



Report: Variation in NTSV C-section Rates Among California Hospitals

**Prepared by PBGH to help Members leverage data for
quality improvement**

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Table of Contents

| | |
|--|----|
| A. Introduction | 2 |
| B. Rising C-section Rate in Context | 3 |
| C. Health and Cost Impact of C-sections | 4 |
| D. California Statewide Key Findings | 5 |
| E. Analysis of C-section Variation by Region | 8 |
| Region 1: Northern California | 10 |
| Region 2: Golden Empire | 12 |
| Region 3: North Bay | 14 |
| Region 4: West Bay | 16 |
| Region 5: East Bay | 18 |
| Region 6: North San Joaquin | 20 |
| Region 7: Santa Clara | 22 |
| Region 8: Mid-Coast | 24 |
| Region 9: Central | 26 |
| Region 10: Santa Barbara | 28 |
| Region 11: Los Angeles | 30 |
| Region 12: Inland Counties | 34 |
| Region 13: Orange | 37 |
| Region 14: San Diego/Imperial | 39 |
| F. Appendix A: How to Read and Interpret this Data | 41 |

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A. Introduction

Despite widely documented health risks and cost increases associated with cesareans, the C-section rate in California is currently 32% - up nearly 60% from 1997. Alarming, as the C-section rate has risen, maternal and perinatal morbidity has worsened. The dramatic variation in C-section rates among hospitals reflects the overuse of this often avoidable and potentially harmful procedure. Narrowing variation and lowering the average C-section rate will lead to better quality care, improved health outcomes, and reduced costs.

The Purchaser Value Network (PVN), an initiative of the Pacific Business Group on Health (PBGH), details four distinct strategies in its [Employer Action Guide to Advancing High Value Maternity Care](#) that Members can adopt to actively narrow C-section variation. **Risk-adjusted hospital quality data is critical to the implementation of all four of these strategies: apply pressure to facilities with high C-section rates, implement value based payment contracts that reward hospitals for good performance, ensure benefit coverage that facilitates access to high value services, and drive beneficiaries to higher performing facilities.** This Report analyzes quality data¹, which were publicly reported for 2015, for California's 241 delivery hospitals, and provides Members with the data to drive quality improvement.

First at the state and then on a regional level, this Report focuses on variation in the Nulliparous Term Singleton Vertex (NTSV) C-section rates among California hospitals. NTSV births are at lower risk for C-sections as compared to other deliveries because they occur among women who are first-time mothers (Nulliparous), bear a single child at full term (Term Singleton), and have babies positioned head down (Vertex).

California's 2015 NTSV C-section rate was 25.9%, 2 percentage points (or 9400 births) above the 2020 NTSV benchmark of 23.9% set forth in the [Surgeon General's Healthy People 2020](#) report. Currently, less than half (43%) of California hospitals meet this guideline. Still, hospitals have shown progress since 2012 when only 33% of hospitals met this benchmark. Similarly, the overall NTSV rate has dropped 1.9 percentage points since 2012, representing about 10,000 fewer C-sections. Although many hospitals have succeeded at lowering their NTSV C-section rate over the past few years, variation persists in hospitals across the state. 2015 NTSV C-section rates vary from a low of 11% to a high of 77%, implying that a woman's chance of undergoing the procedure depends greatly on where in California she lives and in which facility she gives birth.

The extreme variation in hospital NTSV C-section rates illustrate the inconsistent quality and overuse of avoidable procedures that plague the healthcare system. Hospitals, however, can achieve quick and dramatic change as demonstrated in a PBGH-led [quality improvement pilot](#) where three forward-thinking hospitals significantly reduced their NTSV C-section rate within less than a year. Due to the success of this pilot, PBGH and its partners ramped up C-section reduction efforts across the state in early 2015. In spring of 2016, the California Maternal Quality Care Collaborative (CMQCC) released a

¹ Hospital data collected by the California Maternal Quality Care Collaborative (CMQCC) and reported by the California Hospital Assessment and Reporting Task Force (CHART) on [CalHospitalCompare.org](#).

hospital resource, “[Toolkit to Support Vaginal Birth and Reduce Primary C-sections](#)” and with the support of the California Health Care Foundation, launched quality collaboratives across the state to guide hospitals’ implementation of the toolkit.

Using the data in this Report and the actions outlined in the [PVN Action Guide](#), Members can promote a high value maternity care system that moderates costs, improves birth outcomes, and, ultimately, improves the health of mothers and families.

B. Rising C-section Rate in Context

C-sections are clinically recommended for 10% to 20% of births.^{2,3} Yet, about 32% of all women deliver by C-section.⁴ Between 1997 and 2008, the national C-section rate rose from 21% to 33%, an increase of nearly 60%. This increase occurred across all demographics, ethnicities, and health profiles (such as high BMI and advanced maternal age).

Disconcertingly, the sharpest increase in C-sections over the last twenty years has occurred among women with the lowest-risk pregnancies.⁵ Given the low rates of vaginal birth after a cesarean section, once a woman undergoes her first C-section, she is extremely likely to continue to have them in subsequent births,⁶ further increasing C-section rates.

Exhibit 1: Overall US C-section Rate, National Center of Vital Statistics

| Rapidly Rising C-section Rate | |
|-------------------------------|--------------|
| • | 1965 / 4.5% |
| • | 1980 / 16.9% |
| • | 1997 / 21% |
| • | 2008 / 33% |
| • | 2015 / 32% |

According to the National Partnership for Women and Families, the following factors contribute to the high C-section rate:

- Most hospital environments are not conducive to letting labor take its natural course
- Risks associated with common labor interventions (epidural, Pitocin) accumulate

² World Health Organization Statement on Caesarean Section Rates, 2015

³ Molina, et al. “Relationships Between Cesarean Delivery Rate and Maternal and Neonatal Mortality.” *JAMA*, 2015; 314(21):2263-2270.

⁴ Main, E. “Cesarean Deliveries, Outcomes, and Opportunities for Change in California: Toward a Public Agenda for Maternity Care Safety and Quality.” California Maternal Quality Care Collaborative, 2011.

⁵ Macdorman, M.F. (2008). Cesarean Birth in the United States: Epidemiology, Trends, and Outcomes. *Clin Perinatol*, 35: 293-307.

⁶ *Ibid.*

- Increasingly casual attitudes and limited awareness about the harms associated with surgery
- Variation in physician training and practice style
- Misaligned incentives benefit providers with higher C-section rates, including compensation and convenience⁷

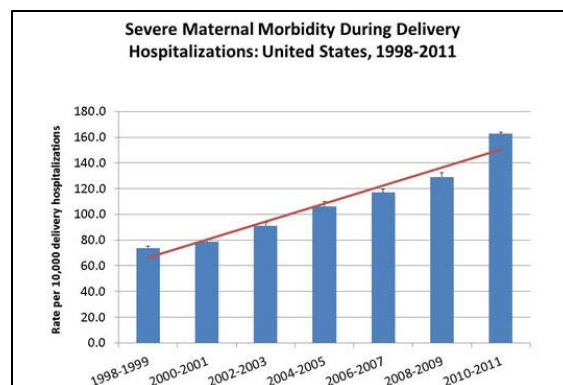
A hospital's C-section rate reflects a facility's labor management practices, which also impact patient experience and healthcare spending. Analyzing variation in C-section rates offers a glimpse into the inconsistent quality and erratic nature of care received by laboring women. Using the evidence and tools from CMQCC's toolkit, hospitals and labor and delivery staff can start to address drivers of high C-section rates.

C. Health and Cost Impacts

NTSV C-sections occur among the healthiest and lowest risk populations and are associated with increased morbidity. Healthy, pregnant women who undergo C-sections that are not medically indicated are more likely to experience complications, are less likely to breastfeed, and have a slower return to work than those who deliver vaginally. Given the low rates of vaginal birth after a C-section, once a woman undergoes a C-section she is very likely to continue to have them for subsequent births. Additionally, women who undergo C-sections have a longer recovery time and lower satisfaction with their birth experience.^{8 9}

Unfortunately, the rise in C-sections has also paralleled adverse changes in maternal and perinatal health outcomes. As the rate of C-sections has steadily increased, maternal morbidity and mortality have tripled. Perinatal outcomes have also not demonstrated any improvements. Research from the Center for Disease Control (CDC) suggests that mothers and babies are more likely to experience severe morbidity during birth today than they were 15 years ago, when the C-section rate was lower (Exhibit 2).

Exhibit 2: US Increase in Severe Maternal Morbidity, 1998 – 2011, CDC



⁷ For more information about the causes of the escalating C-section rate, reference [Why Is the National U.S. Cesarean Section Rate So High?](#)

⁸ Kuklina, EV et al. (2009) Severe obstetric morbidity in the United States: 1998-2005. *Obstet Gynecol.* 113 (2 Part 1):293-9.

⁹ Weisman, O., et al. (2010). The experience of labor, maternal perception of the infant, and the mother's postpartum mood in a NTSV community cohort. *Arch Women's Ment Health.* (6): 505:1.

The US spends \$111 billion dollars annually on maternal and newborn care – more than any other high-income country.¹⁰ The frequency of childbirth and the cost per birth makes pregnancy and newborn care one of the largest health care spends for both private insurers and Medicaid.¹¹ In California, C-sections cost on average twice as much as vaginal births, further increasing costs.¹² **Any time a C-section can be prevented, payers save up to \$10,000.**¹³ Even a small reduction in the number of C-sections can translate into large savings. In summary, maternity care is rife for opportunities for improvement and employers pay heavily for worsening outcomes in maternity care through tax dollars and insurance premiums.

