UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

San Francisco Division

DJENEBA SIDIBE, et al.,

Plaintiffs,

v.

SUTTER HEALTH,

Defendant.

Case No. 12-cv-04854-LB

(REDACTED) ORDER (1) GRANTING IN PART AND DENYING IN PART DEFENDANT'S MOTION FOR SUMMARY JUDGMENT, (2) DENYING IN PART AND DENYING AS MOOT IN PART DEFENDANT'S MOTION TO EXCLUDE PLAINTIFFS' EXPERT, AND (3) DENYING AS MOOT PLAINTIFFS' MOTION TO EXCLUDE DEFENDANT'S EXPERT

Re: ECF Nos. 272, 311-1 (under seal) and 494-2 (redacted version), 409-3 (under seal) and 503 (redacted version)

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INTRODUCTION

In this putative class action, seven plaintiffs (five individuals who enrolled in health insurance from the health plans Aetna, Anthem Blue Cross, and Blue Shield, and two companies that paid for health insurance for their employees) are suing Sutter Health, which owns and operates a network of hospitals and medical-service providers in Northern California, for violations of the federal Sherman Antitrust Act, the California Cartwright Act, and the California Unfair Competition Law.

The plaintiffs allege that Sutter has "market power" in eight specific "geographic markets" (the "Candidate Tying Markets") in Northern California, where Sutter's hospitals are either the only hospital in the market (i.e., a monopoly) or the predominant provider in the market.[1] The plaintiffs allege that in order for health plans like Aetna, Anthem Blue Cross, and Blue Shield to assemble health-insurance products that are commercially marketable to individuals and to employers purchasing insurance for their employees, health plans must have those Sutter hospitals in their provider networks.[2] The plaintiffs allege that Sutter imposes "all or nothing" terms on health plans, telling health plans that they cannot include those hospitals as in-network providers unless they also accept as in-network providers Sutter's hospitals in four other geographic markets (the "Candidate Tied Markets") at the prices that Sutter dictates.[3] The plaintiffs allege that Sutter charges supra-competitive rates at its hospitals in the Candidate Tied Markets.[4] Because Sutter has tied access to the "must have" hospitals in the Candidate Tying Markets to acceptance of its supra-competitive rates for its hospitals in the Candidate Tied Markets, Sutter forces health plans to pay higher rates for hospital services than they otherwise would pay but for this tying arrangement[5] —

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[1] Fourth Amend. Compl. ("4AC") – ECF No. 202 at 4 (¶ 4), 10 (¶¶ 30–31), 29 (¶¶ 86–87). Citations refer to material in the Electronic Case File ("ECF"); pinpoint citations are to the ECF-generated page numbers at the top of documents.

[2] *See id.* at 4 (¶ 6), 11–12 (¶ 35).

[3] *Id.* at 4 (¶ 6), 11 (¶ 33). The court refers to the Candidate Tying Markets and the Candidate Tied Markets collectively as the "Candidate Markets."

[4] *Id.* at 4 (¶ 5), 33 (¶ 103).

[5] *Id.* at 5 (¶ 9), 33 (¶¶ 103–05).

higher rates that in turn are passed downstream to individuals and employers who buy health insurance.[6]

Sutter moves for summary judgment on the ground that the plaintiffs have not met their burden of establishing that their proposed Candidate Markets are properly defined "geographic markets" for antitrust purposes.[7] In their complaint, the plaintiffs define their Candidate Markets by reference to "Hospital Service Areas" ("HSAs") as set out in an industry source called the *Dartmouth Atlas of Health Care* ("*Dartmouth Atlas*").[8] Sutter argues that *Dartmouth Atlas* HSAs do not define geographic markets for antitrust purposes, citing the report of its expert Dr. Gautam Gowrisankaran. The plaintiffs respond that documents and testimony (from health plans and from Sutter) and the competing report of their expert Dr. Tasneem Chipty support their position that their Candidate Markets are relevant geographic markets for antitrust purposes. Both sides have filed cross-motions to exclude the other side's expert.[9]

The court holds that there are disputes of material fact about whether the plaintiffs can establish that their Candidate Markets are properly defined geographic markets for antitrust purposes.[10] The court grants summary judgment with respect to the Davis HSA Candidate Tying Market and otherwise denies Sutter's motion for summary judgment. The court denies in part and denies as moot in part Sutter's motion to exclude Dr. Chipty and denies as moot the plaintiffs' motion to exclude Dr. Gowrisankaran.

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[6] *Id.* at 5 (¶ 8), 34–35 (¶¶ 109–12).

[7] Def. MSJ – ECF No. 272.

[8] 4AC – ECF No. 202 at 3–4 (¶¶ 3–4), 17–24 (¶¶ 53–67).

[9] Pls. Mot. to Exclude Gowrisankaran – ECF Nos. 311-1 (under seal), 494-2 (redacted version); Def. Mot. to Exclude Chipty – ECF Nos. 409-3 (under seal), 503 (redacted version).

[10] The court does not address whether HSAs are geographic markets for antitrust purposes generally, only that there are disputes of material facts as to whether the specific Candidate Markets that the plaintiffs propose — which here are defined by reference to HSAs — are geographic markets for antitrust purposes here.

BACKGROUND

1. Antitrust and Markets Generally

1.1 "Market Power"

"Market power is the ability to raise price profitably by restricting output." *Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2288 (2018) (emphasis removed) (quoting Philip E. Areeda & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶ 5.01 (4th ed. 2017)). "A defendant firm has market power if it can raise price without a total loss of sales." Philip E. Areeda & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶ 5.01 (4th ed. 2018) (Areeda & Hovenkamp). "[T]he substantial market power that concerns antitrust law arises when the defendant (1) can profitably set prices well above its costs and (2) enjoys some protection against rival[s'] entry or expansion that would erode such supracompetitive prices and profits." *Id.* "For antitrust purposes, therefore, market power is the abilities (1) to price substantially above the competitive level and (2) to persist in doing so for a significant period without erosion by new entry or expansion." *Id.* (emphasis removed).

1.2 "Market"

"'[A] market is the group of sellers or producers who have the actual or potential ability to deprive each other of significant levels of business.'" *Saint Alphonsus Med. Ctr.-Nampa Inc. v. St. Luke's Health Sys., Ltd.*, 778 F.3d 775, 784 (9th Cir. 2015) (quoting *Rebel Oil Co., Inc. v. Atl. Richfield Co.*, 51 F.3d 1421, 1434 (9th Cir 1995)). "To define a market is to identify those producers providing customers of a defendant firm (or firms) with alternative sources for the defendant's product or service." Areeda & Hovenkamp ¶ 530a.

A market for antitrust purposes includes both a "product market" and a "geographical market." *Hicks v. PGA Tour, Inc.*, 897 F.3d 1109, 1120 (9th Cir. 2018) (citing *Big Bear Lodging Ass'n v. Snow Summit, Inc.*, 182 F.3d 1096, 1104 (9th Cir. 1999)). The relevant product market "'must encompass the product at issue as well as all economic substitutes for the product.'" *Id.* (quoting *Newcal Indus., Inc. v. Ikon Office Sol.*, 513 F.3d 1038, 1045 (9th Cir. 2008)). The relevant geographic market "is the 'area of effective competition where buyers can turn for alternate

sources of supply.'" *St. Luke's*, 778 F.3d at 784 (quoting *Morgan, Strand, Wheeler & Biggs v. Radiology, Ltd.*, 924 F.2d 1484, 1490 (9th Cir. 1991)). "A properly defined market excludes other potential suppliers (1) whose product is too different (product dimension) or too far away (geographic dimension) and (2) who are not likely to shift promptly to offer defendant's customers a suitably proximate (in both product and geographic terms) alternative." Areeda & Hovenkamp ¶ 530a.

1.3 "Tying"

This case involves allegations of an anticompetitive restraint known as "tying." "A tying arrangement is a device used by a seller with market power in one product market to extend its market power to a distinct product market." *Cascade Health Sols. v. PeaceHealth*, 515 F.3d 883, 912 (9th Cir. 2008) (citing *Paladin Assocs., Inc. v. Mont. Power Co.*, 328 F.3d 1145, 1159 (9th Cir. 2003)). "To accomplish this objective, the seller conditions the sale of one product (the tying product) on the buyer's purchase of a second product (the tied product)." *Id.* (citing *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 561 (1992); Richard A. Posner, Antitrust Law 197 (2d ed. 2001)). "'The essential characteristic of an invalid tying arrangement lies in the seller's exploitation of its control over the tying product to force the buyer into the purchase of a tied product that the buyer either did not want at all, or might have preferred to purchase elsewhere on different terms.'" *Id.* at 913–14 (emphasis removed, internal brackets omitted) (quoting *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 12 (1984)). "Tying arrangements are forbidden on the theory that, if the seller has market power over the tying product, the seller can leverage this market power through tying arrangements to exclude other sellers of the tied product." *Id.* at 912 (citing *Jefferson Parish*, 466 U.S. at 14; *Fortner Enters., Inc. v. U.S. Steel Corp.*, 394 U.S. 495, 517–18 (1969) (White, J., dissenting)).

1.4 Requirement to Define the Relevant Market

"[I]n all cases involving a tying arrangement, the plaintiff must prove that the defendant has market power in the tying product." *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 46 (2006). In the context of a tying claim under Section 1 of the Sherman Antitrust Act, whether a

defendant has market power "cannot be evaluated unless the Court first defines the relevant market." *Am. Express*, 138 S. Ct. at 2285 & n.7.[11]

"Congress prescribed a pragmatic, factual approach to the definition of the relevant market and not a formal, legalistic one." *Brown Shoe Co. v. United States*, 370 U.S. 294, 336 (1962). "An element of 'fuzziness would seem inherent in any attempt to delineate the relevant geographical market.'" *United States v. Conn. Nat'l Bank*, 418 U.S. 656, 669 (1974) (quoting *United States v. Phila. Nat'l Bank*, 374 U.S. 350, 360 n.37 (1963)). The boundaries of a relevant geographic market "need not . . . be defined with scientific precision," *id.*, or "by metes and bounds as a surveyor would lay off a plot of ground," *United States v. Pabst Brewing Co.*, 384 U.S. 546, 549 (1966). Rather, the relevant geographic market should "'correspond to the commercial realities' of the industry and be economically significant." *Brown Shoe*, 370 U.S. at 336–37. "Thus, although the geographic market in some instances may encompass the entire Nation, under other circumstances it may be as small as a single metropolitan area." *Id.* (citing cases).

1.5 The "Hypothetical Monopolist" Test for Defining a Relevant Geographic Market

"A common method to determine the relevant geographic market . . . is to find whether a hypothetical monopolist could impose a 'small but significant nontransitory increase in price' ('SSNIP') in the proposed market." *St. Luke's*, 778 F.3d at 784; *accord FTC v. Advocate Health Care Network*, 841 F.3d 460, 468 (7th Cir. 2016); *FTC v. Penn State Hershey Med. Ctr.*, 838 F.3d 327, 338 (3d Cir. 2016). This hypothetical-monopolist test "asks what would happen if a single firm became the only seller in a candidate geographical region." *Advocate Health*, 841 F.3d at 468 (citing *FTC v. Whole Foods Mkt., Inc.*, 548 F.3d 1028, 1038 (D.C. Cir. 2008)). "If that

[11] In cases involving allegations of horizontal restraints (imposed by agreements between competitors), courts might not need to "precisely define the relevant market to conclude that these agreements were anticompetitive," but in cases involving allegations of vertical restraints (involving agreements between firms at different levels of distribution), courts must "first define[] the relevant market." *Am. Express*, 138 S. Ct. at 2285 n.7. Tying is a vertical restraint. *Brantley v. NBC Universal, Inc.*, 675 F.3d 1192, 1198–99 (9th Cir. 2012).

The plaintiffs argue that market definition is not a required element of their state-law Cartwright Act claims. Pls. Mot. for Summary J. ("MSJ") Opp'n – ECF No. 494 at 8. Because the court holds that there are disputes of material fact regarding the plaintiffs' geographic-market definitions that are sufficient to defeat summary judgment, the court need not decide whether market definitions are a necessary element of a Cartwright Act claim.

hypothetical monopolist could profitably raise prices above competitive levels, the region is a relevant geographical market." *Id.* (citing Kenneth G. Elzinga & Anthony W. Swisher, *Limits of the Elzinga-Hogarty Test in Hospital Mergers: The Evanston Case*, 18 Int'l J. of the Econ. of Bus. 133, 136 (2011)). "But if customers would defeat the attempted price increase by buying from outside the region, it is not a relevant market; the test should be rerun using a larger candidate region." *Id.* (citing *St. Luke's*, 778 F.3d at 784; *In re Se. Milk Antitrust Litig.*, 739 F.3d 262, 277–78 (6th Cir. 2014)). Courts have recognized that a hypothetical monopolist's ability to impose a SSNIP of five percent may satisfy the hypothetical-monopolist test. *Penn State Hershey*, 838 F.3d at 338 nn.1–2 (citing U.S. Dep't of Justice & Fed. Trade Comm'n, *Horizonal Merger Guidelines* § 4.1.2 (2010); *St. Luke's*, 778 F.3d at 784 n.9).

Analyzing how buyers would respond to a hypothetical-monopolist seller's imposing a SSNIP requires defining the buyers and sellers in the relevant market.

2. Health-Care Buyers, Sellers, and Markets

"The market for hospital services and medical care is complex." *Cascade Health*, 515 F.3d at 891. There are at least three transactions involved in providing hospital services and health care in connection with health insurance.

2.1 Hospitals Sell Hospital Services to Health Plans

First, hospitals sell hospital services to health-insurance plans. Hospitals and health plans negotiate whether a given hospital will be included in the health plan's network and negotiate the rates that the health plan will pay the hospital for its hospital services. *St. Luke's*, 778 F.3d at 784 & n.10 (citing Gregory Vistnes, *Hospitals, Mergers, and Two-Stage Competition*, 67 Antitrust L.J. 671, 672, 674 (2000)). These negotiations are highly price-sensitive. *Advocate Health*, 841 F.3d at 465 (citing Vistnes, 67 Antitrust L.J. at 674–75). All else being equal, hospitals prefer higher rates and health plans prefer lower rates. *Cascade Health*, 515 F.3d at 892 ("Insurers are usually commercial health insurance companies that seek to buy medical services from hospitals on the best terms possible. . . . It follows that hospitals prefer high reimbursement rates and insurers prefer low reimbursement rates, as each group pursues its own economic interest.").

While hospital services are delivered to the health plan's enrollees (i.e., patients), the health plan negotiates whether a hospital will be included in the health plan's provider network and buys the services that the hospital sells. *Cascade Health*, 515 F.3d at 892 ("Hospitals . . . provide services to patients and sell services to insurers."); *see St. Luke's*, 778 F.3d at 784 ("the vast majority of health care consumers are not direct purchasers of health care — [(1)] the consumers purchase health insurance and [(2)] the insurance companies negotiate directly with the providers," such as hospitals); *Advocate Health*, 841 F.3d at 470 ("[C]onsumers do not directly pay the full cost of hospital care. Instead, insurance companies cover most hospital costs.") (citing Elzinga & Swisher, 18 Int'l J. of the Econ. of Bus. at 138); *Penn State Hershey*, 838 F.3d at 342 ("[P]atients, in in large part, do not feel the impact of price increases. Insurers do. And they are the ones who negotiate directly with the hospitals to determine both reimbursement rates and the hospitals that will be included in their networks.").[12]

2.2 Health Plans Sell Health Insurance to Individuals and Employers

Second, health plans sell health insurance to consumers. The consumers are individuals (who directly purchase health insurance for themselves or their families) and employers (which purchase health insurance for their employees). *Cascade Health*, 515 F.3d at 892; *St. Luke's*, 778 F.3d at 784. Health plans' selling of insurance to employers may be further divided into two transactions. Gregory S. Vistnes & Yianis Sarafidis, *Cross-Market Hospital Mergers: A Holistic Approach*, 79 Antitrust L.J. 253, 266 (2013). First, health plans compete to be one of a limited number of health plans that employers offer to their employees. *Id.* at 266–67. Second, after employers select them, health plans compete to be chosen by employees. *Id.* at 267; *accord* Vistnes, 67 Antitrust L.J. at 678 ("A health plan must ensure not only that employees will choose the plan if offered, but also that employers will choose to offer it.").

An important way that health plans compete for consumers is their provider networks: the hospitals, physicians, and ancillary providers that the health plan offers "in network" and that

[12] In some instances, a hospital might sell hospital services directly to an individual patient (e.g., an uninsured patient who directly pays the hospital out-of-pocket). This case, however, relates only to enrollees in health-insurance plans. *See* 4AC – ECF No. 204 at 3 (¶¶ 1–2).

enrollees are encouraged to use. Vistnes & Sarafidis, 79 Antitrust L.J. at 267. All else being equal, a health plan with a more comprehensive provider network will be more attractive to consumers. *Id.* At the same time, health plans that have high-priced providers in their networks have higher costs. *Id.* Thus, in choosing how inclusive their provider network is, health plans balance the benefit of more comprehensive networks with the costs of paying more to providers in their networks. *Id.*

2.3 Hospitals Attract Health-Plan Enrollees

Third, hospitals seek to attract health-plan enrollees who need hospital services to come to them (as opposed to other hospitals). *St. Luke's*, 778 F.3d at 784 n.10 (citing Vistnes, 67 Antitrust L.J. at 681–82); *Advocate Health*, 841 F.3d at 460 (citing Vistnes, 67 Antitrust L.J. at 672); *Penn State Hershey*, 838 F.3d at 342 (citing Vistnes, 67 Antitrust L.J. at 672).

Unlike health plans, which are sensitive to the prices that hospitals charge for their services, enrollees "are 'largely insensitive' to price" because the prices that hospitals charge are largely borne by the enrollees' health plans, not by the enrollees. *St. Luke's*, 778 F.3d at 784 n.10 (citing Vistnes, 67 Antitrust L.J. at 682); *accord Advocate Health*, 841 F.3d at 471 ("Insured patients are usually not sensitive to retail hospital prices, while insurers respond to both prices and patient preferences.") (citing Vistnes, 67 Antitrust L.J. at 677, 680); *Penn State Hershey*, 838 F.3d at 342 ("Patients are largely insensitive to healthcare prices because they utilize insurance, which covers the majority of their healthcare costs."). Instead of taking price into account, enrollees choose hospitals "based mostly on non-price factors, such as location or quality of services." *Penn State Hershey*, 838 F.3d at 341; *accord St. Luke's*, 778 F.3d at 784 n.10 (citing Vistnes, 67 Antitrust L.J. at 682); *Advocate Health*, 841 F.3d at 465 (citing Vistnes, 67 Antitrust L.J. at 677, 682).[13]

[13] Some enrollees may be more directly sensitive to price, e.g., enrollees in high-deductible plans. *See Penn State Hershey*, 838 F.3d at 342 n.6.

