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Humboldt and Del Norte Counties:
Community Collaboration in the Face of Health Adversity

Summary of Findings

The rural north coast California counties of Humboldt and Del Norte face multiple health and health care challenges, including high death rates from stroke, accidents, suicide, and alcohol or drug use; severe shortages of health care professionals in primary care and behavioral health; and limited access to care in remote areas. To work on solving these and other challenges, the region comes together as a community, including collaborations to keep clinicians in the area and expand treatment for mental health and substance use disorder (SUD). Passage of the Affordable Care Act (ACA), particularly expansion of Medi-Cal, has helped expand access to care and stabilize health care providers' finances as the share of people without health insurance declined markedly. However, the cost of private health insurance is high and rising rapidly. Like other California communities and the nation as a whole, the region faces significant disruptions from the COVID-19 pandemic but avoided an initial surge in cases by quickly mobilizing to stem the virus's spread.

Key factors affecting the local health care market include:

- **A stagnant economy, high poverty rates, and the health consequences of long-term alcohol, tobacco, and drug use.** Since its logging heyday, the region has struggled to diversify economically. The all-cause death rate in Humboldt County is about one-third higher than statewide, and almost 60% of people get health coverage through Medi-Cal or Medicare, compared with 45% statewide.
- **Erosion of independent physician practice.** The retirement of a generation of local doctors, higher costs associated with running a practice, such as the expense of electronic health records, and increased complexity of billing and regulatory requirements have contributed to an exodus of independent physicians in private practice, who have largely disappeared from the region.
- **A severe shortage of health care professionals, especially in primary care and behavioral health.** Driven by the retirement of local doctors and difficulty recruiting physicians and other clinicians, the workforce shortage makes providing access to care in remote areas extremely challenging. The community has come together to create a wide-ranging plan to fill the gap, from creating a family residency program for new physicians to offering training opportunities for locals interested in health care careers.
- **Leadership from a local nonprofit on data exchange to improve care and community health outcomes.** Launched as an effort to connect health care providers in the area, the region's health information exchange in recent years has moved to cross-sector data exchange with human services agencies in support of community

health outcomes. The resulting community care coordination platform serves approximately 1,400 clients with complex needs across Humboldt County, linking hospitals and emergency departments (EDs) with local social service and criminal justice agencies.

- **Strong community collaboration — anchored by the region's Medi-Cal health plan, largest Federally Qualified Health Center, and dominant hospital — to address provider shortages and expand access to mental health and SUD treatment.** In response to ongoing shortages and recruitment challenges, the community has adopted a "grow your own" health workforce strategy that has broad engagement from the health sector, educational institutions, and local government. Similarly, the community has collaborated on multiple initiatives to improve access to mental health services and SUD treatment, especially in light of the opioid epidemic's devastating impact on the area.

Market Background

Humboldt and Del Norte Counties are home to about 164,000 people spread over 5,282 square miles, an area the size of Connecticut. Many residents live in small communities along the coast, but a significant number of people are scattered across more remote areas connected by rough roads that frequently close in winter.[1] About one-third of Humboldt's 136,000 residents live in Eureka, the region's health care hub and largest city, and in nearby Arcata.[2] A quarter of Del Norte's 28,000 residents live in Crescent City, the county seat.[3] Densely forested and mountainous, the region borders the Pacific to the west, Oregon to the north, Siskiyou and Trinity Counties to the east, and Mendocino County to the south (see map on page 21).

The area has the least diverse population — racially and ethnically — of the seven regions in the ongoing Regional Market Study (see Background on Regional Markets Study, page 21, for more information). Within Humboldt and Del Norte Counties, 72% of people identify as White, 13% as Latinx, 10% as other (including Native Americans), 3% as Asian, and 2% as Black (see Table 1). Native Americans compose 6% of the region's population, with 11 tribes in the two counties, including the state's largest reservation, Hoopa Valley. Native Americans historically have been poorly served

TABLE 1. Demographic Characteristics
Humboldt and Del Norte Counties vs. California, 2018

	Humboldt/ Del Norte	California
POPULATION STATISTICS		
Total population	164,201	39,557,045
Five-year population growth	1.2%	3.2%
AGE OF POPULATION, IN YEARS		
Under 18	19.5%	22.7%
18 to 64	62.6%	62.9%
65 and older	17.9%	14.3%
RACE/ETHNICITY		
Latinx	13.2%	39.3%
White, non-Latinx	72.1%	36.8%
Black, non-Latinx	1.6%	5.6%
Asian, non-Latinx	2.7%	14.7%
Other, non-Latinx	10.3%	3.6%
BIRTHPLACE		
Foreign-born*	8.4% (0%–17.6%)	25.5%
EDUCATION		
High school diploma or higher	89.1%	83.7%
College degree or higher	36.1%	42.2%
ECONOMIC INDICATORS		
Below 100% federal poverty level (FPL)	20.3%	12.8%
100% to 199% FPL	20.3%	17.1%
Household income $100,000+	19.0%	38.0%
Median household income	$51,409	$75,277
Unemployment rate	3.8%	4.2%
Able to afford median-priced home* (2019)	37.0%	31.0%

*Humboldt data only.