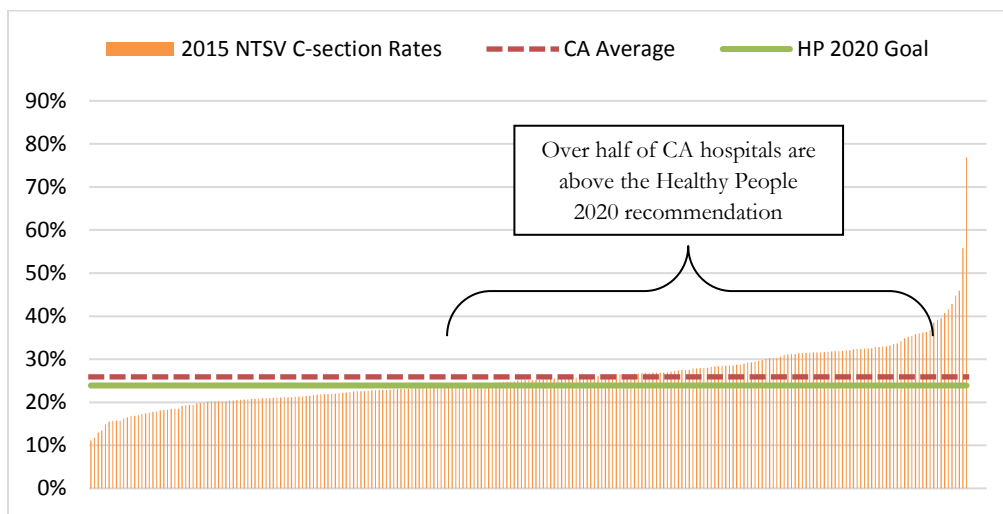
D. California Statewide Findings

Section D summarizes five statewide findings from the 2015 hospital C-section data. See Section E for a more detailed analysis of NTSV C-section rates by region.

1. Variation among hospital NTSV C-section rates is strikingly wide. Throughout California, hospital NTSV C-section rates range dramatically from 11% to 77%: a 66 percentage point spread! Such stark differences mean that the facility in which a mother gives birth plays a significant role influencing her chance of undergoing a C-section.

As Exhibit 3 depicts, 57% of all California hospitals do not meet the Healthy People NTSV C-section rate recommendation of 23.9%, demonstrating that there is a significant opportunity for improvement.

*Exhibit 3: NTSV C-section Rate All California Hospitals, 2015**



*Each line represents one of California's 241 hospitals with NTSV C-section data.

¹⁰ Shaw, D. et al. (2016). Drivers of maternity care in high-income countries: can health systems support woman-centred care? *The Lancet*, 388: 10057, 2282-2295.

¹¹ Statistical Brief #160. Healthcare Cost and Utilization Project (HCUP). August 2013. *Agency for Healthcare Research and Quality*, Rockville, MD. www.hcup-us.ahrq.gov/reports/statbriefs/sb160.jsp.

¹² Hsia, R. et al. (2014). Analysis of variation in charges and prices paid for vaginal and caesarean section births: a cross-sectional study. *BMJ Open* 4:e004017.

¹³ Truven Health Analytics. (2013). The cost of having a baby in the United States.

2. Differences in hospital NTSV C-section rates within regions are extreme. Los Angeles has the most widespread variation (60 percentage point difference) of all California regions as well as the highest average NTSV C-section rate (30.4%). Wide variation indicates that mothers living in Los Angeles have vastly different care experiences. In contrast, the North and West Bay regions have the lowest NTSV C-section rates (21.8% and 21.9% respectively) and the narrowest differences between low and high-performing hospitals (13 and 12 point difference). These data suggest that mothers delivering in the North and West Bay experience more consistent care.

Exhibit 4 provides a high-level summary of each region.

Exhibit 4: Comparison of C-section Performance by Region, 2015

| Region | Total Hospitals | Average Hospital C-section Rate | Hospitals Above CA Average | Hospitals Below HP 2020 | Range in NTSV Rates | Total Live Births |
|-----------------------|-----------------|---------------------------------|----------------------------|-------------------------|---------------------|-------------------|
| 1 Northern California | 17 | 23.4% | 29% | 65% | 18.5% | 9,271 |
| 2 Golden Empire | 16 | 22.7% | 13% | 63% | 19.4% | 27,911 |
| 3 North Bay | 11 | 21.8% | 82% | 64% | 12.8% | 10,545 |
| 4 West Bay | 9 | 21.9% | 11% | 67% | 12.1% | 18,927 |
| 5 East Bay | 13 | 23.0% | 23% | 69% | 15.4% | 24,995 |
| 6 North San Joaquin | 14 | 27.6% | 64% | 21% | 27.4% | 22,021 |
| 7 Santa Clara | 10 | 24.7% | 30% | 30% | 11.2% | 26,620 |
| 8 Mid-Coast | 11 | 25.2% | 36% | 55% | 22.8% | 11,776 |
| 9 Central | 16 | 23.8% | 31% | 44% | 18.5% | 39,643 |
| 10 Santa Barbara | 9 | 24.8% | 44% | 56% | 15.0% | 14,892 |
| 11 Los Angeles | 54 | 30.4% | 67% | 20% | 60.1% | 128,016 |
| 12 Inland Counties | 29 | 24.4% | 34% | 55% | 22.7% | 50,890 |
| 13 Orange | 17 | 27.9% | 65% | 24% | 18.1% | 40,510 |
| 14 San Diego/Imperial | 15 | 27.3% | 60% | 27% | 14.4% | 43,981 |

3. The range of hospital NTSV C-section rates varies significantly between regions. Hospitals in Southern California regions have higher NTSV C-section rates than those in Northern California. For example, the San Francisco Bay Area (includes the North Bay, West Bay, East Bay, and Santa Clara) has an average NTSV C-section rate of 22.9%, about seven percentage points less than the Los Angeles average rate of 30.4%. These data suggest that, on average, women who give birth

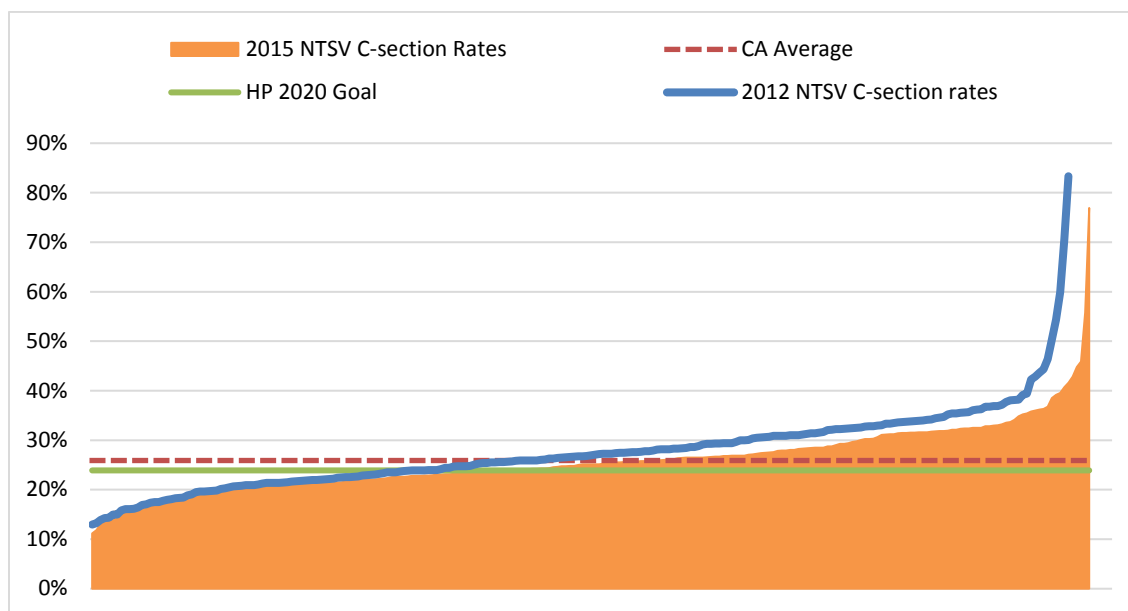
in LA hospitals are 33% more likely to have a C-section than women who deliver in the San Francisco Bay Area.

4. No association exists between volume of deliveries and NTSV C-section rates. Several hospitals maintain low NTSV C-section rates even though they experience a high birth volume. These sites demonstrate that a hospital can achieve a low C-section rate irrespective of total annual birth volume.

5. California is making progress. Since releasing the first version of this report with 2012 data, California has made strides to reduce its low-risk C-section rate. Statewide, the average NTSV C-section rate decreased from 27.8% in 2012 to 25.9% in 2015, a seven percent reduction. More impressively, the number of hospitals meeting the Health People 2020 recommendation increased from 33% to 43%. And now, 74% of hospitals participate in CMQCC's Maternal Data Center (up from 60% in 2015).

Exhibit 5 compares the hospital NTSV C-section rates in 2012 and 2015. Note that the most dramatic reductions have occurred at hospitals with the highest rates. The improvements are likely due in large part to growing quality improvement efforts across California. Given the 2016 release of CMQCC's toolkit and the ramp up of quality improvement work, PBGH expects hospital rates to continue to decrease in the near future.¹⁴ There is still a lot of work left to do, however, as over half (57%) of hospitals do not meet the Healthy People 2020 guideline.

Exhibit 5: NTSV C-section Rate California Trends, 2012 and 2015



¹⁴ California C-section reduction scaling efforts include CMQCC's Toolkit and quality collaboratives, Smart Care California's 2016 public hospital recognition awards for high performing hospitals, as well as Covered California contract terms requiring network hospitals to meet the 23.9% NTSV benchmark.

E. Analysis of C-section Variation by Region

Regional Breakdown

This section provides detailed analysis of NTSV C-section variation for all 241 labor and delivery units in California. To help employers understand the local impact of variation in C-section rates, this report divides hospitals into 14 California regions based on Health Service Areas used by California’s Office of Statewide Health Planning and Development: Northern California, Golden Empire, North Bay, West Bay, East Bay, North San Joaquin, Santa Clara, Mid-Coast, Central, Santa Barbara, Los Angeles, Inland Counties, Orange, San Diego/Imperial (see Exhibit 5).

Exhibit 5: Map of California Health Service Areas



Data Breakdown

Each regional breakdown includes the 2015 NTSV C-section rate¹⁵ and the number of 2015 live births¹⁶ for each local hospital. **The NTSV C-section rate serves as a better quality indicator than the overall C-section rate** because it controls for variables that contribute to higher C-section rates (such as previous C-section, breech position, and multiple births). The NTSV C-section rate is also an important quality indicator for the future, as the first birth impacts a woman's subsequent deliveries.

