



# California Disaster and Medical Surge Capacity Analysis



California Neonatal-Pediatric  
Disaster Coalition Conference

June 2, 2011

**Description:** This report describes the current trends and demographics of the pediatric, neonatal acute care and critical care capacity in California. The data has been obtained from public and professional sources including:

- OSHPD
- CDPH
- California Hospital Association
- NACHRI
- California Children's Hospital Association
- Licensing and Accreditation
- Hospital Disaster Professionals
- National and State Pediatric Disaster Experts

The purpose of the report is to support health officers, emergency care managers and LEMSA administrators, community health care providers, pediatric regional centers, and pediatric-neonatal physician and nurse leadership in their local disaster preparedness efforts.

Data reflected is limited by the quality of the data collected and reported and should be validated at annual intervals to assess for significant changes that may impact planning or assumptions about the ability to provide mutual assistance or mutual aide.

When validating data from your community it is highly recommended using the most reliable sources e.g. Local CDPH Licensing and Accreditation, PICU or NICU medical or nurse director to assure the information is up to date. OSHPD data should be validated and not relied, as there may be errors, however it is helpful when evaluating trends and cumulative demographics.

This report was compiled by Patricia Frost RN, MS, PNP, EMS Director, Contra Costa County and respectfully submitted for the EMSAAC Board on behalf of the California EMS for Children Technical Advisory Group.

Comments and corrections are welcome and should be submitted to [pfrost@hsd.cccounty.us](mailto:pfrost@hsd.cccounty.us)

## 2010 California Pediatric and Neonatal Bed Capacity Analysis

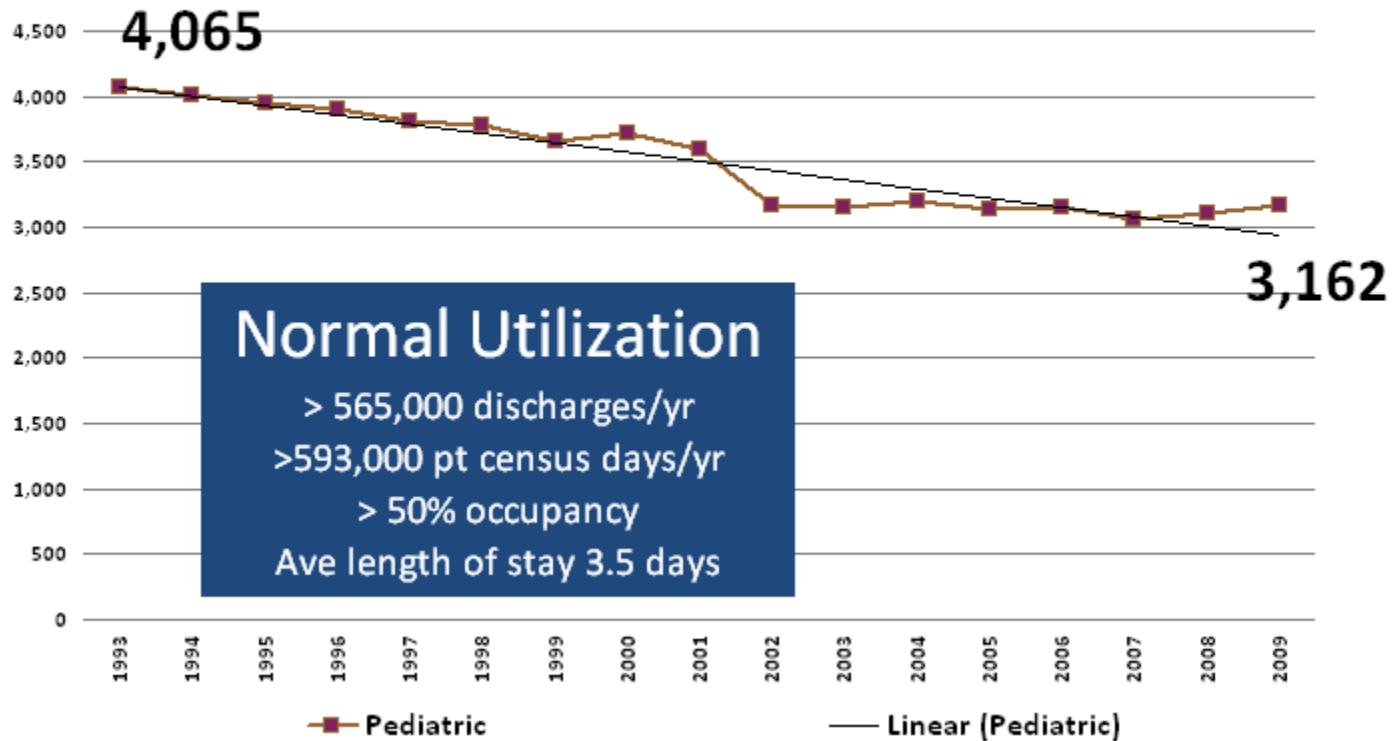
<b>Total Licensed Pediatric Acute Care Beds (Includes PICU beds) as reported by OSHPD 2009</b>	<b>County</b>	<b>Pediatric Population 2009 (0-17) Kids data.org</b>	<b>Ratio one Pedi/Neo Bed per pedi/neo population</b>	<b>PICU beds</b>	<b>Pedi Acute Care Beds without PICU beds included</b>	<b>Licensed NICU Beds</b>	<b>Licensed Nursery (Well Baby)</b>	<b>Licensed Adult ICU beds (&gt;14 yo pedi option)</b>	<b>Licensed OSHPD Med/Surg Beds 2009</b>	<b>Locally Reported Med Surg/Pedi Flex Beds</b>	<b>Calculated 5% Flex Capacity Potential for Disaster</b>
185	Alameda county	361,074	616	30	155	154	247	216	2072		690
0	Alpine	226	0	0	0	0	0	0	0		0
0	Amador	6,485	0	0	0	0	0	6	38		2
4	Butte	48,097	891	0	4	4	46	44	418		75
0	Calaveras	8,014	0	0	0	0	0	8	36		2
0	Colusa	6,475	0	0	0	0	0	6	28		1
15	Contra Costa	253,468	1,219	0	15	68	125	152	1157	44-48	266
0	Del Norte	6,330	0	0	0	0	0	6	49		2
0	El Dorado	39,778	0	0	0	0	0	16	125		6
8	Fresno	278,530	1,137	0	8	96	141	122	1135		302
0	Glenn	8,078	0	0	0	0	0	0	47		2
0	Humboldt	27,462	5,492	0	0	5	0	14	241		17
24	Imperial	47,800	693	0	24	11	34	28	176		78
4	Inyo	3,870	387	0	4	0	6	4	15		11
40	Kern	256,241	1,175	0	40	65	113	128	989		267
0	Kings	45,515	0	0	0	0	0	10	115		6
0	Lake	12,889	0	0	0	0	0	7	64		3
0	Lassen	6,789	0	0	0	0	0	0	34		2
1006	Los Angeles	2,758,141	624	242	986	1132	2059	1950	14179		5128
134	Madera	43,172	167	34	100	104	21	44	119		265
14	Marin	53,513	1,274	0	14	8	20	26	371		61
0	Mariposa	3,020	0	0	0	0	0	0	18		1
0	Mendicino	20,440	0	0	0	0	0	14	118		6