Sources: "County Population by Characteristics: 2010–2019," Education by County, FPL by County, Income by County, US Census Bureau; "AskCHIS," UCLA Center for Health Policy Research (confidence intervals are large for Humboldt County and are included in the table); "Employment by Industry Data: Historical Annual Average Data" (as of August 2020), Employment Development Dept., n.d.; and "Housing Affordability Index - Traditional," California Association of Realtors. All sources accessed June 1, 2020.

by the health care system and social systems broadly and so are more likely to have lower incomes and higher poverty rates and to be uninsured than the White population. Native Americans also tend to have higher rates of infant mortality, diabetes, heart disease, and obesity, as well as higher rates of alcohol, drug, and tobacco use.[4]

Population growth in Humboldt and Del Norte hovers near 1% annually, much lower than the statewide average of 3.2%. While timber remains an important industry, the region has struggled to diversify economically since its logging heyday. Humboldt County's largest employers include local government and school districts, Humboldt State University, and St. Joseph Hospital.[5] Many Del Norte residents work for local government and school districts as well as the tribes, including United Indian Health Services (UIHS).[6] Cannabis cultivation also plays a notable role in the local economy, historically as an illicit industry. But state legalization for recreational use in 2016 has brought cannabis cultivation into the mainstream economy. Nonetheless, many residents subsist in generational poverty. Four in 10 residents in the region live in households that earn less than 200% of the federal poverty level, or $52,400 for a family of four in 2020.[7]

The all-cause death rate in Humboldt County is about one-third higher than statewide. For example, the death rate from stroke is almost twice the state average: 65.6 deaths per 100,000 people in Humboldt, compared with the state average of 35.3 deaths. Humboldt County residents die from suicide, drug use, and firearms at about 2.5 to 3 times the state average (see Table 2). This differential is consistent with the higher rates of mortality observed among rural residents nationwide, across all races and ethnicities, a result of what some experts call "structural urbanism," a systematic bias toward large population centers that disadvantages rural communities.[8]

A "culture of secrecy" in the area — a legacy of the underground cannabis trade, according to a respondent interviewed for the study — compounds the difficulty of both assessing the need for health and social services and providing treatment in remote areas. While the region faces grave socioeconomic and health challenges, a tight-knit group of community leaders regularly collaborates on initiatives to improve access to care and community health outcomes. "There's hope and innovation in our community," one respondent said. Another mirrored that sentiment, saying, "There's no one else, so we need to figure it out — working together."

TABLE 2. Age-Adjusted Death Rates (per 100,000 population)
Humboldt County vs. California, 2014–2016 Average

	Humboldt	California
All causes	**815.8**	**608.5**
All cancers	164.9	140.2
Coronary heart disease	106.9	89.1
Accidents	69.2	30.3
Stroke	65.6	35.3
Chronic lower respiratory disease	45.4	32.1
Drug-induced deaths	37.4	12.2
Suicide	25.6	10.4
Chronic liver disease and cirrhosis	20.3	12.2
Firearm-related deaths	20.5	7.6
Motor vehicle traffic crashes	18.7	8.8

Note: Del Norte County's rates are similar but statistically unreliable and are not shown here.
Source: "Table 1," in *County Health Status Profiles 2018* (PDF), California Department of Public Health, 2018.

Health Coverage Sources and Trends

A much smaller share of the population of Humboldt and Del Norte Counties is covered by private insurance compared with the state as a whole (35.3% versus 47.7%), a difference that has grown in recent years; a larger share is covered by Medicare (21.6% versus 15.9%) (see Table 3).[9] The percentage of uninsured residents fell sharply, and the share of the population with Medi-Cal coverage increased between 2014 and 2015 as the ACA took effect (not shown). Since then, the percentage of uninsured residents dropped slightly (from 7.8% to 7.2%) and the percentage enrolled in Medi-Cal has increased gradually from 33.1% of the population to 36.0%.

TABLE 3. Trends in Health Insurance, by Coverage Source
Humboldt and Del Norte Counties vs. California, 2015 and 2019

	HUMBOLDT/DEL NORTE		CALIFORNIA	
	2015	2019	2015	2019
Medicare*	19.7%	21.6%	14.4%	15.9%
Medi-Cal	33.1%	36.0%	29.1%	28.7%
Private insurance†	39.4%	35.3%	47.8%	47.7%
Uninsured	7.8%	7.2%	8.6%	7.7%

*Includes those dually eligible for Medicare and Medi-Cal.

† Includes any other insurance coverage (excluding Medicare and Medi-Cal).

Source: Calculations made by Blue Sky Consulting Group using data from the US Census Bureau, the Centers for Medicare & Medicaid Services, and the California Department of Health Care Services.

Medi-Cal Plan Exerts Strong Market Influence

Partnership HealthPlan of California (PHC), a nonprofit plan that administers Medi-Cal benefits, is the region's largest health plan. PHC serves Humboldt and Del Norte Counties as part of the 2013 eight-county expansion in the rural north of the state's county-organized health system model, under which a single plan administers Medi-Cal coverage for managed care members.[10] PHC had about 56,000 members in Humboldt in 2018, an increase of 28% since 2014; in Del Norte, PHC had 12,000 members in 2018, up 13% from 2014. By comparison, the statewide increase in Medi-Cal enrollment between 2014 and 2018 was 15%. Local health care providers advocated for PHC to serve as the Medi-Cal health plan, and they view PHC as a strong partner.

PHC is the only health plan in the region with a local presence, including a regional office in Eureka. The PHC Board of Commissioners includes several representatives from Humboldt and Del Norte. PHC invested $25 million in affordable housing in its 14-county service area in 2018, including $2.8 million in Humboldt and Del Norte.[11] Compared with other Medi-Cal managed care plans serving rural areas, PHC's enrollees generally travel shorter distances for care, contributing to better access.[12] In July 2020, PHC launched the Wellness and Recovery Program in seven counties, including Humboldt, substantially expanding SUD treatment services available to enrollees through the Drug Medi-Cal Organized Delivery System pilots.[13] PHC also has a robust portfolio of quality improvement programs, including initiatives targeting primary care, hospital, long-term care, palliative care, and perinatal care quality.[14] The plan earned interim accreditation from the National Committee for Quality Assurance in August 2019.

