

Early-Stage Breast Cancer Treatment in California: A Close-Up of Geographic Variation

Geographic Variation Series. This Close-Up paper is part of a set of reports that examines the different rates at which certain health care procedures are delivered in communities across the state.¹ The first series of reports uses data from 2005 through 2009 and includes heart surgery, childbirth, joint replacement, hysterectomy, mastectomy, carotid endarterectomy, gall bladder removal, and weight loss surgery. The second series uses data from 2005 through 2010 and includes treatments for breast cancer, prostate cancer, and spinal conditions. The data are based on patients' place of residence and show that procedure rates across the state can vary widely, even in contiguous communities.

Unlike earlier studies of such variation, which have relied on Medicare patient data, this project included data not only for Medicare beneficiaries (both fee-for-service and managed care) but also for patients of a broader age range enrolled in commercial plans and Medicaid, and the uninsured. The data account for age, sex, income, education, health insurance status, race, and other factors. Further information about this set of reports can be found in a research summary paper, "All Over the Map: Elective Procedure Rates in California Vary Widely," www.chcf.org/variation.

BREAST CANCER IS THE SECOND

leading cause of death from cancer among women (after lung cancer). A biopsy can show whether a patient has cancer and, along with imaging, can give critical information about the stage and aggressiveness of the tumor. This can help in deciding among treatment options which, depending on the biopsy results, can include surgery, chemotherapy, radiation, the drug Herceptin, hormonal therapy, or some combination of treatments. This Close-Up discusses the rate of delivery across the state, to women age 40 and over, of a subset of these treatments for early-stage breast cancer and ductal carcinoma in situ (DCIS). (For a discussion of the data and analysis used in this study, see Study Methodology later in this paper.) The subset of treatments includes:

- Lumpectomy, which is surgical removal of the tumor
- Mastectomy, which is surgical removal of the entire breast
- Radiation treatment, which kills cancer cells with high-energy x-rays

Treatment Options

Most early-stage breast cancers are curable, and two surgical treatments, lumpectomy (with or without radiation) and mastectomy, have been shown in clinical trials to be equally effective in reducing a woman's chances of dying of breast cancer. In addition to factors such as cancer stage, hormone receptor status, and other characteristics of the cancer, a woman's age and family history help clinicians make treatment recommendations. Some women over age 70 with early-stage disease may not benefit from more aggressive treatment, in part because the potential additional benefit may be outweighed by the potential side effects.²

For any elective treatment, a patient's own values, preferences, and level of comfort with uncertainty in outcomes should be seriously considered alongside the clinician's recommendations. Women with early-stage breast cancer or DCIS should consider the potential benefits and harms involved, including the risk of local recurrence, or in the case of DCIS, of developing invasive cancer. But they also need to take into account the time, energy, and cost required for each treatment, and their appearance after surgery, including the possibility of reconstructive surgery.

Lumpectomy Versus Mastectomy

Lumpectomy, also known as breast-conserving surgery, is a treatment option that removes the tumor from the breast, leaving much of the breast intact. It is appropriate for tumors that are small, particularly in relation to the size of the breast. About 25% to 35% of patients need a second surgery because a bit of tumor is left behind. In some cases a mastectomy may be necessary following a lumpectomy to make sure the entire tumor is removed.

Women who have a lumpectomy typically receive radiation five days a week for up to six and a half weeks following the procedure. Radiation following a lumpectomy reduces but does not eliminate the chance that cancer will return in the treated breast. With lumpectomy plus radiation, there is a 10% chance that the cancer will recur locally within 10 years in women with early-stage breast cancer, requiring further treatment. If cancer returns to the breast or breast area following surgery and radiation, it can be treated with more surgery or radiation. Sometimes radiation causes permanent changes to the look or feel of the breast, but most women report satisfaction with their appearance after a lumpectomy.

Mastectomy involves an attempt to remove the entire affected breast. This surgery has the benefit of not generally requiring radiation. Mastectomy may be recommended if a woman has cancer that is large compared to the breast, two or more areas of cancer, or a condition such as pregnancy or a previous cancer that may make radiation inappropriate. The 10-year rate of cancer recurrence in the remaining breast tissue, skin, or chest wall for women with early-stage cancer who elect to have a mastectomy without radiation is about 8% slightly lower compared to lumpectomy plus radiation. Some women choose to have the entire breast removed because of the greater peace of mind that provides them, and some even choose to have a bilateral mastectomy — removal of both breasts — even though cancer has been found in only one breast, to reduce worry of cancer appearing or reappearing in either breast.

A woman who has chosen a mastectomy may elect to have reconstructive surgery to rebuild the breast using artificial implants, tissue from other parts of the body, or a combination. The decision to have reconstruction depends on how a woman feels about her appearance in and out of clothes; the cost, time, and energy the added surgery and recovery entails; and the experience of the additional procedures and possible complications.

Systemic Therapy

Some women with early-stage breast cancer may benefit from systemic therapy, such as chemotherapy or hormonal therapy, or Herceptin (trastuzumab), which is a more targeted therapy. Hormonal and targeted therapies are only effective in a subset of breast cancer types. The decision to undergo systemic therapy depends on both the woman's particular type of cancer and how she feels about the potential benefits of the treatment versus the potential side effects. For many women with earlystage cancer, the chances of a recurrence may already be so low that undergoing systemic therapy treatments following surgery and radiation makes little real difference in her risk of a recurrence or of dying from her cancer. Geographic variations in systemic therapy, however, were not studied as part of this project, and so are not presented in this paper.

Ductal Carcinoma In Situ Options

Increasing numbers of women are diagnosed with a condition known as ductal carcinoma in situ (DCIS). This is not a cancer but rather a precancerous condition that is primarily detected by mammogram as microcalcifications. Women with DCIS are at a higherthan-average risk of developing breast cancer, though most cases may never give rise to invasive disease. There is very little evidence to indicate which cases require treatment to reduce the risk of invasive breast cancer. Most women with DCIS undergo either lumpectomy or mastectomy. Undergoing radiation, hormone therapy, or a combination of these treatments may further reduce a woman's chances of developing invasive disease or having a recurrence of DCIS but, increasingly, women with lower-risk disease are being treated with lumpectomy alone. Because DCIS may never progress to invasive breast cancer, some women choose to forego surgical treatment after biopsy and instead manage their condition with active surveillance.

Geographic Variation in Treatment Rates

Patients in several California communities undergo mastectomy, lumpectomy, radiation, and other treatments for breast cancer at rates notably higher or lower than other communities and the state rate.³ See Figure 1.



Figure 1. Geographic Variation in Lumpectomy Without Radiation Treatment, for Breast Cancer Stages I, II, and III California, 2005–2010

DATA VARIATION ANALYSES

BREAST CANCER STAGES I, II, AND III

Lumpectomy Without Radiation (*featured in the map above*) • Women living in Ridgecrest HSA (San Bernardino HRR) are

- at least four times as likely to undergo lumpectomy without radiation as women living in Pinole HSA (San Francisco HRR).
- Women living in Healdsburg HSA (Santa Rosa HRR) are at least five times as likely to undergo lumpectomy without radiation as women living in Vacaville HSA (Contra Costa County HRR).

Lumpectomy with Radiation

- Women living in South San Francisco HSA (San Mateo County HRR) are at least seven times as likely to undergo lumpectomy with radiation as women living in the South Lake Tahoe HSA (Sacramento HRR).
- Women living in Indio HSA (San Diego HRR) are at least four times as likely to undergo lumpectomy with radiation as women living in Willits HSA (Napa HRR).

DATA VARIATION ANALYSES, CONTINUED

Unilateral Mastectomy

- Women living in Woodland HSA (Sacramento HRR) are at least 40% more likely to undergo unilateral mastectomy as women living in South Lake Tahoe HSA (Sacramento HRR).
- Women living in Santa Paula HSA (Ventura HRR) are at least 40% more likely to undergo unilateral mastectomy as women living in Eureka HSA (Redding HRR).

Bilateral Mastectomy

- Women living in Indio HSA (San Diego HRR) are at least twice as likely to undergo bilateral mastectomy as women living in West Covina HSA (Los Angeles HRR).
- Women living in Santa Ana HSA (Orange County HRR) are at least twice as likely to undergo bilateral mastectomy as women living in South San Francisco HSA (San Mateo County HRR).

Breast Reconstruction After Mastectomy

- Women living in San Clemente HSA (Orange County HRR) are at least five times as likely to undergo breast reconstruction as women living in San Bernardino HSA (San Bernardino HRR).
- Women living in Laguna Hills HSA (Orange County HRR) are at least three times as likely to undergo breast reconstruction as women living in Lakeport HSA (Napa HRR).

DCIS

Lumpectomy Without Radiation

- Women living in Willits HSA (Napa HRR) are at least 2.5 times as likely to undergo lumpectomy without radiation for DCIS as women living in Merced HSA (Modesto HRR).
- Women living in King City HSA (Salinas HRR) are at least 80% more likely to undergo lumpectomy without radiation for DCIS as women living in nearby Monterey HSA (Salinas HRR).

Lumpectomy with Radiation

- Women living in Martinez HSA (Contra Costa County HRR) are at least 3.5 times as likely to undergo lumpectomy with radiation for DCIS as women living in Lancaster HSA (Los Angeles HRR).
- Women living in Burlingame HSA (San Mateo County HRR) are at least twice as likely to undergo lumpectomy with radiation for DCIS as women living in Norwalk HSA (Los Angeles HRR).

Unilateral Mastectomy

- Women living in Solvang HSA (Santa Barbara HRR) are at least twice as likely to undergo unilateral mastectomy for DCIS as women living in Lancaster HSA (Los Angeles HRR).
- Women living in Marysville HSA (Sacramento HRR) are at least 20% more likely to undergo unilateral mastectomy for DCIS as women living in Templeton HSA (San Luis Obispo HRR).

Bilateral Mastectomy

- Women living in Selma HSA (Fresno HRR) are at least twice as likely to undergo bilateral mastectomy for DCIS as women living in Glendale HSA (Los Angeles HRR).
- Women living in San Clemente HSA (Orange County HRR) are at least twice as likely to undergo bilateral mastectomy for DCIS as women living in Redding HSA (Redding HRR).

Breast Reconstruction After Mastectomy

- Women living in San Clemente HSA (Orange County HRR) are at least twice as likely to undergo breast reconstruction after mastectomy for DCIS as women living in San Bernardino HSA (San Bernardino HRR).
- Women living in Los Alamitos HSA (Orange County HRR) are at least twice as likely to undergo breast reconstruction after mastectomy for DCIS as women living in Bakersfield HSA (Bakersfield HRR).

DEFINITIONS: For purposes of data analysis, a patient's community of residence is identified by a **hospital service area (HSA)**, which designates a local health care market for community-based inpatient care. An HSA can include more than one city or town. **Hospital referral region (HRR)** designates a health care market for tertiary medical care, which is based on where patients receive major cardiovascular surgery and neurosurgery. Each HRR includes at least one HSA with a hospital or hospitals that perform major cardiovascular procedures or neurosurgery.

In all six hospital service areas (HSAs) within the San Francisco hospital referral region (HRR), women were more likely to get a lumpectomy with radiation than without radiation for breast cancer stages I, II, or III, and were below the state average for lumpectomy without radiation. Precisely the opposite pattern was seen in nearby HSAs in Santa Rosa HRR. Women in all five HSAs in Santa Rosa HRR were more likely to get lumpectomy without radiation than with radiation for breast cancer stages I, II, or III. In all five Santa Rosa HSAs, women were less likely than the state average to get lumpectomy with radiation, and more likely than the state average to receive lumpectomy without it. See Figure 2 on page 5.





In most HSAs in Orange HRR, women diagnosed with DCIS are more likely than the state average to undergo bilateral mastectomy and to have breast reconstruction surgery. Women living in San Clemente HSA are at least twice as likely as the state rate to undergo bilateral mastectomy and breast reconstruction. See Figure 3.

Figure 3. Breast Reconstruction and Bilateral Mastectomy, for DCIS, HSAs in Orange HRR Compared to the State Rate, 2005–2010



In nearly all HSAs in Orange HRR, women diagnosed with breast cancer stages I, II, or III are more likely than the state average to undergo bilateral mastectomy and to have breast reconstruction surgery. Women living in Laguna Hills and San Clemente HSAs are at least twice as likely as the state rate to undergo breast reconstruction. San Clemente has the highest rate in the state for reconstruction after diagnosis with breast cancer stages I, II, and III. See Figure 4.





For most breast cancer and DCIS procedures, the rates seen in most HSAs in Los Angeles HRR are near the state averages. In the case of lumpectomy without radiation for breast cancer stages I, II, and III, however, several Los Angeles HSAs have rates that are significantly higher than the state average. Among women ages 50 to 59 in Lancaster and Canoga Park, for example, the rate of lumpectomy without radiation is more than double the state rate. See Figure 5.

Figure 5. Lumpectomy Without Radiation, for Breast Cancer Stages I, II, and III, Selected HSAs in Los Angeles HRR Compared to the State Rate, by Patient Age Group, 2005–2010



Note regarding Figures 6 through 15: Each dot represents the rate for a procedure in a single California HSA. Dots at the top and bottom of the graphs represent the extremes in rates. The narrower the graph, the greater the variation in rates across HSAs.



