14	0.2	2	0.1	
501 to 750	3	3.7	173	2.6	35	1.7	
751 to 1,000	<mark>4</mark>	4.9	202	3.0	64	3.1	
1,001 to 1,500	<mark>5</mark>	<mark>6.1</mark>	424	6.3	154	7.4	
1,501 to 2,500	<mark>23</mark>	<mark>28.0</mark>	1,692	25.2	599	28.7	
over 2,500	<mark>47</mark>	<mark>57.3</mark>	4,205	62.7	1,231	59.0	

# TRANSPORT TYPE: IS TRANSPORT TYPE APPROPRIATE? ARE THERE DEFINITION ISSUES? REFER TO NEONATAL TRANSPORT DATA DEFINITIONS MANUAL (PERINATAL.ORG)

Table 2: Acute Transports IN Activity by Transport Type and by Birth Weight

Birth Weight	Center				CPQCC Network				Community NICUs				
(grams)	N	DR	Emer- gent	Urgent	Sche- duled	DR	Emer- gent	Urgent	Sche- duled	DR	Emer- gent	Urgent	Sche- duled
All Birth Weights	82	4.9	18.3	<mark>72.0</mark>	4.9	6.3	40.1	40.5	12.8	5.5	30.8	43.9	19.2
500 or less	0	NA	NA	NA	NA	7.1	78.6	14.3	0.0	0.0	100	0.0	0.0
501 to 750	3	66.7	33.3	0.0	0.0	9.2	48.6	29.5	12.1	22.9	28.6	22.9	25.7
751 to 1,000	4	25.0	75.0	0.0	0.0	18.3	39.6	31.2	9.9	26.6	34.4	23.4	12.5
1,001 to 1,500	5	0.0	40.0	<mark>60.0</mark>	0.0	18.6	32.8	26.9	21.0	14.3	24.7	25.3	35.1
1,501 to 2,500	23	4.3	8.7	82.6	4.3	12.4	35.3	36.4	15.5	8.5	25.5	41.9	23.4
over 2,500	47	0.0	14.9	<mark>78.7</mark>	6.4	1.9	42.2	44.5	11.1	1.3	33.9	49.0	15.4

Notes:

Transport Type Other is not shown in the table.

# WHEN OUTLIERS ARE IDENTIFIED, CONSIDER CHART VIEW TO BETTER UNDERSTAND POSSIBLE ISSUES.

Table 5: Time from Referral to Initial Evaluation at Referring Hospital, *Emergent Transports Only* 

Time Difference	Center		CPQCC	Community
	N	%	Network %	NICUs %
All Infants Transferred In	13	100	100	100
Up to 30 minutes	0	0.0	4.7	0.8
31 - 60 minutes	3	23.1	12.4	13.3
61 - 90 minutes	3	23.1	23.7	28.0
91 - 120 minutes	3	23.1	24.1	23.4
>2 - 4 hours	3	23.1	29.7	30.1
>4 - 8 hours	0	0.0	4.3	3.2
>8 hours	1	<mark>7.7</mark>	<mark>1.1</mark>	<mark>1.1</mark>
Mean	5H 20M		2H 8M	2H 15M
Median	1H 35M		1H 40M	1H 40M

# WHAT IS YOUR INTERNAL STANDARD?

Table 6: Time from Acceptance to Team Departure for Referring Hospital, *Emergent Transports Only* 

Time Difference	Center		CPQCC	Community
	N	%	Network %	NICUs %
All Infants Transferred In	15	100	100	100
Up to 30 minutes	2	13.3	31.8	31.8
31 - 60 minutes	9	60.0	45.4	41.9
1 - 2 hours	1	6.7	16.5	19.2
2 - 4 hours	2	13.3	4.6	5.4
4 - 8 hours	0	0.0	1.2	1.1
> 8 hours	1	<mark>6.7</mark>	0.5	0.6
Mean	4H 11M		56M	1H 4M
Median	40M		40M	45M

# IS THE REFERRING FACILITY PREPARED WHEN TEAM ARRIVES? IS YOUR TRANSPORT TEAM SPENDING APPROPRIATE AMOUNTS OF TIME TO PROVIDE FOR SAFE, COMPETENT TRANSPORT? DO YOU HAVE ADEQUATE PERSONNEL?

Table 8: Time from Departure for Referring Hospital to NICU Admission at Receiving Hospital

Time Difference	Center		CPQCC	Community
	N	%	Network %	NICUs %
All Infants Transferred In	75	100	100	100
Up to 30 minutes	0	0.0	3.2	0.4
31 - 60 minutes	3	<mark>4.0</mark>	<mark>5.4</mark>	<mark>2.2</mark>
1 - 2 hours	18	24.0	31.2	37.0
2 - 4 hours	46	61.3	46.9	51.2
<mark>4 - 8 hours</mark>	8	10.7	12.3	<mark>8.7</mark>
> 8 hours	0	0.0	1.0	0.6
Mean	2H 44M		4H 7M	2H 36M
Median	2H 30M		2H 17M	2H 15M

#### TRIPS SCORES DEMONSTRATE INFANT RISK, MISSING SCORE DATA POINTS SHOULD BE ADDRESSED WITH TEAM AND REFERRAL FACILITY (BP).