Only two commercial health plans — Blue Shield of California and Anthem Blue Cross — offer private coverage in Humboldt and Del Norte. In both the employer-sponsored and individual markets, available products typically are preferred provider organizations (PPOs). Covered California, the state's ACA exchange, enrolled about 6,000 people in Humboldt and 600 in Del Norte in 2019, with a fairly even distribution of membership between the two Blue plans; enrollment has held steady over the last several years.[15] Covered California premiums have increased dramatically in recent years for the rural north rating region, which includes 22 counties. The weighted average cost of the silver plan doubled from $327 to $644 a month between 2015 and 2019; by comparison, the statewide average for a silver plan increased from $312 to $454 during the same period (see Table 4 on page 5).

TABLE 4. Covered California Premiums and Enrollment

Humboldt and Del Norte Counties (Region 1) vs. California, 2015 and 2019

	REGION 1		CALIFORNIA	
	2015	2019	2015	2019
Monthly premium* (Silver Plan on the exchange for a 40-year-old individual)	$327	$644	$312	$454
Percentage of population enrolled	3.8%	3.6%	3.0%	3.1%

*The price for Rating Region 1 is weighted by enrollees in Humboldt and Del Norte Counties.

Source: Blue Sky Consulting Group analysis of data files from "Active Member Profiles: March 2019 Profile" (as of May 31, 2020) and "2019 Covered California Data: 2019 Individual Product Prices for All Health Insurance Companies," Covered California.

In January 2020, about 28,000 Humboldt and 6,100 Del Norte residents where enrolled in original fee-for-service Medicare, and three-quarters of these residents also had a prescription drug plan (Medicare Part D).[16] There are no Medicare Advantage plans in Humboldt or Del Norte, but the first rural Program of All-Inclusive Care for the Elderly (PACE) in California, Redwood Coast PACE, opened in 2014. PACE provides all services covered by Medicare and Medicaid to eligible individuals, and providers receive a capitated payment — a fixed amount per member, per month. As of August 2020, the program had 202 enrollees.[17]

St. Joseph Health Dominates Hospital Sector

One notable characteristic of this rural region's hospital market is the presence of multiple hospitals affiliated with large health systems: Providence St. Joseph Health, one of the nation's largest Catholic health systems, owns St. Joseph Hospital and Redwood Memorial in Humboldt, while Sacramento-based Sutter Health owns Sutter Coast Hospital in Del Norte. System affiliation has the potential to improve financial performance through economies of scale in administrative functions, increase leverage for higher payment rates from health plans, and generate more favorable credit terms in the bond market.[18] For St. Joseph Hospital and Redwood Memorial, the Providence system's size and role as the site of care in Washington State for the first COVID-19 patient in the United States proved valuable in acquiring both fast-moving clinical understanding of the novel virus and also personal protective equipment as the two hospitals prepared for the pandemic.

The region also has two critical access hospitals (CAHs): Redwood Memorial and Jerold Phelps Community Hospital. This Medicare designation is intended to ensure essential services remain available in rural communities and enables CAHs to receive cost-based reimbursement for Medicare services. To be designated as a CAH, a hospital must be in a rural area, have 25 or fewer inpatient beds, and be located more than 35 miles from another hospital or more than 15 miles from another hospital in areas with mountainous terrain or only secondary roads. The fifth hospital in the region is the investor-owned Mad River Community Hospital in Arcata, about 20 minutes north of St. Joseph's Hospital in Eureka (see Table 5 on page 6 for hospital details).

St. Joseph Health is the dominant hospital presence in the region, with 138-bed St. Joseph Hospital in Eureka and 25-bed Redwood Memorial Hospital in Fortuna, about 20 miles to the south. St. Joseph Hospital opened in 1920, founded by Catholic nuns who were initially focused on opening schools but shifted their mission to health care when the 1918 flu epidemic hit the community. St. Joseph Health, headquartered in Irvine, merged with Washington State–based Providence Health & Services in 2016; the resulting nonprofit Providence system operates 51 hospitals and more than 1,000 clinics in seven western states.

The merged system created Well Being Trust, a national foundation with a $100 million endowment focused on mental, social, and spiritual health. In addition, as a condition for the merger, California's attorney general required that $30 million be spent on mental health initiatives in California service areas. To date, St. Joseph has invested $2 million in the region, most notably to develop and initially subsidize operating costs for Waterfront Recovery Services, a 56-bed medically managed detox and residential treatment facility opened in 2017 for people with SUDs. In 2019, the site received certification from the state Department of Health Care Services

TABLE 5. Hospital Overview: Humboldt and Del Norte Counties, 2018

	HUMBOLDT				DEL NORTE
	St. Joseph	Redwood Memorial	Mad River Community	Jerold Phelps Community	Sutter Coast
Ownership	Providence St. Joseph Health (nonprofit)		Investor-owned	District	Sutter Health (nonprofit)
Critical access		✔		✔	
Medi-Cal DSH*			✔		✔
City	Eureka	Fortuna	Arcata	Garberville	Crescent City
Licensed beds (acute)	138	25	78	9	39
Occupancy (acute)	68%	61%	27%	36%	51%
Discharges (acute)	6,610	1,413	1,752	59	2,156
Emergency department visits	31,460	11,995	17,301	3,102	19,540
Share of revenue from:					
Medicare	30%	34%	24%	52%	34%
Medi-Cal	25%	27%	65%	20%	30%

* *DSH* is disproportionate share hospital. The DSH program, operated by the California Department of Health Care Services, provides a supplemental payment to hospitals serving a "disproportionate share" of Medi-Cal members and uninsured individuals.