Figure 6. Unilateral Mastectomy, for Breast Cancer Stages I, II, and III, by HSA, 2005–2010

Figure 7. Bilateral Mastectomy, for Breast Cancer Stages I, II, and III, by HSA, 2005-2010

Highest Rates	PER 100,000
Indio (San Diego HRR)	37
Santa Ana (Orange HRR)	34
Laguna Hills (Orange HRR)	33
Orange (Orange HRR)	32
Duarte (Los Angeles HRR)	31
Lowest Rates	
West Covina (Los Angeles HRR)	7
Oakdale (Modesto HRR)	7
Salinas (Salinas HRR)	6
So. San Francisco (San Mateo HRR)	4
Eureka (Redding HRR)	4
State Rate	15



Figure 8. Lumpectomy Without Radiation, for Breast Cancer Stages I, II, and III, by HSA, 2005–2010

Highest Rates	PER 100,000
Ridgecrest (San Bernardino HRR)	147
Willits (Napa HRR)	136
Healdsburg (Santa Rosa HRR)	120
Ukiah (Napa HRR)	115
Thousand Oaks (Ventura HRR)	107
Lancaster (Los Angeles HRR)	106
Canoga Park (Los Angeles HRR)	97
Santa Rosa (Santa Rosa HRR)	94
Valencia (Los Angeles HRR)	92
Sebastopol (Santa Rosa HRR)	91
State Rate	44



Figure 9. Lumpectomy with Radiation, for Breast Cancer Stages I, II, and III, by HSA, 2005–2010

Highest Rates	PER 100,000	200	
South San Francisco (San Mateo HRR)	178	180	South San Francisco
Indio (San Diego HRR)	174	160	•
San Pablo (San Francisco HRR)	170		••••
Santa Maria (Santa Barbara HRR)	165	140	••••
Arcata (Redding HRR)	158	120	•••••
Lowest Rates			
Lakeport (Napa HRR)	22	100	• • • • • • • • • • • • • • • • • • • •
Ridgecrest (San Bernardino HRR)	19	80	
Ukiah (Napa HRR)	16	<u></u>	
Willits (Napa HRR)	14	60	
South Lake Tahoe (Sacramento HRR)	7	40	
State Rate	90	20	• •
		0	

Figure 10. Breast Reconstruction, for Breast Cancer Stages I, II, and III, by HSA, 2005-2010

Highest Rates	PER 100,000
San Clemente (Orange HRR)	46
Laguna Hills (Orange HRR)	45
Mission Viejo (Orange HRR)	42
South Laguna (Orange HRR)	38
Brawley (San Diego HRR)	35
Dinuba (Fresno HRR)	34
Fallbrook (San Diego HRR)	33
Coronado (San Diego HRR)	33
Santa Ana (Orange HRR)	32
Fountain Valley (Orange HRR)	32
State Rate	17



Figure 11. Unilateral Mastectomy, for DCIS, by HSA, 2005–2010



Figure 12. Bilateral Mastectomy, for DCIS, by HSA, 2005-2010



Figure 13. Lumpectomy Without Radiation, for DCIS, by HSA, 2005–2010

Highest Rates	PER 100,000	48	
Willits (Napa HRR)	45	44	Willits
Healdsburg (Santa Rosa HRR)	39	40	•
King City (Salinas HRR)	39	36	•
Thousand Oaks (Ventura HRR)	31	00	
Santa Rosa (Santa Rosa HRR)	31	32	• • •
Ridgecrest (San Bernardino HRR)	30	28	
San Francisco (San Francisco HRR)	30	24	•
Ukiah (Napa HRR)	30		
Canoga Park (Los Angeles HRR)	29	20	
Daly City (San Mateo HRR)	28	16	• • • • • • • • • • • • • • • • • • •
Arcata (Redding HRR)	27	12	• • • • • • • • • • • • • • • • • • •
Sebastopol (Santa Rosa HRR)	27		• • • • • • • • • • • • • • • • • • •
State Rate	16	8	
		4	

Figure 14. Lumpectomy with Radiation for DCIS, by HSA, 2005-2010



Figure 15. Reconstruction After Mastectomy, for DCIS, by HSA, 2005-2010



Table 1. Lumpectomy, with and Without Radiation; Mastectomy; and Breast Reconstruction After Mastectomy Breast Cancer Stages I, II, and III, by California Hospital Service Area (HSA), 2005–2010

HOW TO USE THIS TABLE: In Alameda HSA, for example, residents undergo lumpectomy with radiation at least at 130% of the state average rate (and at most, 188%). That means they are at least 30% more likely than the average Californian to undergo the procedure.

Notes: An HSA can include both the city for which it is named as well as surrounding areas. Confidence intervals describe a range and are listed in parentheses. For example, 57% – 70% indicates that, with 95% confidence, the range of possible values spans from 57% to 70% of the state rate. Blank cells indicate insufficient data. Color codes are for reader convenience only. Values above the state rate are assigned a color code based on the low end of the confidence range; values below the state rate are assigned a color code based on the high end of the confidence range. LEGEND*



	Lumpectomy Without Radiation	Lumpectomy with Radiation	Unilateral Mastectomy	Bilateral Mastectomy	Reconstruction
	Compared to state rate	Compared to state rate	Compared to state rate	Compared to state rate	Compared to state rate
	of 44 per 100,000	of 90 per 100,000	of 75 per 100,000	of 15 per 100,000	of 17 per 100,000
California	100%	100%	100%	100%	100%
Alameda	93%	156%	83%	61%	42%
	(67%–129%)	(130%–188%)	(64%–107%)	(31%–119%)	(20%–90%)
Anaheim	127%	96%	99%	148%	180%
	(111%–146%)	(86%–107%)	(89%–110%)	(116%–189%)	(145%–223%)
Antioch	46%	131%	100%	78%	48%
	(34%–61%)	(115%–149%)	(85%–117%)	(54%–114%)	(30%–76%)
Apple Valley	51%	89%	96%	92%	26%
	(35%–73%)	(73%–109%)	(77%–119%)	(57%–149%)	(11%–58%)
Arcadia	102%	90%	109%	76%	105%
	(85%–122%)	(79%–104%)	(96%–123%)	(52%–109%)	(77%–145%)
Arcata	80%	174%	79%	86%	77%
	(50%–128%)	(138%–220%)	(55%–114%)	(43%–172%)	(37%–159%)
Arroyo Grande	91%	119%	79%	82%	56%
	(68%–122%)	(99%–143%)	(61%–102%)	(49%–136%)	(32%–98%)
Auburn	59%	114%	117%	112%	94%
	(44%–79%)	(98%–133%)	(98%–138%)	(78%–159%)	(65%–137%)
Avalon			73% (24%–229%)		
Bakersfield	102%	81%	113%	88%	54%
	(90%–117%)	(73%–90%)	(103%–125%)	(70%–112%)	(41%-72%)
Banning	91%	82%	114%	149%	30%
	(69%–122%)	(66%–102%)	(93%–140%)	(94%–237%)	(11%–80%)
Barstow	56%	107%	90%	74%	68%
	(31%–100%)	(77%–148%)	(65%–125%)	(32%–171%)	(28%–169%)
Bellflower	153%	65%	111%	115%	128%
	(125%–188%)	(52%-80%)	(94%–131%)	(74%–178%)	(85%–191%)
Berkeley	81%	155%	80%	52%	50%
	(63%–105%)	(134%–179%)	(66%–98%)	(33%–83%)	(33%–76%)
Big Bear Lake	128%	81%	105%	80%	80%
	(82%–198%)	(57%–114%)	(74%–150%)	(37%–172%)	(35%–180%)
Brawley	55% (27%–112%)	106% (71%–158%)	84% (56%–125%)		210% (96%–461%)
Burbank	150%	100%	89%	88%	100%
	(133%–171%)	(90%–111%)	(79%–101%)	(69%–113%)	(79%–126%)
Burlingame	49%	148%	87%	70%	83%
	(35%–68%)	(129%–170%)	1	(45%–110%)	(55%–124%)

	Lumpectomy Without Radiation Compared to state rate of 44 per 100,000	Lumpectomy with Radiation Compared to state rate of 90 per 100,000	Unilateral Mastectomy Compared to state rate of 75 per 100,000	Bilateral Mastectomy Compared to state rate of 15 per 100,000	Reconstruction Compared to state rate of 17 per 100,000
Camarillo	109%	119%	125%	147%	158%
	(84%–141%)	(101%–141%)	(103%–152%)	(101%–213%)	(112%–224%)
Canoga Park	219%	90%	99%	82%	94%
	(191%–251%)	(79%–102%)	(87%–114%)	(61%–112%)	(72%–124%)
Carmichael	55%	99%	124%	111%	116%
	(44%–67%)	(89%–112%)	(110%–140%)	(84%–145%)	(89%–151%)
Castro Valley	125%	110%	78%	60%	43%
	(101%–154%)	(93%–130%)	(64%–96%)	(36%–101%)	(23%–78%)
Chester		46% (19%–111%)	84% (42%–171%)		
Chico	92%	105%	93%	129%	28%
	(72%–118%)	(89%–124%)	(76%–113%)	(90%–186%)	(15%–52%)
Chino	106%	88%	112%	176%	107%
	(82%–136%)	(73%–107%)	(94%–133%)	(124%–249%)	(72%–160%)
Chula Vista	83%	135%	125%	118%	130%
	(68%–100%)	(119%–152%)	(110%–142%)	(85%–164%)	(94%–179%)
Clearlake	187%	39%	108%	61%	37%
	(134%–261%)	(23%–65%)	(78%–151%)	(25%–152%)	(12%–116%)
Coalinga	71% (26%–192%)	66% (29%–148%)	57% (24%–139%)		
Colusa	74% (30%–181%)	119% (73%–195%)	148% (94%–231%)		
Concord	46%	150%	95%	115%	86%
	(33%–65%)	(131%–172%)	(80%–114%)	(79%–167%)	(57%–131%)
Corcoran	98% (36%–266%)	74% (30%–179%)	102% (52%–200%)		
Corona	72%	79%	100%	100%	69%
	(56%–92%)	(67%–93%)	(86%–118%)	(71%–142%)	(47%–103%)
Coronado	55%	93%	126%	86%	198%
	(30%–100%)	(68%–129%)	(87%–182%)	(41%–180%)	(117%–337%)
Covina	99%	71 %	110%	81%	93%
	(77%–127%)	(57%–87%)	(91%–131%)	(48%–136%)	(56%–154%)
Culver City	168%	101%	108%	112%	143%
	(129%–220%)	(79%–129%)	(83%–139%)	(64%–195%)	(89%–230%)
Daly City	65%	136%	98%	66%	69%
	(50%–85%)	(119%–156%)	(83%–115%)	(40%–108%)	(45%–106%)
Davis	84%	120%	120%	141%	67%
	(60%–116%)	(99%–146%)	(96%–151%)	(88%–224%)	(39%–116%)
Deer Park	77%	77%	99%	47%	143%
	(46%–129%)	(53%–110%)	(69%–142%)	(15%–148%)	(76%–270%)
Delano	84% (50%–140%)	60% (38%–95%)	97% (69%–135%)		
Dinuba	55% (23%–132%)	105% (66%–168%)	86% (51%–147%)		207% (76%–563%)
Downey	181%	49%	92%	80%	79%
	(153%–214%)	(40%–60%)	(79%–107%)	(50%–128%)	(48%–130%)
Duarte	106%	104%	111%	207%	166%
	(67%–168%)	(73%–149%)	(80%–155%)	(105%–408%)	(78%–356%)

	Lumpectomy Without Radiation Compared to state rate of 44 per 100,000	Lumpectomy with Radiation Compared to state rate of 90 per 100,000	Unilateral Mastectomy Compared to state rate of 75 per 100,000	Bilateral Mastectomy Compared to state rate of 15 per 100,000	Reconstruction Compared to state rate of 17 per 100,000
El Centro	76%	106%	104%	47%	159%
	(52%–111%)	(83%–134%)	(82%–132%)	(20%–112%)	(92%–276%)
Encinitas	102%	106%	101%	91%	139%
	(81%–127%)	(91%–122%)	(84%–120%)	(66%–125%)	(106%–181%)
Encino	106%	116%	97%	76%	113 <i>%</i>
	(66%–170%)	(87%–156%)	(64%–147%)	(37%–155%)	(65%–199%)
Escondido	89%	128%	122%	100%	117%
	(73%–109%)	(113%–144%)	(107%–140%)	(72%–139%)	(86%–159%)
Eureka	49%	154%	60%	26%	26%
	(31%–76%)	(126%–189%)	(43%–84%)	(11%–65%)	(10%–64%)
Fairfield	37%	121%	104%	69%	65%
	(26%–54%)	(102%–143%)	(86%–127%)	(39%–122%)	(39%–107%)
Fall River Mills	87% (36%–212%)	116% (70%–192%)	115% (66%–201%)		
Fallbrook	131%	95%	104%	113%	202%
	(94%–181%)	(74%–123%)	(79%–137%)	(60%–212%)	(127%–320%)
Folsom	55%	117%	121%	145%	110%
	(36%–85%)	(95%–144%)	(96%–152%)	(96%–221%)	(70%–172%)
Fontana	91%	84%	112%	102%	43%
	(69%–120%)	(69%–103%)	(94%–133%)	(64%–164%)	(20%–92%)
Fort Bragg	153%	31%	124%	70%	47%
	(104%–225%)	(17%–57%)	(88%–176%)	(28%–174%)	(17%–129%)
Fortuna	76% (46%–126%)	156% (120%–204%)	80% (54%–119%)		
Fountain Valley	100%	98%	88%	189%	193 <i>%</i>
	(81%-124%)	(85%–114%)	(76%–103%)	(136%–262%)	(144%–259%)
Fremont	113%	112%	89%	56%	67%
	(94%–136%)	(98%–127%)	(77%–102%)	(37%–85%)	(47%–95%)
Fresno	58%	111%	117%	90%	138%
	(50%–68%)	(102%–121%)	(106%–128%)	(72%–114%)	(114%–167%)
Fullerton	95%	111%	93%	146%	147%
	(81%-111%)	(100%–123%)	(83%–105%)	(115%–184%)	(117%–183%)
Garberville	118% (58%–240%)	88% (50%–153%)	141% (84%–238%)		
Garden Grove	92%	98%	84%	89%	89%
	(67%–127%)	(78%–124%)	(67%–106%)	(45%–176%)	(48%–166%)
Gardena	101%	75%	95%	58%	104%
	(69%–149%)	(53%–107%)	(71%–128%)	(19%–181%)	(46%–233%)
Gilroy	83%	94%	90%	142%	152%
	(55%–126%)	(72%–124%)	(67%–121%)	(78%–260%)	(87%–265%)
Glendale	154%	102%	101%	98%	97%
	(137%–172%)	(93%–112%)	(92%–112%)	(78%–123%)	(77%–121%)
Glendora	80%	101%	90%	60%	98%
	(60%–107%)	(85%–122%)	(74%–111%)	(34%–105%)	(61%–156%)
Granada Hills	87%	82%	96%	58%	122%
	(61%–124%)	(64%–107%)	(76%–123%)	(29%–118%)	(73%–202%)
Grass Valley	92%	118%	95%	194%	90%
	(68%-125%)	(97%–143%)	(75%–121%)	(128%–292%)	(57%–141%)