2.4 The Relevant Product Market Is the Market for Hospitals Selling Inpatient Hospital Services to Health Plans

The plaintiffs plead in their complaint both (1) a relevant product market for hospitals selling inpatient hospital services to commercial health plans[14] and (2) a relevant product market for health plans selling health insurance to individuals and employers.[15]

Sutter moves for summary judgment on the ground that the plaintiffs have not established the relevant geographic markets for the first product market: the market for hospitals selling inpatient hospital services to health plans.[16] In this motion, Sutter does not challenge any product-market definition or the geographic markets for health plans selling health insurance to individuals and employees.[17]

STATEMENT

In their complaint, the plaintiffs propose twelve Candidate Markets: eight Candidate Tying Markets and four Candidate Tied Markets.[18] The eight Candidate Tying Markets are:

1. the Antioch HSA, as defined in the *Dartmouth Atlas*,[19]
2. the Auburn HSA, as defined in the *Dartmouth Atlas*,[20]
3. the Crescent City HSA, as defined in the *Dartmouth Atlas*,[21]
4. the Davis HSA, as defined in the *Dartmouth Atlas*,[22]

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[14] 4AC – ECF No. 204 at 15 (¶ 47).

[15] *Id.* at 25 (¶¶ 68–69).

[16] Def. MSJ – ECF No. 272 at 11–13.

[17] *Id.* at 14.

[18] 4AC – ECF No. 204 at 17–24 (¶¶ 56–67).

[19] Zip codes 94505, 94509, 94511, 94513, 94514, 94531, 94548, and 94561. *Id.* at 18 (¶ 56).

[20] Zip codes 95602, 95603, 95604, 95614, 95631, 95658, 95664, 95701, 95703, 95713, 95714, 95717, 95722, and 95736. *Id.* (¶ 57).

[21] Zip codes 95531, 95532, 95538, 95543, 95548, 95567, and 97415. *Id.* at 19 (¶ 58).

[22] Zip codes 95616, 95617, 95618, 95620, and 95694. *Id.* (¶ 59).

5. the Jackson HSA, as defined in the *Dartmouth Atlas*,[23]
6. the Lakeport HSA, as defined in the *Dartmouth Atlas*,[24]
7. the Tracy HSA, as defined in the *Dartmouth Atlas*,[25] and
8. the Berkeley HSA, as defined in the *Dartmouth Atlas*,[26] combined with the Oakland HSA, as defined in the *Dartmouth Atlas*.[27]

The four Candidate Tied Markets are:

1. the Modesto HSA, as defined in the *Dartmouth Atlas*,[28]
2. the Sacramento HSA, as defined in the *Dartmouth Atlas*,[29]
3. the San Francisco HSA, as defined in the *Dartmouth Atlas*,[30] and

[23] Zip codes 95232, 95255, 95601, 95629, 95640, 95642, 95644, 95646, 95654, 95665, 95666, 95669, 95675, 95685, 95689, and 95699. *Id.* at 20 (¶ 60).

[24] Zip codes 95426, 95435, 95451, 95453, 95458, 95464, 95485, and 95493. *Id.* (¶ 61).

[25] Zip codes 95304, 95376, 95377, 95378, and 95391. *Id.* at 21 (¶ 62).

[26] Zip codes 94530, 94701, 94702, 94703, 94704, 94705, 94706, 94707, 94708, 94709, 94710, 94712, and 94720. *Id.* (¶ 63).

[27] Zip codes 94502, 94604, 94608, 94612, 94620, 94649, 94661, 94601, 94605, 94609, 94613, 94617, 94621, 94662, 94602, 94606, 94610, 94614, 94618, 94623, 94659, 94666, 94603, 94607, 94611, 94615, 94619, 94624, and 94660. *Id.*

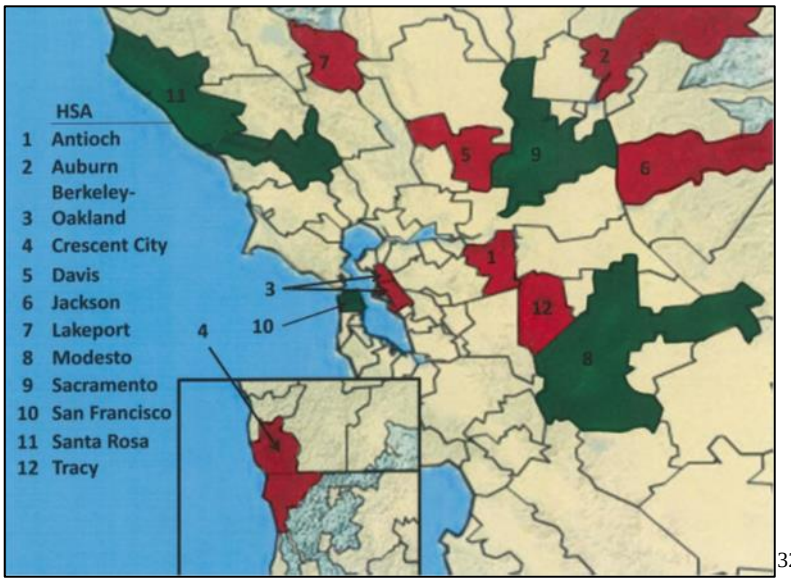
[28] Zip codes 95307, 95230, 95313, 95319, 95320, 95322, 95323, 95326, 95328, 95329, 95350, 95351, 95352, 95353, 95354, 95355, 95356, 95357, 95358, 95360, 95363, 95366, 95367, 95368, 95385, 95386, 95387, and 95397. *Id.* at 22 (¶ 64).

[29] Zip codes 94203, 94204, 94205, 94206, 94207, 94208, 94209, 94211, 94229, 94230, 94232, 94234, 94235, 94236, 94237, 94239, 94240, 94244, 94245, 94247, 94248, 94249, 94250, 94252, 94254, 94256, 94257, 94258, 94259, 94261, 94262, 94263, 94267, 94268, 94269, 94271, 94273, 94274, 94277, 94278, 94279, 94280, 94282, 94283, 94284, 94285, 94286, 94287, 94288, 94289, 94290, 94291, 94293, 94294, 94295, 94296, 94297, 94298, 94299, 95605, 95612, 95615, 95624, 95626, 95639, 95651, 95652, 95655, 95659, 95662, 95668, 95670, 95672, 95673, 95680, 95683, 95690, 95691, 95693, 95741, 95757, 95758, 95759, 95762, 95798, 95799, 95811, 95812, 95813, 95814, 95815, 95816, 95817, 95818, 95819, 95820, 95821, 95822, 95823, 95824, 95825, 95826, 95827, 95828, 95829, 95830, 95831, 95832, 95833, 95834, 95835, 95836, 95837, 95838, 95840, 95851, 95852, 95853, 95860, 95864, 95865, 95866, 95867, 95894, and 95899. *Id.* at 22–23 (¶ 65).

[30] Zip codes 94102, 94103, 94104, 94105, 94107, 94108, 94109, 94110, 94111, 94112, 94114, 94115, 94116, 94117, 94118, 94119, 94120, 94121, 94122, 4123, 94124, 94126, 94127, 94129, 94130, 94131, 94132, 94133, 94134, 94137, 94139, 94140, 94141, 94142, 94143, 94144, 94145, 94146, 94147, 94151, 94158, 94159, 94160, 94161, 94163, 94164, 94172, 94177, and 94188. *Id.* at 23 (¶ 66).

4. the Santa Rosa HSA, as defined in the *Dartmouth Atlas*.[31]

The following map, taken from the plaintiffs' Fourth Amended Complaint, identifies the geographic layout of the Candidate Tying Markets (in red) and the Candidate Tied Markets (in green).



[32]

At the hearing on Sutter's motion for summary judgment, the plaintiffs stipulated that summary judgment should be granted with respect to the Davis HSA.[33]

1. The *Dartmouth Atlas of Health Care* and "Hospital Service Areas"

The plaintiffs define their Candidate Markets by reference to "Hospital Service Areas," or "HSAs," set out in the *Dartmouth Atlas*, an industry source compiled by the Dartmouth Institute for Health Policy & Clinical Practice and available at http://www.dartmouthatlas.org.[34] The following summarizes the *Dartmouth Atlas*'s identification of HSAs.[35]

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[31] Zip codes 94926, 94927, 94928, 94931, 95401, 95402, 95403, 95404, 95405, 95406, 95407, 95409, 95412, 95421, 95436, 95439, 95445, 95446, 95452, 95459, 95462, 95468, 95471, 95480, 95486, 95492, 95494, and 95497. *Id.* at 24 (¶ 67).

[32] *Id.* at 12 (¶ 37).

[33] Hr'g Tr. – ECF No. 611 at 126.

[34] 4AC – ECF No. 204 at 3 (¶ 3), 10 (¶ 30), 17–24 (¶¶ 53–67).

[35] Sutter's expert Dr. Gowrisankaran discusses the *Dartmouth Atlas* and how the *Dartmouth Atlas* group construed the "Hospital Service Areas," or "HSAs." The plaintiffs and their expert Dr. Chipty

In 1996, the Center for the Evaluative Clinical Sciences at Dartmouth Medical School published the first edition of the *Dartmouth Atlas*.[36] The *Dartmouth Atlas* defined 3,436 "Hospital Service Areas," or "HSAs," that (according to the *Dartmouth Atlas* group) represented "'the geographic boundaries of naturally occurring health care markets in the United States.'"[37] The *Dartmouth Atlas* identified these HSAs through a three-step process that used the location of acute-care hospitals in the United States in 1992 and Medicare patient-discharge data for 1992 and 1993.[38]

First, each acute-care hospital in the United States in 1992 was assigned to the town or city where it was located.[39] The 3,953 towns or cities that contained at least one acute-care hospital were defined as "candidate HSAs."[40]

Second, using Medicare patient-discharge data for 1992 and 1993, each zip code in the country was assigned to one of the 3,953 candidate HSAs.[41] All zip codes were assigned to the candidate HSA where the plurality of Medicare discharges for residents from that zip code had been hospitalized.[42] If a plurality of a candidate HSA's residents' Medicare hospitalizations took place in another candidate HSA, then the first HSA was eliminated as a candidate HSA, and its zip codes were reassigned to other HSAs.[43] Approximately 500 candidate HSAs were eliminated in this way.[44]

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do not contend that Dr. Gowrisankaran's discussion about how the *Dartmouth Atlas* group constructed HSAs is inaccurate. *See generally* Chipty Dep. – ECF No. 479-2 at 56–57 (pp. 55–56). The court thus recounts a portion of Dr. Gowrisankaran's discussion as background about what HSAs are. The court does not adopt Dr. Gowrisankaran's discussions on this topic as a fact finding and instead summarizes his discussions to provide background on HSAs.

[36] Gowrisankaran Decl. – ECF No. 272-3 at 18 (¶ 26).

[37] *Id.* (quoting *Dartmouth Atlas*).

[38] *Id.* at 20 (¶ 30).

[39] *Id.*

[40] *Id.*

[41] *Id.*

[42] *Id.*

[43] *Id.*

[44] *Id.*

Third, the *Dartmouth Atlas* group visually examined the boundaries of each HSA and performed manual adjustments to reach contiguous HSAs (including reassigning "island" zip codes, which had been assigned to a non-contiguous HSA, to the HSA that surrounded them).[45]

In constructing HSAs, the *Dartmouth Atlas* group did not use patient-discharge data from commercial-health-plan enrollees; it used only Medicare-patient-discharge data.[46] The *Dartmouth Atlas* group has not redefined HSAs since they were first constructed, meaning that HSAs are still defined based on patient-discharge data from 1992–1993.[47] The plaintiffs' expert Dr. Chipty and Sutter's expert Dr. Gowrisankaran agree that HSAs were not created to delineate antitrust markets and that not all HSAs are antitrust markets.[48]

2. The Candidate Tying Markets

In their complaint, the plaintiffs alleged seven Candidate Tying Markets (excluding the Davis HSA). The following gives an overview of each Candidate Tying Market and then summarizes evidence relevant to the markets and Sutter's motion for summary judgment. There are three categories of evidence that are relevant: (1) evidence relating to the application of California's Knox-Keene Health Care Service Plan Act of 1985, Cal. Health & Safety Code §§ 1340 et seq., and California Code of Regulations title 28, § 1300.51(d)(H)(ii) (collectively, "Knox-Keene Act"),

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[45] *Id.* at 21 (¶ 30).

[46] *Id.* at 27 (¶ 43); *see also* Dartmouth Atlas Project, General FAQ, https://www.dartmouthatlas.org/faq (last visited Apr. 12, 2019) ("[Q.] Why does the Dartmouth Atlas Project focus on Medicare data? Are there similar variations in utilization and spending in the under-65 population? [A.] The Centers for Medicare and Medicaid Services (CMS), the federal agency that collects data for every person and provider using Medicare health insurance, makes available a uniform national claims database for research purposes. There is no counterpart to this database for the commercially insured population. However, similar studies we have done using state all-payer data in Pennsylvania and Virginia, and with Blue Cross Blue Shield data in Michigan, have shown similar variations among the under-65 population.").

[47] Gowrisankaran Decl. – ECF No. 272-3 at 19 (¶ 27); *see also* Dartmouth Atlas Project, About Our Regions, http://archive.dartmouthatlas.org/data/region (last visited Apr. 12, 2019) ("When these regions were created in the early 1990s, most hospital service areas contained only one hospital. In the intervening years, hospital closures have left some HSAs with no hospital; these HSAs have been maintained as distinct areas in order to preserve the continuity of the database.").

[48] Gowrisankaran Decl. – ECF No. 272-3 at 18 (¶ 26); Chipty Decl. – ECF No. 494-1 at 106 (¶ 144).

(2) a "redirection analysis" by the health plan Blue Shield of California, and (3) other testimony and documentary evidence from health plans and Sutter.

2.1 The Antioch HSA

2.1.1 Overview

The Antioch HSA includes the city of Antioch in Contra Costa County, California. There are approximately 172,000 residents in the Antioch HSA.[49] Excluding a hospital operated by Kaiser Permanente ("Kaiser"),[50] there is one hospital in the Antioch HSA: Sutter Delta Medical Center ("Sutter Delta").[51]

[52]

Between 40 and 45 percent of the non-Kaiser, commercially insured patients residing in the Antioch HSA stay in the Antioch HSA for inpatient hospital services, and the remaining 55 to 60

[49] Chipty Decl. – ECF No. 494-1 at 82–83 (¶ 107).

[50] Kaiser Permanente is another large hospital system in Northern California. 4AC – ECF No. 204 at 10–11 (¶ 32). Kaiser operates in a "closed system," where (other than in emergencies) its hospitals offer inpatient hospital services only to Kaiser health plans and not to other health plans. *Id.* The plaintiffs therefore allege that Kaiser's hospitals do not compete with Sutter's hospitals with respect to selling inpatient hospital services to non-Kaiser health plans. *Id.* Sutter does not challenge the exclusion of Kaiser in its motion for summary judgment. Def. MSJ – ECF No. 272 at 19 n.7 ("[T]his Motion generally focuses on data that exclude Kaiser in keeping with Plaintiffs' approach to market definition in this case.").

[51] Chipty Decl. – ECF No. 494-1 at 81 (¶ 106); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.

[52] Chipty Decl. – ECF No. 494-1 at 82 (¶ 106).

percent travel out of the Antioch HSA for inpatient hospital services.[53] Dr. Chipty stated that the patients who stay in the Antioch HSA drive an average of 17 minutes for their care and the patients who travel out of the Antioch HSA drive an average of 44 minutes for their care.[54]

2.1.2 Knox-Keene Act

A former Senior Vice President of the health plan Blue Shield stated in a sworn declaration that California's Knox-Keene Act "requires Blue Shield to create a network with access to health care providers such that 'all enrollees have a residence or workplace within 30 minutes or 15 miles of a contracting or plan-operated hospital[.]'"[55] The former Senior Vice President explained, "[f]or example, if one of Blue Shield's self-funded customers has an employee living in a rural area of Northern California, and the only hospital within 30 minutes or 15 miles of his residence or workplace was a Sutter hospital, the law mandates that Sutter's hospital be included in the network."[56]

At the end of 2014, Blue Shield's then-effective agreement with Sutter was scheduled to automatically terminate (absent a renewal).[57] Blue Shield had to file "transition disengagement plans" with the California Department of Managed Health Care ("DMHC").[58] The DMHC reviewed Blue Shield's proposed termination of Sutter Delta as an in-network hospital and whether the termination complied with the Knox-Keene Act.[59] The DMHC sent a notice to Blue Shield that it effectively had to keep Sutter Delta in its network for certain hospital services, and

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[53] *Id.* (¶ 107) (40%/60%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (44.2%/55.8%).

[54] Chipty Decl. – ECF No. 494-1 at 82 (¶ 107).

[55] Joyner Decl. – ECF No. 497 at 7 (¶ 20).

[56] *Id.*

[57] Barnes Dep. – ECF Nos. 311-15 at 13 (under seal), 494-10 at 13 (redacted version) (p. 538); DMHC Letter– ECF No. 494-13 at 3 (BSC_SutterSub00062560).

[58] Barnes Dep. – ECF No. 494-10 at 13–14 (pp. 538–39).

[59] DMHC Letter – ECF No. 494-13 at 3 (BSC_SutterSub00062560); *see* Barnes Dep. – ECF No. 494-10 at 14 (p. 539); Barnes Dep. – ECF No. 494-13 at 12 (p. 542).

allow its enrollees to use Sutter Delta, because there were no other alternative hospitals that complied with Knox-Keene Act requirements.[60]

Dr. Gowrisankaran stated that 51 percent of patients discharged from a non-Kaiser hospital in the Antioch HSA (i.e., Sutter Delta) live within a 30-minute drive of another non-Sutter, non-Kaiser hospital in another HSA.[61] That means that 49 percent of patients do not live within a 30-minute drive of another non-Sutter, non-Kaiser hospital.[62]

2.1.3 Blue Shield redirection analysis

A former Senior Vice President of the health plan Blue Shield of California stated in a sworn declaration that "consumer demand dictated the geographic 'footprint' of Blue Shield's networks. Many self-funded payors and insured employers who contract with Blue Shield have members throughout Northern California. Therefore, providing broad geographic coverage for members is important. In addition, certain Sutter hospitals and physician groups are 'must have' providers because particular Blue Shield customers insist that they be included in the network."[63] The former Senior Vice President stated that "Sutter's 'all or nothing' negotiation strategy, and leveraging of its market position in multiple counties (where they are dominant) to demand higher rates across the board has forced Blue Shield to accept Sutter's significantly higher pricing."[64] The

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[60] Barnes Dep. – ECF No. 494-10 at 13–14 (pp. 538–39); Barnes Dep. – ECF No. 494-13 at 12 (p. 542); Barnes Dep. – ECF No. 494-11 at 11 (p. 543); DMHC Letter – ECF No. 494-13 at 3–5 (BSC_SutterSub00062560–62).