Total Pediatric Acute Care Licensed Beds	County	Children Age 0-17	Ratio bed Per Pedi/neo population	PICU beds	Pedi Acute Care Beds Without PICU Beds Included	Licensed NICU Beds	Licensed Nursery Well Baby Beds	Licensed Adult ICU Beds (>14 yo option)	Licensed OSHPD Med/Surg Beds	Locally Reported Flex Beds For Peds	Calculated 5% flex bed capacity potential for disaster
7	Merced	81,370	2,325	0	7	0	28	20	157		43
0	Modoc	2,103	0	0	0	0	0	0	20		1
0	Mono	3,001	0	0	0	0	0	0	13		1
26	Monterey	120,841	959	0	26	34	66	30	572		155
0	Napa	35,277	5,880	0	0	6	0	28	226		17
0	Nevada	18,216	0	0	0	0	0	8	115		6
201	Orange	800,097	903	42	213	253	378	638	3698		1071
41	Placer	84,654	448	10	31	64	84	58	409		209
0	Plumas	3,857	0	0	0	0	0	0	42		2
122	Riverside	614,983	1,618	8	114	120	138	219	2007		480
137	Sacramento	377,245	723	46	97	160	219	242	1854		615
0	San Benito	17,962	0	0	0	0	0	8	33		2
236	San Bernadino	609,585	805	97	241	222	197	426	2248		869
224	San Diego	807,600	921	54	222	312	289	483	3744		1064
142	San Francisco	119,130	357	39	140	129	26	254	2110		440
44	San Joaquin	235,268	1,245	0	44	55	90	70	790		229
12	San Luis Obispo	53,526	704	0	12	22	42	45	327		92
14	San Mateo	162,870	1,962	0	14	12	57	90	997		133
25	Santa Barbara	105,127	855	5	20	22	76	35	465		146
249	Santa Clara	451,611	551	68	249	256	247	296	2061		923
9	Santa Cruz	57,353	585	0	9	24	65	13	325		114
19	Shasta	42,490	833	0	19	16	16	69	445		73
0	Sierra	555	0	0	0	0	0	0	1		0
0	Siskiyou	9,494	0	0	0	0	0	8	49		2
0	Solano	108,533	0	0	0	0	0	59	397		20

Total Pediatric Acute Care Licensed Beds	County	Children Age 0-17	Ratio bed Per Pedi/neo population	PICU beds	Pedi Acute Care Beds Without PICU Beds Included	Licensed NICU Beds	Licensed Nursery Well Baby Beds	Licensed Adult ICU Beds (>14 yo option)	Licensed OSHPD Med/Surg Beds	Locally Reported Flex Beds For Peds	Calculated 5% flex bed capacity potential for disaster
19	Sonoma	117,990	1,113	10	3	33	60	66	551		134
32	Stanislaus	172,366	1,119	0	32	70	52	82	846		196
14	Sutter	29,811	877	0	14	4	16	8	104		39
0	Tehama	15,059	0	0	0	0	0	6	66		3
0	Trinity	2,787	0	0	0	0	0	0	25		1
24	Tulare	140,493	1,825	0	24	19	34	59	430		99
0	Tuolumne	9,656	0	0	0	0	0	10	88		4
30	Ventura	214,841	910	0	30	82	124	91	915		282
7	Yolo	48,195	1,506	0	7	4	21	14	92		37
0	Yuba	22,980	0	0	0	0	0	24	125		6
<b>3603</b>	<b>Total</b>	<b>9,992,333</b>	<b>17,505</b>	<b>685</b>	<b>2918</b>	<b>3566</b>	<b>5137</b>	<b>6260</b>	<b>47891</b>		<b>14701</b>

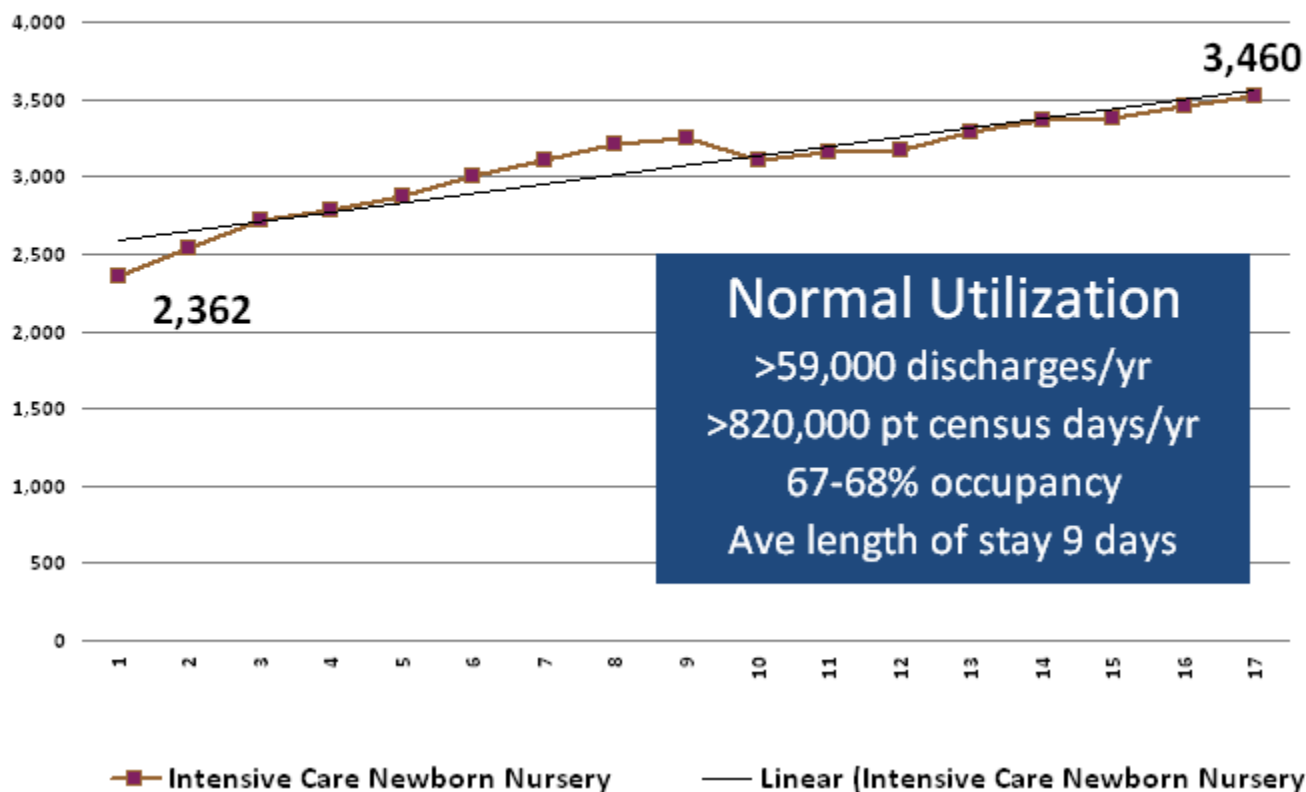
# Licensed Pediatric Acute Care Beds Lost 903