Sources: "Hospital Annual Financial Data - Selected Data & Pivot Tables," California Office of Statewide Health Planning and Development, accessed June 1, 2020. Critical access hospital designation is available from the California Hospital Association. Share of revenue based on total revenue, not restricted to revenue from acute care.

(DHCS) for inclusion in the Drug Medi-Cal Organized Delivery System, which will provide ongoing funding for the facility. After delays, the program — called Wellness and Recovery by PHC — took effect in summer 2020.

St. Joseph Hospital is the strongest hospital financially in the region and offers the broadest range of services, including a Level III trauma unit and a Level II neonatal intensive care unit. In 2018, more than half of the hospital's discharges (55%) were Medicare patients, but those discharges generated only 30% of revenue. A shortage of skilled nursing beds in the area means discharges are often delayed, resulting in longer lengths of stay and financial losses on Medicare patients. Medi-Cal patients account for about one-quarter of both discharges and revenue. Reportedly, private insurance is an important but relatively small slice of the hospital's business. The affiliated St. Joseph Health Medical Group, with about 150 physicians, provides most of the specialty services in the area.

Mad River Community Hospital, built in 1972, is the second-largest hospital in the region — with 78 licensed beds, only 46 of which are staffed — and provides 24-hour emergency care. Mad River is known for maternity care; in 2018, the hospital reported 539 deliveries, making up more than 30% of discharges. However, the hospital has struggled financially in recent years. Mad River recently transferred its obstetrics clinic to Open Door Community Health Centers (Open Door), though deliveries continue to be a core hospital service. About 90% of Mad River's revenue comes from government programs, primarily Medi-Cal.

Jerold Phelps Community Hospital, a CAH operated by the Southern Humboldt Community Healthcare District, serves the southern part of the county bordering Mendocino with nine acute care beds, eight skilled nursing beds, and 24-hour emergency services. While the 2018 occupancy rate for acute care beds was 36%, the occupancy rate for the long-term care beds was 100%. Almost all of the hospital's 59 acute care discharges in 2018 (93%) were covered by government payers, primarily Medi-Cal.

Built in 1992, Sutter Coast Hospital in Del Norte operates 39 inpatient beds; about two-thirds of revenue is from government payers, split fairly evenly between Medicare and Medi-Cal. In addition, Sutter Coast operates a 10-bed acute

rehabilitation center. The hospital provides the only emergency services in the local area and reported almost 20,000 emergency department (ED) visits in 2018.

Compared with the state as a whole, Humboldt and Del Norte have a similar number of beds per capita. Staffing (measured as full-time equivalents, or FTEs, per 1,000 adjusted patient days) is lower, likely because of health workforce shortages in the area. Lower levels of staffing, on average, may be driving lower operating costs and higher margins (see Table 6).

TABLE 6. Hospitals (Acute Care)
Humboldt and Del Norte Counties vs. California, 2018

	Humboldt/ Del Norte	California
Beds per 100,000 population	176	178
Operating margin	9.1%	4.4%
Paid FTEs per 1,000 adjusted patient days	10.6	14.8
Total operating expenses per adjusted patient day	$2,832	$4,488

Note: *FTE* is full-time equivalent.

Sources: "Hospital Annual Financial Data - Selected Data & Pivot Tables," California Office of Statewide Health Planning and Development; "County Population by Characteristics: 2010–2019," US Census Bureau. All sources accessed June 1, 2020.

Scarce Inpatient Psychiatric Beds

Operated by Humboldt County, the 16-bed Sempervirens Psychiatric Health Facility in Eureka is the only inpatient psychiatric hospital within a 300-mile radius. Maintaining clinical staffing for the facility has been challenging and is now provided through a contract with Traditions Behavioral Health, the largest provider of psychiatric services in California. Patients requiring inpatient mental health services, including those held involuntarily because they are a threat to themselves or others, sometimes must wait in a hospital ED until a bed opens at Sempervirens or they can be discharged safely.

Primary and Specialty Care Landscape

In recent years, the erosion of physicians in independent practice has characterized the market for primary and specialty care in Humboldt and Del Norte. According to respondents, many factors have contributed: the retirement of a generation of local doctors; higher costs of running a practice, such as the expense of electronic health records (EHRs); increased complexity of coding, billing, and regulatory requirements; and low payment rates. While the transition in the Medi-Cal program from fee-for-service payment to mandatory managed care in 2013 and the expansion of Medi-Cal enrollment through the ACA in 2014 went smoothly for the most part, some rural health clinics struggled with the new financial model and closed. The upshot is that independent private practice has largely disappeared in the area. Open Door, the largest Federally Qualified Health Center (FQHC) in the region, has absorbed some primary care practices, while many specialty practices have joined St. Joseph Health Medical Group. Table 7 highlights the importance of FQHCs in Humboldt and Del Norte, with more than three times as many patients and encounters, or patient visits, per capita than in the state as a whole.

TABLE 7. Federally Qualified Health Centers
Humboldt and Del Norte Counties vs. California, 2018

	Humboldt/ Del Norte	California
Patients per capita	0.52	0.15
Encounters per capita	1.76	0.51
Operating margin	6.8%	2.1%

Notes: Includes FQHC Look-Alikes, community health centers that meet the requirements of the Health Resources and Services Administration Health Center Program but do not receive Health Center Program funding. Patients may be double counted if the same person visits more than one health center.