[61] Gowrisankaran Decl. Ex. 8 – ECF No. 272-3 at 68. Dr. Gowrisankaran referred to discharges from hospitals within the Antioch HSA, excluding Kaiser hospitals. Because Sutter Delta is the only non-Kaiser hospital in the Antioch HSA, these discharges necessarily are discharges from Sutter Delta.

[62] Dr. Gowrisankaran referred to whether patients live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA. Because there are no other non-Sutter, non-Kaiser hospitals in the Antioch HSA, patients who do not live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA necessarily do not live within 30 minutes of any non-Sutter, non-Kaiser hospital other than Sutter Delta.

[63] Joyner Decl. – ECF No. 497 at 7–8 (¶ 21).

[64] *Id.* at 19 (¶¶ 58–59) (internal brackets and some internal quotation marks omitted); *see also* Joyner Decl. Ex. 18 (Unchecked Provider Clout presentation) – ECF No. 499 at 13 (BSC_UFCW-00045213) ("[T]he Sutter system operates 24 facilities in 17 northern counties — sole provider in five counties — controls nearly 50 percent of [Blue Shield of California] spend in 10 or their 17 counties[.] Sutter negotiation . . . — leverage its market position in multiple counties (where they are dominant) to demand higher rates across the board[.]").

former Senior Vice President stated that "Sutter's prices were 'materially higher' than the average prices in Northern California and across the state[.]"[65]

Blue Shield conducts "redirection analyses" whenever its contract with Sutter comes up for renewal, because it has to determine the cost of terminating its contract with Sutter.[66] As Blue Shield's Director of Provider Contracting for Northern California testified, when Blue Shield's contract with Sutter comes up for renewal, "one of those reports we have run is, okay, if Sutter's out of network, what can be redirected elsewhere, where are their alternatives, what our cost implications are."[67] The redirection analysis that Blue Shield conducted in 2014 ("Blue Shield Redirection Analysis") included an estimate that if Blue Shield were to terminate its contract with Sutter and Sutter Delta became an out-of-network hospital, then [redacted] percent of Blue Shield enrollees who used Sutter Delta could be "redirected" to other hospitals ([redacted]) and [redacted] percent of enrollees would stay with Sutter Delta, even if Sutter were out of network and they had to pay higher costs.[68]

The Director acknowledged that "[t]here [wa]s no, you know, set criteria" for coming up with the redirection percentages listed in the Blue Shield Redirection Analysis (for Sutter Delta or for

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[65] Joyner Decl. – ECF No. 497 at 19 (¶ 60).

[66] Barnes Dep. – ECF Nos. 469-2 at 12, 23 (under seal), 493 at 12, 23 (redacted version) (pp. 426, 437).

[67] Barnes Dep. – ECF Nos. 469-2 at 12 (under seal), 493 at 12 (redacted version) (p. 426).

[68] Blue Shield Redirection Analysis – ECF Nos. 469-2 at 63 (under seal), 493 at 63 (redacted version) (BSC_SutterSub00037814). The Redirection Analysis includes an Excel chart with a column for Sutter hospitals associated with columns for "Alternative Hospitals" and "Expected Allocation %." *Id.* at 62–63. Blue Shield's Director of Provider Contracting for Northern California explained that the "Expected Allocation %" column indicates Blue Shield's estimate of where its enrollees would go to get medical care if the corresponding Sutter hospital were no longer in network. Barnes Dep. – ECF 503-1 at 47–50 (pp. 436–39); *see* Barnes Dep. – ECF No. 493 at 19–20 (pp. 433–34) (discussing the 95-percent-of-billed-charges rates for out-of-network patients); *see also* Barnes Dep. – ECF Nos. 428-6 at 69 (under seal), 479-5 at 69 (redacted version) (p. 469) (allocation-percentage estimates were for [redacted]).

The Director testified about some of the reasons he arrived at that estimate, including the reasons that Antioch is a [redacted], and it is [redacted] Barnes Dep. – ECF Nos. 469-2 at [redacted] (under seal), 493 at [redacted] (redacted version) (pp. [redacted]).

any other hospital).[69] He testified that, "you have got to use your experience of the marketplace and understanding of which hospitals are compl[e]mentary, how far apart they are from one another, preferences of members."[70] He acknowledged that he did not look at any patient-admission patterns or data and did not test his assumptions and that there was no way for a third party to replicate his analysis.[71]

2.1.4 Other evidence

In a 2008 internal email ("UnitedHealthcare Email"), the Director of Provider Services for Northern California for the health plan UnitedHealthcare wrote to several of her colleagues that Sutter "ha[s] geographic monopolies for hospital services in the following submarkets — . . . Antioch . . . ."[72] The UnitedHealthcare director further stated that "[d]espite widespread Broker acknowledgement of the high cost of Sutter, it is not feasible to present an HMO [health-maintenance organization] or FFS [fee-for-service] network in Northern CA that does not include them. In addition, many of our largest national accounts require Sutter network participation to retain and grow business."[73]

2.2 The Auburn HSA

2.2.1 Overview

The Auburn HSA includes the city of Auburn in Placer County, California. There are approximately 69,000 residents in the Auburn HSA.[74] The is one hospital in the Auburn HSA: Sutter Auburn Faith Hospital ("Sutter Auburn").[75]

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[69] Barnes Dep. – ECF No. 493 at 26 (p. 440).

[70] *Id.*; *see also id.* ("I could have hospitals right next door to each other, but if one had a very bad reputation you are not going to be able to channel there.").

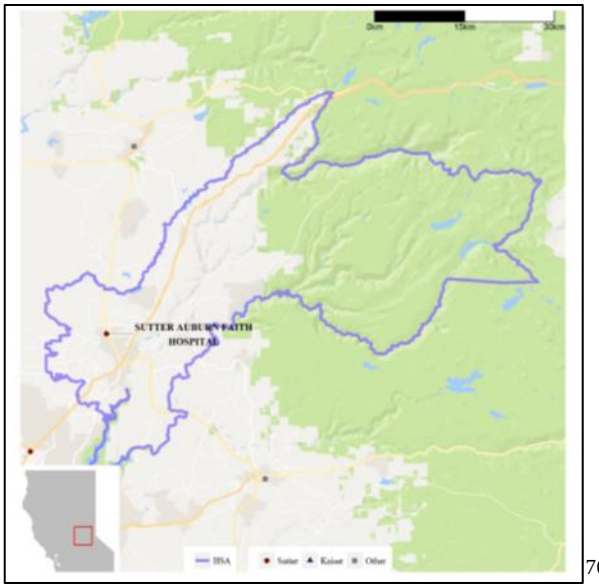
[71] Barnes Dep. – ECF No. 503-1 at 62–65 (pp. 730–33).

[72] UnitedHealthcare Email – ECF No. 311-20 at 2 (under seal) (UHC-00134453).

[73] *Id.*

[74] Chipty Decl. – ECF No. 494-1 at 92–93 (¶ 120).

[75] *Id.* at 91 (¶ 119); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.



[76]

Between 30 and 37 percent of the non-Kaiser, commercially insured patients residing in the Auburn HSA stay in the Auburn HSA for inpatient hospital services, and the remaining 63 to 70 percent travel out of the Auburn HSA for inpatient hospital services.[77] Dr. Chipty stated that the patients who stay in the Auburn HSA drive an average of 18 minutes for their care and the patients who travel out of the Auburn HSA drive an average of 45 minutes for their care.[78]

2.2.2 Knox-Keene Act

Dr. Gowrisankaran stated that 44 percent of patients discharged from a non-Kaiser hospital in the Auburn HSA (i.e., Sutter Auburn) live within a 30-minute drive of another non-Sutter, non-Kaiser hospital in another HSA.[79] That means that 56 percent of patients do not live within a 30-minute drive of another non-Sutter, non-Kaiser hospital.[80]

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[76] Chipty Decl. – ECF No. 494-1 at 92 (¶ 119).

[77] *Id.* (¶ 120) (37%/63%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (30.3%/69.7%).

[78] Chipty Decl. – ECF No. 494-1 at 92 (¶ 120).

[79] Gowrisankaran Decl. Ex. 8 – ECF No. 272-3 at 68. Dr. Gowrisankaran referred to discharges from hospitals within the Auburn HSA, excluding Kaiser hospitals. Because Sutter Auburn is the only hospital in the Auburn HSA, these discharges necessarily are discharges from Sutter Auburn.

[80] Dr. Gowrisankaran referred to whether patients live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA. Because there are no other non-Sutter, non-Kaiser hospitals in the Auburn HSA, patients who do not live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA necessarily do not live within 30 minutes of any non-Sutter, non-Kaiser hospital other than Sutter Auburn.

2.2.3 Blue Shield redirection analysis

The Blue Shield Redirection Analysis estimated that if Blue Shield were to terminate its contract with Sutter and Sutter Auburn became an out-of-network hospital, then [redacted] percent of Blue Shield enrollees who used Sutter Auburn could be "redirected" to [redacted] ([redacted]) and [redacted] percent of enrollees would stay with Sutter Auburn, even if Sutter were out of network and they had to pay higher costs.[81]

2.2.4 Other evidence

The UnitedHealthcare Email stated that Sutter "ha[s] geographic monopolies for hospital services in the following submarkets — Auburn . . . . Despite widespread Broker acknowledgement of the high cost of Sutter, it is not feasible to present an HMO or FFS network in Northern CA that does not include them. In addition, many of our largest national accounts require Sutter network participation to retain and grow business."[82]

The Vice President for Network Management in Northern California at the health plan Aetna testified that "using my definition of monopoly meaning a must-have from a marketability standpoint, ... there are some rural hospitals where Sutter hospitals are really it for a given area," including Sutter Auburn.[83] The Vice President explained, "[s]o my own terms, a monopoly, it's really the must-have from a marketability or a member perception standpoint."[84]

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[81] Blue Shield Redirection Analysis – ECF Nos. 469-2 at 62 (under seal), 493 at 62 (redacted version) (BSC_SutterSub00037814). Blue Shield's Director of Provider Contracting for Northern California testified about some of the reasons for that estimate, including the reason that Auburn is a [redacted] and that the [redacted] Barnes Dep. – ECF Nos. 469-2 at [redacted] (under seal), 493 at [redacted] (redacted version) (pp. [redacted]).

[82] UnitedHealthcare Email – ECF No. 311-20 at 2 (under seal) (UHC-00134453).

[83] Welsh Dep. – ECF No. 311-5 at 7–8 (under seal) (pp. 196–97).

[84] *Id.* at 7 (p. 196).

2.3 The Crescent City HSA

2.3.1 Overview

The Crescent City HSA includes the city of Crescent City in Del Norte County, California. The Crescent City HSA also extends into Oregon.[85] There are approximately 35,000 residents in the Crescent City HSA.[86] There is one hospital in the Crescent City HSA: Sutter Coast Hospital ("Sutter Coast").[87]

[88]

Between 72 and 77 percent of the non-Kaiser, commercially insured patients residing in the Crescent City HSA stay in the Crescent City HSA for inpatient hospital services, and the remaining 23 to 28 percent travel out of the Crescent City HSA for inpatient hospital services.[89] Dr. Chipty stated that the patients who stay in the Crescent City HSA drive an average of 32

[85] Chipty Decl. – ECF No. 494-1 at 73 (¶ 96); Gowrisankaran Decl. – ECF No. 272-3 at 32 n.78 (¶ 50 n.78).

[86] Chipty Decl. – ECF No. 494-1 at 74–75 (¶ 97).

[87] *Id.* at 73 (¶ 96); Gowrisankaran Decl. Ex. 1B – ECF No. 272-3 at 61.

[88] Chipty Decl. – ECF No. 494-1 at 74 (¶ 96).

[89] *Id.* at 75 (¶ 97) (72%/28%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (77.0%/23.0%).

minutes for their care and the patients who travel out of the Crescent City HSA to another California hospital drive an average of 275 minutes for their care.[90]

2.3.2 Knox-Keene Act

At the end of 2014, Blue Shield's then-effective agreement with Sutter was scheduled to automatically terminate (absent a renewal).[91] The DMHC reviewed Blue Shield's proposed termination of Sutter Coast as an in-network hospital and whether the termination complied with the Knox-Keene Act.[92] The DMHC sent a notice to Blue Shield that it effectively had to keep Sutter Coast in its network for certain hospital services, and allow its enrollees to use Sutter Coast, because there were no other alternative hospitals that complied with Knox-Keene Act requirements.[93]

Dr. Gowrisankaran stated that zero percent of patients discharged from a non-Kaiser hospital in the Crescent City HSA (i.e., Sutter Coast) live within a 30-minute drive of another non-Sutter, non-Kaiser hospital in another HSA.[94] — which means that 100 percent of patients do not live within a 30-minute drive of another non-Sutter, non-Kaiser hospital.[95]

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[90] Chipty Decl. – ECF No. 494-1 at 75 & n.193 (¶ 97 & n.193). Dr. Chipty was not able to calculate the average driving time for patients that traveled out of the Crescent City HSA to an Oregon hospital. *Id.* at 75 n.193 (¶ 97 n.193).

[91] Barnes Dep. – ECF Nos. 311-15 at 13 (under seal), 494-10 at 13 (redacted version) (p. 538); DMHC Letter– ECF No. 494-10 at 3 (BSC_SutterSub00062477).

[92] DMHC Letter – ECF No. 494-10 at 3 (BSC_SutterSub00062477); *see* Barnes Dep. – ECF No. 494-10 at 14–15 (pp. 539–40).

[93] Barnes Dep. – ECF No. 494-10 at 13–15 (pp. 538–40); DMHC Letter – ECF No. 494-10 at 3–5 (BSC_SutterSub00062477–79).

[94] Gowrisankaran Decl. Ex. 8 – ECF No. 272-3 at 68. Dr. Gowrisankaran referred to discharges from hospitals within the Crescent City HSA, excluding Kaiser hospitals. Because Sutter Coast is the only hospital in the Crescent City HSA, these discharges necessarily are discharges from Sutter Crescent City.

[95] Dr. Gowrisankaran referred to whether patients live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA. Because there are no other non-Sutter, non-Kaiser hospitals in the Crescent City HSA, patients who do not live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA necessarily do not live within 30 minutes of any non-Sutter, non-Kaiser hospital other than Sutter Coast.

2.3.3 Blue Shield redirection analysis

The Blue Shield Redirection Analysis included an estimate that if Blue Shield were to terminate its contract with Sutter and Sutter Coast became an out-of-network hospital, then [redacted] percent of Blue Shield enrollees who used Sutter Coast would stay with Sutter Coast, even if Sutter were out of network and they had to pay higher costs.[96]

2.3.4 Other evidence

The Vice President for Network Management in Northern California at Aetna testified that "using my definition of monopoly meaning a must-have from a marketability standpoint, ... there are some rural hospitals where Sutter hospitals are really it for a given area," including Sutter Coast.[97]

Sutter maintained an internal "model amendment" ("Sutter Model Amendment") that it used as a proposal in negotiating contracts with health plans.[98] The Sutter Model Amendment included a term, "Rural Hospitals," defined as "a designation given by Sutter Health to any facility which acts as a sole practical resource for acute care and emergency care within the community it serves."[99] Sutter's Chief Contracting Officer explained that "Rural Hospital" was "a term to describe a rural hospital that in all practical reality was the hospital, the local hospital in that

[96] Blue Shield Redirection Analysis – ECF Nos. 469-2 at 63 (under seal), 493 at 63 (redacted version) (BSC_SutterSub00037814). Blue Shield's Director of Provider Contracting for Northern California testified about some of the reasons for that estimate, including [redacted] Barnes Dep. – ECF Nos. 469-2 at [redacted] (under seal), 493 at [redacted] (redacted version) (pp. [redacted]).

[97] Welsh Dep. – ECF No. 311-5 at 7–8 (under seal) (pp. 196–97).

[98] Brendt Dep. – ECF Nos. 313-3 at 86 (under seal), 494-17 at 86 (redacted version) (p. 184); Brendt Dep. – ECF No. 494-17 at 91–92 (pp. 189–90).

[99] Sutter Model Amendment – ECF Nos. 313-3 at 8 (under seal), 494-17 at 8 (redacted version) (DEF007581579).

community, typically a more rural community[that d]oesn't have other hospitals in the local vicinity."[100] The Sutter Model Amendment identified Sutter Coast as a "Rural Hospital."[101]

In 2001, Sutter entered into an amendment agreement with the health plan Blue Cross of California ("Sutter Blue Cross Amendment"). The Sutter Blue Cross Amendment included a term, "Rural Hospitals," defined as "a designation given by Sutter Health to any facility which acts as a sole practical resource for acute care and emergency care within the rural community it serves, and the next closest facility is at least 30 miles away from the Rural Hospital."[102] The Sutter Blue Cross Amendment identified Sutter Coast as a "Rural Hospital."[103] Anthem Blue Cross's Director of Network Development for Northern California (from 2001 to 2005) and Vice President of Provider Engagement and Contracting for California (from 2009 to 2011) acknowledged in testimony that Sutter Coast was a rural hospital and agreed that it was "essentially the only game in town."[104]

2.4 The Jackson HSA

2.4.1 Overview

The Jackson HSA includes the city of Jackson in Amador County, California. There are approximately 34,000 residents in the Jackson HSA.[105] There is one hospital in the Jackson HSA: Sutter Amador Hospital ("Sutter Amador").[106]

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[100] Brendt Dep. – ECF Nos. 313-3 at 99–100 (under seal), 494-17 at 99–100 (redacted version) (pp. 197–98).

[101] Sutter Model Amendment – ECF Nos. 313-3 at 36 (under seal), 494-17 at 36 (redacted version) (DEF007581607); Brendt Dep. – ECF Nos. 313-3 at 104 (under seal), 494-17 at 104 (redacted version) (p. 202).