Table 9: Missing TRIPS by TRIPS Time and Birth Weight

Digital Maight (agama)		Referral		Initial Evaluation			<b>NICU Admission</b>		
Birth Weight (grams)	N	N Missing	%	N	N Missing	%	N	N Missing	%
All Birth Weights	78	17	21.8	82	15	18.3	82	10	12.2
500 or less	0	0	NA	0	0	NA	0	0	NA
501 to 750	1	0	0.0	3	1	33.3	3	0	0.0
751 to 1,000	3	2	66.7	4	2	50.0	4	1	25.0
1,001 to 1,500	5	0	0.0	5	0	0.0	5	0	0.0
1,501 to 2,500	22	5	22.7	23	3	13.0	23	2	8.7
over 2,500	47	10	21.3	47	9	19.1	47	7	14.9

#### Notes:

The TRIPS at Referral is not applicable for DR attendance transports, therefore DR attendance transports are not included in the TRIPS at referral column.

The TRIPS at Initial Evaluation is not applicable for self transports, therefore self transports are not included in the TRIPS at initial evaluation column.

## THE TRIPS SCORE FOR THIS FACILITY FOR VLBW INFANTS AT REFERRAL IS HIGHER THAN TYPICAL FOR CPQCC OR OTHER COMMUNITY NICUS. DOES THE REFERRING FACILITY NEED EDUCATION, TRAINING, SUPPORT FOR RESUSCITATION AND STABILIZATION PRIOR TO TRANSPORT?

Table 11: Mean California TRIPS at Referral, by Birth Weight

Dirth Weight (gropes)	Ce	nter	CPQCC Network	Community NICUs Mean	
Birth Weight (grams)	N	Mean	Mean		
All Birth Weights	61	6.1	7.8	6.1	
500 or less	0	NA	29.3	40.0	
501 to 750	1	37.0	<mark>29.3</mark>	<mark>29.1</mark>	
751 to 1,000	1	37.0	<mark>21.7</mark>	<mark>25.4</mark>	
1,001 to 1,500	<mark>5</mark>	<mark>16.0</mark>	<mark>11.8</mark>	<mark>10.2</mark>	
1,501 to 2,500	17	4.7	6.7	5.0	
over 2,500	37	3.8	6.2	4.7	

15 or less / Prob. < 1%

16 to 30 / Prob. < 4%

31 to 40 / Prob. < 11%

41 to 50 / Prob. < 27%

51 to 74 / Prob. >= 27%

## WOULD THIS BE A TOPIC TO DISCUSS IN JOINT MORTALITY AND MORBIDITY CONFERENCES? CASE REVIEW?

Table 13: Mean California TRIPS at Initial Evaluation, by Birth Weight

Pirth Woight (grams)	Ce	nter	CPQCC Network	Community NICUs Mean	
Birth Weight (grams)	N	Mean	Mean		
All Birth Weights	67	7.7	8.2	6.6	
500 or less	0	NA	34.9	45.0	
501 to 750	2	<mark>55.5</mark>	<mark>29.6</mark>	<mark>32.5</mark>	
751 to 1,000	2	<mark>39.0</mark>	<mark>23.5</mark>	<mark>27.0</mark>	
1,001 to 1,500	5	12.8	14.3	12.5	
1,501 to 2,500	20	4.9	7.1	5.5	
over 2,500	38	4.3	6.1	4.5	

## NOTE SUBSTANTIAL IMPROVEMENT IN SCORES BETWEEN INITIAL TEAM EVALUATION AND NICU ADMISSION. THIS MAY BE A SIGN OF GOOD PRACTICE OR OF NEED TO CONSULT/ADVISE CHANGES IN CARE PRIOR TO TEAM ARRIVAL.