Sources: "Primary Care Clinic Annual Utilization Data," California Office of Statewide Health Planning and Development; "County Population by Characteristics: 2010–2019," US Census Bureau. All sources accessed June 1, 2020.

Open Door:

Primary Care Provider to the Community

Having started as a single clinic in 1971, Open Door now has 12 sites across Humboldt and Del Norte Counties, offering primary care, dental care, and behavioral health care. An FQHC since 1999, Open Door also operates three mobile clinics (two providing dental care). As the number of physicians in independent practice continues to decline, Open Door has become the main provider of primary care services in the area. "[Open Door's] population has been redefined from the core disenfranchised population to almost everyone in our area," according to a respondent.

Open Door has grown from 200 employees and a $14 million budget in 2004 to more than 700 employees and an $80 million budget in 2020. A new clinic opened in Fortuna in 2018 with capacity to see 200 patients daily. Open Door serves 55,000 patients annually, about a third of the area's total population.

As local rural health clinics and private physician practices closed, Open Door has absorbed many clinicians who were struggling to survive financially in private practice. Integrating providers into its FQHC network has reportedly been costly and challenging, but Open Door sees the move as essential to maintaining access to care. In 2020, Open Door worked to integrate two practices, one obstetrics and one obstetrics/gynecology; keeping these clinicians in the community was viewed as essential to maintaining on-call capacity for obstetrics.

Following ACA coverage expansions, the proportion of Open Door's uninsured patients dropped significantly, contributing to a positive bottom line. Open Door's payer mix varies substantially by site and has shifted in recent years as the health center gained more privately insured patients — a mixed blessing because commercial reimbursement reportedly does not cover operational costs. Another essential funding source is the 340B Drug Pricing Program, which accounts for about a quarter of Open Door's revenue. The program requires pharmaceutical manufacturers participating in Medicaid to make outpatient prescription drugs available at a discounted price to FQHCs and other organizations that care for uninsured and low-income patients. However, respondents noted that the state's new pharmaceutical purchasing program is projected to result in a $3.5 million loss of 340B funds for Open Door. Some of the loss may be offset through state supplemental payments; the state budget agreement reached in July 2020 included $52.6 million statewide for this purpose.

Open Door has actively embraced telehealth, starting with grant-funded efforts to connect local patients with specialists in remote locations on a small scale and expanding to additional providers and specialties over time. Specialty services available through telehealth include dermatology, gastroenterology, pulmonology, and psychiatry. About 40% of specialist referrals take place through eConsult, provided with the support of PHC, with a report back to the primary care physician. Open Door's extensive experience with telehealth enabled its health centers to quickly ramp up remote care during the pandemic.

St. Joseph Health Medical Group:

Grows by Acquiring Region's Specialty Groups

Formed in 2006, St. Joseph Health Medical Group in Humboldt has grown from four physicians to 150 — primarily specialists, though two primary care practices and a pediatrician joined the group in recent years. St. Joseph Health Medical Group Humboldt is one of eight medical groups aligned with St. Joseph Heritage Healthcare and now part of the broader Providence St. Joseph Health system; other affiliated medical groups include those in Napa, Petaluma, and Santa Rosa, as well as several in Southern California.

St. Joseph Health Medical Group is the primary provider of specialty services in the Humboldt area and is expanding its focus on primary care. The group's payer mix is reportedly split fairly evenly among commercial, Medicare, and

Medi-Cal/uninsured. Reimbursement is predominantly fee-for-service. The medical group's members also belong to the Humboldt Independent Practice Association (IPA).

Humboldt IPA:

Reinvented Business Model as Independent Practice Declined

Humboldt IPA's role in the community has shifted as the local health care landscape changed over the past decade. In the late 1990s, the IPA managed about 20,000 health maintenance organization (HMO) lives on behalf of local affiliated physicians; that number has fallen to fewer than 4,000 as HMO coverage has declined. The IPA still handles contracting with Anthem Blue Cross and Blue Shield of California for 12,000 PPO members. Rather than operating as independent physician practices, IPA-affiliated physicians now largely work for St. Joseph Health Medical Group or Open Door. The IPA also runs the Priority Care Center, a clinic that provides intensive care coordination for patients with complex needs, available by referral to Anthem HMO and PPO and Blue Shield HMO enrollees as well as members of the Blue Lake Rancheria tribe. Health plan contracts for Priority Care Center members feature risk-based payment (capitation for HMO members and shared savings for PPO members).

The IPA has embraced several quality improvement efforts, playing a leadership role in Humboldt County's Aligning Forces for Quality alliance from 2008 to 2015, as well as the Surgical Rate Project. The Surgical Rate Project was a community-wide effort focused on variation reduction for preference-sensitive care, such as for prostate cancer, for which more than one valid treatment approach is available and the best choice depends on how an individual patient views the risks and benefits of different treatments. The IPA shares staffing with the North Coast Health Improvement and Information Network (NCHIIN), a sister organization that leads the area's health information exchange. Together, the two organizations have a leadership role in Rx Safe Humboldt, the county's opioid safety coalition, and Humboldt Community Health Trust, focused on cross-sector collaboration to improve community-wide health.

United Indian Health Services: *"Tribally Owned and Governed" Care for the Native American Community*

UIHS, incorporated in 1970, serves nine of the 11 tribes in Humboldt and Del Norte at seven clinic sites ranging from Fortuna in south Humboldt County to Crescent City in Del Norte; an eighth site is expected to open in 2021.[19] The California Rural Indian Health Board (CRIHB) holds the contract with the federal government, and UIHS contracts with CRIHB to operate the clinic sites on behalf of the nine tribes. The other two tribes, the Hoopa Valley Tribe and the Karuk Tribe, operate their own clinics.