As an additional quality indicator, the breakdown includes the status of each hospital's participation in a maternal data registry. California is fortunate to have a state maternal data center that allows hospitals to directly and automatically report birth data for tracking. The accuracy, specificity and timeliness of data collected by the California Maternal Data Center (MDC)¹⁷ provide hospitals the transparency into performance required to reduce variation in maternity care. As of October 2015, 80% of the 241 California hospitals with labor and delivery units are submitting data to the California MDC.

Each regional breakdown also includes a summary of these key statistics:

- The regional average NTSV C-section rate
- Total number of hospitals
- Total live births
- Level of participation in the California MDC

¹⁵ As reported by the California Hospital Assessment and Reporting Task Force's (CHART) public report card on CalHospitalCompare.org

¹⁶ Reported to the California Office of Statewide Health Planning and Development

¹⁷ Stanford's California Maternal Quality Care Collaborative (CMQCC) manages the California Maternal Data Center

Region 1: Northern California NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 23.4% |
| Number of Hospitals | 17 |
| Number/Percent of Hospitals Above California NTSV Average | 5/29% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 11/65% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 18.5 |
| Total Live Births | 9,271 |

➤ Northern CA has the fewest total number of annual births out of all regions in the state.

Exhibit 1A: Graph of Northern California NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 1B which lists all the hospitals in the region by ascending NTSV C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

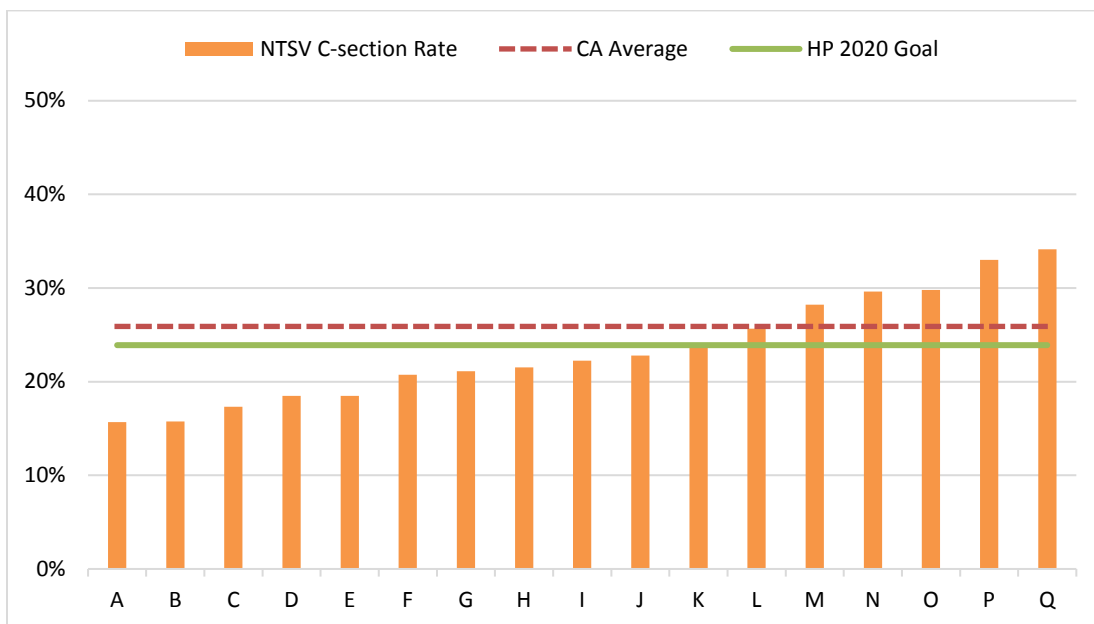


Exhibit 1B: Northern California NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|--|----------------------------|--------------------------|------------------------------|
| A | Mad River Community Hospital | 15.7% | 604 | Submitting Data |
| B | Redwood Memorial Hospital | 15.7% | 396 | Submitting Data |
| C | St. Helena Hospital Clearlake | 17.3% | 164 | Submitting Data |
| D | Ukiah Valley Medical Center | 18.5% | 854 | Submitting Data |
| E | Plumas District Hospital | 18.5% | 69 | In Process |
| F | Oroville Hospital | 20.8% | 465 | Not submitting |
| G | St. Elizabeth Community Hospital | 21.1% | 586 | Submitting Data |
| H | Sutter Lakeside Hospital | 21.5% | 297 | Submitting Data |
| I | Enloe Medical Center- Esplanade Campus | 22.2% | 1543 | Submitting Data |
| J | Feather River Hospital | 22.8% | 854 | Not submitting |
| K | Mercy Medical Center - Redding | 23.6% | 2018 | Submitting Data |
| L | Fairchild Medical Center | 25.7% | 195 | Not submitting |
| M | Sutter Coast Hospital | 28.2% | 288 | Submitting Data |
| N | Banner Lassen Medical Center | 29.6% | 235 | Not submitting |
| O | Mercy Medical Center Mt. Shasta | 29.8% | 154 | Submitting Data |
| P | St. Joseph Hospital - Eureka | 33.0% | 435 | Submitting Data |
| Q | Mendocino Coast District Hospital | 34.1% | 114 | Submitting Data |

Region 2: Golden Empire NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 22.7% |
| Number of Hospitals | 16 |
| Number/Percent of Hospitals Above California NTSV Average | 2/13% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 10/63% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 19.4 |
| Total Live Births | 27,911 |

Exhibit 2A: Graph of Golden Empire NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 2B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

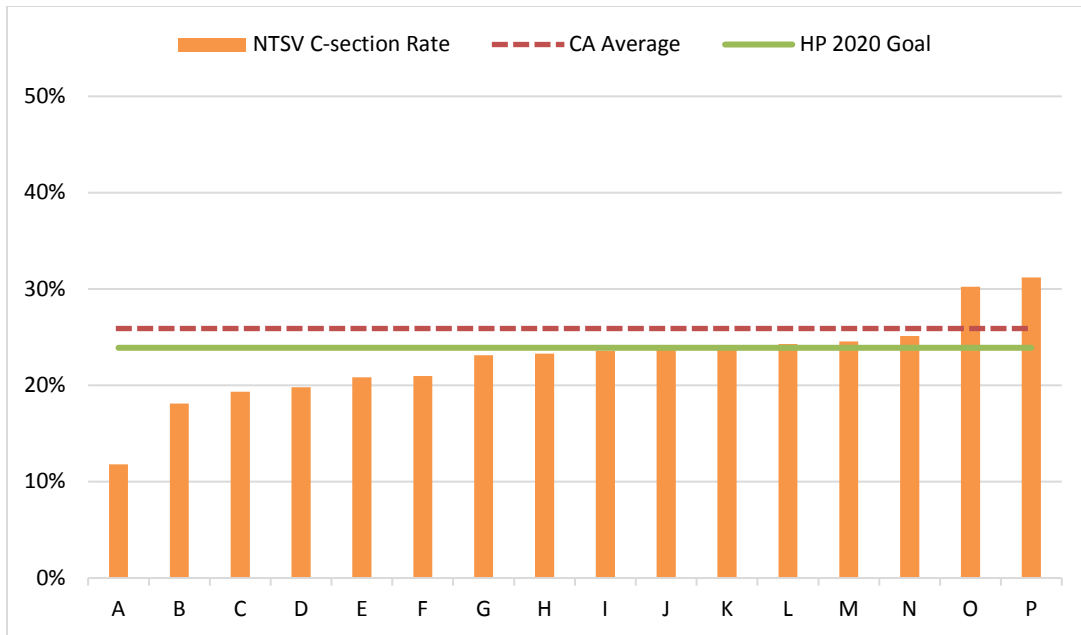


Exhibit 2B: Golden Empire NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|---|----------------------------|--------------------------|------------------------------|
| A | Sutter Davis Hospital | 11.8% | 1368 | Submitting Data |
| B | Kaiser Permanente - Roseville Medical Center | 18.1% | 5667 | Submitting Data |
| C | Sierra Nevada Memorial Hospital | 19.4% | 504 | Submitting Data |
| D | Sutter Roseville Medical Center | 19.8% | 2779 | Submitting Data |
| E | Kaiser Permanente - South Sacramento Medical Center | 20.8% | 2685 | Submitting Data |
| F | Mercy Hospital - Folsom | 21.0% | 891 | Submitting Data |
| G | Marshall Medical Center (1-Rh) | 23.1% | 528 | Not submitting |
| H | Barton Memorial Hospital | 23.3% | 345 | Submitting Data |
| I | Sutter Memorial Hospital | 23.6% | 3224 | Submitting Data |
| J | Mercy San Juan Hospital | 23.7% | 1974 | Submitting Data |
| K | Woodland Memorial Hospital | 23.9% | 668 | Submitting Data |
| L | Tahoe Forest Hospital | 24.3% | 386 | In Process |
| M | Fremont Medical Center | 24.6% | 1938 | Submitting Data |
| N | University Of California Davis Medical Center | 25.1% | 1753 | Submitting Data |
| O | Mercy General Hospital | 30.3% | 1270 | Submitting Data |
| P | Methodist Hospital Of Sacramento | 31.2% | 1931 | Submitting Data |

Region 3: North Bay NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean C-section NTSV Rate | 21.8% |
| Number of Hospitals | 11 |
| Number/Percent of Hospitals Above California NTSV Average | 2/18% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 7/64% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 12.8 |
| Total Live Births | 10,545 |

- The North Bay region has the lowest C-section rate in the state with an average rate of 21.8% and one of two regions in the state where all hospitals are submitting to the Maternal Data Center.