[102] Sutter Blue Cross Amendment – ECF No. 494-5 at 8 (DEF000097801).

[103] Sutter Blue Cross Amendment – ECF No. 311-10 at 41, 43 (under seal), 494-5 at 41, 43 (redacted version) (DEF000097834, DEF000097836).

[104] Ramseier Dep. – ECF No. 311-9 at 6 (under seal) (p. 139).

[105] Chipty Decl. – ECF No. 494-1 at 85–86 (¶ 111).

[106] *Id.* at 84 (¶ 110); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.

[107]

Between 43 and 65 percent of the non-Kaiser, commercially insured patients residing in the Jackson HSA stay in the Jackson HSA for inpatient hospital services, and the remaining 35 to 57 percent travel out of the Jackson HSA for inpatient hospital services.[108] Dr. Chipty stated that the patients who stay in the Jackson HSA drive an average of 21 minutes for their care and the patients who travel out of the Jackson HSA drive an average of 71 minutes for their care.[109]

2.4.2 Knox-Keene Act

At the end of 2014, Blue Shield's then-effective agreement with Sutter was scheduled to automatically terminate (absent a renewal).[110] The DMHC reviewed Blue Shield's proposed termination of Sutter Amador as an in-network hospital and whether the termination complied with the Knox-Keene Act.[111] The DMHC sent a notice to Blue Shield that it effectively had to keep Sutter Amador in its network for certain hospital services, and allow its enrollees to use

[107] Chipty Decl. – ECF No. 494-1 at 85 (¶ 110).

[108] *Id.* at 86 (¶ 111) (43%/57%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (64.2%/35.8%).

[109] Chipty Decl. – ECF No. 494-1 at 86 (¶ 111).

[110] Barnes Dep. – ECF Nos. 311-15 at 13 (under seal), 494-10 at 13 (redacted version) (p. 538); DMHC Letter– ECF No. 494-11 at 3 (BSC_SutterSub00062387).

[111] DMHC Letter – ECF No. 494-11 at 3 (BSC_SutterSub00062387); *see* Barnes Dep. – ECF No. 494-10 at 14 (p. 539); Barnes Dep. – ECF No. 494-11 at 11–12 (pp. 543–44).

Sutter Amador, because there were no other alternative hospitals that complied with Knox-Keene Act requirements.[112]

Dr. Gowrisankaran stated that 29 percent of patients discharged from a non-Kaiser hospital in the Jackson HSA (i.e., Sutter Amador) live within a 30-minute drive of another non-Sutter, non-Kaiser hospital in another HSA.[113] That means that 71 percent of patients do not live within a 30-minute drive of another non-Sutter, non-Kaiser hospital.[114]

2.4.3 Blue Shield redirection analysis

The Blue Shield Redirection Analysis included an estimate that if Blue Shield were to terminate its contract with Sutter and Sutter Amador became an out-of-network hospital, [redacted] percent of Blue Shield enrollees who used Sutter Amador would choose to stay with Sutter Amador even if Sutter were out of network and they had to pay higher costs.[115]

2.4.4 Other evidence

The UnitedHealthcare Email stated that Sutter "ha[s] geographic monopolies for hospital services in the following submarkets — . . . Amador . . . . Despite widespread Broker acknowledgement of the high cost of Sutter, it is not feasible to present an HMO or FFS network

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[112] Barnes Dep. – ECF No. 494-10 at 13–14 (pp. 538–39); Barnes Dep. – ECF No. 494-11 at 11–12 (pp. 543–44); DMHC Letter – ECF No. 494-11 at 3–5 (BSC_SutterSub00062387–89).

[113] Gowrisankaran Decl. Ex. 8 – ECF No. 272-3 at 68. Dr. Gowrisankaran referred to discharges from hospitals within the Jackson HSA, excluding Kaiser hospitals. As Sutter Amador is the only hospital in the Jackson HSA, these discharges necessarily are discharges from Sutter Amador.

[114] Dr. Gowrisankaran referred to whether patients live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA. Because there are no other non-Sutter, non-Kaiser hospitals in the Jackson HSA, patients who do not live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA necessarily do not live within 30 minutes of any non-Sutter, non-Kaiser hospital other than Sutter Amador.

[115] Blue Shield Redirection Analysis – ECF Nos. 469-2 at 63 (under seal), 493 at 63 (redacted version) (BSC_SutterSub00037814). Blue Shield's Director of Provider Contracting for Northern California testified about some of the reasons for that estimate, including the reasons that one alternative hospital was [redacted] and another alternative hospital was [redacted] Barnes Dep. – ECF Nos. 469-2 at [redacted] (under seal), 493 at [redacted] (redacted version) (pp. [redacted]).

in Northern CA that does not include them. In addition, many of our largest national accounts require Sutter network participation to retain and grow business."[116]

Aetna's Vice President for Network Management in Northern California testified that "using my definition of monopoly meaning a must-have from a marketability standpoint, ... there are some rural hospitals where Sutter hospitals are really it for a given area," including Sutter Amador.[117]

The Sutter Model Amendment identifies Sutter Amador as a "Rural Hospital" that "acts as a sole practical resource for acute care and emergency care within the community it serves" and a hospital "that in all practical reality was the hospital, the local hospital in that community, typically a more rural community[that d]oesn't have other hospitals in the local vicinity."[118] The Sutter Blue Cross Amendment similarly identifies Sutter Amador as a "Rural Hospital" that "acts as a sole practical resource for acute care and emergency care within the rural community it serves, and [where] the next closest facility is at least 30 miles away from the Rural Hospital."[119] Anthem Blue Cross's former Director of Network Development for Northern California and Vice President of Provider Engagement and Contracting for California acknowledged in testimony that Sutter Amador was a rural hospital and agreed that it was "essentially the only game in town."[120]

[116] UnitedHealthcare Email – ECF No. 311-20 at 2 (under seal) (UHC-00134453).

[117] Welsh Dep. – ECF No. 311-5 at 7–8 (under seal) (pp. 196–97).

[118] Sutter Model Amendment – ECF Nos. 313-3 at 8, 34 (under seal), 494-17 at 8, 34 (redacted version) (DEF007581579, DEF007581605); Brendt Dep. – ECF Nos. 313-3 at 99–100, 102 (under seal), 494-17 at 99–100, 102 (redacted version) (pp. 197–98, 200).

[119] Sutter Blue Cross Amendment – ECF No. 494-5 at 8 (DEF000097801); Sutter Blue Cross Amendment – ECF Nos. 311-10 at 37, 39 (under seal), 494-5 at 37, 39 (redacted version) (DEF000097830, DEF000097832).

[120] Ramseier Dep. – ECF No. 311-9 at 6 (under seal) (p. 139).

2.5 The Lakeport HSA

2.5.1 Overview

The Lakeport HSA includes the city of Lakeport in Lake County, California. There are approximately 27,000 residents in the Lakeport HSA.[121] There is one hospital in the Lakeport HSA: Sutter Lakeside Hospital ("Sutter Lakeside").[122]

[123]

Between 41 and 50 percent of the non-Kaiser, commercially insured patients residing in the Lakeport HSA stay in the Lakeport HSA for inpatient hospital services, and the remaining 50 to 59 percent travel out of the Lakeport HSA for inpatient hospital services.[124] Dr. Chipty stated that the patients who stay in the Lakeport HSA drive an average of 16 minutes for their care and the patients who travel out of the Lakeport HSA drive an average of 107 minutes for their care.[125]

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[121] Chipty Decl. – ECF No. 494-1 at 78–79 (¶ 102).

[122] *Id.* at 77 (¶ 101); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.

[123] Chipty Decl. – ECF No. 494-1 at 78 (¶ 101).

[124] *Id.* (¶ 102) (50%/50%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (41.8%/58.2%).

[125] Chipty Decl. – ECF No. 494-1 at 78 (¶ 102).

2.5.2 Knox-Keene Act

At the end of 2014, Blue Shield's then-effective agreement with Sutter was scheduled to automatically terminate (absent a renewal).[126] The DMHC reviewed Blue Shield's proposed termination of Sutter Lakeside as an in-network hospital and whether the termination complied with the Knox-Keene Act.[127] The DMHC sent a notice to Blue Shield that it effectively had to keep Sutter Lakeside in its network for certain hospital services, and allow its enrollees to use Sutter Lakeside, because there were no other alternative hospitals that complied with Knox-Keene Act requirements.[128]

Dr. Gowrisankaran stated that 45 percent of patients discharged from a non-Kaiser hospital in the Lakeport HSA (i.e., Sutter Lakeside) live within a 30-minute drive of another non-Sutter, non-Kaiser hospital in another HSA.[129] That means that 55 percent of patients do not live within a 30-minute drive of another non-Sutter, non-Kaiser hospital.[130]

2.5.3 Blue Shield redirection analysis

The Blue Shield Redirection Analysis included an estimate that if Blue Shield were to terminate its contract with Sutter and Sutter Lakeside became an out-of-network hospital, [redacted] percent of Blue Shield enrollees who used Sutter Lakeside could be "redirected" to other hospitals ([redacted]) and [redacted] percent of enrollees

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[126] Barnes Dep. – ECF Nos. 311-15 at 13 (under seal), 494-10 at 13 (redacted version) (p. 538); DMHC Letter– ECF No. 494-12 at 3 (BSC_SutterSub0267438).

[127] DMHC Letter – ECF No. 494-12 at 3 (BSC_SutterSub0267438); *see* Barnes Dep. – ECF No. 494-10 at 14–15 (pp. 539–40); Barnes Dep. – ECF No. 494-12 at 12 (p. 541); Barnes Dep. – ECF No. 494-13 at 12 (p. 542).

[128] Barnes Dep. – ECF No. 494-10 at 13–15 (pp. 538–40); Barnes Dep. – ECF No. 494-12 at 12 (p. 541); Barnes Dep. – ECF No. 494-13 at 12 (p. 542); DMHC Letter – ECF No. 494-12 at 3–5 (BSC_SutterSub0267438–40).

[129] Gowrisankaran Decl. Ex. 8 – ECF No. 272-3 at 68. Dr. Gowrisankaran referred to discharges from hospitals within the Lakeport HSA, excluding Kaiser hospitals. Because Sutter Lakeside is the only hospital in the Lakeport HSA, these discharges necessarily are discharges from Sutter Lakeside.

[130] Dr. Gowrisankaran referred to whether patients live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA. Because there are no other non-Sutter, non-Kaiser hospitals in the Lakeport HSA, patients who do not live within 30 minutes of a non-Sutter, non-Kaiser hospital in another HSA necessarily do not live within 30 minutes of any non-Sutter, non-Kaiser hospital other than Sutter Lakeside.

would stay with Sutter Lakeside, even if Sutter were out of network and they had to pay higher costs.[131]

2.5.4 Other evidence

The UnitedHealthcare Email stated that Sutter "ha[s] geographic monopolies for hospital services in the following submarkets — . . . Clearlake . . . . Despite widespread Broker acknowledgement of the high cost of Sutter, it is not feasible to present an HMO or FFS network in Northern CA that does not include them. In addition, many of our largest national accounts require Sutter network participation to retain and grow business."[132]

Aetna's Vice President for Network Management in Northern California testified that "using my definition of monopoly meaning a must-have from a marketability standpoint, ... there are some rural hospitals where Sutter hospitals are really it for a given area," including Sutter Lakeside.[133]

The Sutter Model Amendment identifies Sutter Lakeside as a "Rural Hospital" that "acts as a sole practical resource for acute care and emergency care within the community it serves" and a hospital "that in all practical reality was the hospital, the local hospital in that community, typically a more rural community[that d]oesn't have other hospitals in the local vicinity."[134] The Sutter Blue Cross Amendment also identifies Sutter Lakeside as a "Rural Hospital" that "acts as a sole practical resource for acute care and emergency care within the rural community it serves, and

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[131] Blue Shield Redirection Analysis – ECF Nos. 469-2 at 62 (under seal), 493 at 62 (redacted version) (BSC_SutterSub00037814). Blue Shield's Director of Provider Contracting for Northern California testified about some of the reasons for that estimate, including the reasons that one alternative hospital was [redacted] and another alternative hospital was [redacted] Barnes Dep. – ECF Nos. 469-2 at [redacted] (under seal), 493 at [redacted] (redacted version) (pp. [redacted]).

[132] UnitedHealthcare Email – ECF No. 311-20 at 2 (under seal) (UHC-00134453).

[133] Welsh Dep. – ECF No. 311-5 at 7–8 (under seal) (pp. 196–97).

[134] Sutter Model Amendment – ECF Nos. 313-3 at 8, 36 (under seal), 494-17 at 8, 36 (redacted version) (DEF007581579, DEF007581607); Brendt Dep. – ECF Nos. 313-3 at 99–100, 104 (under seal), 494-17 at 99–100, 104 (redacted version) (pp. 197–98, 202).

[where] the next closest facility is at least 30 miles away from the Rural Hospital."[135] Anthem Blue Cross's former Director of Network Development for Northern California and Vice President of Provider Engagement and Contracting for California acknowledged in testimony that Sutter Lakeside was a rural hospital and agreed that it was "essentially the only game in town."[136]

2.6 The Tracy HSA

2.6.1 Overview

The Tracy HSA includes the city of Tracy in San Joaquin County, California. There are approximately 84,000 residents in the Tracy HSA.[137] There is one hospital in the Tracy HSA: Sutter Tracy Community Hospital ("Sutter Tracy").[138]

[139]

Approximately 57 percent of the non-Kaiser, commercially insured patients residing in the Tracy HSA stay in the Tracy HSA for inpatient hospital services, and the remaining 43 percent

[135] Sutter Blue Cross Amendment – ECF No. 494-5 at 8 (DEF000097801); Sutter Blue Cross Amendment – ECF No. 311-10 at 41, 43 (under seal), 494-5 at 41, 43 (redacted version) (DEF000097834, DEF000097836).

[136] Ramseier Dep. – ECF No. 311-9 at 6 (under seal) (p. 139).

[137] Chipty Decl. – ECF No. 494-1 at 89–90 (¶ 116).

[138] *Id.* at 88 (¶ 115); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.

[139] Chipty Decl. – ECF No. 494-1 at 89 (¶ 115).

travel out of the Tracy HSA for inpatient hospital services.[140] Dr. Chipty stated that the patients who stay in the Tracy HSA drive an average of nine minutes for their care and the patients who travel out of the Tracy HSA drive an average of 51 minutes for their care.[141] Dr. Gowrisankaran stated that 100 percent of patients discharged from a non-Kaiser hospital in the Tracy HSA (i.e., Sutter Tracy) live within a 30-minute drive of another non-Sutter, non-Kaiser hospital in another HSA.[142]

2.6.2 Blue Shield redirection analysis

The Blue Shield Redirection Analysis included an estimate that if Blue Shield were to terminate its contract with Sutter and Sutter Tracy became an out-of-network hospital, then [redacted] percent of Blue Shield enrollees who used Sutter Tracy could be "redirected" to other hospitals ([redacted]) and [redacted] percent of enrollees would stay with Sutter Tracy, even if Sutter were out of network and they had to pay higher costs.[143]

2.6.3 Other evidence

The UnitedHealthcare Email stated that Sutter "ha[s] geographic monopolies for hospital services in the following submarkets — . . . Tracy . . . . Despite widespread Broker acknowledgement of the high cost of Sutter, it is not feasible to present an HMO or FFS network in Northern CA that does not include them. In addition, many of our largest national accounts require Sutter network participation to retain and grow business."[144]

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[140] *Id.* (¶ 116) (57%/43%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (57.1%/42.9%).

[141] Chipty Decl. – ECF No. 494-1 at 89 (¶ 116).

[142] Gowrisankaran Decl. Ex. 8 – ECF No. 272-3 at 68. Dr. Gowrisankaran referred to discharges from hospitals within the Tracy HSA, excluding Kaiser hospitals. Because Sutter Tracy is the only hospital in the Tracy HSA, these discharges necessarily are discharges from Sutter Tracy.

[143] Blue Shield Redirection Analysis – ECF Nos. 469-2 at 62 (under seal), 493 at 62 (redacted version) (BSC_SutterSub00037814). Blue Shield's Director of Provider Contracting for Northern California testified about some of the reasons for that estimate, including [redacted] Barnes Dep. – ECF Nos. 469-2 at [redacted] (under seal), 493 at [redacted] (redacted version) (pp. [redacted]).

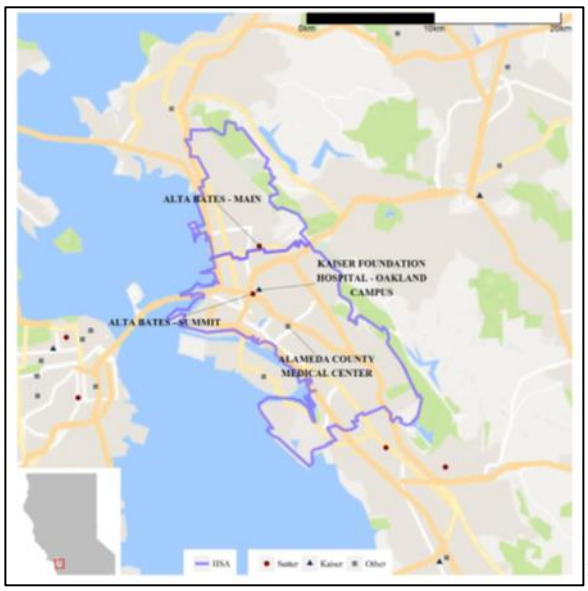
[144] UnitedHealthcare Email – ECF No. 311-20 at 2 (under seal) (UHC-00134453).

Aetna's Vice President for Network Management in Northern California testified that "using my definition of monopoly meaning a must-have from a marketability standpoint, ... I would say probably Sutter Tracy down in Tracy is the only hospital in that particular town[.]"[145]

2.7 The Combined Berkeley-Oakland HSAs

2.7.1 Overview

The Berkeley HSA includes the city of Berkeley in Alameda County, California. The Oakland HSA includes the city of Oakland in Alameda County, California. There are approximately 506,000 residents in the combined Berkeley-Oakland HSAs.[146] Excluding one Kaiser hospital, there are two hospitals in the combined Berkeley-Oakland HSAs: Sutter Alta Bates Medical Center ("Sutter Alta Bates") (which has three campuses: Alta Bates in Berkeley and Herrick in Berkeley, collectively "Alta Bates Main," and Alta Bates Summit in Oakland) and a non-Sutter hospital, Alameda County Medical Center.[147]



[148]

Sutter Alta Bates and Summit previously were separately owned hospitals. *See California v. Sutter Health Sys.*, 130 F. Supp. 2d 1109, 1112 (N.D. Cal. 2001). In 1998, Sutter and Summit

[145] Welsh Dep. – ECF No. 311-5 at 7–8 (under seal) (pp. 196–97).