UIHS employs primary care clinicians directly and contracts with St. Joseph Health Medical Group for specialty care, sometimes bringing specialists into UIHS clinics to improve patient access to care. There is a gap in pediatrics, and UIHS is working to provide pediatric services via telehealth. Behavioral health needs are significant in the community, with high prevalence of adverse childhood experiences, and UIHS is focused on embedding behavioral health services in the physical health care delivery model.

According to UIHS, 12,000 patients visited a UIHS clinic between 2017 and 2019. UIHS has focused in recent years on shifting away from paper-based processes and increasing productivity. UIHS adopted the NextGen EHR software as part of CRIHB's rollout to participating clinics in 2013 and took over information technology infrastructure management from CRIHB in 2019. The predominant source of coverage for UIHS patients is Medi-Cal. More than 10% of patients are uninsured; many of these patients are likely eligible for Medi-Cal but distrust government institutions and decline participation, according to respondents. Revenue for Medi-Cal members is based on a relatively high per-visit rate established by the federal Indian Health Service Memorandum of Agreement, analogous to prospective payment system rate determination for FQHCs.

Supporting Health Center Quality Improvement

The regional clinic consortium for the rural northwest, North Coast Clinics Network (NCCN), serves Open Door, Redwoods Rural Health Center in Humboldt, and Southern Trinity Health Services in neighboring Trinity County. When PHC became the Medi-Cal managed care plan for the rural north in 2013, the plan brought its robust performance incentive program to the region. NCCN joined forces with the Health Alliance of Northern California (HANC) — the regional clinic consortium for many other rural northern counties, including Siskiyou, Modoc, Shasta, Lassen, Shasta, Mendocino, and Plumas — on an initiative to support health centers in identifying and addressing quality gaps through data analysis and quality improvement (QI) activities. PHC, NCCN, and HANC have collaborated on a toolkit to help build FQHC capacity for data analysis and QI and to support a population health approach. PHC's provider network in Humboldt and Del Norte scored below the minimum performance level on 10 quality measures, including diabetes care, cancer screenings, and childhood immunization and well-child visits in reporting year 2019.[20] The QI collaboration helps close gaps in patient care, generates health center revenue in the form of performance incentives, and focuses attention on improving quality scores.

Severe Workforce Shortages Met with Coordinated Community Response

Humboldt and Del Norte face a severe shortage of physicians and other health workers, driven in part by the retirement of a generation of local doctors and difficulty recruiting physicians to the rural area. In response, the community has come together to create a wide-ranging plan to fill the gap, including a career ladder for local residents interested in becoming health professionals and school-based opportunities for local students to develop skills related to health care and remain in the community.

As shown in Table 8, the two counties have far fewer physicians, both primary care and specialist, than California's statewide average: 49.0 versus 59.7 primary care physicians per 100,000 residents, and 93.0 versus 130.8 specialists. The ratio is similar for psychiatrists: on a population basis, the region has approximately two-thirds the number available statewide (7.3 versus 11.8 per 100,000 residents). Based on the two counties' population of 164,200, that equates to 12 psychiatrists in an area the size of Connecticut. The entire area qualifies as a federally designated primary care Health Professional Shortage Area (HPSA).

TABLE 8. Physicians: Humboldt and Del Norte Counties vs. California, 2020

	Humboldt/ Del Norte	California	Recommended Supply*
Physicians per 100,000 population†	142.0	191.0	—
► Primary care	49.0	59.7	60–80
► Specialists	93.0	130.8	85–105
► Psychiatrists	7.3	11.8	—
% of population in HPSA (2018)	100%	28.4%	—

*The Council on Graduate Medical Education (COGME), part of the US Department of Health and Human Services, studies physician workforce trends and needs. COGME ratios include doctors of osteopathic medicine (DOs) and are shown as ranges above.

† Physicians with active California licenses who practice in California and provide 20 or more hours of patient care per week. Psychiatrists are a subset of specialists.

Sources: Healthforce Center at UCSF analysis of Survey of Licensees (private tabulation), Medical Board of California, January 2020; and Health Professional Shortage Area (HPSA) data from *Shortchanged: Health Workforce Gaps in California*, California Health Care Foundation, July 15, 2020.

Transportation and technology challenges exacerbate workforce shortages in the rural region, where people may live hours from the nearest site of care, roads are poor and vulnerable to closure, and lack of internet connectivity can limit telehealth. Some residents cross the border into Oregon, where robust specialty networks are available in nearby Grants Pass and Medford. But for Medi-Cal members, cross-border care creates a major challenge for PHC. Oregon providers typically do not want to become Medi-Cal certified by DHCS, so PHC is not allowed to include them in the provider network and instead must handle each patient-provider interaction separately.

The result is what one respondent called an "extreme challenge with access." Primary care providers, especially pediatricians, are in short supply, which can lead to overreliance on hospital EDs. Shortages in areas other than primary care create access problems as well. For example, a shortage of skilled nursing beds, in part from lack of staffing, in turn can create a bottleneck for hospital discharges.