Greenblase 78% (82%-40%) 134% (122%-10%) 017% (121%-120%) 67% (20%-31%) 89% (20%-31%) Greenville 103% (121%-125%) 101% 101% 20%-31% 20%-31% Gridley 33% (161%-125%) 101% 111%-125% 111%-125% 111%-125% Hantord 73% (125%-101%) 101% 124% 122% 122% Hantord 133% (125%-101%) 101% 121% 122% 101% 122% Hantord 133% (107%-168%) 101% 122% 103% 114% 123% Hantord 133% (107%-168%) 101% 121% 60% 103% 121% 121% Hantord 133% (107%-168%) 111%		Lumpectomy Without Radiation Compared to state rate of 44 per 100,000	Lumpectomy with Radiation Compared to state rate of 90 per 100,000	Unilateral Mastectomy Compared to state rate of 75 per 100,000	Bilateral Mastectomy Compared to state rate of 15 per 100,000	Reconstruction Compared to state rate of 17 per 100,000
Greenville 103% (SIRT-220K) Gridley 33% (44%-195%) 80% (44%-195%) 143% (84%-225%) Hantord 73% (29%-101%) 01%-15% (11%-105%) 111%-181% (111%-181%) 124% (126%-101%) Hartor City 138% (129%-101%) 02% (115%-105%) 103% (111%-181%) 114% (126%-101%) 122% (126%-101%) Havthorne 117% (129%-101%) 02% (127%-134%) 096% (126%-127%) 484% (106%-101%) 122% (126%-105%) Havthorne 117% (125%-105%) 02% (132%-105%) 069% (126%-105%) 116% (126%-105%) 116% (116%-105%) Healdsburg 2700% (126%-131%) 02% (128%-131%) 069% (128%-131%) 02%-10% (128%-105%) 02%-10% (128%-105%) Holister 1040% (126%-131%) 02%-10% (128%-131%) 02%-10% (128%-10%) 02%-10% (128%-10%) Hurington Beach 06% (144%-131%) 03% (128%-131%) 02%-10% (128%-131%) 02%-10% (128%-131%) 02%-10% (128%-131%) India 06%-131% (128%-131%) 01%-131% (128%-131%) 02%-131% (128%-131%) 02%-131% (128%-131%) 02%-131% (128%-131%) India 06%-131% (128%-131%) 01%-131% (128%-131%) <	Greenbrae	76% (63%–93%)	134% (121%–149%)	107% (94%–123%)	67% (50%–91%)	89% (69%–115%)
Gridey 93% (44%, 198%) 80% (44%, 195%) 145% (84%, 125%) Hanford 73% (322-1018) 1815-125%) 11135-161% 94% (328-112%) 122% (328-112%) Harbor City 138% (115%-165%) 638-112%) 1605% (328-112%) 147% (328-112%) 123% (328-112%) Havthorne 117% (107%-164%) 035-112%) 96% (328-12%) 84% (328-12%) 1605% (328-12%) Havthorne 117% (107%-164%) 035-133%) 166%-85% 161% (328-12%) 161% (328-12%) 161% (328-12%) 161% (328-12%) 161% (328-12%) 161% (328-12%) 161% (328-12%) 161% (328-12%) Headsburg 270% (319%-121%) 163% (328-12%) 163% (328-12%) 161% (328-12%) 161% (328-12%) 161% (328-12%) Hent 109% (39%-128%) 69%, 104% (39%-128%) 73% (328-21%) 164% (328-12%) 164% (328-12%) 164% (328-12%) Holister 0104% (39%-128%) 69%, 104% (39%-128%) 164% (328-12%) 164% (328-12%) 164% (328-12%) Holister 0104% (39%-128) 69%, 104% (39%-128) 164% (318-128) 164% (318-128) 164% (318-128) <td< th=""><td>Greenville</td><td></td><td></td><td>103% (33%–326%)</td><td></td><td></td></td<>	Greenville			103% (33%–326%)		
Hantord $(25\% - 01\%)$ $(101\%, (115))$ (134%) (24%) $(12\%, (115))$ Harbor City $(135\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ Havthorne $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ Havthorne $(115\% - 105\%)$ $(115\% - 105\%)$ $(105\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ Havthorne $(105\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ Havthorne $(105\% - 105\%)$ $(105\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ Havathorne $(105\% - 105\%)$ $(105\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ Harnet $(100\% - 109\%)$ $(105\% - 105\%)$ $(105\% - 105\%)$ $(105\% - 105\%)$ $(105\% - 105\%)$ Hollister $(100\% - 109\%)$ $(105\% - 105\%)$ $(105\% - 105\%)$ $(125\% - 105\%)$ $(125\% - 105\%)$ Hultington Beach $(100\% - 109\%)$ $(115\% - 90\%)$ $(115\% - 90\%)$ $(115\% - 90\%)$ $(115\% - 90\%)$ Indio $(165\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 90\%)$ $(115\% - 90\%)$ $(115\% - 90\%)$ Indio $(105\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 90\%)$ $(115\% - 90\%)$ Indio $(105\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ Indio $(105\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ Indio $(105\% - 105\%)$ $(115\% - 105\%)$ $(115\% - 105\%)$ <td>Gridley</td> <td>93% (44%–198%)</td> <td>80% (44%–145%)</td> <td>145% (94%–225%)</td> <td></td> <td></td>	Gridley	93% (44%–198%)	80% (44%–145%)	145% (94%–225%)		
Harbor City133% (115%-188%)97% (83%-14%)103% (89%-12%)1447% (105%-13%)122% (105%-13%)Havthorne 117% (87%-157%) 0.25% (105%-18%) 0.25% (105%-18%) 0.25% (105%-18%) 0.25% (105%-18%) 0.25% (105%-18%)Havthorne 117% (105%-18%) 0.112% (105%-18%) 0.25% (105%-18%) 0.25% (105%-18%) 0.25% (115%)Haddsburg 2020% (105%-18%) 0.65% (105%-13%) 0.116% (105%-13%) 0.116% (105%-13%)Henet 100% (105%-18%) 0.95% (105%-13%) 0.104% (105%-13%) 0.75% (105%-13%)Holister 0.06% (105%-13%) 0.104% (105%-13%) 0.104% (105%-13%) 0.104% (105%-13%)Hurington Beach 100% (104%-108%) 0.95% (104%-13%) 0.95% (105%-13%) 0.104% (105%-13%)Indio 0.65% (144%-198%) 0.95% (115%-13%) 0.95% (135%-23%) 0.95% (135%-23%)Indio 0.65% (144%-198%) 0.95% (145%-13%) 0.95% (135%-23%) 0.95% (135%-23%)Jackson 0.96% (144%-198%) 0.95% (125%-13%) 0.95% (135%-23%) 0.95% (135%-23%)Jackson 0.96% (125%-13%) 0.95% (125%-13%) 0.95% (135%-23%) 0.95% (135%-23%)Jackson 0.96% (125%-13%) 0.95% (125%-13%) 0.95% (135%-23%) 0.95% (135%-23%)Jackson 0.96% (125%-13%) 0.95% (125%-13%) 0.95% (135%-23%) 0.95%	Hanford	73% (52%–101%)	101% (81%–125%)	134% (111%–161%)	94% (54%–162%)	122% (76%–196%)
Hawthome 117% (87%-157%) 92% (71%-119%) 96% (76%-122%) 64% (43%-164%) 160% (97%-262%) Hayward 112% (107%-164%) (85%-13%) (76%-122%) (43%-164%) (61%- (61%-21%) Healdsburg 200% (107%-164%) (85%-13%) (115%) (116%) (114%) Healdsburg 200% (19%-104%) (109%- (19%-104%) (114%) (114%) Henet 109% (19%-104%) (107%- (19%-104%) (104%)- (106%- (19%-109%) (114%)- (19%-109%) Hollister 100% (19%-105%) (01%- (10%- (19%-108%) (104%- (19%) (124%- (19%)- (105%- (19%) (124%- (19%)- (113%-	Harbor City	138% (115%–165%)	97% (83%–114%)	103% (89%–119%)	147% (102%–211%)	123% (85%–178%)
Hayward 132% (107%-187%) 112% (195%-133%) 669% (195%-133%) 57% (123%-103%) 669% (115% Healdsburg 200% (208%-350%) 669% (38%-350%) 1165% (38%-193%) 1116% (39%-213%) 1144% (30%-213%) Hernet 109% (197%-128%) 59% (60%-25%) 1043% (38%-193%) 73% (49%-195%) 658%-37% (49%-195%) Hollister 1049% (60%-56%) 90% (197%-128%) 73% (49%-195%) 668%-37% (49%-195%) Hurtington Beach 106% (89%-158%) 91% (192%-128%) 73% (192%-128%) 78% (49%-195%) Indio 667% (196%-58%) 113% (192%-228%) 124% (195%-148%) 124% (195%-148%) Indio 667% (164%-128%) 118% (193%-128%) 124% (195%-148%) 123% (195%-148%) Indio 667% (164%-128%) 181% (193%-128%) 124% (195%-148%) 110% (195%-128%) 124% (195%-148%) Indio 161% (198%-118%) 101% (198%-128%) 124% (197%-128%)	Hawthorne	117% (87%–157%)	92% (71%–119%)	96% (76%–122%)	84% (43%–164%)	160% (97%–262%)
Healdsburg $\frac{270\%}{(20\%-30\%)}$ $\frac{65\%}{(55\%-35\%)}$ $\frac{116\%}{(85\%-13\%)}$ $\frac{116\%}{(57\%-24\%)}$ $\frac{114\%}{(60\%-213\%)}$ Hernet $\frac{10}{(51\%-131\%)}$ $\frac{59\%}{(50\%-70\%)}$ $\frac{60\%-10\%}{(90\%-119\%)}$ $\frac{73\%}{(36\%-10\%)}$ $\frac{75\%}{(36\%-10\%)}$ Hollister 104% 00% 97% 73% 73% 66% Huntington Beach 106% 94% 82% 124% 148% Huntington Beach 106% 94% 82% 124% 143% Indio 667% $168\%-109\%$ 129% $(69\%-171\%)$ $(113\%-195\%)$ Indio 667% $169\%-168\%$ 129% $(69\%-171\%)$ $(113\%-195\%)$ Inglewood 168% 98% 95% 82% 122% Invine $(69\%-113\%)$ $(119\%-128\%)$ $(113\%-250\%)$ $(129\%-149\%)$ Invine 94% 98% 95% 82% 105% Jackson 94% 82% 124% 75% 96% Jackson 94% 82% 124% 75% 96% Jackson 94% 82% 97% 152% 23% Jackson 94% 82% 97% 152% 23% Jackson 96% 60% 97% 152% $63\%-17\%$ Jackson 94% 82% 97% 152% $63\%-17\%$ Jackson 94% 82% 97% 152% $63\%-16\%$ La Jola 96% 107% 114% 84% 118% La Jola 96% 107% <	Hayward	132% (107%–164%)	112% (95%–133%)	69% (56%–85%)	57% (32%–103%)	56% (31%–102%)
Hernet109% (1918-137%)59% (60%-07%)104% (190%-119%)73% (49%-108%)57% (195%-197%)Hollister104% (69%-108%)97% (69%-108%)73% (69%-108%)88.6% (422%-178%)Huntington Beach106% (69%-108%)94% (69%-108%)82% (108%-108%)124.8% (108%-108%)Indio667% (144%-108%)(162%-228%)1008 (102%-238%)1132% (103%-238%)Inglewood1669% (144%-108%)98% (195%-125%)95% (162%-211%)229% (105%-238%)247% (157%-238%)Invine101% (144%-108%)(195%-138%)91% (191%-128%)1137% (131%-200%)1137% (131%-200%)Jackson68%+131% (195%-165%)(192%-216%)(113%-200%) (131%-237%)(131%-200%) (131%-230%)Jackson(66%+131%) (195%-165%)(113%) (195%-165%)97% (195%-165%)(113%) (195%-165%)La Jolla172% (195%-165%)(113%) (195%-165%)(114%) (195%-165%)(114%) (195%-165%)La Jolla1710% (195%-165%)(110%) (195%-165%)(114%) (195%-165%)(114%) (195%-165%)La Jolla1110% (195%-165%)(110%) (195%-125%)(111%) (195%-125%)(114%) (195%-115%)La Jolla1110% (195%-125%)(110%) (195%-125%)(114%) (195%-115%)(1148%) (195%-115%)La Jolla1110% (195%-125%)(110%) (195%-125%)(111%) (195%-125%)(111%) (195%-125%)Lake Joala1110% (195%-125%)(110%) (195%-125%)	Healdsburg	270% (208%–350%)	56% (38%–83%)	115% (83%–159%)	116% (57%–234%)	114% (60%–213%)
Hollister 104% (69%-166%) 90% (67%-122%) 97% (7%-133%) 78% (39%-169%) 86% (42%-1785) Huntington Beach (160% 106% (89%-169%) 94% (81%-129%) (88%-99%) 102% (113%-125%) 113%-195%) Indio 67% (46%-98%) (162%-229%) (106%-188%) 109%-171%) 1132% (157%-389%) Indio 67% (46%-98%) 98% (165%-229%) 99% 82% (105%-168%) 105% (157%-168%) 173%- (157%-169%) Indio 169% (144%-198%) 98% (195%-112%) 82% (195%-110%) 181% (131%-250%) 173%- (134%-237%) Jackson 94% (68%-131%) 82% (195%-128%) 124% (197%-136%) 181% (131%-250%) 173% (135%-267%) Joshua Tree 41% (25%-67%) 163% (102%-21%) 126% (102%-136%) 75% (197%-136%) 96% (197%-136%) La Jolla 96% (105%-119%) 114% (101%-136%) 84% (101%-136%) 118% (101%-136%) 84% (101%-136%) 118% (101%-136%) La Mesa 66% (138%-245%) 1163% (102%-21%) 1114% (101%-136%) 84% (101%-136%) 127% (102%-21%) Lake Isabella 1100% (138%-245%) 69% (138%-136%)	Hemet	109% (91%–131%)	59% (50%–70%)	104% (90%–119%)	73% (49%–109%)	57% (36%–91%)
Huntington Beach106% ($(E5\%-131\%)$ 94% ($(E5\%-131\%)$ 82% ($(E5\%-131\%)$ 124% ($(E5\%-131\%)$ 148% ($(113\%-169\%)$ Indio $(65,7\%)$ ($(44\%-198\%)$ $(133,2\%)$ ($(162\%-229\%)$ $(106\%-158\%)$ 247% ($155\%-389\%)$ (132%) ($155\%-389\%)$ Indio (169%) ($(144\%-198\%)$ $(162\%-229\%)$ $(106\%-158\%)$ $(155\%-389\%)$ ($155\%-389\%)$ (132%) ($155\%-389\%)$ Invine 101% ($(174\%-122\%)$ $(108\%-21\%)$ $(131\%-267\%)$ ($131\%-267\%)$ $(131\%-267\%)$ ($131\%-267\%)$ $(133\%-267\%)$ ($133\%-267\%)$ Jackson 94% ($68\%-131\%)$ 82% ($175\%-128\%)$ 124% ($175\%-126\%)$ 75% ($193\%-247\%)$ $(134\%-237\%)$ ($193\%-247\%)$ Joshua Tree 41% ($25\%-67\%)$ 99% ($17\%-28\%$) 97% ($102\%-216\%)$ 114% ($103\%-267\%)$ 84% ($111\%-115\%$)La Jolla 96% ($105\%-119\%$) 114% ($105\%-127\%$) 84% ($111\%-115\%$) 114% ($105\%-27\%$)La Mesa 100% ($105\%-22\%$) 114% ($105\%-27\%$) 84% ($103\%-267\%$) 123% ($103\%-267\%$)Lakeport 130% ($105\%-22\%$) $(14\%-115\%)$ ($113\%-26\%$) 127% ($225\%-383\%$)Lakeport 184% ($135\%-265\%$) 116% ($105\%-22\%$) 123% ($113\%-26\%$)Lakeport 184% ($135\%-265\%$) $(145\%-115\%)$ ($125\%-265\%$) $(113\%-26\%)$ ($111\%-177\%$)Lakeport 184% ($105\%-225\%$) $(145\%-115\%)$ ($105\%-225\%$) $(135\%-265\%)$ ($111\%-177\%$)Lakeport 184% ($105\%-225\%$) $(23\%-23\%)$	Hollister	104% (69%–156%)	90% (67%–122%)	97% (71%–133%)	78% (36%–169%)	86% (42%–176%)
Indio 67% ($46\%-99\%$) 193% ($162\%-29\%$) 129% ($166\%-159\%$) 247% ($157\%-389\%$) 132% ($73\%-28\%$)Inglewood 169% ($144\%-198\%$) 98% ($68\%-117\%$) 98% ($68\%-117\%$) 82% ($161\%-110\%$) 82% ($161\%-110\%$) 82% ($1131\%-250\%$) 105% ($131\%-250\%$) 105% ($133\%-250\%$)Irvine 101% ($77\%-132\%$) 108% ($91\%-128\%$) 91% ($131\%-250\%$) 1181% ($131\%-250\%$) 178% ($134\%-250\%$)Jackson 94% ($68\%-131\%$) 82% ($64\%-105\%$) 124% ($97\%-132\%$) 75% ($93\%-27\%$) 96% ($59\%-158\%$)Joshua Tree 41% ($25\%-67\%$) 163% ($170\%-281\%$) 97% ($175\%-126\%$) $93\%-27\%$ ($93\%-27\%$) 23% ($7\%-73\%$)La Jolla 96% ($178\%-193\%$) 107% ($193\%-217\%$) 111% ($61\%-115\%$) 84% ($110\%-115\%$)La Mesa 66% ($193\%-112\%$) 99% ($83\%-110\%$) 99% ($101\%-123\%$) 216% ($22\%-33\%$)Lake Isabella 110% ($193\%-222\%$) 69% ($138\%-245\%$) 216% ($128\%-275\%$) 223% ($111\%-123\%$)Lakeport 184% ($138\%-265\%$ 116% ($138\%-245\%$) 116% ($128\%-110\%$) 66% ($128\%-12\%$)Lakewood 1145% ($103\%-265\%$) 23% ($111\%-123\%$) 123% ($111\%-123\%$)Lakewood 145% ($121\%-265\%$) 23% ($103\%-265\%$) 116% ($103\%-265\%$) 116% ($103\%-265\%$) 116% ($103\%-265\%$)Lakester 238% ($121\%-265\%$) 23% ($111\%-11\%$	Huntington Beach	106% (85%–131%)	94% (81%–109%)	82% (68%–99%)	124% (90%–171%)	148% (113%–195%)
Inglewood 169% (144%-198%) 98% (85%-113%) 95% (81%-10%) 82% (56%-121%) 105% (75%-148%) Irvine 101% (77%-132%) 108% (91%-128%) 91% (74%-112%) 181% (131%-250%) 178% (134%-237%) Jackson 94% (68%-131%) 82% (64%-105%) 124% (75%-136%) 75% (93%-247%) 96% (59%-138%) Joshua Tree 41% (68%-338%) 99% (77%-126%) 97% (75%-126%) 165% (93%-247%) 23% (75%-136%) King City 172% (87%-338%) 163% (102%-261%) 97% (60%-189%) 144% (61%-15%) 148% (116%-189%) La Jolla 96% (65%-77%) 108% (88%-118%) 97% (101%-123%) 661%-115% (67%-107%) 148% (116%-189%) La Mesa 100% (65%-77%) 98% (88%-118%) 111% (101%-123%) 84% (67%-107%) 128% (220%-338%) Lake Isabella 110% (76%-222%) 95% (83%-116%) 99% (125%-136%) 216% (232%-136%) 23% (78%-22%) Lake Isabella 130% (138%-245%) 69% (114%-115%) 127% (128%-218%) 216% (79%-72%) Lake Isabella 130% (103%-22%) 69% (114%-115%) 123% (133%-36%) 73% (141%-33%)	Indio	67% (46%–98%)	193 <i>%</i> (162%–229%)	129% (106%–158%)	247% (157%–389%)	132% (73%–236%)
Irvine 101% (77%-132%) 108% (91%-128%) 91% (74%-112%) 181% (131%-260%) 178% (131%-260%) Jackson 94% (68%-131%) 82% (64%-105%) 124% (97%-159%) 75% (41%-138%) 96% (59%-158%) Joshua Tree 41% (25%-67%) 99% (77%-126%) 97% (75%-126%) 152% (93%-247%) 23% (7%-73%) King City 172% (87%-338%) 163% (102%-261%) 97% (50%-198%) 152% (93%-247%) 23% (7%-73%) La Jolla 96% (78%-119%) 107% (98%-118%) 114% (80%-148%) 84% (61%-115%) 148% (61%-15%) La Mesa 66% (198%-119%) 108% (101%-123%) 111% (83%-110%) 84% (66%-345%) 273% (220%-388%) Lake Isabella 110% (138%-245%) 95% (141%-115%) 99% (128%-177%) 216% (220%-388%) 273% (220%-388%) Lakeport 184% (138%-245%) 24% (148%-418%) 116% (65%-123%) 66% (7%-72%) 23% (111%-218%) Lakewood 145% (103%-245%) 71% (50%-101%) 97% (50%-101%) 123% (65%-232%) 187% (111%-317%) Lancaster 238% (211%-268%) 36% (200%-43%) 94% (83%-106%) 47% (65%-23%) <td>Inglewood</td> <td>169% (144%–198%)</td> <td>98% (85%–113%)</td> <td>95% (81%–110%)</td> <td>82% (56%-121%)</td> <td>105% (75%–146%)</td>	Inglewood	169% (144%–198%)	98% (85%–113%)	95% (81%–110%)	82% (56%-121%)	105% (75%–146%)
Jackson 94% (68%-131%) 82% (64%-105%) 124% (97%-159%) 75% (41%-136%) 96% (59%-158%) Joshua Tree 41% (25%-67%) 99% (77%-126%) 97% (75%-126%) 152% (93%-247%) 23% (7%-73%) King City 172% (87%-338%) 163% (102%-261%) 97% (50%-189%) 93%-247%) 77%-73%) La Jolla 96% (78%-119%) 107% (94%-122%) 97% (102%-261%) 97% (61%-115%) 84% (116%-189%) La Mesa 666% (56%-77%) 108% (98%-118%) 111% (101%-123%) 84% (101%-123%) 108% (101%-123%) Laguna Hills 110% (91%-132%) 95% (98%-116%) 99% (109%-77%) 216% (220%-338%) Lake Isabella 30% (76%-222%) 69% (14%-116%) 113% (127% (22%-137%) 127% (22%-136%) Lakeport 184% (138%-245%) 24% (14%-118) 116% (87%-155%) 666% (22%, (32%-136%) 23% (7%-72%) Lakewood 145% (103%-205%) 71% (50%-101%) 97% (70%-134%) 123% (33%-66%) 187% (111%-317%) Lancaster 238% (211%-268%) 36% (30%-43%) 94% (83%-106%) 47% (33%-66%) 68% (50%-94%)	Irvine	101% (77%–132%)	108% (91%–128%)	91% (74%–112%)	181% (131%–250%)	178% (134%–237%)
Joshua Tree 41% (25%-67%) 99% (77%-126%) 97% (75%-126%) 152% (93%-247%) 23% (7%-73%) King City 172% (87%-338%) 163% (102%-261%) 97% (50%-189%) 97% (50%-189%) 97% (50%-189%) 97% (50%-189%) 97% (50%-189%) 97% (61%-115%) 148% (148%-148% (161%-115%) 148% (161%-115%) 148% (161%-115%) 148% (161%-115%) 148% (161%-115%) 148% (161%-115%) 148% (161%-115%) 148% (161%-115%) 148% (161%-115%) 148% (161%-115%) 108% (161%-115%) 108% (161%-115%) 108% (161%-123%) 108% (220%-338%) Laguna Hills 110% (91%-132%) 95% (83%-110%) 99% (85%-116%) 216% (169%-276%) 273% (220%-338%) Lake Isabella 130% (91%-132%) 69% (141%-115%) 111% (85%-116%) 127% (46%-345%) 23% (7%-72%) Lakeport 184% (138%-245%) 24% (14%-41%) 116% (67%-155%) 666% (32%-136%) 23% (7%-72%) Lakewood 145% (103%-205%) 71% (50%-101%) 97% (70%-134%) 123% (65%-232%) 187% (1111%-317%) Lancaster 238% (211%-268%) 36% (30%-43%) 94% (63%-106%) 47% (33%-68%) 66% (50%-94%) <td>Jackson</td> <td>94% (68%–131%)</td> <td>82 % (64%–105%)</td> <td>124% (97%–159%)</td> <td>75% (41%-136%)</td> <td>96% (59%–158%)</td>	Jackson	94% (68%–131%)	82 % (64%–105%)	124% (97%–159%)	75% (41%-136%)	96% (59%–158%)
King City 172% (87%-338%) 163% (102%-261%) 97% (50%-189%) La Jolla 96% (78%-119%) 107% (94%-122%) 114% (97%-134%) 84% (61%-115%) 148% (16%-189%) La Mesa 66% (56%-77%) 108% (98%-118%) 111% (101%-123%) 84% (67%-107%) 108% (87%-135%) Laguna Hills 110% (91%-132%) 95% (83%-110%) 99% (85%-116%) 216% (169%-276%) 273% (220%-388) Lake Isabella 130% (76%-222%) 69% (41%-115%) 113% (72%-177%) 127% (46%-345%) 23% (7%-72%) Lakeport 184% (138%-245%) 24% (14%-115%) 116% (87%-155%) 666% (32%-136%) 23% (7%-72%) Lakewood 145% (103%-205%) 71% (50%-101%) 97% (65%-134%) 118% (65%-232%) 1187% (111%-317%) Lancaster 238% (211%-268%) 36% (30%-43%) 94% (83%-106%) 47% (33%-68%) 68% (50%-94%)	Joshua Tree	41% (25%–67%)	99% (77%–126%)	97 % (75%–126%)	152% (93%–247%)	23% (7%–73%)
La Jolla96% (78%-119%)107% (94%-122%)114% (97%-134%)84% (61%-115%)148% (116%-189%)La Mesa66% (56%-77%)108% (98%-118%)111% (101%-123%)84% (67%-107%)108% (87%-135%)Laguna Hills110% (91%-132%)95% (83%-110%)99% (85%-116%)216% (169%-276%)273% (220%-338%)Lake Isabella130% (76%-222%)69% (41%-115%)113% (72%-177%)127% (46%-345%)24% (72%-136%)Lakeport184% (138%-245%)24% (14%-41%)116% (87%-155%)666% (32%-136%)23% (7%-72%)Lakewood145% (103%-205%)71% (50%-101%)97% (70%-134%)123% (65%-232%)187% (111%-317%)Lancaster238% (211%-268%)36% (30%-43%)94% (83%-106%)47% (33%-68%)68% (50%-94%)	King City	1 72 % (87%–338%)	163% (102%–261%)	97% (50%–189%)		
La Mesa66% (56%-77%)108% (98%-118%)111% (101%-123%)84% (67%-107%)108% (87%-135%)Laguna Hills110% (91%-132%)95% (83%-110%)99% (85%-116%)216% (169%-276%)273% (220%-338%)Lake Isabella130% (76%-222%)69% (41%-115%)113% (72%-177%)127% (46%-345%)23% (7%-72%)Lakeport184% (138%-245%)24% (14%-41%)116% (87%-155%)666% (32%-136%)23% (7%-72%)Lakewood145% (103%-205%)71% (50%-101%)97% (70%-134%)123% (65%-232%)187% (111%-317%)Lancaster238% (211%-268%)36% (30%-43%)94% (83%-106%)47% (33%-68%)68% (50%-94%)	La Jolla	96% (78%–119%)	107% (94%–122%)	114% (97%–134%)	84% (61%–115%)	148% (116%–189%)
Laguna Hills110% (91%-132%)95% (83%-110%)99% (85%-116%)216% (169%-276%)273% (220%-338%)Lake Isabella130% (76%-222%)69% (41%-115%)113% (72%-177%)127% (46%-345%)24% (72%-177%)123% (22%-338%)Lakeport184% (138%-245%)24% (14%-41%)116% (87%-155%)66% (32%-136%)23% (7%-72%)Lakewood145% (103%-205%)71% (50%-101%)97% (70%-134%)123% (65%-232%)187% (111%-317%)Lancaster238% (211%-268%)36% (30%-43%)94% (83%-106%)47% (33%-68%)68% (50%-94%)	La Mesa	66% (56%–77%)	108% (98%–118%)	111% (101%–123%)	84% (67%–107%)	108% (87%–135%)
Lake Isabella 130% (76%-222%) 69% (41%-115%) 113% (72%-177%) 127% (46%-345%) Lakeport 184% (138%-245%) 24% (14%-41%) 116% (87%-155%) 666% (32%-136%) 23% (7%-72%) Lakewood 145% (103%-205%) 71% (50%-101%) 97% (70%-134%) 123% (65%-232%) 187% (111%-317%) Lancaster 238% (211%-268%) 36% (30%-43%) 94% (83%-106%) 47% (33%-68%) 68% (50%-94%)	Laguna Hills	110% (91%–132%)	95% (83%–110%)	99% (85%–116%)	216% (169%–276%)	273% (220%–338%)
Lakeport 184% (138%-245%) 24% (14%-41%) 116% (87%-155%) 66% (32%-136%) 23% (7%-72%) Lakewood 145% (103%-205%) 71% (50%-101%) 97% (70%-134%) 123% (65%-232%) 187% (111%-317%) Lancaster 238% (211%-268%) 36% (30%-43%) 94% (83%-106%) 47% (33%-68%) 68% (50%-94%)	Lake Isabella	130% (76%–222%)	69% (41%–115%)	113% (72%–177%)	127% (46%–345%)	
Lakewood 145% (103%-205%) 71% (50%-101%) 97% (70%-134%) 123% (65%-232%) 187% (111%-317%) Lancaster 238% (211%-268%) 36% (30%-43%) 94% (83%-106%) 47% (33%-68%) 68% (50%-94%)	Lakeport	184% (138%–245%)	24% (14%–41%)	116% (87%–155%)	66% (32%–136%)	23% (7%–72%)
Lancaster 238% (211%-268%) 36% (30%-43%) 94% (83%-106%) 47% (33%-68%) 68% (50%-94%)	Lakewood	145% (103%–205%)	71% (50%–101%)	97% (70%–134%)	123% (65%–232%)	187% (111%–317%)
	Lancaster	238% (211%–268%)	36% (30%–43%)	94% (83%–106%)	47% (33%–68%)	68% (50%–94%)