Exhibit 3A: Graph of North Bay C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer Exhibit 3B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

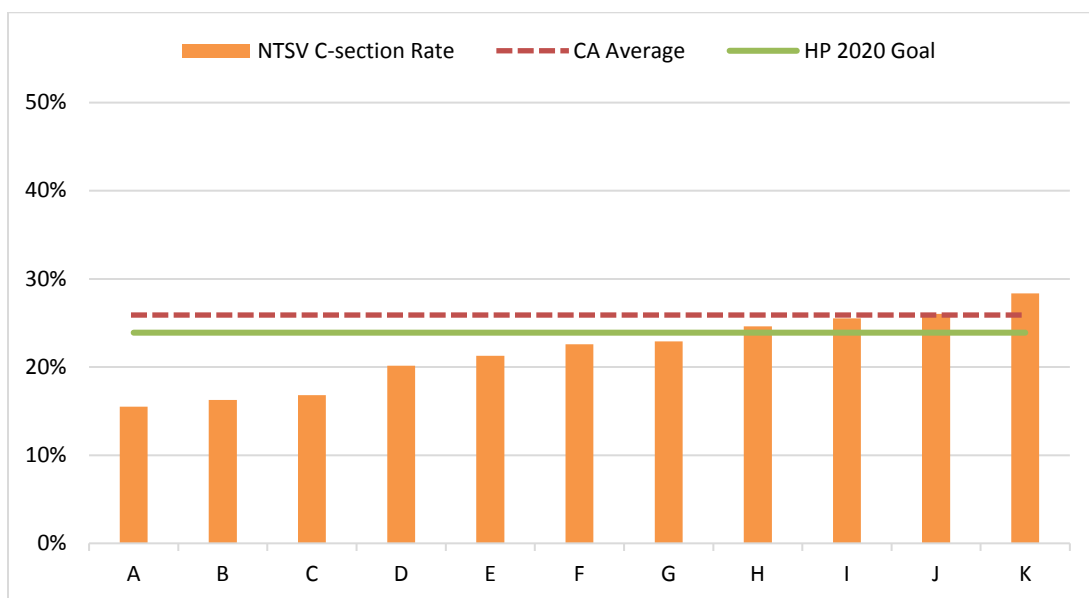


Exhibit 3B: North Bay C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|---|----------------------------|--------------------------|------------------------------|
| A | Sonoma Valley Hospital | 15.5% | 167 | Submitting Data |
| B | Sutter Solano Medical Center | 16.3% | 581 | Submitting Data |
| C | Kaiser Permanente Vacaville Medical Center | 16.8% | 1122 | Submitting Data |
| D | Sutter Medical Center Of Santa Rosa | 20.2% | 1809 | Submitting Data |
| E | Kaiser Permanente - Santa Rosa Medical Center | 21.3% | 2015 | Submitting Data |
| F | Petaluma Valley Hospital | 22.6% | 425 | Submitting Data |
| G | Kaiser Permanente - Vallejo Medical Center | 22.9% | 1495 | Submitting Data |
| H | North Bay Medical Center | 24.6% | 1334 | Submitting Data |
| I | Santa Rosa Memorial Hospital-Montgomery | 25.5% | 608 | Submitting Data |
| J | St. Helena Hospital | 26.0% | 249 | Submitting Data |
| K | Queen Of The Valley Hospital - Napa | 28.3% | 740 | Submitting Data |

Region 4: West Bay NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 21.9% |
| Number of Hospitals | 9 |
| Number/Percent of Hospitals Above California NTSV Average | 1/11% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 6/67% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 12.1 |
| Total Live Births | 18,927 |

➤ 75% of births in the West Bay occur in hospitals with NTSV C-section rates below 23.9%.

Exhibit 4A: Graph of West Bay NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 4B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

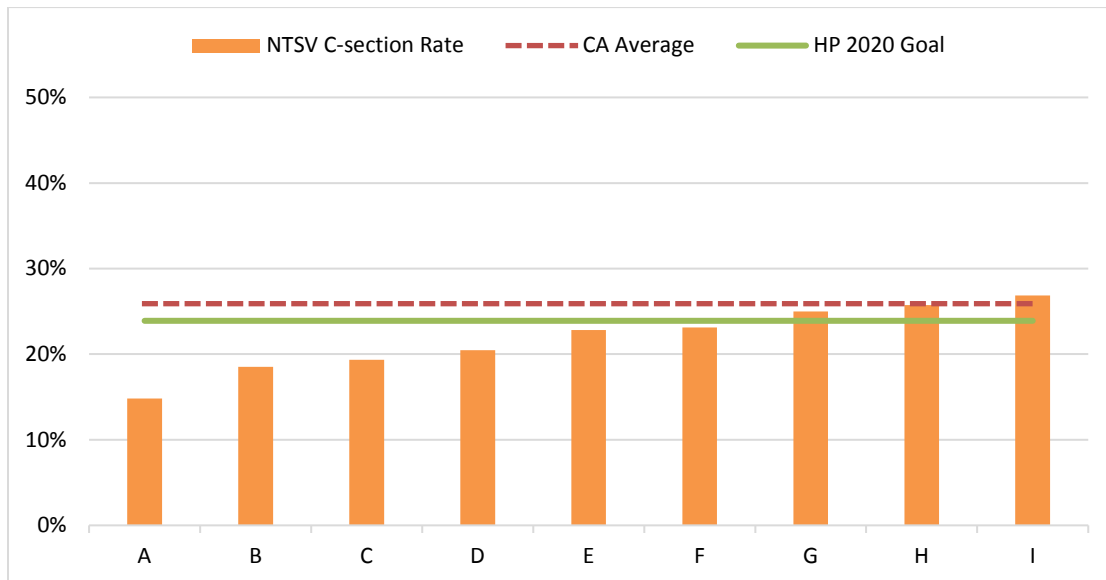


Exhibit 4B: West Bay C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|--|----------------------------|--------------------------|------------------------------|
| A | San Francisco General Hospital | 14.8% | 1197 | Submitting Data |
| B | Kaiser Permanente - Redwood City Medical Center | 18.5% | 1786 | Submitting Data |
| C | University of California San Francisco Medical Center-Mt. Zion | 19.3% | 2479 | Submitting Data |
| D | Marin General Hospital | 20.5% | 1322 | Submitting Data |
| E | Kaiser Permanente - San Francisco Medical Center | 22.8% | 2840 | Submitting Data |
| F | California Pacific Med Center-California West | 23.1% | 4608 | Submitting Data |
| G | California Pacific Medical Center - St. Luke's Campus | 25.0% | 900 | Submitting Data |
| H | Mills-Peninsula Medical Center | 25.8% | 2247 | Submitting Data |
| I | Sequoia Hospital | 26.9% | 1548 | Submitting Data |

Region 5: East Bay NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|--|--------|
| Mean NTSV C-section Rate | 23.0% |
| Number of Hospitals | 13 |
| Number/Percent of Hospitals Above California NTSV Average | 3/23% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 9/69% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 15.4 |
| Total Live Births | 24,995 |

- *The East Bay region has the highest percentage of hospitals with NTSV C-section rates under or at the Healthy People Recommendation in California with almost all hospitals have over 1000 births a year. This suggests that it is possible to maintain low C-section rates with a high volume of births.*

Exhibit 5A: Graph of East Bay C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 5B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

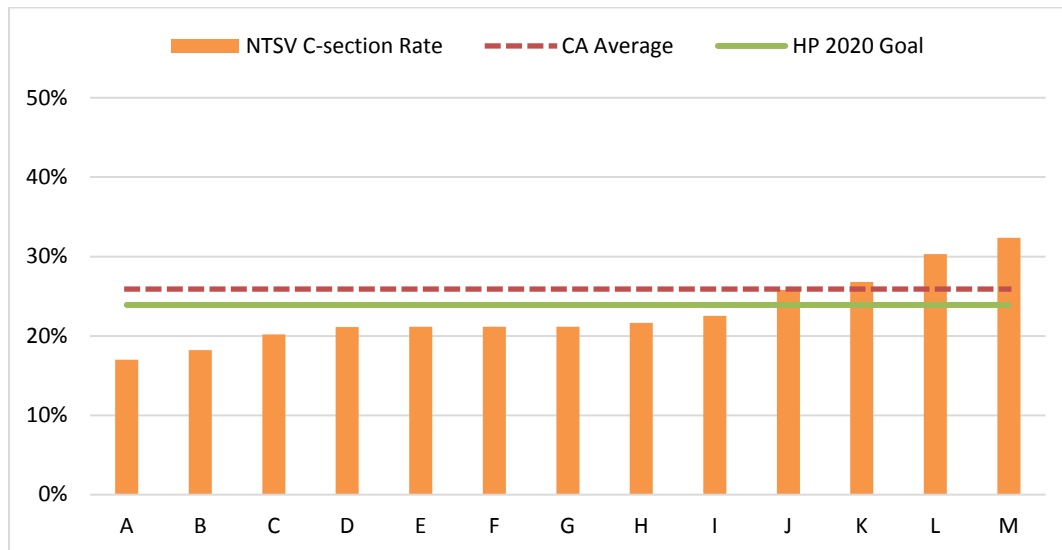


Exhibit 5B: East Bay NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|--|----------------------------|--------------------------|------------------------------|
| A | Alameda County Medical Center | 17.0% | 1039 | Submitting Data |
| B | Sutter Delta Medical Center | 18.2% | 995 | Submitting Data |
| C | St. Rose Hospital | 20.2% | 755 | Not submitting |
| D | Alta Bates Summit Medical Center-Alta Bates Campus | 21.1% | 5970 | Submitting Data |
| E | John Muir Medical Center-Walnut Creek Campus | 21.2% | 2921 | Submitting Data |
| F | Eden Medical Center | 21.2% | 1145 | Submitting Data |
| G | Kaiser Permanente - Oakland Medical Center | 21.2% | 1039 | Submitting Data |
| H | Kaiser Permanente - Antioch Medical Center | 21.6% | 1535 | Submitting Data |
| I | Kaiser Permanente - Walnut Creek Medical Center | 22.5% | 3383 | Submitting Data |
| J | Contra Costa Regional Medical Center | 25.8% | 2226 | Submitting Data |
| K | Washington Hospital - Fremont | 26.8% | 1835 | In Process |
| L | Valleycare Medical Center | 30.3% | 1372 | Submitting Data |
| M | San Ramon Regional Medical Center | 32.4% | 780 | Submitting Data |

Region 6: North San Joaquin NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 27.6% |
| Number of Hospitals | 14 |
| Number/Percent of Hospitals Above California NTSV Average | 9/64% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 3/21% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 27.4 |
| Total Live Births | 22,021 |

- Over 50% of all births in this region occur in the hospitals with C-section rates over the California average.