Access to Mental Health and SUD Treatment Especially Difficult

Insufficient capacity for mental health treatment, both inpatient and outpatient, is a significant challenge. The annual report to the Behavioral Health Board for Humboldt County notes: "The ability to recruit and retain qualified professionals in most job classes is an ongoing challenge within the [Behavioral Health] Branch resulting in impacts to quality of care, caseloads, coverage for essential services and job satisfaction." The county provides outpatient psychiatric services through a contract, which allows for flexibility but is costly, and "even with contract providers, psychiatric services are overwhelmed."[21] Sempervirens, the county's 16-bed secure psychiatric facility, uses a third-party agency for clinical staff.

Region Uses Stopgap Measures While Working on Longer-Term Solutions to Shortages

Recruitment of health professionals to Humboldt and Del Norte has been challenging. Respondents noted that housing is costly, particularly in the Eureka-Arcata area of Humboldt. One interviewee said: "Docs decide not to come because they can't afford to live here; people pay 70% of their salary to live in Arcata." PHC has helped providers take advantage of education loan repayment funds available through CalHealthCares, funded by voter-approved state tobacco tax revenues (Proposition 56). Up to $300,000 is available to physicians and dentists less than five years out of residency who will commit to serve largely Medi-Cal patients for at least five years.[22] PHC is also advocating for greater consideration for rural areas in allocation of CalHealthCares funds, given the severe provider shortage. While loan repayment has helped, the shortage persists. In recent years, locum tenens — health professionals who sign temporary contracts — have helped fill the gap. However, a temporary workforce of physicians and nurses is expensive and variable in quality, and makes it difficult for health care providers to create a strong organizational culture.

In response to ongoing shortages and recruitment challenges, the community has adopted a "grow your own" health workforce strategy that has broad engagement from the health sector, educational institutions, and local government. The initiative was first tackled by the Humboldt CEO Roundtable, which meets regularly, includes both representatives from the health care sector and other local leaders, and is led by the California Center for Rural Policy at Humboldt State University. The leadership group settled on the dual objectives of addressing health workforce shortage issues and creating career and training opportunities for local youth and residents.

Since 2019, St. Joseph Hospital and Open Door have collaborated on a family medicine residency program, which will ramp up to full capacity at 18 residents. Both institutions have invested significantly in this initiative, hoping that physicians will stay after completing their residencies and bolster the supply of local primary care practitioners. St. Joseph Health Medical Group is a partner on specialty care, and residents travel to the University of California, Davis, for training in inpatient and emergency pediatrics. For the inpatient portion of the residency, the hospital pays for the director, program coordinator, and faculty; Open Door funds the outpatient portion, including faculty and a dedicated site.

Nursing programs are another area of focus. Open Door started a family nurse practitioner (NP) residency in 2016 in collaboration with Community Health Centers, Inc., an FQHC system in Connecticut. The program, which has trained three to four NPs in each of the most recent cohorts of the 12-month program, is an outgrowth of Open Door's participation in a nationwide best practices collaborative. Humboldt

State University is reopening a program to enable registered nurses (RNs) to obtain a bachelor of science degree in nursing (BSN) — known as an RN-to-BSN program — with the first cohort of 25 students slated to begin the two-year program in fall 2020. College of the Redwoods, the local community college, offers a program for paramedics and licensed vocational nurses to become registered nurses, with sites in Eureka (Humboldt) and Crescent City (Del Norte). Sutter Coast Hospital in Crescent City has emerged as a partner in this program, as well as in the RN-to-BSN program; St. Joseph Hospital contributed $2 million to Humboldt State University to help launch the RN-to-BSN program.

The workforce initiative also includes local schools, which are creating pathways to prepare students for health-related study in college or entry-level health care jobs. In Del Norte and adjacent tribal lands, the Building Healthy Communities initiative includes investments in health workforce initiatives, beginning in kindergarten.

Multiple respondents expressed optimism that the efforts and investment will help meet two pressing community needs: improved access to care and enhanced economic opportunities for residents. More recently, the CEO Roundtable has turned its attention to behavioral health, exploring an educational certification program for trauma-informed care and community health workers. The roundtable also is exploring opportunities to integrate behavioral health training into the new Humboldt State University BSN program, as well as creating a career ladder for students interested in pursuing jobs related to SUD treatment to enhance recruitment and retention for residential and outpatient services.

Health Information Exchange Lays Groundwork for Community Health Initiative

Launched as an effort to connect area health care providers, NCHIIN in recent years moved to cross-sector data exchange with human services agencies in support of community health outcomes. Humboldt's health information exchange was described by one respondent as "lean, innovative, and scrappy." NCHIIN shares staffing with Humboldt IPA, and many initiatives involve both organizations.

NCHIIN was chartered in 2010, the year after the federal Health Information Technology for Economic and Clinical Health (HITECH) Act was enacted to support health care providers across the county in adopting EHR systems and to build the infrastructure for information exchange. NCHIIN established interfaces with local practices' EHR systems, St. Joseph Health Medical Group, and Open Door. Hospitals, including EDs, provide real-time admit/discharge/transfer data and share information on lab results, radiology, and ancillary services. NCHIIN also sends data to the California Immunization Registry and the California Reportable Disease Information Exchange. NCHIIN is widely used by Humboldt County providers, including all hospitals and an estimated 90% of primary care physicians.[23] The only provider entity of significant size not participating in the health information exchange is UIHS, which to date has not agreed to join.

Care Coordination Platform Leverages Cross-Sector Data to Support Clients with Complex Needs

Building on the success of routine data exchange, NCHIIN expanded functionality to encompass cross-sector data exchange with social service agencies and the criminal justice system. The resulting community care coordination platform, managed by vendor Activate Care, serves approximately 1,400 clients with complex needs across Humboldt. Interfaces were built to the Humboldt County Department of Health and Human Services (DHHS), the Homeless Management Information System, and the probation department; public data from the local jail are also pulled into the

system. Care coordinators receive alerts from the system when their clients experience an array of trigger events, including registration at the ED, admission to a facility (acute care hospital, psychiatric hospital, or crisis stabilization unit), assignment of a probation officer, and admission to jail. In all, approximately 40 alerts a day are sent through the platform in support of the 1,400 clients with complex needs, providing care coordinators with important information to help manage their clients' care.