[146] Chipty Decl. – ECF No. 494-1 at 70–71 (¶ 92).

[147] *Id.* at 67–68 (¶¶ 90–91); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.

[148] Chipty Decl. – ECF No. 494-1 at 70 (¶ 91).

signed an agreement to merge the Alta Bates and Summit facilities. *Id.* at 1115. The California Attorney General filed suit in this district to enjoin the merger. *Id.* at 1117. The court denied the California Attorney General's preliminary-injunction motion, *id.* at 1137, and the merger went through.[149] A 2011 study found that after Summit merged with Sutter, Summit raised its prices by 29 to 72 percent. *Advocate Health*, 841 F.3d at 472 (citing Steven Tenn, *The Price Effects of Hospital Mergers: A Case Study of the Sutter-Summit Transaction*, 18 Int'l J. of the Econ. of Bus. 65, 75–76 (2011)). Sutter Summit's price change was 28 to 44 percent larger than the average price change from a control group of hospitals. Tenn, 18 Int'l J. of the Econ. of Bus. at 76, 79. Health plans responded by paying Sutter Summit's increased prices. *See id.*

Approximately 80 percent of the non-Kaiser, commercially insured patients residing in the combined Berkeley-Oakland HSAs stay in the combined Berkeley-Oakland HSAs for inpatient hospital services, and the remaining 20 percent travel out of the combined Berkeley-Oakland HSAs for inpatient hospital services.[150] Dr. Chipty stated that the patients who stay in the combined Berkeley-Oakland HSAs drive an average of 14 minutes for their care and the patients who travel out of the combined Berkeley-Oakland HSAs drive an average of 45 minutes for their care.[151] Dr. Gowrisankaran stated that 100 percent of patients discharged from a non-Kaiser

[149] The court in the 2001 *Sutter* case denied the preliminary-injunction motion in part because it held that the California Attorney General had not proven a well-defined geographic market. *Id.* at 1132. To assess the geographic market, the court applied a test known as the Elzinga-Hogarty test, "a two-part test which examines current market behavior through an analysis of hospital service areas and patient flow data." *Id.* at 1120. "The Elzinga-Hogarty test was once the preferred method to analyze the relevant geographic market and was employed by many courts. But subsequent empirical research demonstrated that utilizing patient flow data to determine the relevant geographic market resulted in overbroad markets with respect to hospitals. Professor Elzinga himself testified before the FTC that this method 'was not an appropriate method to define geographic markets in the hospital sector.'" *Penn State Hershey*, 838 F.3d at 340 (citing *In re Evanston Nw. Healthcare Corp.*, No. 9315, 2007 WL 2286195, at *64 (F.T.C. Aug. 6, 2007), and distinguishing *Sutter*, 130 F. Supp. 2d 1109, and other older cases). More recent court decisions have rejected the Elzinga-Hogarty test as generating geographic markets that are too large, which then hurt consumers because they understate the anticompetitive effects of hospital consolidation. *Advocate Health*, 841 F.3d at 472; *see generally id.* at 469–73 (discussing the flaws of the Elzinga-Hogarty test); *Penn State Hershey*, 838 F.3d at 340–343 (same).

[150] Chipty Decl. – ECF No. 494-1 at 70 (¶ 92) (79%/21%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (80.2%/19.8%).

[151] Chipty Decl. – ECF No. 494-1 at 70 (¶ 92).

hospital in the combined Berkeley-Oakland HSAs live within a 30-minute drive of another non-Sutter, non-Kaiser hospital in another HSA.[152]

2.7.2 Blue Shield redirection analysis

The Blue Shield Redirection Analysis included an estimate that if Blue Shield were to terminate its contract with Sutter and the Sutter Alta Bates hospitals became out-of-network hospitals, then [redacted] percent of Blue Cross enrollees who use each of the Alta Bates hospitals could be "redirected" to other hospitals and [redacted] percent of enrollees would stay with Sutter Alta Bates, even if Sutter were out of network and they had to pay higher costs.[153]

Blue Shield's Vice President overseeing pricing and forecasting testified that [redacted][154]

2.7.3 Other evidence

The UnitedHealthcare Email stated that Sutter "ha[s] geographic monopolies for hospital services in the following submarkets — . . . Berkeley, Oakland . . . . Despite widespread Broker acknowledgement of the high cost of Sutter, it is not feasible to present an HMO or FFS network in Northern CA that does not include them. In addition, many of our largest national accounts require Sutter network participation to retain and grow business."[155]

Aetna's Vice President for Network Management in Northern California testified that "using my definition of monopoly meaning a must-have from a marketability standpoint, one would be

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[152] Gowrisankaran Decl. Ex. 8 – ECF No. 272-3 at 68.

[153] Blue Shield Redirection Analysis – ECF Nos. 469-2 at 62–63 (under seal), 493 at 62–63 (redacted version) (BSC_SutterSub00037814). Blue Shield's Director of Provider Contracting for Northern California testified about some of the reasons for that estimate, including the reasons that the Oakland-Berkeley corridor is a [redacted] Barnes Dep. – ECF Nos. 469-2 at [redacted] (under seal), 493 at [redacted] (redacted version) (pp. [redacted]).

[154] Beuoy Dep. – ECF Nos. 311-7 at 7 (under seal), 494-4 at 7 (redacted version) (p. 157). The Vice President testified that he did not participate in any analyses or conversations regarding whether Blue Shield would have a viable network in Alameda without including Sutter facilities. *Id.*

[155] UnitedHealthcare Email – ECF No. 311-20 at 2 (under seal) (UHC-00134453).

Alta Bates Summit Medical Center, which it's — it's the only hospital really for Oakland and Berkeley for commercial business, yeah, you have got — you have got either to cross the bridge or go through the tunnel or drive to Alameda to really get to the next hospital. So from a marketing standpoint it's a must have."[156]

3. The Candidate Tied Markets

The plaintiffs in their complaint alleged four Candidate Tied Markets. The following gives an overview of each Candidate Tied Market and then summarizes certain analyses of the Candidate Markets by the plaintiffs' expert Dr. Chipty.

For the Candidate Tied Markets, Dr. Chipty conducted a "diversion analysis" to study the question of where patients would go if they could no longer go to their first-choice hospital and, based on diversion ratios and data on hospital prices and margins, analyzed how much a profit-maximizing hypothetical monopolist that controlled all non-Kaiser hospitals in each Candidate Tied Market could raise prices at the Sutter hospital in the market.[157]

Dr. Chipty first constructed a patient-level model of non-Kaiser hospitals that patients choose based on factors including (1) patient characteristics, such as age, gender, income, and distance (in minutes) from different hospital choices, (2) patient medical needs, and (3) hospital characteristics, including whether the hospital is a teaching hospital, whether it is a designated trauma facility, and whether it offers the medical services that the patient needs.[158] She used these results to estimate the "utility" that each patient would obtain from each hospital.[159]

Dr. Chipty then conducted a diversion analysis, a counterfactual experiment where she removed the predicted first-choice hospital from each patient's choice set and asked where the

[156] Welsh Dep. – ECF No. 311-5 at 7 (under seal) (p. 196).
[157] Chipty Decl. – ECF No. 494-1 at 13–15 (¶¶ 14–16).
[158] *Id.* at 39 (¶ 50).
[159] *Id.*

patient would go instead.[160] She computed for each area resident the probability of that resident's choosing each alternative hospital.[161] She also computed "aggregate diversion" levels of the share of all area residents choosing alternative hospitals.[162]

Dr. Chipty then conducted an analysis to calculate the profit-maximizing price increase that a hypothetical monopolist could impose on hospitals in each Candidate Tied Market based on a model of the bargaining framework between hospitals and health plans that takes into account the diversion ratio of hospitals to other in-area or out-of-area hospitals and the hospitals' prices and contribution margins.[163]

3.1 The Modesto HSA

3.1.1 Overview

The Modesto HSA includes the city of Modesto in Stanislaus County, California. There are approximately 342,000 residents in the Modesto HSA.[164] Excluding one Kaiser hospital, there are two hospitals in the Modesto HSA: Sutter Memorial Medical Center Modesto ("Sutter Modesto") and a non-Sutter hospital, Doctors Medical Center.[165]

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[160] *Id.* at 39–40 (¶ 51).

[161] *Id.* at 40 (¶ 51).

[162] *Id.*

[163] *Id.* at 43–44 (¶¶ 58–59). Dr. Chipty stated that she was unable to conduct a similar diversion analysis for the Candidate Tying Markets because, with respect to six of the proposed Candidate Tying Markets, there are no non-Kaiser hospitals in the Candidate Tying Markets where patients at the Sutter hospitals could be diverted, so the in-area diversion ratio would necessarily be zero percent. *Id.* at 41 (¶ 54). For the seventh Candidate Tying Market —the combined Berkeley-Oakland HSAs — Dr. Chipty stated that the one non-Sutter hospital (Alameda County Medical Center) was perceived to be of lower quality and thus there were "effectively" no other non-Kaiser hospitals in combined Berkeley-Oakland HSAs where patients at Sutter Alta Bates could be diverted. Chipty Decl. – ECF Nos. 311-3 at 71–72 (under seal), 494-1 at 71–72 (redacted version) (¶¶ 93–94). Dr. Chipty notes, however, that Alameda County Medical Center was among the highest recipients of patients diverted from Sutter Alta Bates. Chipty Decl. – ECF No. 494-1 at 72 n.184 (¶ 94 n.184).

[164] *Id.* at 61 (¶ 79).

[165] *Id.* at 59–60 (¶ 78); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.

[166]

Between 81 and 84 percent of the non-Kaiser, commercially insured patients residing in the Modesto HSA stay in the Modesto HSA for inpatient hospital services, and the remaining 16 to 19 percent travel out of the Modesto HSA for inpatient hospital services.[167] Dr. Chipty stated that the patients who stay in the Modesto HSA drive an average of 18 minutes for their care and the patients who travel out of the Modesto HSA drive an average of 71 minutes for their care.[168]

3.1.2 Dr. Chipty's analyses

Dr. Chipty conducted a diversion analysis to ask where patients would go if Sutter Modesto were removed from each patient's choice set.[169] She estimated that 61 percent of patients would go to another hospital inside the Modesto HSA and that 39 percent of patients would go to a hospital outside the Modesto HSA.[170] She then conducted an analysis to calculate the profit-maximizing price increase that a hypothetical monopolist could impose and estimated that a hypothetical monopolist that controlled all of the non-Kaiser hospitals in the Modesto HSA would find it

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[166] Chipty Decl. – ECF No. 494-1 at 60 (¶ 78).

[167] *Id.* at 61 (¶ 79) (81%/19%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (83.9%/16.1%).

[168] Chipty Decl. – ECF No. 494-1 at 61 (¶ 79). Dr. Gowrisankaran did not analyze the percentage of patients discharged from a non-Kaiser hospital in the Candidate Tied Market HSAs who live within a 30-minute drive of a non-Sutter hospital in another HSA, Gowrisankaran Decl. Ex. 8 – ECF No. 272-3 at 68, and thus those numbers are not included for the Candidate Tied Markets.

[169] Chipty Decl. – ECF No. 494-4 at 61–62 (¶ 80).

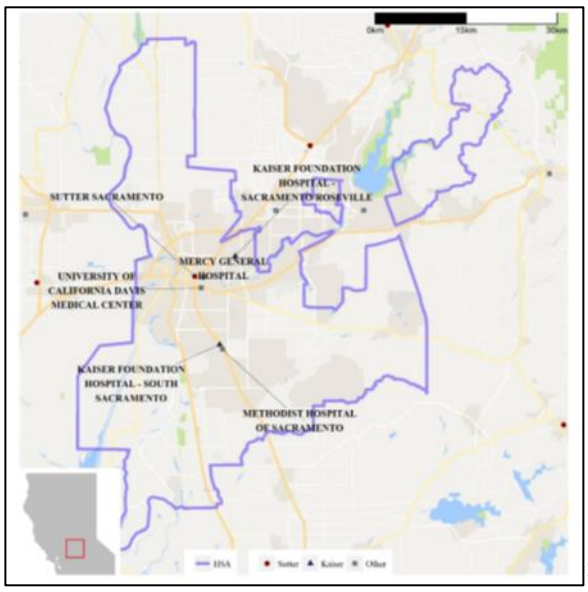
[170] *Id.*

profitable to raise Sutter Modesto's price between 12 and 20 percent over Sutter Modesto's actual prices from 2010 to 2012.[171]

3.2 The Sacramento HSA

3.2.1 Overview

The Sacramento HSA includes the city of Sacramento in Sacramento County, California. There are approximately 879,000 residents in the Sacramento HSA.[172] Excluding two Kaiser hospitals, there are four hospitals in the Sacramento HSA: Sutter Medical Center, Sacramento ("Sutter Sacramento") and three non-Sutter hospitals, University of California Davis Medical Center, Methodist Hospital of Sacramento, and Mercy General Hospital.[173]



[174]

Between 78 and 82 percent of the non-Kaiser, commercially insured patients residing in the Sacramento HSA stay in the Sacramento HSA for inpatient hospital services, and the remaining 18 to 22 percent travel out of the Sacramento HSA for inpatient hospital services.[175] Dr. Chipty stated that the patients who stay in the Sacramento HSA drive an average of 17 minutes for their care and

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[171] *Id.* at 62 (¶ 81).

[172] *Id.* at 49–50 (¶ 67).

[173] *Id.* at 47–48 (¶ 66); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.

[174] Chipty Decl. – ECF No. 494-1 at 49 (¶ 66).

[175] *Id.* (¶ 67) (78%/22%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (81.6%/18.4%).

the patients who travel out of the Sacramento HSA drive an average of 38 minutes for their care.[176]

3.2.2 Dr. Chipty's analyses

Dr. Chipty conducted a diversion analysis to ask where patients would go if Sutter Sacramento were removed from each patient's choice set.[177] She estimated that 61 percent of patients would go to another hospital inside the Sacramento HSA and that 39 percent of patients would go to a hospital outside the Sacramento HSA.[178] She then conducted an analysis to calculate the profit-maximizing price increase that a hypothetical monopolist could impose and estimated that a hypothetical monopolist that controlled all of the non-Kaiser hospitals in the Sacramento HSA would find it profitable to raise Sutter Sacramento's price between 11 and 12 percent over Sutter Sacramento's actual prices from 2010 to 2012.[179]

3.3 The San Francisco HSA

3.3.1 Overview

The San Francisco HSA includes the City and County of San Francisco. There are approximately 740,000 residents in the San Francisco HSA.[180] Excluding one Kaiser hospital, there are seven hospitals in the San Francisco HSA: Sutter's California Pacific Medical Center ("CPMC") (which has four campuses: Davies, Pacific, and California, collectively "CPMC Main," and St. Luke's) and six non-Sutter hospitals (Chinese Hospital, Laguna Honda Hospital and Rehabilitation Center, San Francisco General Hospital Medical Center, St. Francis Memorial Hospital, St. Mary's Medical Center-San Francisco, and University of San Francisco Medical Center).[181]

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[176] Chipty Decl. – ECF No. 494-1 at 49 (¶ 67).

[177] *Id.* at 51–52 (¶¶ 68–69).

[178] *Id.*

[179] *Id.* at 52–53 (¶ 70).

[180] *Id.* at 49–50 (¶ 67).

[181] *Id.* at 53–54 (¶ 72); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.

[182]

Between 95 and 98 percent of the non-Kaiser, commercially insured patients residing in the San Francisco HSA stay in the San Francisco HSA for inpatient hospital services, and the remaining three to four percent travel out of the San Francisco HSA for inpatient hospital services.[183] Dr. Chipty stated that the patients who stay in the San Francisco HSA drive an average of 16 minutes for their care and the patients who travel out of San Francisco HSA drive an average of 45 minutes for their care.[184]

3.3.2 Dr. Chipty's analyses

Dr. Chipty conducted a diversion analysis to ask where patients would go if CPMC Main and CPMC St. Luke's were removed from each patient's choice set.[185] She estimated that 65 percent of patients would go to another hospital inside the San Francisco HSA and that 35 percent of patients would go to a hospital outside the San Francisco HSA.[186] She then conducted an analysis to calculate the profit-maximizing price increase that a hypothetical monopolist could impose and estimated that a hypothetical monopolist that controlled all of the non-Kaiser hospitals in the San

[182] Chipty Decl. – ECF No. 494-1 at 55 (¶ 33).

[183] *Id.* (¶ 74) (95%/5%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (97.5%/2.5%).

[184] Chipty Decl. – ECF No. 494-1 at 55 (¶ 74).

[185] *Id.* at 56–58 (¶ 75).

[186] *Id.* at 51–52 (¶ 69).

Francisco HSA would find it profitable to raise CPMC Main's price by 13 percent over CPMC Main's actual prices from 2010 to 2012.[187]

3.4 The Santa Rosa HSA

3.4.1 Overview

The Santa Rosa HSA includes the city of Santa Rosa in Sonoma County, California. There are approximately 256,000 residents in the Santa Rosa HSA.[188] Excluding one Kaiser hospital, there are two hospitals in the Santa Rosa HSA: Sutter Santa Rosa Regional Hospital ("Sutter Santa Rosa") and one non-Sutter hospital, Santa Rosa Memorial Hospital.[189]

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Between 75 and 83 percent of the non-Kaiser, commercially insured patients residing in the Santa Rosa HSA stay in the Santa Rosa HSA for inpatient hospital services, and the remaining 17 to 25 percent travel out of the Santa Rosa HSA for inpatient hospital services.[191] Dr. Chipty stated

[187] *Id.* at 58–59 (¶ 76).

[188] *Id.* at 65 (¶ 84).

[189] *Id.* at 63 (¶ 83); Gowrisankaran Decl. Ex. 1A – ECF No. 272-3 at 60.

[190] Chipty Decl. – ECF No. 494-1 at 64 (¶ 83).