	Lumpectomy Without Radiation Compared to state rate of 44 per 100,000	Lumpectomy with Radiation Compared to state rate of 90 per 100,000	Unilateral Mastectomy Compared to state rate of 75 per 100,000	Bilateral Mastectomy Compared to state rate of 15 per 100,000	Reconstruction Compared to state rate of 17 per 100,000
Lindsay	57% (21%–153%)	83% (45%–150%)	103 <i>%</i> (60%–176%)		
Livermore	192%	100%	114%	61%	65%
	(155%–237%)	(83%–122%)	(92%–140%)	(37%–102%)	(40%–106%)
Lodi	80%	105%	127%	61%	39%
	(63%–102%)	(90%–123%)	(109%–147%)	(38%–99%)	(22%–72%)
Loma Linda	75%	87%	102%	167%	33%
	(53%–107%)	(68%–112%)	(80%–129%)	(104%–267%)	(12%–90%)
Lompoc	102%	123%	128%	137%	80%
	(69%–150%)	(96%–157%)	(97%–169%)	(72%–262%)	(38%–167%)
Long Beach	154%	79%	92%	101%	142%
	(138%–172%)	(71%–87%)	(83%–102%)	(81%–126%)	(118%–172%)
Los Alamitos	111%	100%	96%	86%	145%
	(90%–137%)	(86%–118%)	(81%–114%)	(57%–131%)	(103%–202%)
Los Angeles	156%	95%	89%	85%	128%
	(143%–170%)	(88%–101%)	(83%–96%)	(71%–102%)	(110%–149%)
Los Banos	93%	87%	122%	152%	158%
	(54%–160%)	(58%–132%)	(86%–172%)	(73%–316%)	(73%–343%)
Lynwood	168%	67%	98%	81%	121%
	(141%–200%)	(56%–82%)	(85%–114%)	(50%–133%)	(79%–186%)
Madera	67%	93%	127%	119%	169%
	(44%–103%)	(71%–123%)	(100%–161%)	(64%–223%)	(101%–282%)
Manteca	89%	79%	134%	134%	100%
	(65%–121%)	(63%–100%)	(110%–164%)	(89%–202%)	(61%–164%)
Martinez	66%	163%	87%	80%	65%
	(43%–100%)	(135%–197%)	(65%–116%)	(42%–151%)	(34%–122%)
Marysville	66%	107%	134%	95%	25%
	(42%–103%)	(84%–138%)	(106%–169%)	(54%–170%)	(8%–77%)
Merced	92%	107%	119%	71%	80%
	(72%–117%)	(91%–127%)	(101%–140%)	(45%–113%)	(52%–124%)
Mission Hills	129%	95%	91%	97%	150%
	(101%–165%)	(77%–117%)	(74%–112%)	(55%–172%)	(92%–242%)
Mission Viejo	105%	88%	92 %	205%	252%
	(87%–125%)	(78%–100%)	(79%–106%)	(166%–253%)	(208%–304%)
Modesto	101%	96%	103%	79%	55%
	(88%–116%)	(87%–106%)	(93%–115%)	(60%–103%)	(40%–76%)
Montebello	97%	80%	82%	123%	130%
	(75%–127%)	(64%–99%)	(67%–101%)	(72%–211%)	(76%–223%)
Monterey	81%	131%	71 %	57%	114%
	(65%–102%)	(114%–150%)	(58%–87%)	(37%–89%)	(83%–158%)
Monterey Park	105%	64 %	90%	71%	69%
	(76%–145%)	(47 %–88 %)	(71%–113%)	(29%–174%)	(30%–158%)
Morgan Hill	53%	114%	97%	78%	122%
	(31%–92%)	(88%–148%)	(71%–132%)	(37%–167%)	(70%–213%)
Mount Shasta	103% (61%–174%)	101% (70%–144%)	93% (62%–139%)		
Mountain View	89%	128%	106%	93%	130%
	(72%–111%)	(112%–145%)	(91%–123%)	(66%–131%)	(97%–173%)