Exhibit 6A: Graph of North San Joaquin NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 6B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

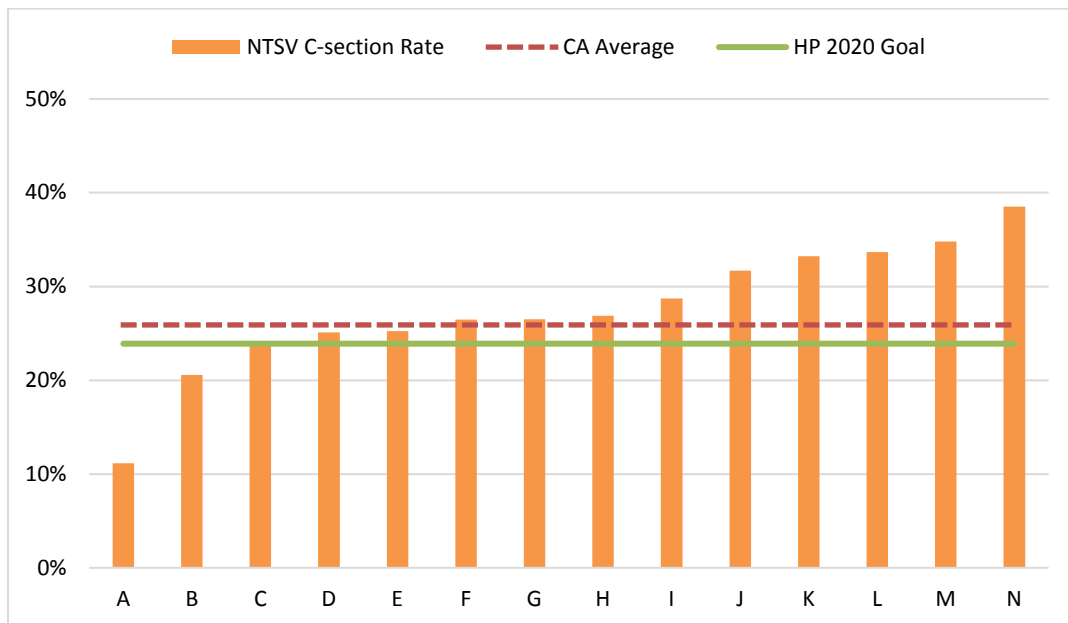


Exhibit 6B: North San Joaquin NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|--|----------------------------|--------------------------|------------------------------|
| A | Emanuel Medical Center | 11.1% | 1185 | Not submitting |
| B | San Joaquin General Hospital | 20.6% | 1667 | Submitting Data |
| C | Kaiser Permanente - Modesto Medical Center | 23.8% | 2858 | Submitting Data |
| D | Doctors Medical Center | 25.1% | 3973 | Submitting Data |
| E | Sutter Amador Hospital | 25.3% | 413 | Submitting Data |
| F | St. Joseph's Medical Center Of Stockton | 26.5% | 2535 | Submitting Data |
| G | Dameron Hospital | 26.5% | 997 | Submitting Data |
| H | Doctors Hospital Of Manteca | 26.9% | 801 | Submitting Data |
| I | Lodi Memorial Hospital | 28.7% | 1050 | In Process |
| J | Mercy Medical Center - Merced | 31.7% | 2724 | Submitting Data |
| K | Memorial Hospital Medical Center - Modesto | 33.2% | 1879 | Submitting Data |
| L | Sonora Regional Medical Center - Greenley | 33.7% | 560 | Submitting Data |
| M | Sutter Tracy Community Hospital | 34.8% | 718 | Submitting Data |
| N | Memorial Hospital Los Banos | 38.5% | 661 | Submitting Data |

Region 7: Santa Clara NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 24.7% |
| Number of Hospitals | 10 |
| Number/Percent of Hospitals Above California NTSV Average | 3/30% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 3/30% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 11.2 |
| Total Live Births | 26,620 |

➤ The two hospitals with the highest C-section rates account for 31% of all births in the region.

Exhibit 7A: Graph of Santa Clara NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 7B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

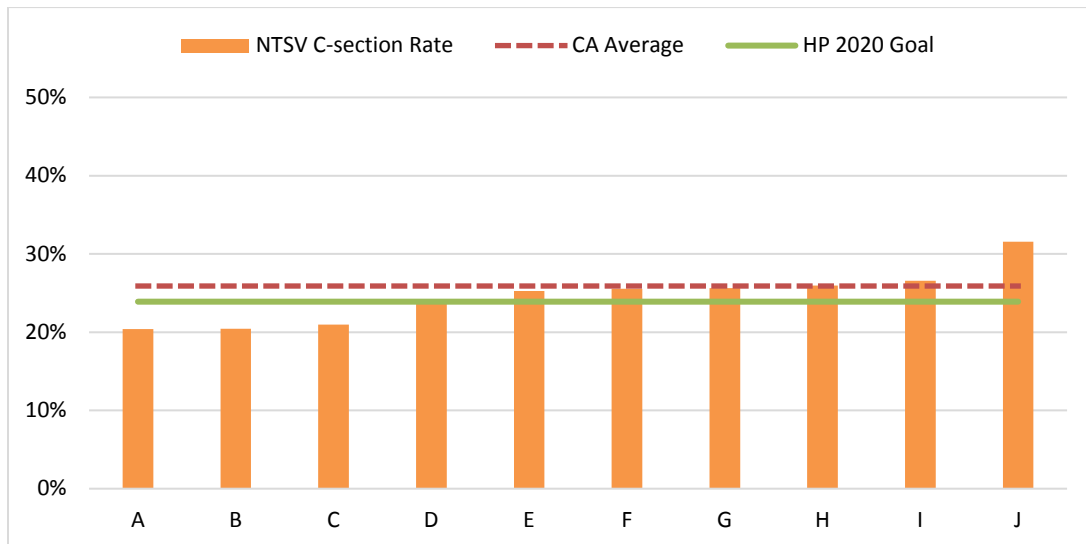


Exhibit 7B: Santa Clara NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|--|----------------------------|--------------------------|------------------------------|
| A | Kaiser Permanente - San Jose Medical Center | 20.4% | 2259 | Submitting Data |
| B | El Camino Hospital Los Gatos | 20.5% | 643 | Submitting Data |
| C | Santa Clara Valley Medical Center | 21.0% | 3408 | Submitting Data |
| D | Regional Medical Center Of San Jose | 24.2% | 521 | Not submitting |
| E | Lucile Salter Packard Children's Hospital | 25.3% | 4563 | Submitting Data |
| F | O'Connor Hospital - San Jose | 25.6% | 2451 | Submitting Data |
| G | El Camino Hospital | 25.6% | 4148 | Submitting Data |
| H | St. Louise Regional Hospital | 26.0% | 332 | Not submitting |
| I | Kaiser Permanente - Santa Clara Medical Center | 26.6% | 4438 | Submitting Data |
| J | Good Samaritan Hospital-San Jose | 31.6% | 3857 | In Process |

Region 8: Mid-Coast NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 25.2% |
| Number of Hospitals | 11 |
| Number/Percent of Hospitals Above California NTSV Average | 4/36% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 6/55% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 22.8 |
| Total Live Births | 11,776 |

Exhibit 8A: Graph of NTSV Mid-Coast C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 8B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

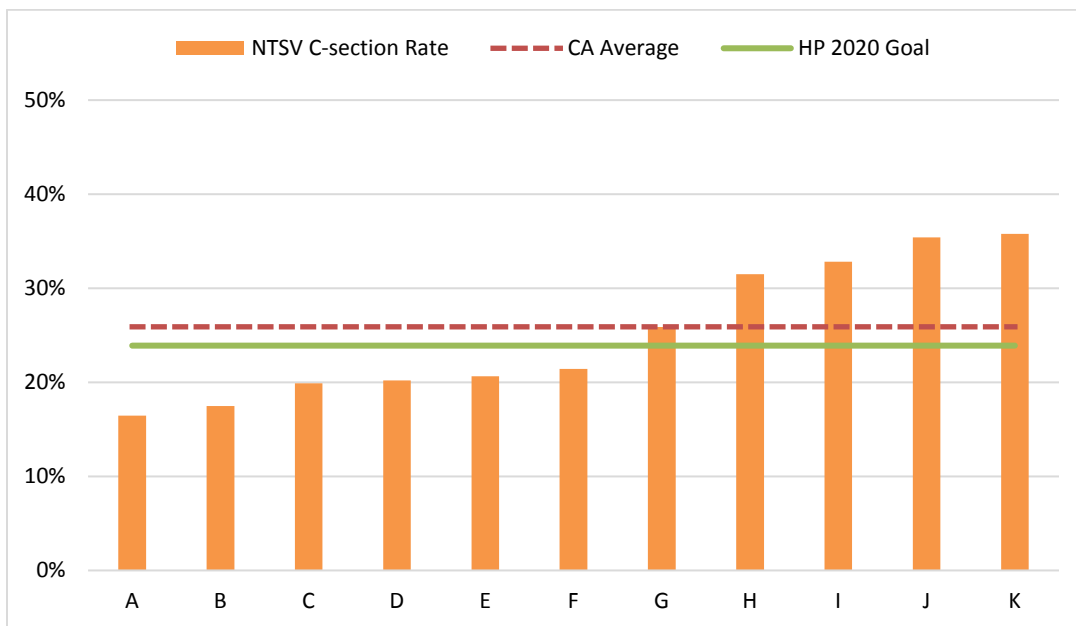


Exhibit 8B: Mid-Coast NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|---|----------------------------|--------------------------|------------------------------|
| A | Twin Cities Community Hospital | 16.4% | 654 | Submitting Data |
| B | Sutter Maternity And Surgery Center Of Santa Cruz | 17.5% | 979 | Submitting Data |
| C | Natividad Medical Center | 19.9% | 2579 | Submitting Data |
| D | George L Mee Memorial Hospital | 20.2% | 410 | Not submitting |
| E | Salinas Valley Memorial Hospital | 20.6% | 1832 | Submitting Data |
| F | Dominican Hospital-Santa Cruz/Soquel | 21.4% | 830 | Submitting Data |
| G | Community Hospital Monterey Peninsula | 25.9% | 1041 | Submitting Data |
| H | Sierra Vista Regional Medical Center | 31.5% | 1333 | Submitting Data |
| I | French Hospital Medical Center | 32.8% | 503 | Submitting Data |
| J | Watsonville Community Hospital | 35.4% | 1157 | Not submitting |
| K | Hazel Hawkins Memorial Hospital | 35.8% | 458 | Not submitting |

Region 9: Central C-section NTSV Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 26.8% |
| Number of Hospitals | 16 |
| Number/Percent of Hospitals Above California NTSV Average | 5/31% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 7/44% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 18.5 |
| Total Live Births | 39,643 |

➤ This region has particularly high annual birth volumes, averaging 2,477 births per hospital.