Table 15: Mean California TRIPS at NICU Admission, by Birth Weight

Birth Weight (grams)	Ce	nter	CPQCC Network	<b>Community NICUs</b>	
Diftii Weight (grains)	N	Mean	Mean	Mean	
All Birth Weights	72	7.2	8.2	6.3	
500 or less	0	NA	37.3	54.0	
501 to 750	3	<mark>33.3</mark>	31.5	31.9	
751 to 1,000	3	<mark>32.7</mark>	23.5	27.7	
1,001 to 1,500	5	12.8	13.5	10.9	
1,501 to 2,500	21	4.8	6.8	5.1	
over 2,500	40	3.9	6.2	4.3	

### QCP OF < 10% INDICATES THAT THERE WAS NO EXCESS DETERIORATION BETWEEN REFERRAL AND INITIAL EVALUATION.

Table 16: Mean change in TRIPS from Referral to Initial Evaluation, by Birth Weight

			C	enter		CPQCC	Community	
Birth Weight Q( (grams)	QCP	N Infants	N Infants Exceeding QCP	% Infants Exceeding QCP	Mean Change	Network Mean Change	NICUs Mean Change	
All Birth Weights	-	54	3	<mark>5.6</mark>	0.1	0.5	0.2	
500 or less	9	0	NA	NA	NA	5.4	5.0	
501 to 750	9	1	0	0.0	0.0	-1.0	-2.8	
751 to 1,000	4	0	NA	NA	NA	1.2	-0.1	
1,001 to 1,500	4	5	0	0.0	-3.2	0.9	0.5	
1,501 to 2,500	4	15	1	<mark>6.7</mark>	-0.2	0.5	0.5	
over 2,500	4	33	2	<mark>6.1</mark>	0.8	0.4	0.1	

Table 17: Mean change in TRIPS from Initial Evaluation to NICU Admission, by Birth Weight

			Се	CPQCC	Community			
Birth Weight (grams)	QCP	N Infants Exceeding Exceed		% Infants Exceeding QCP	Mean Change	Network Mean Change	NICUs	
All Birth Weights	-	66	2	3.0	-1.5	0.1	-0.2	
500 or less	11	0	NA	NA	NA	2.4	9.0	
501 to 750	11	2	0	0.0	-27.5	1.1	-0.2	
751 to 1,000	9	1	0	0.0	-33.0	1.3	1.0	
1,001 to 1,500	7	5	0	0.0	0.0	-0.4	-1.2	
1,501 to 2,500	4	20	1	<mark>5.0</mark>	0.0	-0.1	-0.2	
over 2,500	4	38	1	2.6	-0.3	0.1	-0.2	

#### TRANSPORT OUT STANDARDIZED REPORTS

#### Neonatal Transports OUT Report: Infants born between 01/01/2016 and 12/31/2016 California Perinatal Quality Care Collaborative (CPQCC) and California Perinatal Transport System (CPeTS)

REFERRING LOCATION: SAMPLE FACILITY This report is final.

Table 1: Acute Transport OUT Activity, by Birth Weight

Table 4: Time from Maternal Admission to Infant Birth

Table 5: Mean Time from Maternal Admission to Infant Birth, by Birth Weight

Table 8: California TRIPS at Referral

Table 9: Mean California TRIPS at Referral, by Birth Weight

Table 13: Time from Referral to Transport Team Arrival at Referring Hospital

VOLUME: THIS DEMONSTRATES APPROPRIATE CASE SELECTION AND/OR MATERNAL TRANSPORT. TOTAL TRANSPORT RATE 1.68/1,00 LBVS 2.77/1,000 LB IN CALIFORNIA.

VLBW TRANSPORT RATE IN FACILITY UNABLE TO PROVIDE ONGOING CARE: 0.2/1,000 VS. 0.4/1,000

**Table 1: Acute Transport OUT Activity, by Birth Weight** 

Birth Weight (grams)		Center			Gabriel-Inland Cary Care Hospit	California Primary Care Hospitals			
(9:0::::0)	Births Transports %			Births N	Transports N	%	Births N	Transports N	%
All	1,731	<mark>29</mark>	<mark>1.7</mark>	7,398	<mark>179</mark>	<mark>2.4</mark>	98,087	2,713	<mark>2.8</mark>
500 or less	0	0	NA	3	0	0.0	51	1	2.0
501 to 750	0	0	NA	1	1	100	75	28	37.3
751 to 1,000	0	0	NA	3	2	66.7	73	49	67.1
1,001 to 1,500	3	3	100	6	9	150	184	107	58.2
1,501 to 2,500	<mark>113</mark>	12	10.6	318	55	17.3	4,200	700	16.7
over 2,500	1,615	14	0.9	7,067	112	1.6	93,504	1,828	2.0

The Births columns are based on birth records captured in real-time through AVSS.