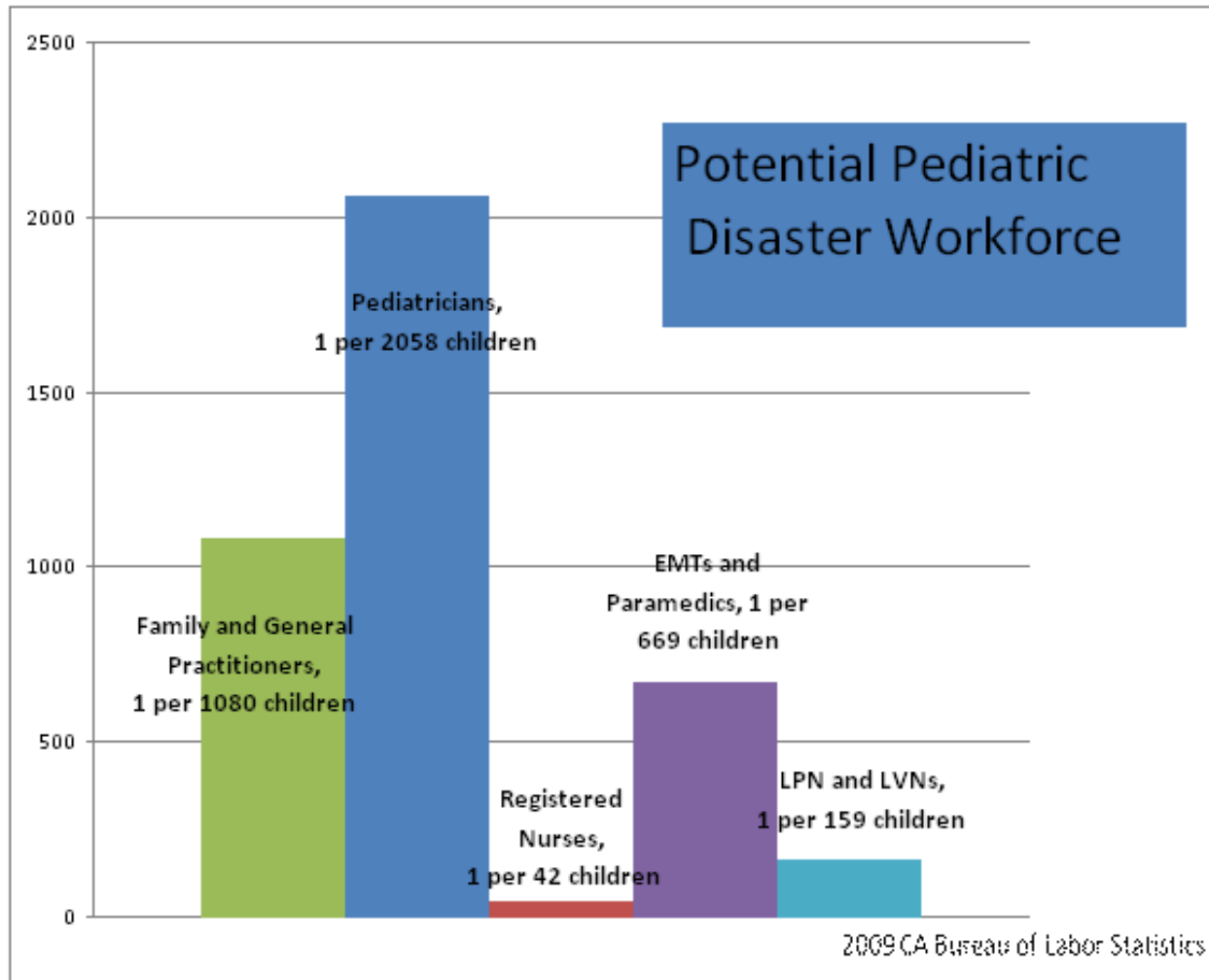
1993-2009 OSHPD California State Wide Data