Exhibit 9A: Graph of Central NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 9B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

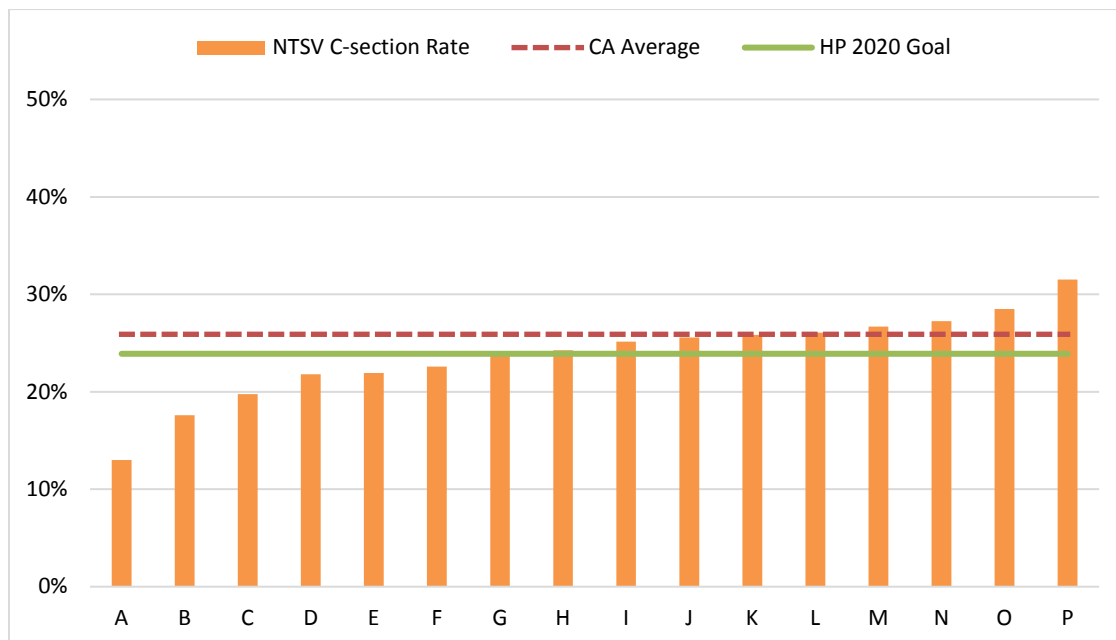


Exhibit 9B: Central C-section NTSV Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|--|----------------------------|--------------------------|------------------------------|
| A | Bakersfield Memorial Hospital- 34Th Street | 13.0% | 3084 | Submitting Data |
| B | San Joaquin Community Hospital | 17.6% | 3600 | Not submitting |
| C | Kern Medical Center | 19.8% | 2589 | In Process |
| D | Kaiser Permanente - Fresno Medical Center | 21.8% | 1359 | Submitting Data |
| E | Community Regional Medical Center- Fresno | 21.9% | 5562 | Submitting Data |
| F | Sierra View District Hospital | 22.6% | 1562 | Submitting Data |
| G | Tulare Regional Medical Center | 23.9% | 893 | Not submitting |
| H | Delano Regional Medical Center | 24.3% | 549 | Not submitting |
| I | Madera Community Hospital | 25.1% | 991 | Submitting Data |
| J | Ridgecrest Regional Hospital | 25.6% | 451 | Submitting Data |
| K | Kaweah Delta Medical Center | 25.8% | 4359 | Submitting Data |
| L | St. Agnes Medical Center | 26.1% | 3295 | Not submitting |
| M | Mercy Southwest Hospital | 26.7% | 2691 | Submitting Data |
| N | Adventist Medical Center - Reedley | 27.2% | 1377 | Not submitting |
| O | Central Valley General Hospital | 28.5% | 2178 | Not submitting |
| P | Clovis Community Medical Center | 31.5% | 5103 | Submitting Data |

Region 10: Santa Barbara NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 24.8% |
| Number of Hospitals | 9 |
| Number/Percent of Hospitals Above California NTSV Average | 4/44% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 5/56% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 15.0 |
| Total Live Births | 14,892 |

Exhibit 10A: Graph of Santa Barbara NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 10B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.



Exhibit 10B: Santa Barbara NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|--|----------------------------|--------------------------|------------------------------|
| A | Santa Paula Hospital | 17.8% | 337 | Submitting Data |
| B | Simi Valley Hospital | 19.1% | 522 | Not submitting |
| C | Community Memorial Hospital-San Buenaventura | 20.8% | 2978 | Submitting Data |
| D | Lompoc Valley Medical Center | 21.0% | 420 | Not submitting |
| E | Ventura County Medical Center | 22.0% | 1545 | Submitting Data |
| F | Marian Regional Medical Center | 27.6% | 3055 | Submitting Data |
| G | St. John's Regional Medical Center | 30.6% | 1891 | Submitting Data |
| H | Santa Barbara Cottage Hospital | 31.8% | 2257 | In Process |
| I | Los Robles Hospital And Medical Center | 32.8% | 1887 | Not submitting |

Region 11: Los Angeles NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|---------|
| Mean NTSV C-section Rate | 30.4% |
| Number of Hospitals | 54 |
| Number/Percent of Hospitals Above California NTSV Average | 36/67% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 11/20% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 60.1 |
| Total Live Births | 128,016 |

- *By far the most densely populated region, 78% of all births in LA occur in hospitals with low risk C-section rates above the HP 2020 guidelines, down from 96% in 2013. This county has the hospital with the highest NTSV rate in the state, Los Angeles Community Hospital at 76.9%.*

Exhibit 11A: Graph of Los Angeles NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 11B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

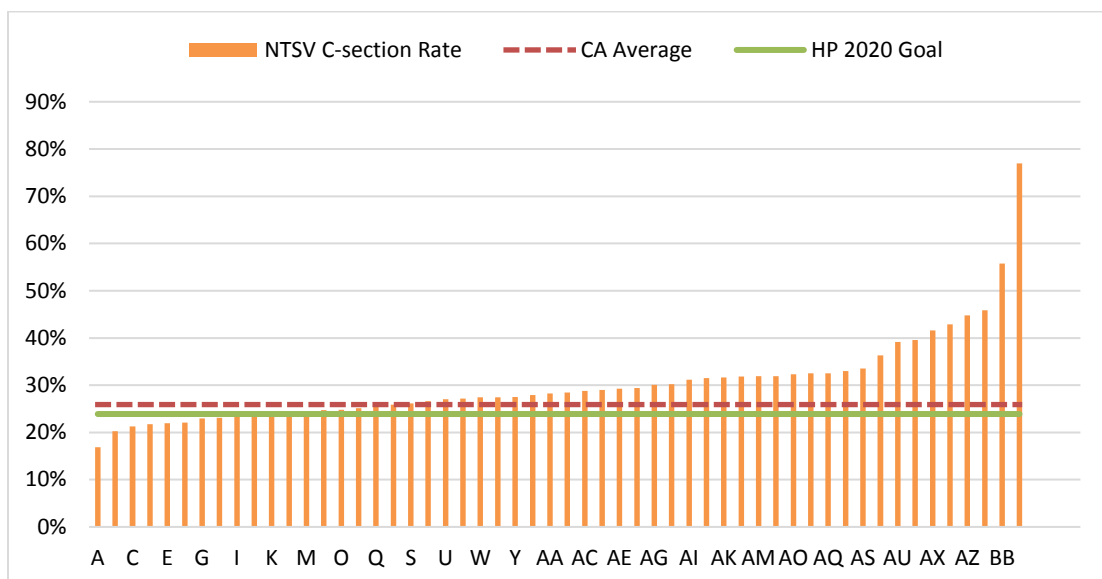


Exhibit 11B: Los Angeles NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|---|----------------------------|--------------------------|------------------------------|
| A | Kaiser Permanente - Panorama City Medical Center | 16.9% | 2342 | Submitting Data |
| B | Henry Mayo Newhall Memorial Hospital | 20.2% | 1330 | Submitting Data |
| C | San Gabriel Valley Medical Center | 21.3% | 2345 | Submitting Data |
| D | Los Angeles County Olive View-UCLA Medical Center | 21.8% | 607 | Submitting Data |
| E | Kaiser Permanente - West La Medical Center | 21.9% | 1911 | Submitting Data |
| F | Kaiser Permanente - Woodland Hills Medical Center | 22.1% | 1662 | Submitting Data |
| G | Los Angeles County And USC Medical Center | 22.9% | 919 | Submitting Data |
| H | California Hospital Medical Center - Los Angeles | 23.1% | 3693 | Submitting Data |
| I | Presbyterian Intercommunity Hospital | 23.6% | 2420 | Submitting Data |
| J | Pomona Valley Hospital Medical Center | 23.7% | 7586 | Submitting Data |
| K | Kaiser Permanente - Downey Medical Center | 23.8% | 3454 | Submitting Data |
| L | Santa Monica UCLA Medical Center And Orthopaedic Hospital | 24.1% | 1428 | In Process |
| M | Greater El Monte Community Hospital | 24.1% | 350 | Submitting Data |
| N | Downey Regional Medical Center | 24.7% | 1080 | In Process |
| O | Citrus Valley Medical Center - Qv Campus | 24.8% | 4189 | Not submitting |
| P | Long Beach Memorial Medical Center | 25.1% | 6152 | Submitting Data |
| Q | Garfield Medical Center | 25.4% | 3310 | Submitting Data |
| R | Ronald Reagan UCLA Medical Center | 25.9% | 1911 | Submitting Data |
| S | Kaiser Permanente - South Bay Medical Center | 26.2% | 2315 | Submitting Data |
| T | Methodist Hospital Of Southern California | 26.6% | 1747 | Not submitting |
| U | Valley Presbyterian Hospital | 27.0% | 3351 | Submitting Data |