[191] *Id.* at 65 (¶ 84) (75%/25%); Gowrisankaran Decl. Fig. 5 – ECF No. 272-3 at 46 (82.7%/17.3%).

that the patients who stay in the Santa Rosa HSA drive an average of 20 minutes for their care and the patients who travel out of the Santa Rosa HSA drive an average of 67 minutes for their care.[192]

3.4.2 Dr. Chipty's analyses

Dr. Chipty conducted a diversion analysis to ask where patients would go if Sutter Santa Rosa were removed from each patient's choice set.[193] She estimated that 73 percent of patients would go to another hospital inside the Santa Rosa HSA and that 27 percent of patients would go to a hospital outside the Sutter Rosa HSA.[194] She then conducted an analysis to calculate the profit-maximizing price increase that a hypothetical monopolist could impose and estimated that a hypothetical monopolist that controlled all of the non-Kaiser hospitals in the Santa Rosa HSA would find it profitable to raise Sutter Santa Rosa's price between seven and ten percent over Sutter Santa Rosa's actual prices from 2010 to 2012.[195]

STANDARD OF REVIEW

The court must grant a motion for summary judgment if the movant shows that there is no genuine dispute as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247–48 (1986). Material facts are those that may affect the outcome of the case. *Anderson*, 477 U.S. at 248. A dispute about a material fact is genuine if there is sufficient evidence for a reasonable jury to return a verdict for the non-moving party. *Id.* at 248–49.

The party moving for summary judgment bears the initial burden of informing the court of the basis for the motion, and identifying portions of the pleadings, depositions, answers to interrogatories, admissions, or affidavits that demonstrate the absence of a triable issue of material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). To meet its burden, "the moving party must either produce evidence negating an essential element of the nonmoving party's claim or

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[192] Chipty Decl. – ECF No. 494-1 at 55 (¶ 74).

[193] *Id.* at 56–58 (¶ 75).

[194] *Id.* at 65–66 (¶ 85).

[195] *Id.* at 66 (¶ 86).

defense or show that the nonmoving party does not have enough evidence of an essential element to carry its ultimate burden of persuasion at trial." *Nissan Fire & Marine Ins. Co. v. Fritz Cos.*, 210 F.3d 1099, 1102 (9th Cir. 2000); *see Devereaux v. Abbey*, 263 F.3d 1070, 1076 (9th Cir. 2001) ("When the nonmoving party has the burden of proof at trial, the moving party need only point out 'that there is an absence of evidence to support the nonmoving party's case.'") (quoting *Celotex*, 477 U.S. at 325).

If the moving party meets its initial burden, then the burden shifts to the non-moving party to produce evidence supporting its claims or defenses. *Nissan Fire & Marine*, 210 F.3d at 1103. The non-moving party may not rest upon mere allegations or denials of the adverse party's evidence, but instead must produce admissible evidence that shows there is a genuine issue of material fact for trial. *See Devereaux*, 263 F.3d at 1076. If the non-moving party does not produce evidence to show a genuine issue of material fact, the moving party is entitled to summary judgment. *See Celotex*, 477 U.S. at 323.

In ruling on a motion for summary judgment, the court does not make credibility determinations or weigh conflicting evidence. Instead, it views the evidence in the light most favorable to the non-moving party and draws all factual inferences in the non-moving party's favor. *E.g.*, *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 587–88 (1986); *Ting v. United States*, 927 F.2d 1504, 1509 (9th Cir. 1991).

ANALYSIS

1. Framing the Issues

Before addressing the specifics of the parties' arguments, the court frames the issues relating to Sutter's limited motion for summary judgment.

First, as applied here to the product market of hospitals selling inpatient hospital services to health plans, the hypothetical-monopolist test for defining geographic markets focuses on the responses of health plans, as opposed to patients, to a price increase by hypothetical-monopolist hospitals.

Second, on this limited motion, the plaintiffs do not have to establish definitively that their Candidate Markets are in fact relevant geographic markets for antitrust purposes. In that vein, at this juncture, the plaintiffs do not need to exclude definitively all other possible geographic markets. If there is a dispute of material fact about whether the Candidate Markets could be relevant geographic markets, then the court must deny Sutter's summary-judgment motion.

Third, on this limited motion, there is no per se requirement that the plaintiffs present expert testimony or an econometric analysis in support of their Candidate Markets. If non-expert evidence raises a dispute of material fact, then the court must deny Sutter's summary-judgment motion.

The next sections address in more detail these three issues.

1.1 As Applied Here, the Hypothetical-Monopolist Test Focuses on How Health Plans, as Opposed to Patients, Would Respond to a Monopolist Hospital

As discussed above, the hypothetical-monopolist test for defining geographic markets "asks what would happen if a single firm became the only seller in a candidate geographical region." *Advocate Health*, 841 F.3d at 468 (citing *Whole Foods*, 548 F.3d at 1038). The test then asks whether that hypothetical monopolist could profitably impose a small but significant nontransitory increase in price, or whether consumers would respond to a SSNIP by buying the product from outside the proposed geographic region (i.e., by buying from a seller other than the hypothetical monopolist), thus making the hypothetical monopolist's SSNIP unprofitable. *St. Luke's*, 778 F.3d at 784.

Here, the consumers responding to a hypothetical-monopolist hospital's SSNIP are health plans, not the health-plan enrollees (i.e., patients), because health plans (not enrollees) directly pay the hospital's price increases. As the Third Circuit explained:

> Imagine that a hospital raised the cost of a procedure from $1,000 to $2,000. The patient who utilizes health insurance will still have the same out-of-pocket costs before and after the price increase. It is the insurer who will bear the immediate impact of that price increase. Not until the insurer passes that cost on to the patient in the form of higher premiums will the patient feel the impact of that price increase. And even then, the cost will be spread among many insured patients; it

> will not be felt solely by the patient who receives the higher-priced procedure. This is the commercial reality of the healthcare market as it exists today.

Penn State Hershey, 838 F.3d at 342; *see Brown Shoe*, 370 U.S. at 336 (geographic markets must "correspond to the commercial realities of the industry"). Thus, as the Ninth Circuit has recognized, because "the vast majority of health care consumers are not direct purchasers of health care — the consumers purchase health insurance and the insurance companies negotiate directly with the providers, the . . . correct[] focus[is] on the likely response of insurers to a hypothetical demand by all the [hospitals] in a particular market for a SSNIP." *St. Luke's*, 778 F.3d at 784 (internal quotation marks omitted); *see id.* at 784 n.10 (because patients are "largely insensitive" to price, antitrust analysis focuses on the interactions between hospitals and health plans, not hospitals and patients) (citing Vistnes, 67 Antitrust L.J. at 678, 681–82, 692). Citing the Ninth Circuit's decision in *St. Luke's*, the Third and Seventh Circuits similarly have held that "when we apply the hypothetical monopolist test, we must also do so through the lens of the insurers," *Penn State Hershey*, 838 F.3d at 342, and that "[t]he geographic market question is therefore most directly about 'the likely response of insurers,' not patients, to a price increase," *Advocate Health*, 841 F.3d at 471.[196]

[196] Sutter cites *ProMedica Health System, Inc. v. FTC*, 749 F.3d 559 (6th Cir. 2014), to argue that distinguishing between health plans versus patients as the relevant consumers is "an argument about semantics." Def. MSJ – ECF No. 272 at 16. *ProMedica* does not hold that distinguishing between health plans and patients is "semantics" in all contexts. That case involved a merger between two of the four hospital systems in Lucas County, Ohio: ProMedica and St. Luke's. *Id.* at 561. The FTC challenged the merger as adversely affecting competition in violation of the Clayton Act. *Id.* There was no dispute about the relevant geographic market. *Id.* at 565. Instead, the main issue was whether ProMedica had rebutted the presumption that the merger would affect competition adversely. *Id.* at 568 (noting that the merger resulted in a Herfindahl-Hirschman market-concentration index between 4,391 to 6,854, far above the threshold of 2,500 where a merger is presumed to be anticompetitive), 571–72 (addressing ProMedica's arguments that it rebutted the presumption). The Sixth Circuit noted that what was "more remarkable is what ProMedica does not argue. By way of background, the goal of antitrust law is to enhance consumer welfare. . . . But ProMedica did not even attempt to argue before the [Federal Trade] Commission, and does not attempt to argue here, that this merger would benefit consumers (as opposed to only the merging parties themselves) in any way. To the contrary, St. Luke's CEO admitted that a merger with ProMedica might 'harm the community by forcing higher rates on them.'" *Id.* at 571 (internal brackets omitted). ProMedica argued that the FTC erred in addressing whether the two merging hospitals were substitutes for each other from the perspective of patients, rather than health plans. *Id.* at 572. The Sixth Circuit rejected that argument as "an argument about semantics. [Health plans] assemble networks based primarily upon patients' preferences, not their own; and thus the extent to which an MCO regards ProMedica and St. Luke's as close substitutes

This is of course not to suggest that the response of patients is irrelevant. *Cf. id.* at 343. For example, "[i]n assessing the impact of dropping a hospital from its network . . ., a [health] plan must consider both how individual employees are likely to react and how the loss might affect the employer's willingness to offer that plan to its employees." Vistnes, 67 Antitrust L.J. at 678; *accord Advocate Health*, 841 F.3d at 475. But the response of health plans may not mirror the

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depends upon the extent to which the [health plan]'s members do." *Id.* But this statement does not mean that the Sixth Circuit endorsed a view that distinguishing between health plans and patients is "semantics" in all contexts, such as in the context of a hypothetical-monopolist test (a test the *ProMedica* court never addressed) to define a geographic market for hospitals' selling hospital services to health plans. Even if it were, this out-of-circuit pronouncement would not be controlling in light of the Ninth Circuit's more recent, binding opinion in *St. Luke's* on this issue.

It may be proper to focus on the response of patients, as opposed to health plans, in other contexts, such as in antitrust cases brought by medical providers alleging that they have been shut out of competing for patients. Sutter cites a number of these cases. Def. MSJ – ECF No. 272 at 15, 24–25. For example, one of the cases that Sutter cites, *Little Rock Cardiology Clinic PA v. Baptist Health*, 591 F.3d 591 (8th Cir. 2009), involved allegations by cardiologists that a large hospital system and a health plan conspired to shut them out from competing to attract patients to their clinic (instead of the hospitals). *Id.* at 597. In the context of the doctors' claims that they were shut out from competing for patients, it made sense to examine from where doctors draw their patients. *Id.* at 599; *see Stop & Shop Supermarket Co. v. Blue Cross & Blue Shield of R.I.*, 373 F.3d 57, 67 (1st Cir. 2004) ("the concern in an ordinary exclusive dealing claim by a shut-out supplier is with the available market *for the supplier*," as opposed to the buyer) (emphasis in original). Other cases that Sutter cites are similar. *See Gordon v. Lewistown Hosp.*, 423 F.3d 184, 198 (3d Cir. 2005) (ophthalmologist alleging that hospital attempted to prevent him from competing to obtain or retain patients); *Surgical Care Ctr. of Hammond, L.C. v. Hosp. Serv. Dist. No. 1*, 309 F.3d 836, 838 (5th Cir. 2002) (outpatient surgery clinic alleging that large hospital attempted to monopolize the outpatient-surgery market); *Minn. Ass'n of Nurse Anesthetists v. Unity Hosp.*, 208 F.3d 655, 658–59 (8th Cir. 2000) (nurse anesthetists alleging that hospitals and doctors conspired to shut them out of competing with doctor anesthesiologists); *Doctor's Hosp. of Jefferson, Inc. v. Se. Med. All., Inc.*, 123 F.3d 301, 304 (5th Cir. 1997) (hospital alleging that rival hospital and health plan conspired to monopolize the hospital market); *Novak v. Somerset Hosp.*, 625 F. App'x 65, 67 (3d Cir. 2015) (surgeon alleging that hospital terminated his privileges to perform surgery on patients at the hospital); *Brown v. Our Lady of Lourdes Med. Ctr.*, 767 F. Supp. 618, 620 (D.N.J. 1991) (cardiothoracic surgeon alleging that hospital denied him medical-staff privileges).

None of those medical-provider shut-out cases addresses the hypothetical-monopolist test. And this is not a medical-provider shut-out case. The Ninth Circuit has recognized that competition between medical providers to be included as in-network providers in health plans is a separate stage of competition than competition between medical providers to attract patients. *St. Luke's*, 778 F.3d at 784 n.10 ("This 'two-stage model' of health care competition is 'the accepted model.' In the first stage, providers compete for inclusion in insurance plans. In the second stage, providers seek to attract patients enrolled in the plans.") (citing John J. Miles, 1 Health Care & Antitrust L. § 1:5 (2014); Vistnes, 67 Antitrust L.J. at 674, 681–82); *accord* Gowrisankaran Decl. – ECF No. 272-3 at 14–16 (¶¶ 19–22) (Sutter's expert agreeing these stages of competition are different). With respect to negotiations between medical providers and health plans and the hypothetical-monopolist test, the focus is on the response of health plans, as opposed to patients. *St. Luke's*, 778 F.3d at 784 & n.10; *accord Advocate Health*, 841 F.3d at 471; *Penn State Hershey*, 838 F.3d at 342.

response of patients, which is why the Ninth Circuit (and the Third and Seventh Circuits) distinguish between the two. For example, if health plans believe — rightly or wrongly — that their potential customer base would react negatively to their dropping a hospital from their networks, they might respond to the hospital's imposing a SSNIP by paying the price increase. That response might satisfy the hypothetical-monopolist test regardless of whether the belief that drove them to pay the price increase ultimately was inaccurate or misguided in some way. Thus, courts distinguish the responses, and it is the latter response — the response of health plans — that is the focus of the hypothetical-monopolist test here.

1.2 At Summary Judgment, the Plaintiffs Do Not Have to Establish Definitively That Their Candidate Markets Are Relevant Geographic Markets or Exclude All Other Possible Geographic Markets

Defining the relevant geographic markets is generally a question for the jury. *Newcal*, 513 F.3d at 1045 ("the validity of the 'relevant market' is typically a factual element rather than a legal element") (citing *High Tech. Careers v. San Jose Mercury News*, 996 F.2d 987, 990 (9th Cir. 1993)); *Dooley v. Crab Boat Owners Ass'n*, No. C 02-0676 MHP, 2004 WL 902361, at *9 (N.D. Cal. Apr. 26, 2004) ("The definition of the relevant market — both product and geographic — is generally a question of fact reserved for the jury.") (citing *High Tech. Careers*, 996 F.2d at 990; *Oahu Gas Serv., Inc. v. Pac. Res. Inc.*, 838 F.2d 360, 363 (9th Cir. 1988)).

The plaintiffs bear the ultimate burden of defining the relevant geographic markets. *St. Luke's*, 778 F.3d at 784 (citing *Conn. Nat'l Bank*, 418 U.S. at 669–70). On a motion for summary judgment, "[i]f the [plaintiff]'s evidence cannot sustain a jury verdict on the issue of market definition, summary judgment is appropriate." *Rebel Oil*, 51 F.3d at 1435.

On a summary-judgment motion, the court must view the evidence and draw all inferences with respect to defining the relevant geographic market in the light most favorable to the non-moving party. *Rebel Oil*, 51 F.3d at 1435 (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249–52 (1986)); *County of Tuolumne v. Sonora Cmty. Hosp.*, 236 F.3d 1148, 1159 & n.9 (9th Cir. 2001) (citing *Anderson*, 477 U.S. at 250). "While the [plaintiff] bear[s] the burden of demonstrating a relevant market at trial, [the moving party] has the burden on summary judgment of demonstrating that there is no genuine issue of material fact." *Hynix Semiconductor Inc. v.*

Rambus Inc., No. CV-00-20905 RMW, 2008 WL 73689, at *9 (N.D. Cal. Jan. 5, 2008). If there is a dispute of material fact regarding the proper geographic markets, summary judgment must be denied.

At summary judgment, the plaintiffs do not need to establish definitively that their Candidate Markets are relevant geographic markets for antitrust purposes. It is enough to raise a dispute of material fact about whether their Candidate Markets could be relevant geographic markets to overcome a summary-judgment motion. In that vein, at summary judgment, the plaintiffs do not need to exclude definitively all other possible relevant geographic markets. The fact that the plaintiffs might not have foreclosed all other possible geographic-market definitions does not mean that they have failed to raise a dispute of material fact regarding their Candidate Markets and does not, without more, entitle Sutter to summary judgment.[197]

1.3 At Summary Judgment, There Is No Per Se Requirement for the Plaintiffs to Present Expert Testimony or an Econometric Analysis in Support of Their Candidate Markets

Sutter argues that "courts routinely hold that 'construction of the relevant market and a showing of monopoly power must be based on expert testimony,'" citing an Eleventh Circuit case, *Bailey v. Allgas, Inc.*, 284 F.3d 1237, 1246 (11th Cir. 2002).[198] Sutter has not identified any court in the Ninth Circuit that has held that a plaintiff must base its market definition on expert testimony to withstand summary judgment.[199] *Cf. AFMS LLC v. United Parcel Serv., Inc.*, 696 F.

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[197] The court expresses no opinion here as to whether the plaintiffs must exclude other possible geographic markets to prevail at trial. It holds only that the plaintiffs need not do so at summary judgment.

[198] Def. MSJ Reply – ECF No. 436 at 15 (internal brackets omitted); Hr'g Tr. – ECF No. 611 at 48 (Sutter arguing that "the case law is clear that a plaintiff must have expert testimony to support its antitrust markets").

[199] Hr'g Tr. – ECF No. 611 at 137. Sutter points to *Hammer v. Clear Channel Communications (In re Live Concert Antitrust Litigation)*, 863 F. Supp. 2d 966 (C.D. Cal. 2012) (cited by Def. MSJ Reply – ECF No. 436 at 17; Hr'g Tr. – ECF No. 611 at 139), but that case is inapposite. In that case, the plaintiffs relied solely on their expert to provide an evidentiary basis for their product (not geographic) market definition. *See Live Concert*, 863 F. Supp. 2d at 1000 ("Plaintiffs do not argue . . . that there is an adequate evidentiary basis in the record, absent [their expert's] testimony, for a jury to find that Plaintiffs have defined an economically significant product market."). The court excluded the plaintiffs' expert, and then granted the defendants partial summary judgment because the plaintiffs offered no evidence besides their expert in support of their market definition. *Id.* But that case does not stand for the principle that plaintiffs must always base their market definition on expert testimony if —

App'x 293, 294 (9th Cir. 2017) (Nguyen, J., concurring in the result) ("AFMS was not required, as the district court suggested, to provide expert testimony regarding the relevant market.") (citing *United States v. Pabst Brewing Co.*, 384 U.S. 546, 549 (1966) ("Certainly the failure of the Government to prove by an army of expert witnesses what constitutes a relevant 'economic' or 'geographic' market is not an adequate ground on which to dismiss a [Clayton Act § 7] case.")); *see also Semiconductor Inc. v. Rambus Inc.*, No. CV-00-20905 RMW, 2008 WL 73689, at *10 n.13 (N.D. Cal. Jan. 5, 2008) (describing the Eleventh Circuit as having "gone farther" than the Ninth Circuit in holding that construction of the relevant market must be based on expert testimony).