## Intensive Care Newborn Nursery Licensed Beds Increased by 1098 beds

1993-2009 OSHPD Statewide Data

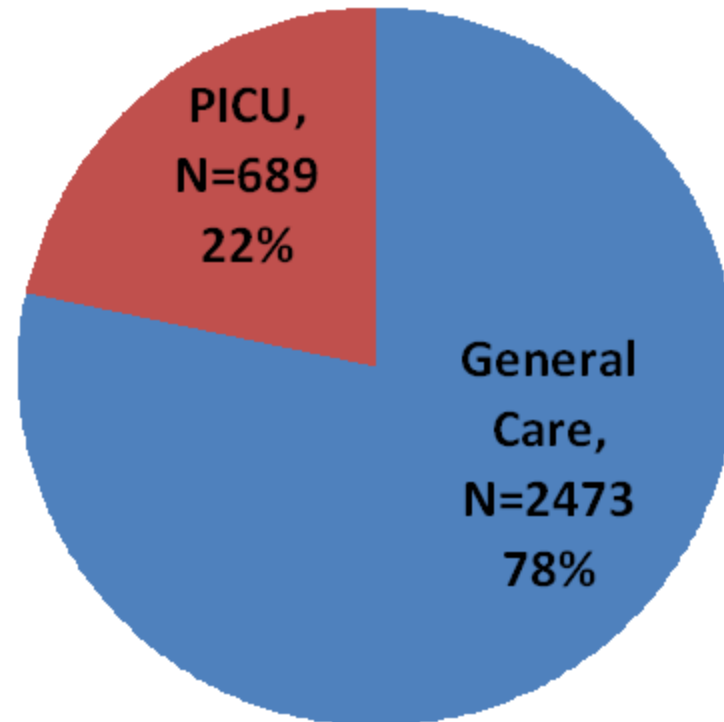


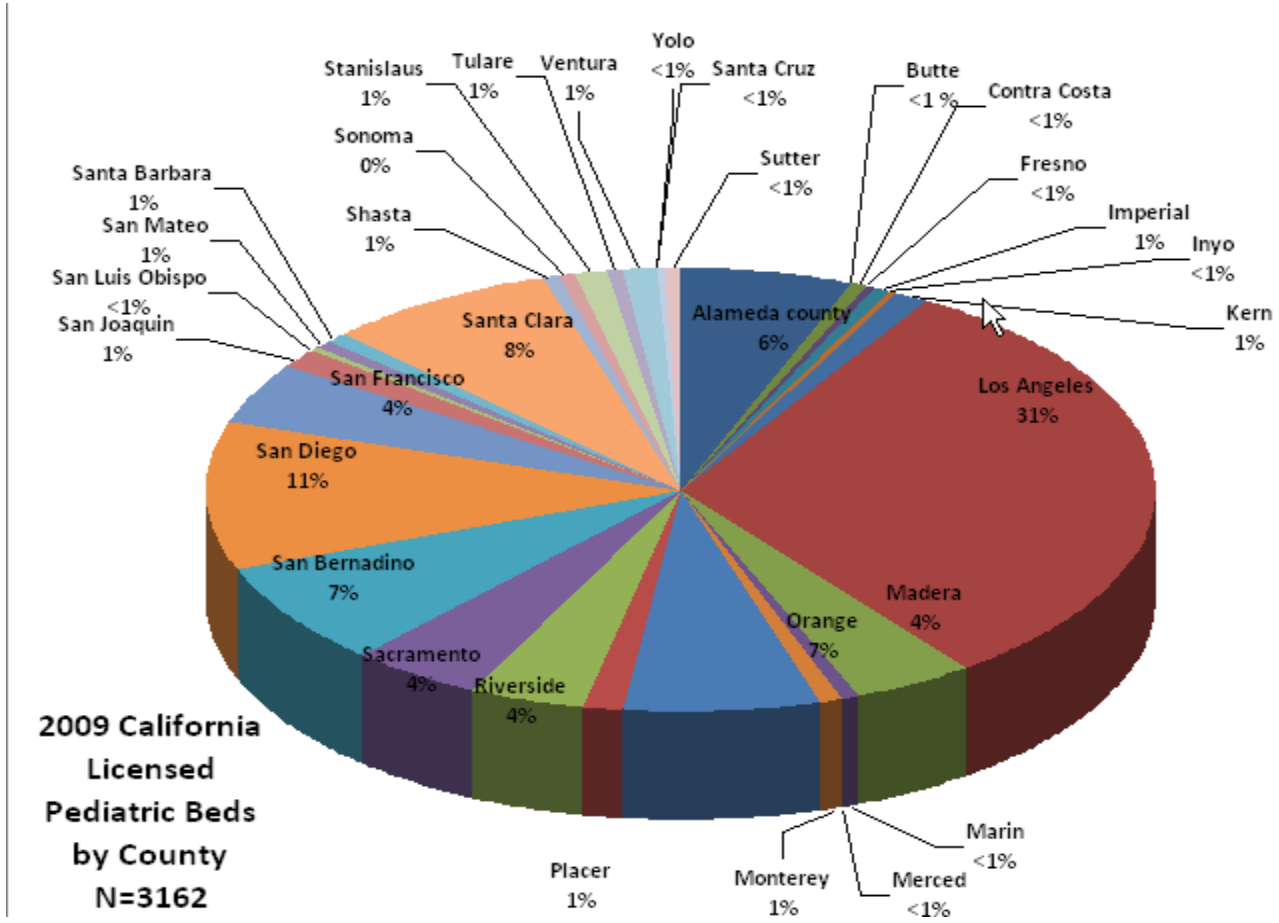




# California Pediatric Bed Capacity 2009

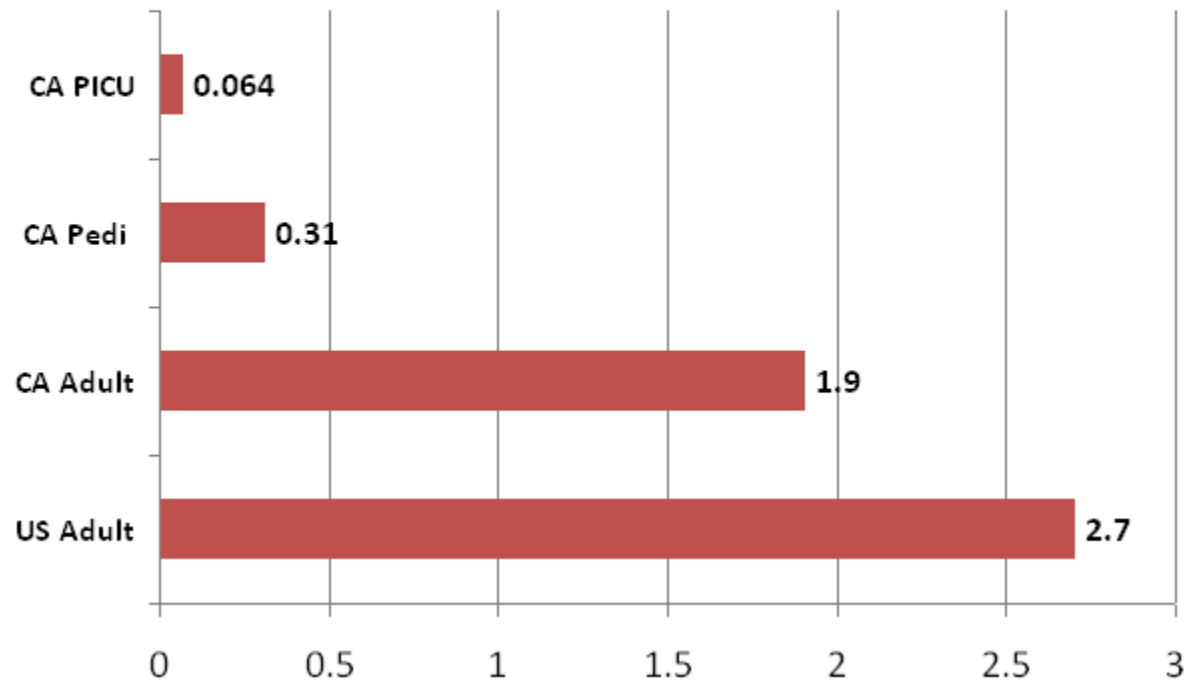
Licensed Acute Care Beds: OSHPD



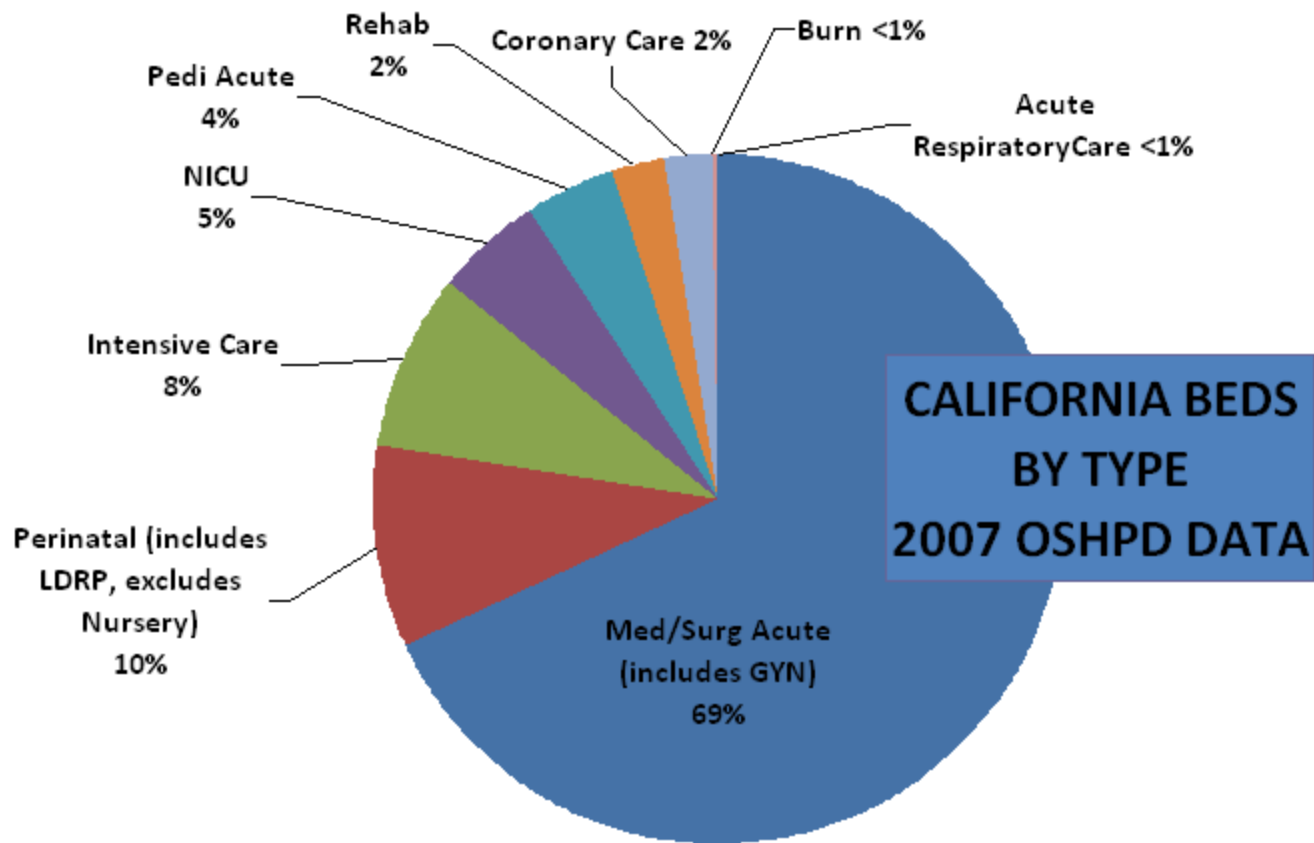


Distribution of licensed acute care pediatric beds in California, includes all community hospital and pediatric specialty center licensed beds PICU beds. It does not reflect pediatric beds that can be created using 5 % flex. Flexing beds using 