| | | | | |
|----|--|-------|------|-----------------|
| V | Cedars Sinai Medical Center | 27.1% | 6689 | Submitting Data |
| W | Hollywood Presbyterian Medical Center | 27.4% | 3618 | Submitting Data |
| X | Kaiser Permanente - Baldwin Park Medical Center | 27.4% | 2876 | Submitting Data |
| Y | Pacific Alliance Medical Center, Inc. | 27.5% | 2252 | Not submitting |
| Z | White Memorial Medical Center | 27.9% | 3715 | In Process |
| AA | Good Samaritan Hospital-Los Angeles | 28.3% | 3414 | Submitting Data |
| AB | Providence Holy Cross Medical Center | 28.4% | 3326 | Submitting Data |
| AC | Huntington Memorial Hospital | 28.8% | 3311 | Submitting Data |
| AD | Antelope Valley Hospital | 29.0% | 5314 | Submitting Data |
| AE | Providence Little Company Of Mary Mc - Torrance | 29.3% | 2864 | Submitting Data |
| AF | St. Mary Medical Center | 29.4% | 2228 | Submitting Data |
| AG | Torrance Memorial Medical Center | 30.1% | 3129 | Submitting Data |
| AH | St. Johns Health Center | 30.2% | 2146 | Submitting Data |
| AI | St. Francis Medical Center | 31.2% | 4957 | Not submitting |
| AJ | Kaiser Permanente - Los Angeles Medical Center | 31.5% | 2731 | Submitting Data |
| AK | Providence Tarzana Medical Center | 31.6% | 2474 | Submitting Data |
| AL | Glendale Memorial Hospital And Health Center | 31.8% | 1896 | Submitting Data |
| AM | Providence Saint Joseph Medical Center | 31.9% | 2548 | Submitting Data |
| AN | Glendale Adventist Medical Center - Wilson Terrace | 31.9% | 2148 | Submitting Data |
| AO | Providence Little Company Of Mary Mc - San Pedro | 32.3% | 555 | Submitting Data |
| AP | Whittier Hospital Medical Center | 32.5% | 2887 | Submitting Data |
| AQ | Lac/Harbor-UCLA Medical Center | 32.5% | 788 | Submitting Data |
| AR | San Dimas Community Hospital | 33.0% | 522 | Not submitting |
| AS | Northridge Hospital Medical Center | 33.5% | 1115 | Submitting Data |
| AT | West Hills Hospital And Medical Center | 36.3% | 892 | Not submitting |

| | | | | |
|----|--|-------|------|-----------------|
| AU | Foothill Presbyterian Hospital- Johnston Memorial | 39.2% | 946 | Not submitting |
| AV | Beverly Hospital | 39.5% | 746 | Not submitting |
| AX | Monterey Park Hospital | 41.6% | 1615 | Submitting Data |
| AY | East Los Angeles Doctors Hospital | 42.9% | 496 | In Process |
| AZ | Pacifica Hospital Of The Valley | 44.8% | 271 | Not submitting |
| BA | Verdugo Hills Hospital | 45.9% | 479 | Not submitting |
| BB | Memorial Hospital Of Gardena | 55.8% | 915 | In Process |
| BC | Los Angeles Community Hospital | 76.9% | 51 | Not submitting |

Region 12: Inland Counties NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 26.1% |
| Number of Hospitals | 29 |
| Number/Percent of Hospitals Above California NTSV Average | 10/34% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 16/55% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 22.7 |
| Total Live Births | 50,890 |

- *Inland Counties has 53% of births occurring at 16 hospitals with NTSV C-section rates below the Healthy People 2020 guideline.*

Exhibit 12A: Graph of Inland Counties NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 12B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

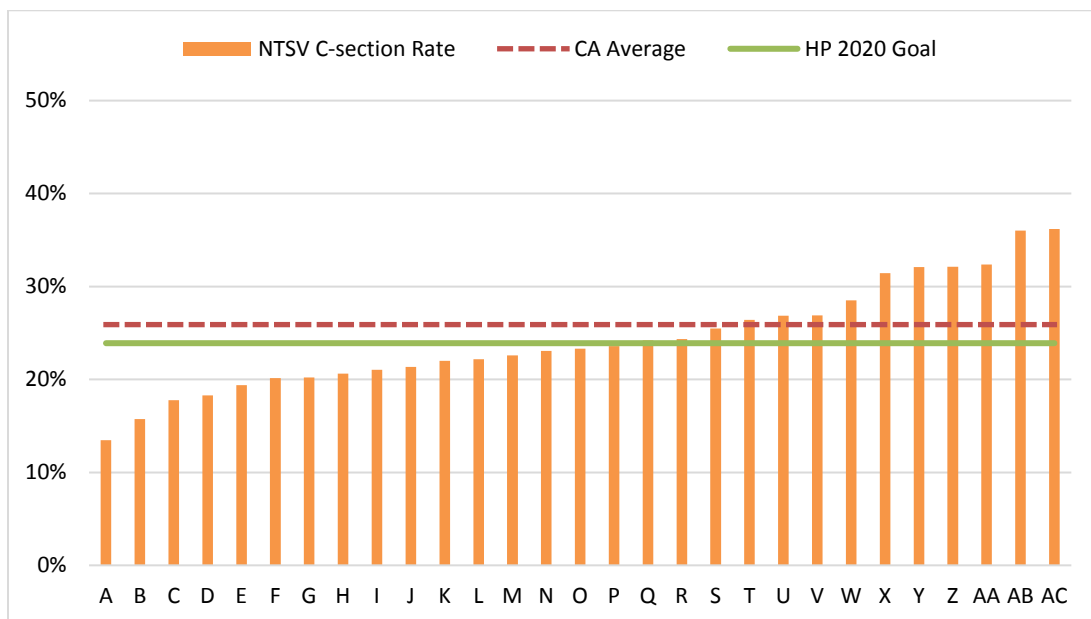


Exhibit 12B: Inland Counties C-section NTSV Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|--|----------------------------|--------------------------|------------------------------|
| A | Northern Inyo Hospital | 13.5% | 210 | Not submitting |
| B | Desert Regional Medical Center | 15.8% | 3214 | Not submitting |
| C | Riverside County Regional Medical Center | 17.8% | 1500 | Submitting Data |
| D | Southwest Healthcare System-Murrieta | 18.3% | 3432 | Not submitting |
| E | Redlands Community Hospital | 19.4% | 2479 | Submitting Data |
| F | Hi-Desert Medical Center | 20.1% | 477 | Not submitting |
| G | Loma Linda University Medical Center | 20.2% | 2611 | Submitting Data |
| H | Montclair Hospital Medical Center | 20.6% | 872 | Not submitting |
| I | Desert Valley Hospital | 21.0% | 664 | Not submitting |
| J | St. Mary Regional Medical Center | 21.3% | 2448 | Submitting Data |
| K | Kaiser Permanente - Riverside Medical Center | 22.0% | 2971 | Submitting Data |
| L | St. Bernardine Medical Center | 22.2% | 1788 | Submitting Data |
| M | Palo Verde Hospital | 22.6% | 138 | Not submitting |
| N | Mammoth Hospital | 23.1% | 109 | Not submitting |
| O | Barstow Community Hospital | 23.3% | 356 | Not submitting |
| P | Kaiser Permanente - Fontana | 23.6% | 3633 | Submitting Data |
| Q | Arrowhead Regional Medical Center | 24.2% | 3126 | Submitting Data |
| R | Loma Linda University Medical Center-Murrieta | 24.4% | 1074 | Not submitting |
| S | San Geronio Memorial Hospital | 25.5% | 382 | Submitting Data |
| T | Kaiser Ontario Medical Center Campus | 26.4% | 2258 | Submitting Data |
| U | John F Kennedy Memorial Hospital | 26.9% | 2180 | Not submitting |
| V | Hemet Valley Medical Center | 26.9% | 1230 | Submitting Data |
| W | Kaiser Permanente - Moreno Valley Medical Center | 28.5% | 1250 | Submitting Data |

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|--|----------------------------|--------------------------|------------------------------|
| X | Corona Regional Medical Center-Main | 31.4% | 930 | Not submitting |
| Y | Parkview Community Hospital Medical Center | 32.1% | 2410 | In Process |
| Z | San Antonio Community Hospital | 32.1% | 2076 | Submitting Data |
| AA | Community Hospital Of San Bernardino | 32.4% | 2052 | Submitting Data |
| AB | Victor Valley Community Hospital | 36.0% | 1293 | Submitting Data |
| AC | Riverside Community Hospital | 36.2% | 3727 | Not submitting |

Region 13: Orange C-section NTSV Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 27.9% |
| Number of Hospitals | 17 |
| Number/Percent of Hospitals Above California NTSV Average | 11/65% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 4/24% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 18.1 |
| Total Live Births | 40,510 |

Exhibit 13A: Graph of Orange C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 13B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