	Lumpectomy Without Radiation Compared to state rate	Lumpectomy with Radiation Compared to state rate	Unilateral Mastectomy Compared to state rate	Bilateral Mastectomy Compared to state rate	Reconstruction Compared to state rate
	of 44 per 100,000	of 90 per 100,000	of 75 per 100,000	of 15 per 100,000	of 17 per 100,000
Napa	49%	139%	113%	82%	124%
	(35%–68%)	(120%–161%)	(94%–137%)	(50%–136%)	(84%–182%)
National City	71%	108%	112%	57%	88%
	(44%–114%)	(81%–146%)	(87%–146%)	(18%–179%)	(33%–237%)
Newport Beach	129%	114%	83%	162%	170%
	(112%–148%)	(103%–125%)	(72%–94%)	(133%–197%)	(142%–204%)
Northridge	139%	115%	102%	108%	94%
	(116%–166%)	(100%–132%)	(87%–119%)	(76%–153%)	(65%–136%)
Norwalk	131%	79%	88%	76%	70%
	(100%–171%)	(61%–101%)	(70%–110%)	(37%–156%)	(33%–150%)
Novato	66%	118%	117%	95%	73%
	(46%–96%)	(98%–142%)	(94%–145%)	(58%–156%)	(43%–125%)
Oakdale	96%	57%	119%	44%	59%
	(62%–150%)	(38%–84%)	(88%–162%)	(16%–119%)	(24%–143%)
Oakland	105%	153%	71%	73%	77%
	(90%–123%)	(137%–170%)	(62%–82%)	(53%–102%)	(58%–103%)
Oceanside	111%	107%	94%	118%	128%
	(97%–128%)	(96%–118%)	(84%–106%)	(93%–150%)	(101%–162%)
Ojai	80%	87%	107%	95%	135%
	(47%–136%)	(62%–122%)	(75%–153%)	(48%–185%)	(72%–255%)
Orange	120%	117%	78%	210%	169%
	(95%–151%)	(100%–138%)	(64%–95%)	(148%–297%)	(121%–236%)
Oroville	155% (116%–206%)	83% (64%–108%)	129% (102%–163%)	160% (100%–255%)	
Oxnard	81%	124%	115%	77%	124%
	(62%–107%)	(105%–146%)	(97%–137%)	(46%–129%)	(80%–190%)
Palm Springs	72%	137%	77%	111%	28%
	(53%–96%)	(117%–161%)	(62%–96%)	(68%–178%)	(12%–69%)
Panorama City	139%	105%	99%	129%	95%
	(111%–174%)	(87%–128%)	(83%–117%)	(80%–208%)	(54%–167%)
Paradise	81 %	149%	109%	125%	52%
	(58%–113%)	(122%–182%)	(85%–140%)	(77%–204%)	(27%–101%)
Paramount	114% (71%–182%)	87% (58%–129%)	114% (83%–157%)		89% (28%–279%)
Pasadena	147%	109%	107%	83%	130%
	(127%–172%)	(97%–123%)	(94%–121%)	(61%–114%)	(101%–167%)
Petaluma	158%	87%	115%	77%	83%
	(126%–198%)	(71%–106%)	(93%–140%)	(48%–125%)	(52%–133%)
Pinole	37%	165%	75%	62%	44 %
	(24%–57%)	(141%–194%)	(59%–95%)	(33%–119%)	(22 %–86 %)
Pittsburg	51% (33%–80%)	151% (124%–184%)	79% (61%–103%)	122% (69%–218%)	
Placerville	55%	107%	122%	84%	67%
	(41%–74%)	(92%–125%)	(103%–144%)	(57%–125%)	(44%–100%)
Pleasanton	176%	100%	78%	93%	71%
	(144%–216%)	(84%–119%)	(63%–97%)	(64%–135%)	(47%–105%)
Pomona	102%	116%	95%	99%	64 %
	(86%–122%)	(103%–130%)	(84%–108%)	(72%–136%)	(44 %–94 %)