5% of total licensed bed capacity is a common method used by community hospitals to accommodate pediatric patients. Example: Contra Costa has 15 licensed pediatric beds according to OSHPD but hospitals report being able to dedicate up to 44-48 beds for pediatrics.

## California Supply and Capacity: OSHPD 2009 Beds per 1000 Population

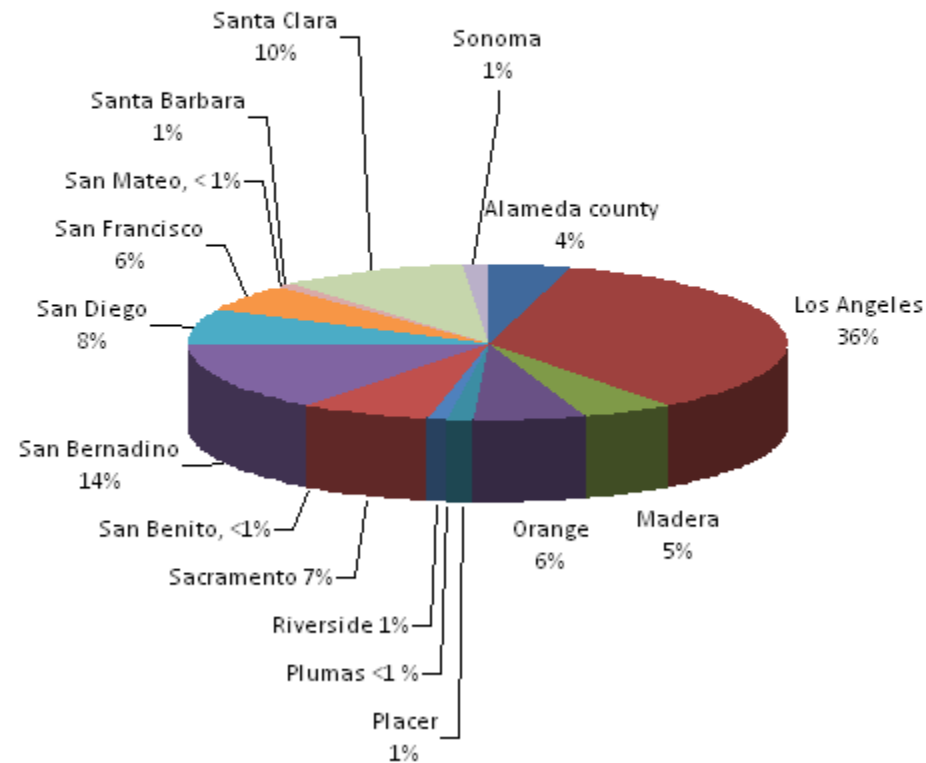


No National Pediatric and PICU bed capacity data is currently available



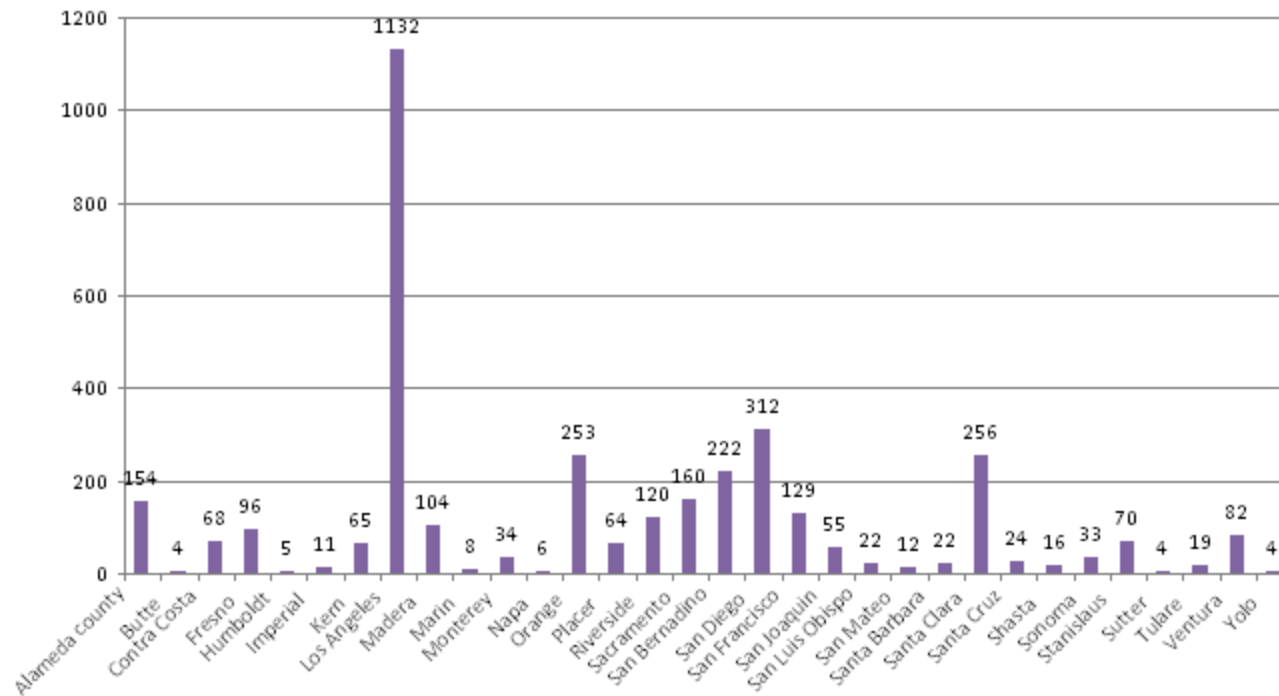
Although this reflects 2007 licensed bed capacity, demographics have not substantially changed.