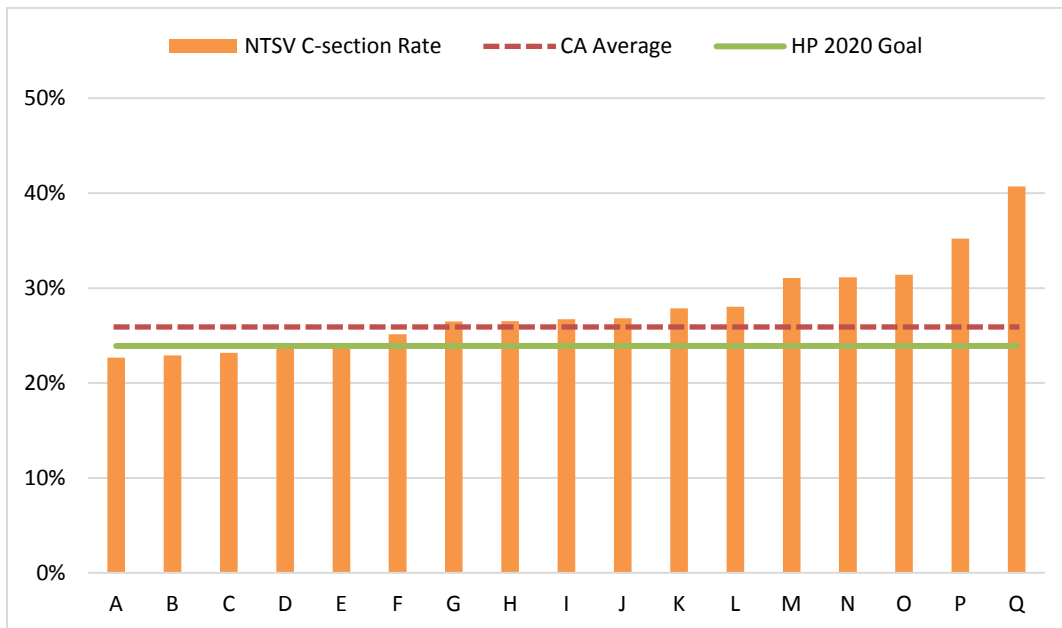


Exhibit 13B: Orange NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|---|----------------------------|--------------------------|------------------------------|
| A | University Of California Irvine Medical Center | 22.7% | 1731 | Submitting Data |
| B | Kaiser Permanente- Orange County Anaheim Medical Center | 22.9% | 3633 | Submitting Data |
| C | Saddleback Memorial Medical Center | 23.2% | 2877 | Submitting Data |
| D | Los Alamitos Medical Center | 23.9% | 1239 | Not submitting |
| E | Western Medical Center Hospital - Anaheim | 24.2% | 915 | Submitting Data |
| F | Kaiser Permanente - Orange County Irvine Medical Center | 25.1% | 2639 | Submitting Data |
| G | Anaheim Regional Medical Center | 26.5% | 1481 | Submitting Data |
| H | La Palma Intercommunity Hospital | 26.5% | 419 | Not submitting |
| I | Hoag Memorial Hospital Presbyterian | 26.7% | 6121 | Submitting Data |
| J | Orange Coast Memorial Medical Center | 26.8% | 1608 | Submitting Data |
| K | St. Jude Medical Center | 27.9% | 2152 | Submitting Data |
| L | Fountain Valley Regional Hospital And Medical Center - Euclid | 28.0% | 3638 | Submitting Data |
| M | Mission Hospital Regional Medical Center | 31.1% | 2602 | Submitting Data |
| N | Garden Grove Hospital And Medical Center | 31.1% | 1676 | Not submitting |
| O | St. Joseph Hospital - Orange | 31.4% | 4998 | Submitting Data |
| P | Western Medical Center - Santa Ana | 35.2% | 1649 | Submitting Data |
| Q | Coastal Communities Hospital | 40.7% | 1132 | Submitting Data |

Region 14: San Diego/Imperial NTSV C-section Rates by Hospital, 2015

| Regional Overview | |
|---|--------|
| Mean NTSV C-section Rate | 27.3% |
| Number of Hospitals | 15 |
| Number/Percent of Hospitals Above California NTSV Average | 9/60% |
| Number/Percent of Hospitals Below Healthy People 2020 Guidelines | 4/27% |
| Difference Between Lowest and Highest Performing Hospitals (Percentage Point Range) | 14.4 |
| Total Live Births | 43,981 |

- 22% of births in San Diego/Imperial are born at Sharp Mary Birch Hospital for Women and Newborns which also reports the highest number of annual live births in the state (9,664 births). Unfortunately, the hospital also reports a low-risk C-section rate of 32.5%.

Exhibit 14A: Graph of San Diego/Imperial NTSV C-section Rates by Hospital, 2015

To identify the specific hospitals included in the graph, refer to Exhibit 14B which lists all the hospitals in the region by ascending C-section rates. The green line represents the Healthy People 2020 benchmark for NTSV C-sections, 23.9%. The red line represents the average NTSV C-section rate in all California hospitals, 25.9%.

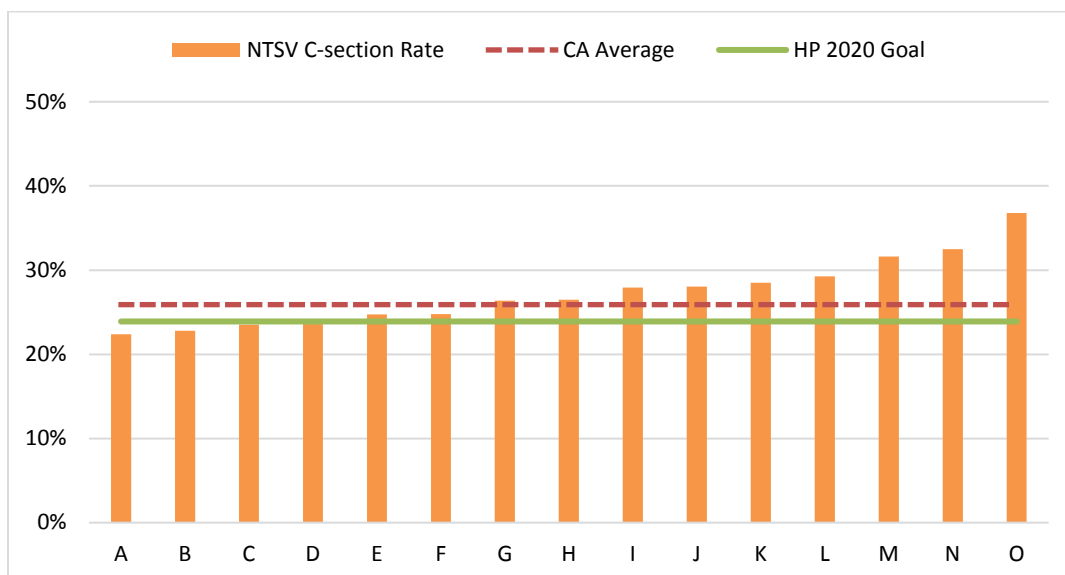


Exhibit 14B: San Diego/Imperial NTSV C-section Rates and Total Live Births by Hospital, 2015

| Label | Hospital | NTSV C-section Rate | Total Live Births | MDC Submission Status |
|--------------|---|----------------------------|--------------------------|------------------------------|
| A | University Of California-San Diego Medical Center | 22.4% | 2467 | Submitting Data |
| B | Scripps Mercy Hospital | 22.8% | 2059 | Submitting Data |
| C | Grossmont Hospital | 23.5% | 3639 | Submitting Data |
| D | Pioneers Memorial Healthcare District | 23.6% | 1902 | Submitting Data |
| E | Scripps Memorial Hospital - Encinitas | 24.7% | 2089 | Submitting Data |
| F | Tri-City Medical Center | 24.8% | 2497 | Submitting Data |
| G | Palomar Health Downtown Campus | 26.4% | 3259 | Submitting Data |
| H | Scripps Mercy Hospital - Chula Vista | 26.5% | 1794 | Submitting Data |
| I | Scripps Memorial Hospital - La Jolla | 27.9% | 3782 | Submitting Data |
| J | Sharp Chula Vista Medical Center | 28.0% | 2891 | Submitting Data |
| K | Kaiser Permanente - San Diego Medical Center | 28.5% | 4435 | Submitting Data |
| L | Pomerado Hospital | 29.3% | 1244 | Submitting Data |
| M | Paradise Valley Hospital | 31.6% | 1128 | Submitting Data |
| N | Sharp Mary Birch Hospital For Women And Newborns | 32.5% | 9664 | Submitting Data |
| O | El Centro Regional Medical Center | 36.8% | 1131 | Not submitting |

F. Appendix A: How to Read and Interpret Data

The guide below helps Members drill down into the hospital data provided in Section E.

Regional Overview

The box at the top of each region’s page highlights relevant data including:

- **Number/percentage of hospitals with C-section rates higher than the California average:** Identifies the number of lower performing hospitals with NTSV C-section rates higher than the California average.
- **Number/percent of hospitals with NTSV C-section rates better than Healthy People 2020 Guideline:** Identifies the number of high performing hospitals with NTSV C-section rates in the lowest third of all hospitals.
- **Percentage Point Range:** Specifies the number of percentage points between the hospitals with the highest and lowest C-section rates to reveal how much difference exists between hospitals. The greater the range, generally, the higher the average C-section rate for the region.

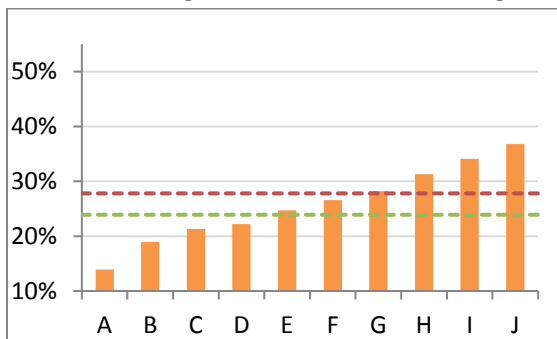
Graphs of C-section Rates by Hospital

These charts provide a visual display of key information, including:

- Each orange bar represents a C-section rate for a particular hospital in a region.
- Those bars below the green line represent hospitals performing at or better than the Healthy People 2020 NTSV C-section guidelines and are already meeting best practices.
- The bars above the red line represent hospitals with C-section rates higher than the California average and are lower performing hospitals.

Is there variation? Variation reveals unwarranted differences in care quality which can lead to discrepancies in how much each hospital spends per birth and inconsistent hospital experiences for patients.

What does a region with **high variation** look like? The orange bars are less similar heights.



What does a region with **low variation** look like? The orange bars are more similar heights.

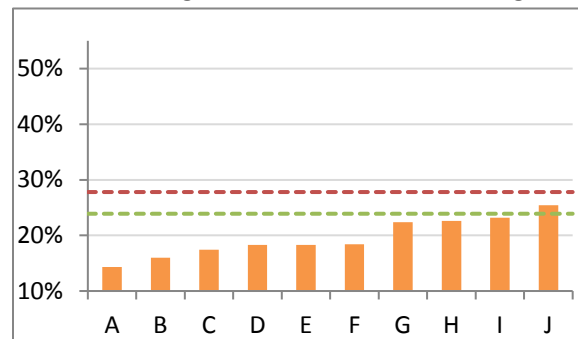




Table of C-section Rates and Total Live Births by Hospital

This table identifies the specific hospital in each graph and provides corresponding data. What should a Member pay attention to?

- **Total Live Births:** Indicates the number of live births delivered at each facility