	Lumpectomy Without Radiation Compared to state rate of 44 per 100.000	Lumpectomy with Radiation Compared to state rate of 90 per 100.000	Unilateral Mastectomy Compared to state rate of 75 per 100.000	Bilateral Mastectomy Compared to state rate of 15 per 100.000	Reconstruction Compared to state rate of 17 per 100.000
Porterville	89%	103 %	107%	84%	37%
	(62%–128%)	(81%–132%)	(82%–138%)	(41%–174%)	(13%–100%)
Poway	57%	126%	110%	119%	139%
	(45%–73%)	(112%–143%)	(95%–127%)	(90%–158%)	(107%–180%)
Rancho Mirage	54%	126%	99%	157%	50%
	(43%–67%)	(113%–141%)	(86%-114%)	(118%–209%)	(33%–75%)
Red Bluff	90% (57%–139%)	82% (59%–114%)	87% (62%–124%)	50% (22%–115%)	
Redding	99%	104%	92%	61%	51 %
	(81%–123%)	(90%–120%)	(77%–108%)	(42%–89%)	(34%–76%)
Redlands	90%	70%	112%	147%	33%
	(72%-112%)	(59%–84%)	(96%–132%)	(107%–200%)	(18%–60%)
Redwood City	56%	123%	99%	115%	118%
	(43%–73%)	(109%–139%)	(84%–115%)	(87%–151%)	(91%–154%)
Ridgecrest	330% (222%–492%)	21% (11%–41%)	93% (60%-142%)		43% (16%–118%)
Riverside	61%	73%	121%	146%	46%
	(52%–73%)	(65%–81%)	(110%–134%)	(116%–183%)	(33%–65%)
Roseville	85%	118%	117%	113%	81%
	(70%–102%)	(106%–133%)	(103%–133%)	(87%–148%)	(61%–109%)
Sacramento	75%	108%	127%	110%	133%
	(66%–85%)	(100%–117%)	(116%–138%)	(90%–134%)	(111%–160%)
Salinas	76%	125%	77%	41 %	77%
	(58%–100%)	(106%–147%)	(62%–96%)	(22 %–77 %)	(49%–121%)
San Andreas	103%	79%	95%	63%	38%
	(74%–143%)	(61%–101%)	(72%–125%)	(34%–118%)	(18%–82%)
San Bernardino	105%	91%	98%	123%	23%
	(89%-124%)	(80%–103%)	(86%–111%)	(93%–163%)	(12%–43%)
San Clemente	91%	91%	103 <i>%</i>	181%	277%
	(67%–124%)	(74%–111%)	(82%–129%)	(131%–250%)	(213%–362%)
San Diego	91%	117%	110%	94%	130%
	(81%-102%)	(109%–126%)	(101%–119%)	(78%–115%)	(110%–154%)
San Dimas	74%	102%	101%	83%	76%
	(47%–116%)	(79%–133%)	(75%–135%)	(39%–178%)	(36%–162%)
San Francisco	67%	161%	71%	68%	88%
	(58%–78%)	(147%–176%)	(64%–80%)	(52%-89%)	(71%–111%)
San Gabriel	124%	68%	92%	71%	104%
	(102%–151%)	(56%–81%)	(80%–107%)	(44%–117%)	(71%–155%)
San Jose	79%	134%	107%	94%	117%
	(70%–89%)	(125%–145%)	(99%–116%)	(76%–114%)	(98%–139%)
San Leandro	105%	124%	64%	62%	52 %
	(83%–134%)	(104%–148%)	(51%–81%)	(33%–114%)	(27%–99%)
San Luis Obispo	104%	102%	88%	72%	53%
	(82%–132%)	(86%–120%)	(71%–109%)	(44%–116%)	(32%–87%)
San Mateo	64%	169 <i>%</i>	88%	132%	126%
	(49%–82%)	(150%–190%)	(74%–104%)	(96%–180%)	(94%–170%)
San Pablo	64%	188%	81%	75%	96%
	(47%–86%)	(163%–216%)	(66%–99%)	(43%–131%)	(60%–156%)

	Lumpectomy Without Radiation Compared to state rate of 44 per 100,000	Lumpectomy with Radiation Compared to state rate of 90 per 100,000	Unilateral Mastectomy Compared to state rate of 75 per 100,000	Bilateral Mastectomy Compared to state rate of 15 per 100,000	Reconstruction Compared to state rate of 17 per 100,000
San Pedro	126%	98%	98%	138%	171%
	(98%–162%)	(80%–120%)	(79%–122%)	(89%–214%)	(114%–254%)
San Ramon	120%	144%	98%	175%	84%
	(83%–172%)	(115%–179%)	(73%–132%)	(115%–268%)	(50%–142%)
Santa Ana	100%	113%	90%	229%	195%
	(82%–123%)	(98%–129%)	(78%–105%)	(173%–302%)	(151%–252%)
Santa Barbara	99%	115%	109%	70%	90%
	(83%–119%)	(102%-129%)	(94%–126%)	(49%–100%)	(66%–122%)
Santa Cruz	117%	84%	80%	135%	70%
	(95%–145%)	(71%–98%)	(66%–97%)	(97%–189%)	(48%–101%)
Santa Maria	59%	182%	61%	108%	55%
	(43%–82%)	(155%–213%)	(48%–79%)	(66%–175%)	(31%–97%)
Santa Monica	157%	101%	92%	84%	110%
	(137%–179%)	(92%–112%)	(82%–105%)	(67%–105%)	(91%–135%)
Santa Paula	42% (21%–85%)	149% (112%–196%)	156% (119%–204%)	207% (109%–393%)	
Santa Rosa	212%	73%	89%	114%	66%
	(191%–237%)	(65%–82%)	(79%–100%)	(90%–144%)	(50%–88%)
Sebastopol	205%	57%	92%	88%	69%
	(159%–265%)	(42%–78%)	(68%–124%)	(49%–159%)	(38%–124%)
Selma	72%	128%	107%	101%	97%
	(43%–120%)	(96%–170%)	(77%–147%)	(42%–247%)	(40%–237%)
Simi Valley	160%	96%	96%	94%	88%
	(128%–199%)	(81%–115%)	(79%–118%)	(64%–137%)	(60%–129%)
Solvang	138%	131%	135%	79%	102%
	(89%–214%)	(97%–176%)	(94%–192%)	(33%–194%)	(48%–218%)
Sonoma	125%	79%	83%	106%	60%
	(93%–168%)	(60%–103%)	(62%–112%)	(59%–190%)	(29%–121%)
Sonora	100%	104%	94%	69%	47%
	(75%–133%)	(85%–126%)	(74%–119%)	(40%–119%)	(26%–86%)
South El Monte	124% (73%–212%)	64% (37%–111%)	138% (100%–192%)		144% (46%–453%)
South Laguna	108%	86%	98%	158%	230%
	(87%–134%)	(74%–100%)	(82%–116%)	(122%–205%)	(186%–284%)
South Lake Tahoe	161% (82%–318%)	8% (3%–25%)	47% (23%–96%)		
South San Francisco	95%	196%	82%	29%	74%
	(69%–132%)	(166%–232%)	(63%–106%)	(9%–91%)	(37%–145%)
Stanford	73%	116%	119%	104%	145%
	(56%–96%)	(99%–135%)	(99%–141%)	(73%–148%)	(107%–196%)
Stockton	101%	89%	111%	78%	33%
	(86%–119%)	(79%–101%)	(98%–124%)	(55%–110%)	(20%–54%)
Sun City	74%	85%	98%	144%	64%
	(56%–98%)	(71%–103%)	(81%–118%)	(98%–213%)	(37%–111%)
Tarzana	99%	141%	81%	107%	121%
	(74%–131%)	(119%–166%)	(63%–104%)	(71%–161%)	(83%–177%)
Templeton	126%	96%	71%	47%	50 %
	(100%–160%)	(79%–116%)	(55%–91%)	(26%–84%)	(30%–84%)

	Lumpectomy Without Radiation Compared to state rate of 44 per 100,000	Lumpectomy with Radiation Compared to state rate of 90 per 100,000	Unilateral Mastectomy Compared to state rate of 75 per 100,000	Bilateral Mastectomy Compared to state rate of 15 per 100,000	Reconstruction Compared to state rate of 17 per 100,000
Thousand Oaks	241%	97 %	105%	168%	162%
	(185%–314%)	(79%–119%)	(83%–134%)	(107%–264%)	(107%–248%)
Torrance	120%	106%	91%	100%	99%
	(106%–137%)	(97%–117%)	(82%–101%)	(81%–124%)	(80%–121%)
Тгасу	121%	78%	109%	120%	104%
	(90%–162%)	(61%–100%)	(87%–137%)	(78%–185%)	(64%–169%)
Tulare	157%	67%	91%	138%	76%
	(117%–212%)	(49%–92%)	(68%–123%)	(77%–248%)	(35%–163%)
Turlock	121%	103%	113%	91%	58%
	(94%–156%)	(84%–126%)	(93%–137%)	(57%–146%)	(32%–106%)
Ukiah	259%	18%	93%	110%	69%
	(199%–337%)	(10%–34%)	(68%–128%)	(60%–200%)	(35%–139%)
Upland	90%	99%	94%	113%	37%
	(76%–105%)	(89%–111%)	(84%–107%)	(87%–147%)	(24%–55%)
Vacaville	23%	125%	132%	103%	103%
	(14%–38%)	(104%–149%)	(108%–161%)	(65%–163%)	(67%–159%)
Valencia	207%	67%	94%	85%	102%
	(181%–237%)	(58%–78%)	(81%–108%)	(65%–112%)	(79%–133%)
Vallejo	58%	127%	105%	68%	76%
	(44%–76%)	(110%–148%)	(88%–124%)	(42%–112%)	(49%–115%)
Van Nuys	163 <i>%</i>	110%	106%	69%	148%
	(139%–191%)	(96%–126%)	(92%–122%)	(47%–103%)	(111%–198%)
Ventura	84%	141%	109%	82%	97%
	(65%–109%)	(122%–162%)	(91%–130%)	(56%–121%)	(66%–142%)
Victorville	70%	78%	102%	91%	25%
	(56%–87%)	(67%–91%)	(88%–118%)	(65%–129%)	(13%–45%)
Visalia	80%	104%	111%	60%	31%
	(63%–102%)	(89%–122%)	(93%–131%)	(36%–101%)	(16%–60%)
Walnut Creek	77%	138%	90%	132%	98%
	(65%–91%)	(126%–151%)	(80%–102%)	(106%–164%)	(79%–122%)
Watsonville	84%	92%	72%	118%	72 %
	(54%–130%)	(69%–124%)	(50%–102%)	(54%–256%)	(30%–171%)
Weaverville	136% (60%–309%)	58% (26%–131%)	99% (44%–222%)		
West Covina	106%	71%	105%	46%	54 %
	(88%–128%)	(60%–83%)	(92%–120%)	(27%–80%)	(33 %–90 %)
Whittier	97%	96%	94%	95%	192%
	(81%–116%)	(84%–109%)	(82%–108%)	(68%–134%)	(145%–255%)
Wildomar/Murrieta	61%	88%	101%	125%	95%
	(48%–78%)	(76%–101%)	(87%–117%)	(94%–167%)	(70%–128%)
Willits	306% (219%–428%)	15% (6%–40%)	119% (78%–180%)	105% (45%–245%)	
Woodland	78%	134%	165%	139%	109%
	(55%–111%)	(110%–162%)	(137%–199%)	(85%–228%)	(64%–187%)
Yuba City	42%	122%	138%	100%	52%
	(26%–66%)	(99%–149%)	(113%–169%)	(61%–164%)	(26%–103%)

Table 2. Lumpectomy, with and Without Radiation; Mastectomy; and Breast Reconstruction After Mastectomy DCIS, by California Hospital Service Area (HSA), 2005–2010

HOW TO USE THIS TABLE: In Alameda HSA, for example, residents undergo lumpectomy with radiation at least at 123% of the state average rate (and at most, 249%). That means they are at least 23% more likely than the average Californian to undergo the procedure.

Notes: An HSA can include both the city for which it is named as well as surrounding areas. Confidence intervals describe a range and are listed in parentheses. For example, 57% – 70% indicates that, with 95% confidence, the range of possible values spans from 57% to 70% of the state rate. Blank cells indicate insufficient data. Color codes are for reader convenience only. Values above the state rate are assigned a color code based on the low end of the confidence range; values below the state rate are assigned a color code based on the high end of the confidence range. LEGEND*
Less than 50%
120% to 149%
150% to 199%
200% to 249%
*HSA compared to state rate.

	Lumpectomy Without Radiation Compared to state rate of 16 per 100,000	Lumpectomy with Radiation Compared to state rate of 22 per 100,000	Unilateral Mastectomy Compared to state rate of 11 per 100,000	Bilateral Mastectomy Compared to state rate of 4 per 100,000	Reconstruction Compared to state rate of 5 per 100,000
California	100%	100%	100%	100%	100%
Alameda	125%	175%	137%	206%	123%
	(77%–203%)	(123%–249%)	(83%–226%)	(82%–519%)	(53%–284%)
Anaheim	139%	91%	96%	123%	135%
	(111%–174%)	(73%–113%)	(73%–128%)	(69%–222%)	(88%–206%)
Antioch	43%	108%	85%	192%	57%
	(26%–71%)	(82%–142%)	(57%–127%)	(104%–354%)	(27%–119%)
Apple Valley	47% (26%–87%)	73% (47%–114%)	52% (25%–106%)		
Arcadia	100%	93%	87%	149%	110%
	(75%–135%)	(72%–122%)	(60%–125%)	(83%–269%)	(64%–190%)
Arcata	172% (99%–298%)	61% (28%–131%)	75% (27%–207%)		
Arroyo Grande	46%	119%	84%	106%	57%
	(24%–89%)	(81%–176%)	(43%–165%)	(46%–248%)	(21%–155%)
Auburn	67%	117%	122%	90%	105%
	(40%-111%)	(86%–159%)	(78%–190%)	(41%–196%)	(55%–203%)
Avalon					
Bakersfield	76%	68%	90%	72%	38%
	(60%–96%)	(54%–84%)	(68%–120%)	(40%–128%)	(22%–69%)
Banning	45% (23%–89%)	84% (54%–130%)	95% (53%–168%)	236% (99%–566%)	
Barstow		58% (27%–125%)			
Bellflower	116%	61%	83%	217%	117%
	(82%–166%)	(41%–91%)	(52%–132%)	(100%–468%)	(56%–246%)
Berkeley	74%	117%	99%	66%	71%
	(49%–114%)	(86%–158%)	(64%–153%)	(28%–157%)	(36%–142%)
Big Bear Lake	95% (42%–215%)	84% (41%–170%)	73% (23%–229%)		
Brawley		103% (50%–214%)	102% (37%–284%)		
Burbank	148%	102%	74%	66%	44%
	(120%–181%)	(82%–126%)	(52%–103%)	(37%–118%)	(25%–80%)
Burlingame	109%	194%	131%	173%	133%
	(75%–158%)	(151%–248%)	(87%–197%)	(85%–352%)	(73%–240%)
Camarillo	84%	134%	179%	78%	119%
	(53%–133%)	(94%–191%)	(115%–278%)	(34%–179%)	(60%–237%)