## California PICU Bed Distribution by County 2010 N=685 beds



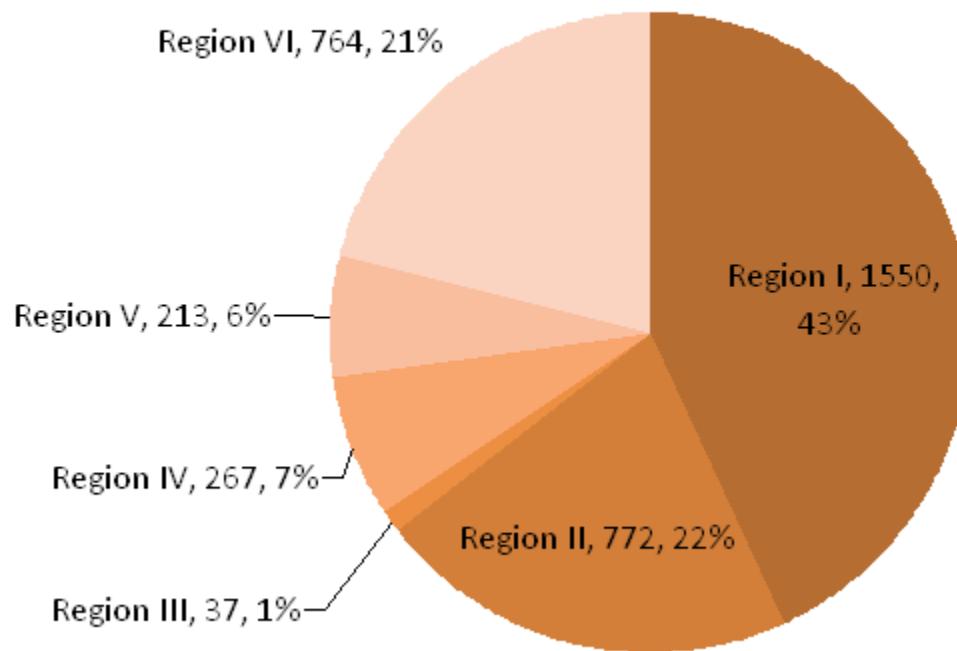
PICU beds are designated by CCS (California Children's Services) capacity is not reliably tracked by OSHPD or CCS.

## California NICU Beds by County 2010



NICU bed capacity is tracked by OSHPD however needs to be validated locally.

**Total Licensed Pediatric Acute Care Beds (Includes PICU beds) as reported by OSHPD 2009**

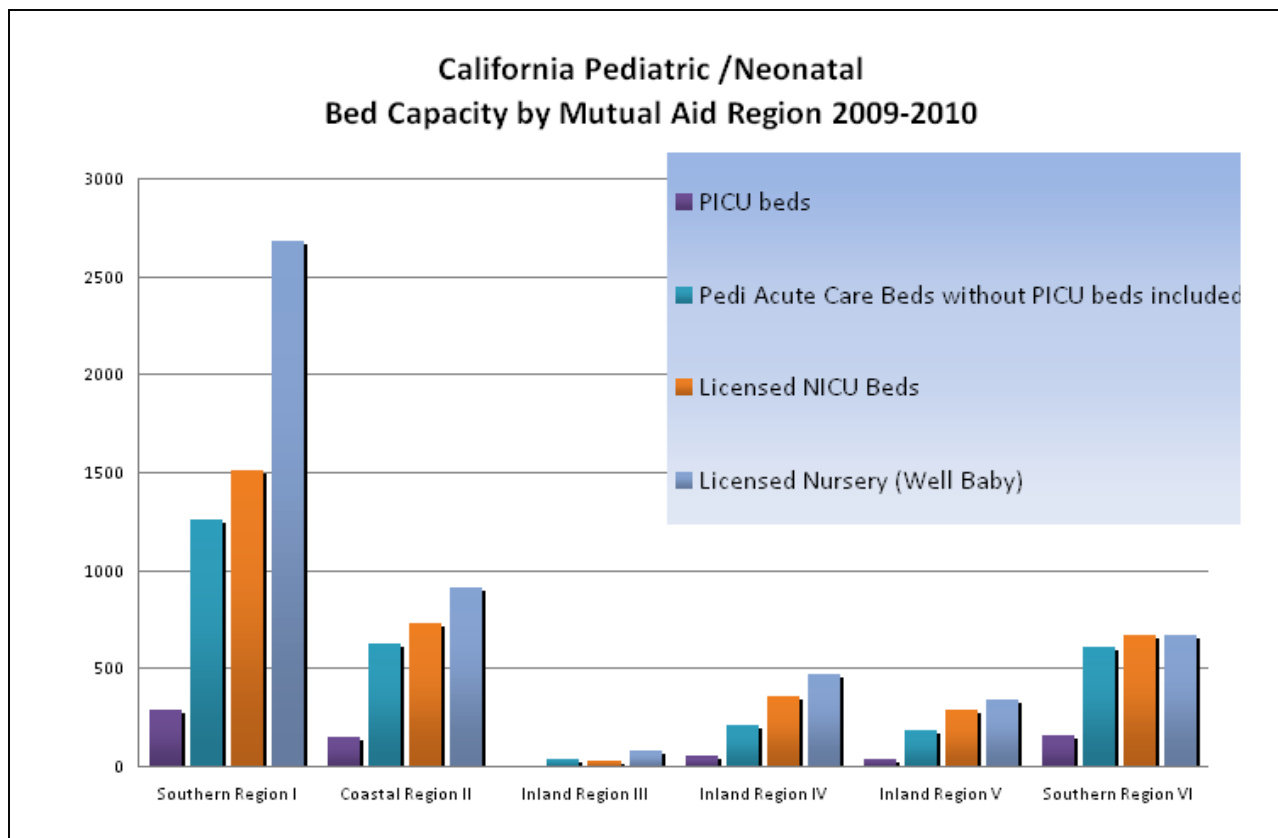


The following is the pediatric bed capacity distribution based on California Mutual Aid Regions.





OES Mutual Aid and Administrative Regions	Counties
Southern Region I	San Luis Obispo, Santa Barbara Ventura , Los Angeles, Orange
Coastal Region II	Del Norte, Humbolt, Mendocino Lake, Napa, Sonoma, Solano Contra Costa, Alameda, Santa Clara, San Mateo Marin, SF, Santa Cruz, Monterey
Inland Region III	Trinity, Siskiyou, Modoc Lassen, Plumas, Sierra, Yuba, Sutter, Colusa, Glenn, Tehama, Shasta, Butte, Colusa
Inland Region IV	Yolo, Sacramento, Nevada, Placer El Dorado, Alpine, Amadore, San Joaquin Stanislaus, Tuolumne
Inland Region V	Merced, Mariposa, Madera Fresno, Kings, Tulare, Kern
Southern Region VI	San Diego, Imperial, Riverside San Bernardino, Inyo, Mono



Graphic representation of all neonatal and pediatric bed capacity based on 2009-2010, OSHPD data, by Mutual Aid Region.