To the contrary, in *St. Luke's*, for example, the Ninth Circuit focused on testimony from health-industry participants — about how health plans had to include Nampa-based primary-care physicians ("PCPs") in their network in order for their health-insurance products to be marketable to Nampa residents — to affirm the trial-court finding that Nampa was a geographic market. *See St. Luke's*, 778 F.3d at 785 ("Evidence was presented that insurers generally need local PCPs to market a health care plan, and that this is true in particular in the Nampa market. For example, Blue Cross of Idaho has PCPs in every zip code in which it has customers, and the executive director of the Idaho Physicians Network testified that it could not market a health care network in Nampa that did not include Nampa PCPs.");[200] *accord Penn State Hershey*, 838 F.3d at 345–46 (similarly focusing on testimony from health plans about which hospitals they needed to include in network in order for their health-insurance products to be marketable, as opposed to expert testimony, to define a geographic market); *see also* Areeda & Hovenkamp ¶ 538 ("The profitability of a hypothetical increase in the price of a hypothetical monopolist of product A depends, of course, on the reactions of customers and of other suppliers. To predict those reactions

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unlike the *Live Concert* plaintiffs — the plaintiffs also have non-expert evidence that supports their market definition.

[200] The Ninth Circuit cited expert testimony for the general precept that patients are insensitive to physicians' raising their prices because they pay only a small percentage of their physicians' prices out of pocket. *St. Luke's*, 778 F.3d at 785. In applying the hypothetical-monopolist test to determine how health plans would react to a price increase, however, it cited the testimony of industry participants, not experts. *Id.*

and their impact on the hypothetical monopolist's profitability, we look to[, among other things,] testimony by customers or alternative suppliers of how they would respond to the hypothetical price increase."). To take another counterexample, in a case from this district involving antitrust claims relating to crab fishing, the court held on a motion for summary judgment that (non-expert) declarations by the plaintiff fisherman and a third-party seafood buyer that consumers prefer San Francisco crab to other crab were sufficient to raise a genuine dispute of material fact as to whether the relevant geographic market for the crab product market should be defined as being the San Francisco Bay Area. *Dooley*, 2004 WL 902361, at *10.[201]

In the absence of any Ninth Circuit authority holding that a geographic-market definition must be based on expert testimony, the court does not adopt that rule here. *Cf. Lantec, Inc. v. Novell, Inc.*, 146 F. Supp. 2d 1140, 1148 (D. Utah 2001) ("The absence of expert testimony on the issue of relevant market and like issues is not, per se, fatal to a plaintiff's antitrust claims. In other words, expert testimony is not required, but in its absence a plaintiff must show by other evidence sufficient facts from which a jury could infer market share, market power, relevant market, monopolization, dangerous probability of monopolization, and the like.") (citing *Gen. Indus. Corp. v. Hartz Mountain Corp.*, 810 F.2d 795, 806 (8th Cir. 1987)), *aff'd*, 306 F.3d 1003 (10th Cir. 2002); *accord* Areeda & Hovenkamp ¶ 531f ("Courts have disagreed about whether expert testimony is necessary to establish a relevant market. We do not believe a categorical rule is necessary.").[202]

[201] Additionally, even where parties rely on expert opinion to support their market definitions, there is no requirement that the expert conduct an econometric analysis, as opposed to basing the expert opinion on other facts. *In re Apple iPod iTunes Antitrust Litig.*, No. 05-CV-0037 YGR, 2014 WL 4809288, at *7 (N.D. Cal. Sept. 26, 2014) (denying defendant's motion to exclude an expert opinion on market definition that was based on "internal Apple documents, employee testimony, and discovery responses, third-party information such as contemporaneous financial analysis and press coverage . . ., and his own experience," and holding that the defendant's argument that an expert opinion on market definitions must be based on an econometric analysis "lacks legal support").

[202] The court does not suggest that non-expert declarations are sufficient in all instances to raise a genuine dispute of material fact regarding geographic market-definitions on a summary-judgment motion. *Cf. Morgan, Strand, Wheeler & Biggs*, 924 F.2d at 1490 (defining geographic markets can be a "highly technical economic question"). But it also is not the case that non-expert evidence is per se insufficient to raise a genuine dispute of material fact.

2. Selecting Initial Candidate Markets for the Hypothetical-Monopolist Test

The parties agree that the hypothetical-monopolist test is the "well-established test," and neither argues that any other test should be used here to define the relevant geographic markets.[203] The parties also agree that the hypothetical-monopolist test begins by selecting at an initial "candidate" geographic market.[204]

The parties disagree about the initial candidate markets. The plaintiffs argue that their HSA-based Candidate Markets are appropriate initial candidate markets.[205] Sutter argues that HSAs are not appropriate initial candidate markets.[206] Sutter does not propose appropriate initial candidate markets, other than to suggest "a wide variety of other markets, counties or regions, or just looking at maps."[207] Sutter does not offer a methodology for determining whether a given geographic market is an appropriate initial candidate market.

As noted above, defining the relevant markets is typically a question of fact. Absent a showing that the plaintiffs may not use HSA-based markets as initial candidate markets as a matter of law — a showing that Sutter has not made here[208] — the question of what initial candidate markets to use in the hypothetical-monopolist test to define the relevant geographic market is a question of fact. On a summary-judgment motion, all inferences must be drawn in the non-moving party's favor, and thus at this juncture, the court adopts the plaintiffs' approach of using their HSA-based

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[203] Def. MSJ – ECF No. 272 at 14–15; Pls. MSJ Opp'n – ECF No. 494 at 25; Hr'g Tr. – ECF No. 611 at 125–26.

[204] Hr'g Tr. – ECF No. 622 at 7–8; *see Advocate Health*, 841 F.3d at 473 ("[T]he hypothetical monopolist test is an iterative analysis. The analyst proposes a candidate market, simulates a monopolization of that market, then adjusts the candidate market and reruns the simulation as necessary.").

[205] *See* Pls. Mot. to Exclude Chipty Opp'n – ECF No. 479 at 11; Hr'g Tr. – ECF No. 622 at 7–8.

[206] Hr'g Tr. – ECF No. 622 at 8–9.

[207] *Id.* at 8.

[208] Sutter argues that the plaintiffs are starting with initial candidate markets "that we've now pretty much all agreed were not created with antitrust geographic markets in mind[.]" *Id.* at 8; *see also* Def. MSJ – ECF No. 272 at 7–8 ("HSAs were not constructed for antitrust purposes or with hospital competition in mind."). But Sutter has not identified *any* proposed initial candidate markets that were constructed with antitrust geographic markets in mind. Other courts have defined geographic markets in terms of cities, counties, etc., which were no more created with antitrust geographic markets in mind than were HSAs.

Candidate Markets as initial candidate markets for the purposes of the hypothetical-monopolist test.[209]

3. The Candidate Tying Markets

In six of the seven Candidate Tying Markets (the Antioch, Auburn, Crescent City, Jackson, Lakeport, and Tracy HSAs), there is only one non-Kaiser hospital (Sutter Delta, Sutter Auburn, Sutter Coast, Sutter Amador, Sutter Lakeside, and Sutter Tracy, respectively). Using the Candidate Tying Markets as initial candidate markets, the hypothetical-monopolist test for each candidate market is this: if the Sutter hospital in that candidate market imposed a SSNIP, would health plans respond by (1) paying the Sutter hospital's price increases (thereby keeping it in network) or

[209] It is worth noting that Sutter is not complaining that that the plaintiffs' Candidate Markets are too broad. An initial candidate market might pass the hypothetical-monopolist test despite being too broad. (For example, an initial candidate market of the entire United States would pass the hypothetical-monopolist test because if a hypothetical monopolist controlled every hospital in the United States and imposed a SSNIP, health plans would respond by paying it instead of buying hospital services only from hospitals outside the market (i.e., hospitals in other countries). But this would not exclude the possibility that that candidate market is too broad to be a properly defined relevant geographic market.) Instead, Sutter is complaining that the plaintiffs' initial candidate markets are too narrow. *See* Def. MSJ – ECF No. 272 at 22–23 (arguing that geographic markets should be larger than HSAs), 26 ("the proffered HSAs are too narrow to constitute relevant geographic markets"). The hypothetical-monopolist test accounts for the scenario where initial candidate markets are too narrow: if the candidate market is too narrow and buyers thus would turn to alternate sellers outside of the candidate market, broaden the candidate market to include those alternate sellers and rerun the test. *Advocate Health*, 841 F.3d at 468; *accord St. Luke's*, 778 F.3d at 784. If buyers would not turn to alternate sellers outside of the candidate market, that does not mean that the initial candidate market was too narrow. Indeed, it may mean the opposite.

Sutter cites *Little Rock Cardiology*, 591 F.3d 591, in which the Eighth Circuit cautioned against plaintiffs delineating arbitrarily narrow geographic markets. Def. MSJ Reply – ECF No. 436 at 10–11. As discussed above, *Little Rock Cardiology* was a medical-provider shut-out case, which does not present its issues in the same context as this case. *See supra* note 196. The *Little Rock Cardiology* court looked to the response of patients (not health plans) and did not address the hypothetical-monopolist test (which accounts for the scenario where initial candidate markets are too narrow).

Sutter also claims that the asserted geographic markets in the Third Circuit's *Penn State Hershey* case and the Seventh Circuit's *Advocate Health* case spanned eleven and nine HSAs, respectively, to suggest that HSA-based markets are too narrow to be relevant geographic markets for antitrust purposes. Def. MSJ – ECF No. 272 at 22. Sutter conspicuously does not address the Ninth Circuit's *St. Luke's* case and does not say whether the geographic market there — the city of Nampa, Idaho — supports its theory that geographic markets should be broader than a single HSA. *See id.*

(2) refusing to pay the Sutter hospital's price increases (thereby rendering it out of network) and instead buying from other hospitals?[210]

In the seventh Candidate Tying Market, the combined Berkeley-Oakland HSA, there are Sutter hospitals (the Sutter Alta Bates campuses) and one non-Sutter, non-Kaiser hospital (Alameda County Medical Center). Using the combined Berkeley-Oakland HSA as an initial candidate market, the hypothetical-monopolist test reduces to the following: if a single firm controlled Sutter Alta Bates and Alameda County Medical Center and imposed a SSNIP at those hospitals, would health plans respond by (1) paying the price increases (thereby keeping the hospitals in network) or (2) refusing to pay the price increases (thereby rendering the hospitals out of network) and instead buying from other hospitals? If health plans would pay the hospitals' price increases, the proposed candidate markets are geographic markets for antitrust purposes.

The Blue Shield Redirection Analysis, the application of the Knox-Keene Act, and other evidence from health plans and from Sutter raise disputes of material fact about whether, if hypothetical-monopolist hospitals in the Candidate Tying Markets imposed a SSNIP, health plans would respond by paying the price increases. They thus raise disputes of material fact as to whether the hypothetical-monopolist test is satisfied and, therefore, whether the plaintiffs' Candidate Tying Markets are geographic markets for antitrust purposes.[211]

3.1.1 Blue Shield redirection analysis

Blue Shield's Director of Provider Contracting for Northern California testified that Blue Shield conducts redirection analyses when its agreements with Sutter come up for renewal, specifically to assess "okay, if Sutter's out of network, what can be redirected elsewhere, what are

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[210] As discussed above, the parties agree to exclude Kaiser hospitals for the purposes of this summary-judgment motion. *See supra* note 50. In any event, it is not clear that including Kaiser hospitals would substantially change the outcome. The hypothetical-monopolist test requires one to assume that a single firm becomes the only seller in the candidate market and imposed a SSNIP, so if the Kaiser hospital were included, the hypothetical-monopolist test would require one to assume that the SSNIP-imposing hypothetical monopolist controlled the Kaiser hospital, in addition to the Sutter hospital.

[211] Because this non-expert evidence raises disputes of material fact with respect to the Candidate Tying Markets, the court does not address whether Dr. Chipty's report also raises disputes of material fact. The court denies as moot Sutter's motion to exclude Dr. Chipty's opinions regarding the Candidate Tying Markets.

their alternatives, what our cost implications are."[212] The Blue Shield Redirection Analysis conducted in 2014 estimated that if Sutter were to go out of network, [redacted] percent of Blue Shield enrollees that use the Sutter hospitals in the Candidate Tying Markets would not be willing to use other hospitals.[213] A former Blue Shield Senior Vice President said in a sworn declaration that "providing broad geographic coverage for members is important. In addition, certain Sutter hospitals and physician groups are 'must have' providers because particular Blue Shield customers insist that they be included in the network."[214] The former Senior Vice President further attested that Sutter's "leveraging of its market position in multiple counties (where they are dominant) to demand higher rates across the board has forced Blue Shield to accept Sutter's significantly higher pricing."[215]

This raises a dispute of material fact about whether, if a hypothetical monopolist that controlled all of the hospitals in each of the respective Candidate Tying Markets (i.e., the Sutter hospitals) imposed a SSNIP, health plans like Blue Shield would pay those price increases (rather than refusing to pay and losing those hospitals from their networks, and thereby running the risk that a significant percentage of enrollees might in turn stop buying their health-insurance products because they no longer offered their hospitals-of-choice as in-network providers). And if there is a dispute of material fact about whether buyers (i.e., health plans like Blue Shield) would pay a hypothetical monopolist's price increases, then there is a dispute of material fact about whether the hypothetical-monopolist test is satisfied and thus whether the Candidate Tying Markets are geographic markets for antitrust purposes.

Sutter argues that there was "nothing scientific" about the Blue Shield Redirection Analysis and that it was a "back-of-the-envelope product" that was "not the result of the sort of economic

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[212] Barnes Dep. – ECF Nos. 469-2 at 12 (under seal), 493 at 12 (redacted version) (p. 426).

[213] Blue Shield Redirection Analysis – ECF Nos. 469-2 at 62–63 (under seal), 493 at 62–63 (redacted version) (BSC_SutterSub00037814).

[214] Joyner Decl. – ECF No. 497 at 8 (¶ 21).

[215] *Id.* at 19 (¶¶ 58–59) (internal brackets and some internal quotation marks omitted).

rigor that a court would expect to see [from an expert witness]."[216] Sutter argues that the Blue Shield network-management team "provided the hospital redirection numbers, adjusting them if the team thought they were 'too much' or 'not enough'" and "[w]hen determining how many patients would move from one hospital to another, Blue Shield was 'just looking at assumptions,' not 'any numbers,' admission patterns, or data, and there 'was no testing' of the assumptions on which it relied."[217] Sutter argues that the Blue Shield Redirection Analysis does not accurately describe how Blue Shield enrollees would in fact react to Sutter's hospitals going out of network and that one of Blue Shield's customers criticized the Redirection Analysis as "relying on 'assumptions in some regions [that] did not make sense'" and as being "in need of reworking."[218] Sutter argues that "far from being an unbiased, scientific exercise, the Redirection Analysis was 'one of the levers' Blue Shield used to determine the plan designs it wanted to sell."[219] Sutter argues that more Blue Shield enrollees might be willing to be redirected to other non-Sutter hospitals than the Redirection Analysis estimated.[220]

Sutter's arguments attacking the accuracy or reliability of the Redirection Analysis are misplaced on this narrow motion for summary judgment. As discussed above, the hypothetical-monopolist test focuses not on how patients would respond to a hypothetical-monopolist hospital's imposing a SSNIP but on how health plans would respond. *St. Luke's*, 778 F.3d at 784 & n.10; *accord Advocate Health*, 841 F.3d at 471; *Penn State Hershey*, 838 F.3d at 342. The hypothetical-monopolist test thus does not solely turn on whether [redacted] percent of Blue Shield enrollees who use the Sutter hospitals could not be redirected to other hospitals (as the Blue Shield Redirection Analysis estimated). What the test might turn on is whether Blue Shield concluded that [redacted] percent of its enrollees could not be redirected, and thus would respond by paying a price increase to keep those hospitals in network. Blue Shield conducted these redirection analyses

[216] Def. MSJ Reply – ECF No. 436 at 14; Def. Mot. to Exclude Chipty – ECF No. 503 at 9.
[217] Def. Mot. to Exclude Chipty – ECF No. 503 at 14 (citations omitted).
[218] *Id.* at 14–15 (citations omitted).
[219] *Id.* (citations omitted).
[220] *See id.* at 15 (citations omitted).

to determine the repercussions of its terminating its agreement with Sutter. Sutter's arguments — that the Blue Shield Redirection Analysis's estimates were unscientific, based on unverifiable assumptions, contradicted by other analyses, or just plain wrong — do not demonstrate an absence of material fact about whether Blue Shield concluded from those estimates that it could not afford to terminate its agreement with Sutter and thus would pay a price increase rather than lose Sutter hospitals from its network.

Sutter also argues that the Redirection Analysis conflicts with Blue Shield's real-world experience with narrower provider networks and Blue Shield's representations to California regulators about what substitute hospitals were available.[221] Sutter cites to the district-court decision in *Advocate Health* and argues that there, "the district court 'shared some of defendants' concerns about the credibility of the insurers' testimony, which may indeed be self-serving,' but set those concerns aside because that 'there [wa]s no inconsistency in the insurers' testimony,"[222] whereas here, by contrast, "the inconsistency of Blue Shield's own positions regarding substitutable hospitals is overwhelming, and the record as a whole contradicts the redirection analysis."[223]

This argument is misplaced on this narrow motion for summary judgment. *Advocate Health* was before the court on a preliminary-injunction motion, where the court had to weigh the evidence to determine the likelihood of the plaintiff's success on the merits. This is a summary-judgment motion, where the court does not weigh evidence and instead draws all inferences in the non-moving party's favor. Contradictions in Blue Shield's positions at most raise disputes of fact. They do not provide a basis for discounting the Blue Shield Redirection Analysis, much less for granting Sutter summary judgment.

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[221] Def. Mot. to Exclude Chipty – ECF No. 409-3 at 15–17 (under seal), 503 at 15–17 (redacted version) (citations omitted); Def. MSJ Reply – ECF No. 436 at 14.