	Lumpectomy Without Radiation Compared to state rate of 16 per 100.000	Lumpectomy with Radiation Compared to state rate of 22 per 100,000	Unilateral Mastectomy Compared to state rate of 11 per 100,000	Bilateral Mastectomy Compared to state rate of 4 per 100,000	Reconstruction
Canoga Park	184% (146%–234%)	82% (62%-107%)	93% (65%–133%)	73 % (39%–137%)	116% (71%–187%)
Carmichael	66% (47%–92%)	105% (83%–133%)	109% (80%–151%)	130% (71%–239%)	111% (68%–180%)
Castro Valley	83% (54%–129%)	90% (62%–130%)	60% (34%–103%)	103% (37%–288%)	58% (23%–145%)
Chester					
Chico	134% (95%–189%)	76% (53%–110%)	96% (57%–160%)	53% (23%–123%)	32 % (11 %–92 %)
Chino	74% (46%–119%)	84% (58%–121%)	70% (42%–117%)	158% (73%–341%)	71% (31%–167%)
Chula Vista	81% (59%–111%)	<mark>176%</mark> (140%–221%)	108% (77%–152%)	92% (43%–195%)	74% (38%–144%)
Clearlake	137% (71%–263%)	51% (21%–125%)			
Coalinga		187% (68%–512%)			
Colusa					
Concord	66% (40%–107%)	175% (136%–225%)	66% (39%–113%)	105% (45%–240%)	66% (29%–151%)
Corcoran					
Corona	99% (70%-140%)	56% (39%–81%)	69% (45%–106%)	176% (101%–308%)	82% (43%–153%)
Coronado	106% (53%–211%)	61% (25%–150%)	171% (77%–378%)		
Covina	107% (72%–159%)	65% (43%–98%)	92% (56%–152%)	170% (71%–410%)	117% (53%–261%)
Culver City	118% (72%-196%)	69% (39%–123%)	149% (83%–266%)		
Daly City	176% (130%–236%)	124% (95%–164%)	89% (58%–135%)	142% (60%–336%)	66% (30%–145%)
Davis	122% (75%–198%)	130% (88%–191%)	89% (50%–160%)	153% (50%–468%)	89% (36%–223%)
Deer Park	114% (56%–232%)	131% (72%–240%)	71% (23%–223%)		
Delano	122% (60%–248%)				
Dinuba	151% (62%–372%)	103% (38%–277%)			
Downey	151% (113%–203%)	75% (54%–106%)	89% (58%–137%)		60% (24%–153%)
Duarte	56% (21%–153%)	112% (57%–218%)	185% (93%–366%)		
El Centro	71% (40%–124%)	106% (67%–169%)	72% (33%–156%)		

	Lumpectomy Without Radiation Compared to state rate	Lumpectomy with Radiation	Unilateral Mastectomy Compared to state rate	Bilateral Mastectomy Compared to state rate	Reconstruction Compared to state rate
Encinitas	61 16 per 100,000 80%	64% 120%)	141%	114%	129%
Encino	(75%-269%)	48%	(50 %-205 %) 124 % (51 %-305 %)	(02 /0-2 10 /0)	(7970-21070)
Escondido	116% (87%–157%)	114% (89%–146%)	91 % (62%–135%)	222% (134%–368%)	94% (51%–171%)
Eureka	99% (57%–172%)	59% (32%–106%)	104% (51%–210%)		99% (37%–261%)
Fairfield	80% (50%–130%)	138% (99%–191%)	107% (67%–172%)	169% (58%–493%)	63% (24%–162%)
Fall River Mills					
Fallbrook	143% (88%–232%)	132% (83%–208%)	108% (51%–229%)		201% (88%–456%)
Folsom	130% (79%–215%)	148% (101%–219%)	79% (43%–146%)	252% (117%–543%)	131% (63%–274%)
Fontana	73% (44%–120%)	56 % (34 %–90 %)	92% (56%–152%)	155% (60%–398%)	
Fort Bragg	149% (74%–297%)		105% (38%–291%)		
Fortuna	133% (69%–257%)	93% (47%–183%)			
Fountain Valley	93% (66%–132%)	87% (64%–118%)	95% (63%–142%)	261 % (132%–516%)	242% (146%–398%)
Fremont	81% (58%–114%)	112% (88%–143%)	99% (72%–136%)	121% (60%–245%)	153% (96%–245%)
Fresno	55% (42%–70%)	112% (94%–133%)	142% (112%–180%)	132% (84%–207%)	147% (104%–207%)
Fullerton	87% (67%–114%)	90% (72%–112%)	89% (66%–121%)	218% (138%–344%)	128% (84%–195%)
Garberville					
Garden Grove	111% (68%–180%)	63% (37%–109%)	59% (29%–122%)		
Gardena	127% (72%–222%)	92% (52%–164%)	77% (34%–174%)		
Gilroy	61% (27%–136%)	149% (96%–231%)	64% (26%–156%)		107% (34%–337%)
Glendale	145% (120%–177%)	102% (84%–124%)	79% (59%–106%)	30% (15%–63%)	63% (39%–102%)
Glendora	122% (82%–180%)	77% (52%–115%)	133% (84%–208%)	99% (36%–275%)	112% (52%–244%)
Granada Hills	102% (60%–175%)	73% (44%–123%)	43% (18%–105%)		
Grass Valley	125% (78%–201%)	136% (89%–207%)	130% (72%–234%)	70% (29%–170%)	106% (49%–228%)
Greenbrae	167% (131%–212%)	108% (85%–136%)	151% (113%–204%)	64% (35%–118%)	120% (79%–182%)
Greenville					

	Lumpectomy Without Radiation	Lumpectomy with Radiation	Unilateral Mastectomy	Bilateral Mastectomy	Reconstruction
	of 16 per 100,000	of 22 per 100,000	of 11 per 100,000	of 4 per 100,000	of 5 per 100,000
Gridley	105% (33%–332%)				
Hanford	47% (24%–93%)	103% (69%–154%)	113% (69%–184%)		
Harbor City	123% (91%–166%)	109% (83%–143%)	113 <i>%</i> (78%–163%)	200% (100%–398%)	102% (51%–206%)
Hawthorne	125% (80%–195%)	70% (42%–117%)	59% (28%–126%)		
Hayward	95% (62%–145%)	127% (92%–174%)	58% (35%–99%)		70% (28%–175%)
Healdsburg	248% (155%–399%)	82% (41%–166%)	135% (64%–286%)		
Hemet	75% (52%–107%)	49% (34%–71%)	78% (51%–117%)	73% (29%–184%)	
Hollister	70% (32%–150%)	71% (36%–140%)			
Huntington Beach	79% (54%–117%)	85% (62%–117%)	113% (75%–171%)	197% (112%–344%)	163% (102%–258%)
Indio	132% (85%–204%)	171% (122%–239%)	174% (106%–285%)		164% (66%–410%)
Inglewood	109% (82%–145%)	72% (53%–99%)	72% (47%–112%)	116% (57%–236%)	86% (46%–160%)
Irvine	91% (60%–138%)	96% (68%–136%)	131% (86%–199%)	196% (101%–380%)	158% (93%–270%)
Jackson	130% (80%–210%)	80% (47%–135%)	71% (33%–153%)		
Joshua Tree	64% (31%–131%)	49% (25%–96%)	72% (36%–143%)		99% (35%–277%)
King City	245% (97%–619%)				
La Jolla	99% (73%–135%)	108% (83%–140%)	86% (57%–131%)	108% (61%–191%)	123% (78%–192%)
La Mesa	84% (65%–108%)	114% (95%–138%)	95% (72%–125%)	72% (40%–129%)	106% (71%–159%)
Laguna Hills	103% (76%–141%)	76% (56%–104%)	100% (68%–148%)	212% (128%–352%)	202% (133%–307%)
Lake Isabella	102% (32%–323%)				
Lakeport	36% (13%–99%)		62% (23%–170%)	103% (35%–304%)	
Lakewood	72% (32%–162%)	43% (18%–103%)	108% (51%–231%)		
Lancaster	107% (83%–138%)	26% (18%–39%)	43% (27%–67%)	65% (29%–142%)	60% (32%–110%)
Lindsay					
Livermore	138% (91%–210%)	103% (71%–150%)	101% (60%–169%)		70% (30%–162%)

	Lumpectomy Without Radiation Compared to state rate of 16 per 100,000	Lumpectomy with Radiation Compared to state rate of 22 per 100,000	Unilateral Mastectomy Compared to state rate of 11 per 100,000	Bilateral Mastectomy Compared to state rate of 4 per 100,000	Reconstruction Compared to state rate of 5 per 100,000
Lodi	48% (28%–81%)	116% (86%–156%)	109% (72%–164%)	120% (53%–273%)	73% (34%–156%)
Loma Linda	90% (55%–149%)	99% (64%–152%)	108% (60%–195%)	213% (84%–543%)	
Lompoc	106% (55%–203%)	147% (87%–249%)	<mark>237%</mark> (125%–451%)		
Long Beach	109% (89%–133%)	56% (44%–70%)	101% (79%–129%)	142% (94%–216%)	124% (87%–177%)
Los Alamitos	131% (95%–181%)	71 % (49%–102%)	119% (80%–179%)	242% (128%–457%)	270% (167%–438%)
Los Angeles	115% (99%–133%)	88% (77%–102%)	77% (63%–94%)	56% (38%–84%)	85% (63%–115%)
Los Banos		58% (24%–142%)			
Lynwood	116% (84%–161%)	76% (53%–108%)	101% (67%–151%)		
Madera	78% (42%–147%)	72% (42%–123%)	157% (88%–279%)		211% (94%–475%)
Manteca	68% (39%–120%)	59% (34%–103%)	110% (67%–182%)		86% (37%–202%)
Martinez	42% (16%–113%)	<mark>198%</mark> (138%–284%)	83% (41%–170%)		
Marysville	92% (49%–170%)	179% (120%–266%)	202% (120%–340%)	77% (27%–223%)	
Merced	35% (20%–61%)	71 % (49%–101%)	103% (66%–162%)	52% (22%-124%)	128% (67%–247%)
Mission Hills	96% (61%-151%)	84% (55%–129%)	52% (27%–103%)	120% (42%–343%)	
Mission Viejo	95% (71%-127%)	81% (62%–105%)	113% (81%–157%)	230% (151%-352%)	216% (153%–307%)
Modesto	76% (59%–99%)	81% (66%–100%)	87% (65%–119%)	58% (28%–119%)	59% (33%–103%)
Montebello	107% (71%–163%)	65% (41%–102%)	80% (46%–141%)		176% (79%–392%)
Monterey	32% (19%–54%)	91% (64%–131%)	84% (51%–139%)		72% (37%–140%)
Monterey Park	157% (102%–242%)	98% (61%–158%)	62% (31%–123%)		
Morgan Hill	57% (24%–139%)	87% (49%–156%)	54% (20%–145%)		180% (79%–414%)
Mount Shasta	79% (32%–194%)	66% (27%–163%)			
Mountain View	103% (74%–145%)	148% (115%–189%)	117% (83%–165%)	129% (68%–244%)	126% (76%–211%)
Napa	138% (96%–198%)	117% (83%–165%)	89% (51%–156%)		104% (48%–226%)
National City	107% (56%–202%)	115% (65%–207%)	84% (37%–192%)		

	Lumpectomy Without Radiation Compared to state rate of 16 per 100,000	Lumpectomy with Radiation Compared to state rate of 22 per 100,000	Unilateral Mastectomy Compared to state rate of 11 per 100,000	Bilateral Mastectomy Compared to state rate of 4 per 100,000	Reconstruction Compared to state rate of 5 per 100,000
Newport Beach	92% (72%–116%)	96% (78%–119%)	100% (74%–134%)	189% (129%–277%)	173% (127%–235%)
Northridge	55% (35%–85%)	90% (67%–122%)	84% (55%–127%)	107% (49%–231%)	87% (44%–172%)
Norwalk	110% (68%–178%)	35% (17%–71%)	78% (41%–149%)		
Novato	145% (95%–220%)	127% (89%–183%)	193% (125%–298%)		123% (57%–266%)
Oakdale	118% (61%–231%)	87% (46%–164%)	101% (42%–247%)		
Oakland	129% (100%–167%)	124% (100%–155%)	61% (43%–87%)	103% (54%–196%)	66% (38%–115%)
Oceanside	79% (61%–103%)	116% (96%–141%)	87% (64%–117%)	143% (89%–231%)	147% (99%–219%)
Ojai	107% (50%–228%)	41% (13%–127%)	157% (69%–354%)		190% (77%–473%)
Orange	109% (73%–161%)	107% (76%–152%)	89% (54%–146%)	206% (105%–404%)	236% (135%–414%)
Oroville	123% (72%–212%)	82% (46%–146%)	76% (34%–168%)		
Oxnard	62% (39%–100%)	109% (78%–152%)	144% (95%–217%)		108% (50%–235%)
Palm Springs	86% (55%–134%)	82% (56%–121%)	112% (67%–187%)		
Panorama City	109% (72%–166%)	113% (80%–159%)	75% (45%–124%)		
Paradise	106% (62%–182%)	142% (91%–221%)	124% (67%–229%)		
Paramount	81% (33%–196%)		119% (49%–289%)		
Pasadena	85% (63%–114%)	82% (63%–107%)	112% (81%–155%)	112% (66%–192%)	111% (70%–175%)
Petaluma	156% (105%–232%)	80% (52%–124%)	102% (60%–172%)		94% (44%–203%)
Pinole	96% (60%–155%)	105% (72%–152%)	97% (60%–156%)		89% (38%–208%)
Pittsburg	37% (15%–89%)	97% (60%–155%)	73% (36%–148%)		
Placerville	67% (41%–111%)	137% (102%–183%)	91% (57%–146%)	53% (22%–127%)	77% (39%–151%)
Pleasanton	109% (73%–161%)	89% (63%–125%)	95% (61%–148%)	76% (30%–191%)	63% (31%–132%)
Pomona	78% (57%–107%)	100% (79%–127%)	78% (55%–113%)	167% (95%–294%)	63% (32%–126%)
Porterville	75% (39%–144%)	96% (56%–163%)	110% (51%–240%)		
Poway	84% (60%–118%)	92% (70%–120%)	114% (81%–161%)	65% (30%–144%)	109% (65%–182%)