**Pedi/Neonatal Bed Capacity By Mutual Aid Regions**

<b>OES Mutual Aid and Administrative Regions</b>	<b>Total Licensed Pediatric Acute Care Beds (Includes PICU beds) as reported by OSHPD 2009</b>	<b>Pediatric Population 2009 (0-17) Kids data.org</b>	<b>Ratio one Pedi/Neo Bed per pedi/neo population</b>	<b>PICU beds</b>	<b>Pedi Acute Care Beds without PICU beds included</b>	<b>Licensed NICU Beds</b>	<b>Licensed Nursery (Well Baby)</b>	<b>Licensed Adult ICU beds (&gt;14 yo pedi option)</b>	<b>Licensed OSHPD Med/Surg Beds 2009</b>	<b>Calculated 5% Flex Capacity Potential for Disaster</b>
Southern Region I	1550	3931732	14866	289	1261	1511	2679	2759	19584	6719
Coastal Region II	772	1926743	13732	147	625	729	913	1279	11344	2981
Inland Region III	37	198575	5367	0	37	24	78	165	1404	209
Inland Region IV	267	1000103	18070	56	211	353	466	514	4393	1306
Inland Region V	213	848341	25130	34	179	284	337	383	2963	982
Southern Region VI	764	2086839	13730	159	605	665	664	1160	8203	2503

## Pediatric and PICU data by Hospital

Facility Name	PICU Beds	PEDI Beds	COUNTY
2009 PRELIMINARY HOSPITAL ANNUAL UTILIZATION DATA OSHPD	2010	2010	Available data to date
CHILDRENS HOSPITAL AND RESEARCH CTR AT OAKLAND	23	111	Alameda
EDEN MEDICAL CENTER	0	2	Alameda
KAISER FND HOSP - OAKLAND CAMPUS	10	33	Alameda
KAISER FND HOSP - HAYWARD	0	20	Alameda
WASHINGTON HOSPITAL - FREMONT	0	15	Alameda
VALLEYCARE MEDICAL CENTER	0	4	Alameda
ENLOE MEDICAL CENTER- ESPLANADE CAMPUS	0	4	Butte
CONTRA COSTA REGIONAL MEDICAL CENTER	0	0	Contra Costa
JOHN MUIR MEDICAL CENTER-WALNUT CREEK CAMPUS	0	3	Contra Costa
KAISER FND HOSP - WALNUT CREEK	0	12	Contra Costa
COMMUNITY REGIONAL MEDICAL CENTER-FRESNO	0	8	Fresno
UNIVERSITY MEDICAL CENTER	0	0	Fresno
EL CENTRO REGIONAL MEDICAL CENTER	0	12	Imperial
PIONEERS MEMORIAL HOSPITAL	0	12	Imperial
NORTHERN INYO HOSPITAL	0	4	Inyo
BAKERSFIELD MEMORIAL HOSPITAL- 34TH STREET	0	12	Kern
KERN MEDICAL CENTER	0	24	Kern
RIDGECREST REGIONAL HOSPITAL	0	4	Kern
ANTELOPE VALLEY HOSPITAL	0	22	Los Angeles
ST. MARY MEDICAL CENTER	0	28	Los Angeles
BEVERLY HOSPITAL	0	15	Los Angeles
CHILDRENS HOSPITAL OF LOS ANGELES	86	146	Los Angeles
CITY OF HOPE HELFORD CLINICAL RESEARCH HOSPITAL	1	18	Los Angeles
LOS ANGELES COMMUNITY HOSPITAL	0	12	Los Angeles
DOWNEY REGIONAL MEDICAL CENTER	0	7	Los Angeles

Facility Name	PICU Beds	PEDI Beds	COUNTY
<b>2009 PRELIMINARY HOSPITAL ANNUAL UTILIZATION DATA OSHPD</b>	<b>2010</b>	<b>2010</b>	<b>Available data to date</b>
GREATER EL MONTE COMMUNITY HOSPITAL	0	16	Los Angeles
HOLLYWOOD PRESBYTERIAN MEDICAL CENTER	15	11	Los Angeles
HUNTINGTON MEMORIAL HOSPITAL	9	25	Los Angeles
TORRANCE MEMORIAL MEDICAL CENTER	0	20	Los Angeles
KAISER FND HOSP - SUNSET	14	32	Los Angeles
PROMISE HOSPITAL OF EAST LOS ANGELES-EAST L.A. CAMPUS	0	5	Los Angeles
PROVIDENCE LITTLE COMPANY OF MARY MC - TORRANCE	0	13	Los Angeles
PROVIDENCE TARZANA MEDICAL CENTER	7	18	Los Angeles
COMMUNITY AND MISSION HSP OF HNTG PARK-FLORENCE	0	20	Los Angeles
MONTEREY PARK HOSPITAL	0	6	Los Angeles
CEDARS SINAI MEDICAL CENTER	8	31	Los Angeles
NORTHRIDGE HOSPITAL MEDICAL CENTER	8	14	Los Angeles
NORWALK COMMUNITY HOSPITAL	0	7	Los Angeles
POMONA VALLEY HOSPITAL MEDICAL CENTER	0	34	Los Angeles
PRESBYTERIAN INTERCOMMUNITY HOSPITAL	0	34	Los Angeles
CITRUS VALLEY MEDICAL CENTER - QV CAMPUS	0	18	Los Angeles
SANTA MONICA - UCLA MEDICAL CENTER AND ORTHOPAEDIC HOSPITAL	4	11	Los Angeles
PACIFICA HOSPITAL OF THE VALLEY	0	24	Los Angeles
SHRINERS HOSPITAL FOR CHILDREN - L.A.	0	30	Los Angeles
ST. FRANCIS MEDICAL CENTER	0	14	Los Angeles
UCLA MEDICAL CENTER Former Ronald Reagan	24	44	Los Angeles
VALLEY PRESBYTERIAN HOSPITAL	4	25	Los Angeles
WHITE MEMORIAL MEDICAL CENTER	4	28	Los Angeles
LAC/HARBOR-UCLA MEDICAL CENTER	10	34	Los Angeles
LAC+USC MEDICAL CENTER	10	25	Los Angeles
LOS ANGELES COUNTY OLIVE VIEW-UCLA MEDICAL CENTER	10	32	Los Angeles
KAISER FND HOSP - WOODLAND HILLS	0	7	Los Angeles
EARL AND LORRAINE MILLER CHILDRENS HOSPITAL	20	136	Los Angeles