**Table 4: Time from Maternal Admission to Infant Birth** 

Time Difference	Cer	nter	LA-San Gabriel-Inland Orange Primary	_	
Time Difference	N	%	Care Hospitals %	Hospitals %	
All Infants Transferred Out	28	100	100	100	
Post Birth Admission	0	0.0	1.3	1.4	
0 - 2 hours	6	21.4	11.3	22.4	
>2 - 4 hours	4	14.3	23.9	18.4	
>4 - 6 hours	3	10.7	8.8	8.9	
>6 - 12 hours	9	32.1	19.5	17.1	
>12 - 36 hours	5	17.9	25.2	24.4	
>36 hours	1	3.6	10.1	7.4	
Mean	9H	14M	16H 13M	17H 51M	
Median	7H	1M	7H 23M	5H 43M	

OF THE 3 INFANTS BORN WEIGHING < 1,500 GRAMS, THE MEAN TIME OF MATERNAL ADMISSION TO BIRTH WAS 3 HOURS, 16 MINUTES – PROBABLY NOT SUFFICIENT TO ACCOMPLISH AND MATERNAL TRANSPORT. ONLY 12 OF THE 113 INFANTS BORN WEIGHING BETWEEN 1,500 AND 2,500 GRAMS WERE TRANSPORTED, MAKING IT DIFFICULT TO SAY WHICH MOTHERS MAY HAVE BENEFITTED FROM TRANSPORT.

Table 5: Mean Time from Maternal Admission to Infant Birth, by Birth Weight

		Center	LA-San Gabriel-	California Brimary
Birth Weight (grams)	N	Mean	Inland Orange Primary Care Hospitals Mean	California Primary Care Hospitals Mean
All	28	9H 14M	16H 13M	17H 51M
500 or less	0	NA	NA	3H 2M
501 to 750	0	NA	2D 18H 37M	18H 54M
751 to 1,000	0	NA	7H 46M	4H 22M
1,001 to 1,500	3	3H 16M	1D 1H 26M	15H 57M
1,501 to 2,500	<mark>12</mark>	8H 41M	20H 29M	16H 15M
over 2,500	13	11H 7M	12H 50M	19H 1M

## AT FIRST GLANCE IT APPEARS THAT ALL INFANTS IN THIS FACILITY HAD TRIPS SCORES WITH THE LOWEST PREDICTED MORTALITY IN THE FIRST 7 DAYS FOLLOWING TRANSPORT.....

Table 8: California TRIPS at Referral

TRIPS at Referral	Cer	nter	LA-San Gabriel-Inland Orange Primary	California Primary Care	
TRIPS at Referral	N %		Care Hospitals %	Hospitals %	
All Scores	25	100	100	100	
14 or less / Prob. < 1%	<mark>25</mark>	100	91.1	87.1	
15 to 31 / Prob. < 5%	0	0.0	5.2	8.4	
32 to 38 / Prob. < 10%	0	0.0	1.5	2.6	
39 to 49 / Prob. < 25%	0	0.0	0.7	1.6	
>=50 / Prob. >= 25%	0	0.0	1.5	0.3	
Mean Score	<mark>0</mark> .	<mark>6</mark>	<mark>3.7</mark>	<u>5.0</u>	
Median Score	0.	0	0.0	0.0	
N. I					

Notes:

For each TRIPS score range, the associated estimated risk of death within 7 days of transfer is displayed in the first table column.

# UNTIL WE NOTE THAT THE VLBW INFANTS HAD MISSING COMPONENTS OF THE TRIPS SCORE AND WE NOT ABLE TO BE CALCULATED. THIS SHOULD BE CONSIDERED A QUALITY IMPROVEMENT OPPORTUNITY.

Table 9: Mean California TRIPS at Referral, by Birth Weight

Birth Weight (grams)	Center		LA-San Gabriel-Inland Orange Primary	California Primary Care	
	N	Mean	Care Hospitals Mean	Hospitals Mean	
All	25	0.6	3.7	5.0	
500 or less	0	NA	NA	47.0	
501 to 750	0	NA	54.0	35.0	
751 to 1,000	0	NA	NA	23.7	
1,001 to 1,500	3	0.0	10.4	11.8	
1,501 to 2,500	10	0.7	2.2	5.0	
over 2,500	12	0.6	3.4	4.2	

## URBAN FACILITY WITH RECEIVING NICU LESS THAN 5 MILES FROM REFERRING FACILITY.

**Table 13: Time from Referral to Transport Team Arrival at Referring Hospital** 

Time Difference	Cer	nter	LA-San Gabriel-Inland Orange Primary	_
	N	%	Care Hospitals %	Hospitals %
All Infants Transferred Out	28	100	100	100
0 - 30 minutes	0	0.0	1.1	0.6
31 - 60 minutes	<mark>6</mark>	<mark>21.4</mark>	28.5	10.0
61 - 90 minutes	<mark>17</mark>	<mark>60.7</mark>	36.9	27.3
91 - 120 minutes	4	14.3	20.1	25.3
>2 hours	1	<mark>3.6</mark>	13.4	36.7
Mean	1H :	22M	2H 19M	2H 42M
Median	1H	17M	1H 15M	1H 45M

#### MATERNAL LEVELS OF CARE QUALITY IMPROVEMENT ISSUES

- Mothers who would have benefitted from transport but did not receive it.

#### THANK YOU FOR YOUR TIME AND COMMITMENT!