[222] Def. Mot. to Exclude Chipty – ECF No. 503 at 24 (internal brackets omitted) (quoting *FTC v. Advocate Health Care*, No. 15 C 11473, 2017 WL 1022015, at *5 (N.D. Ill. Mar. 16, 2017)).

[223] *Id.*

For each of the Candidate Tying Markets, the Blue Shield Redirection Analysis raises disputes of material fact as to whether the hypothetical-monopolist test is satisfied, and thus, whether the Candidate Tying Markets are geographic markets for antitrust purposes.

3.1.2 Knox-Keene Act

A former Blue Shield Senior Vice President stated in a sworn declaration that if a Blue Shield enrollee "liv[es] in a rural area of Northern California, and the only hospital within 30 minutes or 15 miles of his residence or workplace was a Sutter hospital, the [Knox-Keene Act] mandates that Sutter's hospital be included in the network."[224]

Sutter's expert Dr. Gowrisankaran stated that for the patients discharged from Sutter Delta, Sutter Auburn, Sutter Coast, Sutter Amador, and Sutter Lakeside, 49 to 100 percent of them do not live within a 30-minute drive of another non-Kaiser hospital. Additionally, the DMHC sent Blue Shield notices that it effectively had to keep Sutter Delta, Sutter Coast, Sutter Amador, and Sutter Lakeside in network for certain hospital services because there were no other alternative hospitals available that complied with Knox-Keene Act requirements. This raises a dispute of material fact as to whether, if a hypothetical monopolist that controlled all of the hospitals in the Antioch, Auburn, Crescent City, Jackson, and Lakeport HSAs (i.e., Sutter Delta, Sutter Auburn, Sutter Coast, Sutter Amador, and Sutter Lakeside) imposed a SSNIP, health plans would pay those price increases (rather than refusing to pay and losing those hospitals from their networks, and thereby losing a significant portion of that potential-enrollee customer base because they would no longer have Knox-Keene Act compliant hospitals to offer). And if there is a dispute of material fact about whether buyers (i.e., health plans) would pay a hypothetical monopolist's price increases, then there is a dispute of material fact about whether the hypothetical-monopolist test is satisfied and thus whether the Antioch, Auburn, Crescent City, Jackson, and Lakeport HSAs are geographic markets for antitrust purposes.

[224] Joyner Decl. – ECF No. 497 at 7 (¶ 20).

Sutter argues that the Knox-Keene Act 30-minute regulations are only "presumptively reasonable standards" and that "health plans can comply with California's reasonable accessibility requirements after taking into account a range of other factors, including whether the community is rural or urban."[225] Again, Sutter's argument is misplaced on this narrow motion for summary judgment. Whether health plans might have exceptions to the Knox-Keene Act 30-minute requirement that might be applicable in certain situations does not demonstrate an absence of material fact about whether health plans understood that the Knox-Keene Act generally would bar them from being able to sell health-insurance products to a significant percentage of their customer bases.

Sutter also argues that several of its hospitals are within a 30-minute drive of a non-Sutter hospital.[226] But the Knox-Keene Act does not require health plans to offer in-network hospitals within a 30-minute drive of other hospitals; it requires them to offer in-network hospitals within a 30-minute drive of their enrollees. The fact that a non-Sutter hospital may be within a 30-minute drive of a Sutter hospital does not mean that the non-Sutter hospital is within a 30-minute drive of the enrollees who currently use that Sutter hospital.[227]

For the Antioch, Auburn, Crescent City, Jackson, and Lakeport HSAs, the application of the Knox-Keene Act raises a dispute of material fact as to whether the hypothetical-monopolist test is satisfied, and thus, whether the Antioch, Auburn, Crescent City, Jackson, and Lakeport HSAs are geographic markets for antitrust purposes.

3.1.3 Other evidence

According to the UnitedHealthcare Email, UnitedHealthcare's Director of Provider Services for Northern California believed that Sutter had monopolies in a number of submarkets, including

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[225] Def. MSJ Reply – ECF No. 436 at 16.

[226] Def. MSJ – ECF No. 272 at 23–24; Def. MSJ Reply – ECF No. 436 at 16; *see also, e.g.*, Gowrisankaran Decl. Ex. 7 – ECF No. 272-3 at 67 (stating that there are four hospitals within a 30-minute drive of Sutter Delta).

[227] For example, that there might be a non-Sutter hospital 30 minutes east of a particular Sutter hospital does not mean that the non-Sutter hospital is within a 30-minute drive of the enrollees who currently use that Sutter hospital, such as enrollees who live to the west of the Sutter hospital.

Auburn, Amador, Tracy, Antioch, Berkeley, Oakland, and Clearlake, and that it was "not feasible" to present a health-maintenance-organization or fee-for-service insurance network that did not include Sutter.[228] This raises a dispute of material fact as to whether, if a hypothetical monopolist that controlled all hospitals in the Antioch, Auburn, Jackson, Lakeport, Tracy, and combined Berkeley-Oakland HSAs (i.e., Sutter Delta, Sutter Auburn, Sutter Amador, Sutter Lakeside, Sutter Tracy, and Sutter Alta Bates) imposed a SSNIP, health plans like UnitedHealthcare would pay those price increases (rather than refusing to pay and losing those hospitals from their networks).

Aetna's Vice President for Network Management in Northern California testified that "there are some rural hospitals where Sutter hospitals are really it for a given area," including Sutter Alta Bates, Sutter Amador, Sutter Auburn, Sutter Lakeside, and Sutter Coast, and that such hospitals were "really the must-have from a marketability or a member perception standpoint."[229] This raises a dispute of material fact as to whether, if a hypothetical monopolist that controlled all hospitals in the Auburn, Crescent City, Jackson, Lakeport, and combined Berkeley-Oakland HSAs (i.e., Sutter Auburn, Sutter Coast, Sutter Amador, Sutter Lakeside, and Sutter Alta Bates) were to impose a SSNIP, health plans like Aetna would pay those price increases, rather than refusing to pay and losing those hospitals from their networks.

The Sutter Model Amendment designated Sutter Amador, Sutter Coast, and Sutter Lakeside as "rural hospitals," which Sutter's Chief Contracting Officer testified meant a hospital "that in all practical reality was the hospital, the local hospital in that community, typically a more rural community[that d]oesn't have other hospitals in the local vicinity."[230] The Sutter Blue Cross Amendment similarly designated Sutter Amador, Sutter Coast, and Sutter Lakeside as "Rural Hospitals," defined as a designation for a hospital "which acts as the sole practical resource for

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[228] UnitedHealthcare Email – ECF No. 311-20 at 2 (under seal) (UHC-00134453).

[229] Welsh Dep. – ECF No. 311-5 at 7–8 (under seal) (pp. 196–97).

[230] Brendt Dep. – ECF Nos. 313-3 at 86, 91–92, 99–100, 102, 104 (under seal), 494-17 at 86, 91–92, 99–100, 102, 104 (redacted version) (pp. 184, 189–90, 197–98, 200, 202); Sutter Model Amendment – ECF Nos. 313-3 at 8, 34, 36 (under seal), 494-17 at 8, 34, 36 (redacted version) (DEF007581579, DEF007581605, DEF007581607).

acute care and emergency care within the rural community it serves, and the next closest facility is at least 30 miles away[.]"[231] Anthem's former Director of Network Development for Northern California and Vice President of Provider Engagement and Contracting for California agreed that these hospitals were "essentially the only game in town" in their rural areas.[232] This raises a dispute of material fact as to whether, if a hypothetical monopolist that controlled all hospitals in the Crescent City, Jackson, and Lakeport HSAs (i.e., Sutter Coast, Sutter Amador, and Sutter Lakeside) imposed a SSNIP, health plans would pay those price increases (rather than refusing to pay and losing those hospitals from their networks).

Sutter argues that "[o]ffhand comments that certain Sutter hospitals are 'monopolies' or 'must have hospitals' say nothing of the actual boundaries of a market, which could just as readily be a multi-county area or a two-block radius of the hospital as an HSA."[233] But on a summary-judgment motion, that this evidence might also support other geographic-market definitions does not demonstrate an absence of material fact about the plaintiffs' Candidate Markets. The Supreme Court has recognized that "[a]n element of 'fuzziness would seem inherent in any attempt to delineate the relevant geographical market,'" *Conn. Nat'l Bank*, 418 U.S. at 669, and thus the boundaries of a relevant geographic market "need not . . . be defined with scientific precision," *id.*, or "by metes and bounds as a surveyor would lay off a plot of ground," *Pabst Brewing Co.*, 384 U.S. at 549. As Sutter's expert Dr. Gowrisankaran testified, "[a] market analysis does not always yield only one market definition that is accurate. It might yield a couple of different market definitions that could each be plausible."[234] That the plaintiffs' evidence might not foreclose all other possible geographic-market definitions does not mean that it fails to raise a dispute of

[231] Sutter Blue Cross Amendment – ECF Nos. 311-10 at 8, 37, 39, 41, 43 (under seal), 494-5 at 8, 37, 39, 41, 43 (redacted version) (DEF000097801, DEF000097830, DEF000097832, DEF000097834, DEF000097836).

[232] Ramseier Dep. – ECF No. 311-9 at 6 (under seal) (p. 139).

[233] Def. Mot. to Exclude Chipty Reply – ECF No. 467 at 11.

[234] Gowrisankaran Dep. – ECF No. 311-4 at 14 (under seal).

material fact in support of the plaintiffs' Candidate Markets and does not entitle Sutter to summary judgment.[235]

* * *

There are disputes of material fact about whether the plaintiffs can establish that the Candidate Tying Markets are geographic markets for antitrust purposes. The court denies Sutter's motion for summary judgment with respect to the Candidate Tying Markets.

[235] In his deposition testimony, Dr. Gowrisankaran raised the prospect of whether, in the context of a product market of hospitals selling inpatient hospital services to health plans, geographic markets can be defined as a set of sellers in a geographic region — i.e., that the market can be defined by listing what hospitals are part of the market and what hospitals are outside of it — rather than by trying to draw precise "metes and bounds" on a map. Dr. Gowrisankaran testified that the courts in *Advocate Health* defined their geographic market solely by specifying which hospitals were inside the market and which hospitals were outside and did not define the precise boundaries of the market. Gowrisankaran Dep. – ECF No. 311-4 at 34–35 (pp. 237–38) (under seal) ("[W]hat the courts accepted in this case was not the geographic markets that I've outlined there in the shape files. . . . Rather what they accepted is that, or what they stipulated was that the following hospitals are in the geographic market. . . . There w[ere] no precise geographic boundaries for which — which residents lived inside the market. There were precise boundaries for — there are precise definitions of which hospitals were inside the market."). As Dr. Gowrisankaran explained, "what really needs to happen in an antitrust setting is — is understanding what are the sets of potential competitors and the likely set of potential competitors and using that as the basis for a market analysis. A market analysis does not always yield only one market definition that is accurate. It might yield a couple of different market definitions that could each be plausible. And what these — what these sentences [that relevant markets need not have precise metes and bounds] are pointing out is that what's important here is not saying well, we want to have an airtight definition of a market, but rather that it's the process of market analysis that identifies likely potential competitors to any firm[.]" *Id.* at 14 (p. 110). Taking into account the "the commercial realities of the industry," *Brown Shoe*, 370 U.S. at 336–37 (internal quotation marks omitted) — including the fact that in a market between hospitals and health plans, both the seller and the buyer are stationary and cannot move — Dr. Gowrisankaran's testimony raises the question of whether it is sufficient to define the market by listing which sellers are in the market and which sellers are out, as opposed to trying to engage in "metes and bounds" line-drawing on a map in the spaces between hospitals. *Cf. St. Luke's*, 778 F.3d at 784 (markets, ultimately, are just "groups of sellers"); Areeda & Hovenkamp ¶ 530a ("To define a market is to identify those producers providing customers of a defendant firm (or firms) with alternative sources for the defendant's product or service."). Under that framework, a geographic market of the Crescent City HSA and Sutter's hypothetical two-block radius around the Sutter Coast hospital would be functionally equivalent: each would clearly and concretely define which sellers are in the market (Sutter Coast) and which sellers are not (hospitals other than Sutter Coast). The court expresses no opinion here on this approach, other than to say that these questions further demonstrate why, at this juncture, Sutter has not established that there are no disputes of material fact and that it is entitled to judgment as a matter of law.

4. The Candidate Tied Markets

Courts have recognized that a hypothetical monopolist's ability to impose a SSNIP of five percent may satisfy the hypothetical-monopolist test. *Penn State Hershey*, 838 F.3d at 338 nn.1–2 (citing U.S. Dep't of Justice & Fed. Trade Comm'n, *Horizonal Merger Guidelines* § 4.1.2 (2010); *St. Luke's*, 778 F.3d at 784 n.9)). The plaintiffs' expert Dr. Chipty conducted diversion analyses for the Candidate Tied Markets (the Modesto, Sacramento, San Francisco, and Santa Rosa HSAs) and estimated that a hypothetical monopolist that controlled all of the hospitals in each such market could profitably impose a SSNIP of between seven and twenty percent at the Sutter hospital in the market. This raises a dispute of material fact as to whether the hypothetical-monopolist test is satisfied for the Candidate Tied Markets and thus, whether they are relevant geographic markets for antitrust purposes.

Sutter moves to exclude Dr. Chipty's opinions with respect to the plaintiffs proposed geographic markets, including the Candidate Tied Markets, under *Daubert v. Merrill Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).[236]

"A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case." Fed. R. Evid. 702. "Under *Daubert*, the trial court must act as a 'gatekeeper' to exclude junk science that does not meet Federal Rule of Evidence 702's reliability standards by making a preliminary determination that the expert's testimony is reliable." *Ellis v. Costco Wholesale Corp.*, 657 F.3d 970, 982 (9th Cir. 2011) (citing *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 145, 147–49 (1999)). "*Daubert* does not require a court to admit or to exclude evidence based on its persuasiveness; rather it requires a court to admit or exclude evidence based on its scientific reliability and relevance." *Id.* (citing *Daubert*, 509 U.S. at 589–

[236] Def. Mot. to Exclude Chipty – ECF Nos. 409-3 (under seal), 503 (redacted version).

90). "Thus, an expert's 'inference or assertion must be derived by the scientific method' to be admissible." *Id.* (citing *Daubert*, 509 U.S. at 590). "A trial court has broad latitude not only in determining whether an expert's testimony is reliable, but also in deciding how to determine the testimony's reliability." *Id.* (citing *Kumho Tire*, 526 U.S. at 152).

Sutter does not dispute that Dr. Chipty has the knowledge, skill, experience, training, or education to render an expert opinion.[237] Instead, Sutter raises two main objections why Dr. Chipty's report is unreliable with respect to the Candidate Tied Markets.

First, Sutter argues that Dr. Chipty created a "brand new methodology" to analyze the Candidate Tied Markets that has never been used in any prior antitrust case and that (so Sutter argues) was not subject to peer review and publication.[238] The Ninth Circuit recently reversed a district-court decision excluding expert reports for placing undue weight on arguments akin to those that Sutter makes here. The Ninth Circuit explained:

> [T]he district court was wrong to put so much weight on the fact that the experts' opinions were not developed independently of litigation and had not been published. While independent research into the topic at issue is helpful to establish reliability, its absence does not mean the experts' methods were unreliable. Where "the proffered expert testimony is not based on independent research," the experts can instead present "other objective, verifiable evidence that the testimony is based on 'scientifically valid principles.'" To be sure, 'one means of showing that the testimony is based on scientifically valid principles is by proof that the research and analysis supporting the proffered conclusions have been subjected to normal scientific scrutiny through peer review and publication.' However, expert testimony may still be reliable and admissible without peer review and publication.

Wendell v. GlaxoSmithKline LLC, 858 F.3d 1227, 1235 (9th Cir. 2017) (citations and internal brackets omitted). Dr. Chipty's report explains the formulas that she used and cites the articles and sources that support her opinion. Further, she testified that "my sense from reading the materials written — including by the testifying expert in [the *Advocate Health*] case — I believe this type of approach has been used recently in the *Advocate [Health]* matter."[239] To the extent that Sutter

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[237] *See* Hr'g Tr. – ECF No. 611 at 31.

[238] *Id.* at 29; Def. Mot. to Exclude Chipty – ECF No. 503 at 28–29.

[239] Chipty Dep. – ECF No. 479-2 at 82 (under seal) (p. 81).

believes that Dr. Chipty's formulas are incorrect or that she failed to consider important facts, it can challenge her on cross-examination. *Cf. id.* at 1237 ("Where, as here, the experts' opinions are not the 'junk science' Rule 702 was meant to exclude, the interests of justice favor leaving difficult issues in the hands of the jury and relying on the safeguards of the adversary system — 'vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof' — to 'attack shaky but admissible evidence.'") (citations and internal brackets omitted); *In re Se. Milk Antitrust Litig.*, 739 F.3d 262, 281 (6th Cir. 2014) (reversing district-court decision excluding expert opinion on hypothetical-monopolist test and holding that "[i]ncluding some facts while admitting others goes to the accuracy of the conclusions, not to the reliability of the testimony") (citations and internal quotation marks omitted).

Second, Sutter argues that Dr. Chipty did not use her diversion analysis for the Candidate Tying Markets, and her failure to use a common methodology for the Candidate Tied and Tying Markets renders her opinions unreliable. The court disagrees. That a hospital in a given region may have so few competitors that there are no other hospitals where its patients can be diverted — and hence a diversion analysis cannot be applied — does not render unreliable a diversion analysis for hospitals that have closer competitors.

The court denies Sutter's motion to exclude Dr. Chipty's opinions with respect to the Candidate Tying Markets.

* * *

There are disputes of material fact about whether the plaintiffs can establish that the Candidate Tied Markets are geographic markets for antitrust purposes. Sutter's motion for summary judgment with respect to the Candidate Tied Markets is denied.

CONCLUSION

The court grants summary judgment with respect to the Davis HSA Candidate Tying Market and otherwise denies Sutter's motion for summary judgment.

Because Dr. Chipty's opinions about the Candidate Tying Markets and Dr. Gowrisankaran's opinions generally do not affect the outcome of Sutter's summary-judgment motion, the court

denies as moot Sutter's motion to exclude Dr. Chipty's opinion with respect to the Candidate Tying Markets and the plaintiffs' motion to exclude Dr. Gowrisankaran. The court denies Sutter's motion to exclude Dr. Chipty's opinions with respect to the Candidate Tied Markets.

IT IS SO ORDERED.

Dated: April 12, 2019

LAUREL BEELER
United States Magistrate Judge