Facility Name	PICU Beds	PEDI Beds	COUNTY
<b>2009 PRELIMINARY HOSPITAL ANNUAL UTILIZATION DATA OSHPD</b>	<b>2010</b>	<b>2010</b>	<b>Available data to date</b>
CHILDRENS HOSPITAL CENTRAL CALIFORNIA	34	218	Madera
MARIN GENERAL HOSPITAL	0	14	Marin
MERCY MEDICAL CENTER MERCED-COMMUNITY CAMPUS	0	7	Merced
COMMUNITY HOSPITAL MONTEREY PENINSULA	0	6	Monterey
SALINAS VALLEY MEMORIAL HOSPITAL	0	8	Monterey
NATIVIDAD MEDICAL CENTER	0	12	Monterey
CHILDRENS HOSPITAL OF ORANGE COUNTY	42	130	Orange
ANAHEIM GENERAL HOSPITAL	0	5	Orange
KAISER FND HOSP - ANAHEIM	0	11	Orange
FOUNTAIN VALLEY RGNL HOSP AND MED CTR - EUCLID	0	13	Orange
COASTAL COMMUNITIES HOSPITAL	0	9	Orange
ST. JUDE MEDICAL CENTER	0	12	Orange
WESTERN MEDICAL CENTER - SANTA ANA	8	26	Orange
HOAG HOSPITAL IRVINE	0	7	Orange
SUTTER ROSEVILLE MEDICAL CENTER	0	9	Placer
KAISER FND HOSP - SACRAMENTO/ROSEVILLE-EUREKA	10	32	Placer
CORONA REGIONAL MEDICAL CENTER-MAIN	0	5	Riverside
DESERT REGIONAL MEDICAL CENTER	0	14	Riverside
EISENHOWER MEDICAL CENTER	0	12	Riverside
JOHN F KENNEDY MEMORIAL HOSPITAL	0	22	Riverside
PARKVIEW COMMUNITY HOSPITAL MEDICAL CENTER	0	15	Riverside
RIVERSIDE COMMUNITY HOSPITAL	0	16	Riverside
KAISER FND HOSP - RIVERSIDE	0	17	Riverside
RIVERSIDE COUNTY REGIONAL MEDICAL CENTER	8	21	Riverside
MERCY SAN JUAN HOSPITAL step down picu?	0	8	Sacramento
METHODIST HOSPITAL OF SACRAMENTO??	14	14	Sacramento
UNIVERSITY OF CALIFORNIA DAVIS MEDICAL CENTER	12	40	Sacramento
SUTTER MEMORIAL HOSPITAL	20	61	Sacramento
SHRINERS HOSPITALS FOR CHILDREN NORTHERN CALIF.	0	20	Sacramento

Facility Name	PICU Beds	PEDI Beds	COUNTY
<b>2009 PRELIMINARY HOSPITAL ANNUAL UTILIZATION DATA OSHPD</b>	<b>2010</b>	<b>2010</b>	<b>Available data to date</b>
KAISER FND HOSP - FONTANA	6	25	San Bernardino
LOMA LINDA UNIVERSITY MEDICAL CENTER	91	100	San Bernardino
SAN ANTONIO COMMUNITY HOSPITAL	0	24	San Bernardino
COMMUNITY HOSPITAL OF SAN BERNARDINO	0	15	San Bernardino
ST. BERNARDINE MEDICAL CENTER	0	20	San Bernardino
ST. MARY REGIONAL MEDICAL CENTER	0	8	San Bernardino
REDLANDS COMMUNITY HOSPITAL	0	4	San Bernadino
VICTOR VALLEY COMMUNITY HOSPITAL	0	16	San Bernardino
ARROWHEAD REGIONAL MEDICAL CENTER	0	23	San Bernardino
KAISER FND HOSP - SAN DIEGO	0	23	San Diego
RADY Childrens-San Diego	54	132	San Diego
SCRIPPS MERCY HOSPITAL	0	28	San Diego
PALOMAR MEDICAL CENTER	0	23	San Diego
PARADISE VALLEY HOSPITAL	0	10	San Diego
TRI-CITY MEDICAL CENTER	0	6	San Diego
CALIFORNIA PACIFIC MED CTR-CALIFORNIA WEST	8	27	San Francisco
KAISER FND HOSP - SAN FRANCISCO	0	10	San Francisco
SAN FRANCISCO GENERAL HOSPITAL	0	8	San Francisco
CALIFORNIA PACIFIC MEDICAL CENTER - ST. LUKES CAMPUS	0	8	San Francisco
UCSF MEDICAL CENTER	31	87	San Francisco
DAMERON HOSPITAL	0	16	San Joaquin
SAN JOAQUIN GENERAL HOSPITAL	0	15	San Joaquin
ST. JOSEPHS MEDICAL CENTER OF STOCKTON	0	13	San Joaquin
FRENCH HOSPITAL MEDICAL CENTER	0	6	San Luis Obispo
SIERRA VISTA REGIONAL MEDICAL CENTER	0	6	San Luis Obispo
SAN MATEO MEDICAL CENTER	0	7	San Mateo
KAISER FND HOSP - REDWOOD CITY	0	7	San Mateo
SEQUOIA HOSPITAL	0	8	San Mateo
MARIAN MEDICAL CENTER	0	8	Santa Barbara

Facility Name	PICU Beds	PEDI Beds	COUNTY
<b>2009 PRELIMINARY HOSPITAL ANNUAL UTILIZATION DATA OSHPD</b>	<b>2010</b>	<b>2010</b>	<b>Available data to date</b>
REGIONAL MEDICAL OF SAN JOSE	0	20	Santa Clara
EL CAMINO HOSPITAL	0	7	Santa Clara
GOOD SAMARITAN HOSPITAL-SAN JOSE	4	17	Santa Clara
OCONNOR HOSPITAL - SAN JOSE	0	27	Santa Clara
SANTA CLARA VALLEY MEDICAL CENTER	12	40	Santa Clara
LUCILE SALTER PACKARD CHILDRENS HOSP. AT STANFORD	44	112	Santa Clara
KAISER FND HOSP - SANTA CLARA	8	26	Santa Clara
DOMINICAN HOSPITAL-SANTA CRUZ/SOQUEL	0	9	Santa Cruz
MERCY MEDICAL CENTER	0	19	Shasta
SANTA ROSA MEMORIAL HOSPITAL-MONTGOMERY	0	12	Sonoma
KAISER FND HOSP - SANTA ROSA	0	7	Sonoma
DOCTORS MEDICAL CENTER	0	22	Stanislaus
MEMORIAL HOSPITAL MEDICAL CENTER - MODESTO	0	10	Stanislaus
FREMONT MEDICAL CENTER	0	14	Sutter
KAWEAH DELTA MEDICAL CENTER	0	12	Tulare
TULARE DISTRICT HOSPITAL	0	10	Tulare
COMMUNITY MEMORIAL HOSPITAL-SAN BUENAVENTURA	0	5	Ventura
VENTURA COUNTY MEDICAL CENTER	0	16	Ventura
LOS ROBLES HOSPITAL AND MEDICAL CENTER	0	9	Ventura
WOODLAND MEMORIAL HOSPITAL	0	7	Yolo
<b>California Totals</b>	<b>686</b>	<b>3157</b>	<b>California</b>