	Lumpectomy Without Radiation Compared to state rate of 16 per 100,000	Lumpectomy with Radiation Compared to state rate of 22 per 100,000	Unilateral Mastectomy Compared to state rate of 11 per 100,000	Bilateral Mastectomy Compared to state rate of 4 per 100,000	Reconstruction Compared to state rate of 5 per 100,000
Rancho Mirage	112%	92%	90%	74%	61 %
	(86%–146%)	(72%–118%)	(63%–129%)	(38%–145%)	(33%–113%)
Red Bluff		48% (21%–110%)	126% (57%–278%)		
Redding	62%	86%	113%	38%	83%
	(42%–92%)	(63%–117%)	(74%–172%)	(18%–83%)	(45%–152%)
Redlands	101% (70%–145%)	76% (54%–106%)	118% (78%–177%)	223% (123%–406%)	
Redwood City	67%	121%	115%	178%	100%
	(46%–98%)	(94%–155%)	(78%–168%)	(107%–298%)	(60%–168%)
Ridgecrest	188% (91%–391%)				
Riverside	67%	72 %	111%	219%	83%
	(52%–88%)	(58 %–91 %)	(85%–145%)	(142%–339%)	(52%–134%)
Roseville	98%	127%	106%	128%	102%
	(73%–131%)	(102%–157%)	(77%–146%)	(76%–216%)	(63%–165%)
Sacramento	87%	113%	111%	190%	156%
	(71%–107%)	(96%–132%)	(89%–138%)	(128%–282%)	(113%–215%)
Salinas	81% (53%–122%)	170% (124%–234%)	126% (75%–212%)		56% (22%–140%)
San Andreas	126% (78%–205%)	71% (41%–126%)	58% (23%–142%)		
San Bernardino	64%	102%	48%	104%	29%
	(46%–90%)	(80%–129%)	(31%–76%)	(52%–209%)	(11%–79%)
San Clemente	71%	93%	147%	329%	310%
	(42%–122%)	(61%-142%)	(91%–237%)	(187%–580%)	(194%–495%)
San Diego	116%	112%	128%	142%	120%
	(97%–138%)	(96%–130%)	(105%–156%)	(98%–204%)	(88%–165%)
San Dimas	101% (53%–190%)	80% (45%–143%)			
San Francisco	<mark>186%</mark>	118%	71%	79%	88%
	(151%–230%)	(98%–142%)	(54%–93%)	(47%–133%)	(59%–131%)
San Gabriel	86% (60%–123%)	80% (57%–110%)	114% (80%–163%)		159% (88%–287%)
San Jose	71%	154%	120%	127%	165%
	(57%–87%)	(134%–177%)	(98%–147%)	(87%–186%)	(123%–222%)
San Leandro	76% (47%–123%)	88% (60%–129%)	65% (38%–112%)		
San Luis Obispo	110%	119%	66%	66%	74%
	(76%–161%)	(86%–165%)	(36%–123%)	(26%–167%)	(34%–163%)
San Mateo	121%	163%	128%	209%	168%
	(89%–166%)	(129%–205%)	(89%–186%)	(119%–369%)	(104%–271%)
San Pablo	67% (41%–109%)	139% (102%–188%)	61% (35%–107%)		81% (32%–200%)
San Pedro	113%	57%	126%	119%	130%
	(74%–173%)	(35%–95%)	(74%–213%)	(43%–329%)	(57%–299%)
San Ramon	147%	103%	126%	159%	86%
	(90%–242%)	(64%–167%)	(70%–228%)	(63%–399%)	(35%–213%)

	Lumpectomy Without Radiation	Lumpectomy with Radiation	Unilateral Mastectomy	Bilateral Mastectomy	Reconstruction
	Compared to state rate	Compared to state rate	Compared to state rate	Compared to state rate	Compared to state rate
	of 16 per 100,000	of 22 per 100,000	of 11 per 100,000	of 4 per 100,000	of 5 per 100,000
Santa Ana	99%	124%	100%	184%	186%
	(72%–138%)	(95%–161%)	(68%–146%)	(103%–330%)	(115%–302%)
Santa Barbara	99%	96%	152%	80%	81%
	(74%–132%)	(73%–127%)	(110%–210%)	(38%–168%)	(46%–142%)
Santa Cruz	96%	116%	53%	149%	61%
	(63%–144%)	(84%–160%)	(31%–91%)	(72%–305%)	(31%–120%)
Santa Maria	55%	145%	111%	76%	52%
	(32%–96%)	(101%–207%)	(62%–201%)	(27%–216%)	(18%–154%)
Santa Monica	107%	93%	99%	57%	77%
	(85%–134%)	(75%–115%)	(73%–135%)	(34%–94%)	(53%–114%)
Santa Paula	97% (47%–202%)	185% (113%–304%)	102% (44%–239%)		
Santa Rosa	195%	65%	98%	109%	70%
	(161%–237%)	(51%–83%)	(74%–131%)	(68%–175%)	(43%–115%)
Sebastopol	170% (103%–280%)	77% (44%–135%)	92% (43%–197%)		93% (37%–233%)
Selma	103%	125%	145%	404%	275%
	(51%–210%)	(70%–223%)	(68%–310%)	(145%–1123%)	(111%–684%)
Simi Valley	131%	88%	97%	72 %	81%
	(90%–191%)	(59%–131%)	(58%–162%)	(33%–157%)	(40%–161%)
Solvang	66% (25%–178%)	63% (24%–170%)	285% (140%–584%)		
Sonoma	94%	62%	48%	196%	88%
	(51%–172%)	(33%–117%)	(18%–129%)	(84%–458%)	(32%–241%)
Sonora	63% (35%–115%)	151% (105%–218%)	86% (47%–159%)		59% (23%–153%)
South El Monte	131% (54%–318%)	93% (38%-224%)	95% (30%–300%)		
South Laguna	74%	75%	118%	176%	175%
	(50%–109%)	(54%–104%)	(78%–179%)	(108%–288%)	(117%–264%)
South Lake Tahoe	145% (47%–444%)				
South San Francisco	114% (68%–189%)	198% (143%–275%)	126% (75%–212%)		
Stanford	86%	125%	155%	173%	188%
	(58%–126%)	(93%–168%)	(104%–232%)	(91%–330%)	(112%–316%)
Stockton	66%	102%	101%	125%	90%
	(48%–92%)	(80%–129%)	(73%–139%)	(64%–241%)	(51%–156%)
Sun City	79%	73%	116%	121%	182%
	(51%–124%)	(49%–110%)	(76%–180%)	(53%–275%)	(98%–338%)
Tarzana	119% (77%–182%)	118% (81%–173%)	83% (45%–156%)		71% (29%–172%)
Templeton	79% (49%–125%)	54% (33%–88%)	45% (21%–98%)	49% (17%–142%)	
Thousand Oaks	195%	105%	132%	37%	107%
	(124%–306%)	(66%–165%)	(70%–247%)	(13%–103%)	(47%–245%)
Torrance	112%	70%	88%	125%	83%
	(91%–136%)	(58%–86%)	(68%–114%)	(84%–187%)	(57%–121%)

	Lumpectomy Without Radiation Compared to state rate	Lumpectomy with Radiation Compared to state rate	Unilateral Mastectomy Compared to state rate	Bilateral Mastectomy Compared to state rate	Reconstruction Compared to state rate
	of 16 per 100,000	of 22 per 100,000	of 11 per 100,000	of 4 per 100,000	of 5 per 100,000
Тгасу	86%	81 %	118%	148%	130%
	(50%–147%)	(50%–133%)	(70%–198%)	(59%–373%)	(62%–273%)
Tulare	65% (32%–134%)	45% (20%–102%)	126% (61%–261%)		
Turlock	119%	105%	76%	121%	79%
	(79%–180%)	(72%–154%)	(41%–139%)	(52%–281%)	(32%–194%)
Ukiah	186% (115%–300%)		79% (32%–198%)		
Upland	68%	100%	88%	262%	61%
	(50%–92%)	(81%–125%)	(64%–120%)	(171%–402%)	(35%–108%)
Vacaville	36%	116%	89%	187%	70%
	(17%–78%)	(79%–170%)	(50%–157%)	(71%–494%)	(27%–178%)
Valencia	132%	62 %	94%	72 %	106%
	(102%–169%)	(46 %–83 %)	(68%–130%)	(38%–135%)	(69%–164%)
Vallejo	79% (51%–121%)	105% (76%–144%)	125% (83%–188%)		104% (51%–209%)
Van Nuys	130%	62%	79%	111%	118%
	(97%–174%)	(44%–88%)	(53%–120%)	(59%–208%)	(68%–204%)
Ventura	82%	145%	116%	57%	98%
	(53%–125%)	(108%–195%)	(74%–182%)	(25%–128%)	(52%–187%)
Victorville	55%	58%	86%	150%	65%
	(36%–82%)	(41%–82%)	(58%–128%)	(84%–268%)	(32%–130%)
Visalia	56%	103%	82 %	159%	39%
	(35%–90%)	(74%–144%)	(48%–139%)	(71%–355%)	(14%–110%)
Walnut Creek	106%	147%	124%	140%	122%
	(84%–135%)	(122%–176%)	(96%–161%)	(90%–217%)	(85%–175%)
Watsonville	97% (47%–199%)	143% (79%–259%)	166% (73%–374%)		
Weaverville					
West Covina	103%	72 %	89%	106%	85%
	(76%–140%)	(54 %–97 %)	(62%–127%)	(45%–252%)	(42%–173%)
Whittier	91%	117%	109%	140%	174%
	(68%–122%)	(92%–148%)	(78%–153%)	(70%–278%)	(105%–290%)
Wildomar/Murrieta	84%	82%	63 %	134%	80%
	(60%–118%)	(61%–110%)	(42 %–95 %)	(78%–229%)	(46%–141%)
Willits	<mark>286%</mark> (159%–513%)				
Woodland	145%	175%	150%	155%	98%
	(93%–228%)	(123%–249%)	(91%–245%)	(57%–424%)	(36%–266%)
Yuba City	54%	159%	77%	93%	71%
	(29%–98%)	(112%–226%)	(38%–153%)	(39%–217%)	(25%–202%)

STUDY METHODOLOGY FOR BREAST CANCER TREATMENT MEASURES

The analysis for this report used data from the California Cancer Registry (CCR) for California women diagnosed with breast cancer or DCIS from 2005 through 2010. The CCR collects data on cancer patients' "first course of treatment." The first course of treatment is a documented, planned first course of therapy; it includes all treatment the patient receives from this planned course of therapy, before the disease progresses or the treatment fails. In cases where there is no documentation of a patient treatment plan, CCR looks at the therapy the patient actually receives during the first year after diagnosis.

Data from CCR were analyzed in collaboration with the Cancer Prevention Institute of California. The project researchers identified women age 40 and over who were resident in California and were diagnosed with a new case of incident malignant American Joint Committee on Cancer (AJCC) stage I-III breast cancer or DCIS. For each diagnosis, the treatment used was identified based on codes in the registry data. Each woman with a new case in the cohort was assigned to a geographic area based on her recorded residence ZIP code. Rates of use of each treatment of interest were computed for each area as the number of cancers receiving the given treatment divided by the number of person-years among women age 40 and over residing in the area during that time. Treatment rates were adjusted to account for age, race/ethnicity, education, income, and insurance status of the population of each area, as well as the tumor size in stage II and III cancers, and the breast cancer incidence rate in the area. These factors were statistically "held constant" across areas. Rates are presented relative to the overall state average rate.

ABOUT THE AUTHORS

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ABOUT THE FOUNDATION

The California HealthCare Foundation works as a catalyst to fulfill the promise of better health care for all Californians. We support ideas and innovations that improve quality, increase efficiency, and lower the costs of care. For more information, visit us online at www.chcf.org.

ENDNOTES

- 1. Laurence Baker, PhD, Stanford University, developed the research for this report in collaboration with Maryann O'Sullivan, JD, independent health policy consultant, and the California HealthCare Foundation. Sam Wainwright, former research assistant to the New America Health Policy Program, performed analysis and interpretation of the estimates in consultation with Frances Tompkins, consultant, O'Sullivan, Baker, and Brownlee. Colin Nelson of the Informed Medical Decisions Foundation provided expert assessment of evidence. Lance Lang, MD, chaired an advisory committee of clinicians in various specialties who were also consulted in the production of this report to review the analysis and to ensure the accuracy of medical content. For a complete list of advisory committee members, see the research summary, "All Over the Map: Elective Procedure Rates in California Vary Widely," www.chcf.org/variation. Kristen Bronner, managing editor, Dartmouth Atlas, assisted with illustrations. Data were obtained from the California Cancer Registry through the Cancer Prevention Institute of California.
- 2. During preparation of this report, the following sources were consulted regarding treatment options:
 - An evidence review conducted by the Informed Medical Decisions Foundation.
 - Shannon Brownlee et al., Improving Patient Decision-Making in Health Care: A 2011 Dartmouth Atlas Report Highlighting Minnesota (Lebanon, NH: Dartmouth Atlas Project, 2011).
 - Monica Morrow et al., "Surgeon Recommendations and Receipt of Mastectomy for Treatment of Breast Cancer," *Journal of the American Medical Association* 302, no. 14 (2009): 1551–1556.
- 3. State averages should not be interpreted as the correct or "right" rate for elective procedures; they are used as a comparator for analysis, not as a benchmark. There is no recommended baseline rate for elective procedures.