ED visits provide an example of how the care coordination platform adds value to routine health information exchange functionality. At all four Humboldt County hospitals, a new patient registration at the ED triggers real-time delivery of a summary of medical information (e.g., diagnoses) available in the NCHIIN repository. Moreover, if the ED patient is one of the 1,400 clients with complex needs, the system provides additional information on social services available from the care coordination platform, such as involvement with county programs that support people who are homeless and information on the care team, including care coordinators working with the individual; this occurs approximately 100 times monthly. The care coordination platform is also being successfully implemented in outpatient settings (see box).

Humboldt County works to provide housing for Medi-Cal enrollees with serious mental illness, a major focus since the Board of Supervisors adopted a "Housing First" model a couple of years ago. The care coordination platform plays a key role in supporting these efforts. PHC has collaborated with the county on multiple housing developments, contributing millions of dollars. County programs focused on street outreach and ambulatory mental health were added to the platform in 2017 and 2018; the county's program to assist families needing housing support is adopting the care coordination platform in 2020. Community benefit programs at St. Joseph Hospital also use the care coordination platform. CARE Network assists patients being discharged with transition needs, including a medical respite service that connects homeless individuals with housing while they recover. Paso a

Getting to the Finish Line Sharing Mental Health Data

The Humboldt County Department of Health and Human Services, together with NCHIIN and local health care providers, has accomplished a notable implementation of patient data sharing in its outpatient mental health case management program through collaborative use of a care coordination platform.

Many individuals receiving specialty mental health services from the county also receive primary care from Open Door. In addition, they may be seen in local hospitals, either through the ED or as an inpatient. There are many entrenched barriers to sharing patient mental health data across multiple systems and facilities. The care coordination platform has allowed Humboldt leaders to reach the finish line.

Today, clinicians caring for the patient at Open Door and at hospitals receive a "mental health summary" that alerts the clinician that the patient is receiving specialty mental health services from the county and includes current mental health diagnoses and a medication list.

Respondents credited guidance from leaders of the San Diego effort to build a community information exchange,[24] enlightened county attorneys, and patience ("it took quite a long time") with getting to the finish line on sharing mental health data, a rare accomplishment among health information exchanges. Data sharing does not yet extend to substance use disorder (SUD) services; legal restrictions (often referred to as "42 CFR Part 2," the section of federal regulations relating to the confidentiality of SUD patient records) have long prevented sharing of SUD treatment information through the platform. However, updated federal regulations announced in July 2020 will enable providers to share more patient information for the purpose of care coordination and could facilitate exchange of SUD treatment information in Humboldt County.[25]

Paso provides childbirth and parenting support to the Latinx community. In all cases, the care coordination platform enables data exchange so that clinicians providing mental health services and social service providers have access to information relevant to the clients' status and needs.

The community care platform is viewed positively by leaders on the ground. One respondent called it "a major catalyst" for data integration and hailed it as a success because "having access to data improves quality of care [clinicians] can provide in their clinic office."

Setting Sights on a Community Information Exchange

While the care coordination platform continues to add value in supporting team-based care for high-risk, high-need patients, licensing fees make it prohibitively expensive for use more broadly. Humboldt leaders hope to build a community information exchange (CIE) that supports information sharing with community-based organizations across the county. The CIE would facilitate screening for social service needs and provide closed-loop referrals, in which referring providers receive follow-up information on patients after services are received. While such reports are routinely provided within the medical care system — for example, when primary care physicians refer patients to specialists — it is less common and more challenging to close the referral loop between the medical and social service sectors. A CIE would allow Humboldt medical and social service providers to track patients over time, enabling identification of gaps in care and enhancing care coordination. An initial step toward a CIE, the North Coast Resource Hub, a database of local community-based organizations, was publicly released in 2020. Finding funding for this ambitious initiative will be challenging, but leaders are optimistic.

Progress on Addressing SUDs — but a Steep Climb Remains

Humboldt has struggled with high rates of opioid use, and data show both significant progress and continuing challenges. The rate of opioid-related overdose deaths in Humboldt County in 2018 was 11.2 per 100,000 population, the seventh-highest county rate in the state and twice the statewide rate of 5.8 per 100,000 (see Table 9). While high, the overdose death rate has fallen dramatically in recent years: in 2014, it was 20 per 100,000, quadruple the state's rate of 4.9 per 100,000. Prescriptions for buprenorphine, a medication proven to be effective in treating opioid use disorder, have increased more than 300% in Humboldt, compared with an increase of 19% statewide. In Del Norte, opioid overdose deaths have ranged from zero to three annually for the county's population of 28,000 over the past several years, and buprenorphine prescribing has increased by a factor of 3.5.

The improvements in Humboldt reflect a community-wide mobilization around the challenge. The Rx Safe Humboldt Coalition was among the first to join the California Opioid Safety Coalition Network, launched in 2015. The coalition is led by the Humboldt IPA, and participants include the county, local hospitals, Open Door, the regional clinic consortium North Coast Clinics Network, PHC, NCHIIN, the local medical society, and the Humboldt Area Center for Harm Reduction. More recently, Del Norte has launched its own

TABLE 9. Opioid-Related Deaths, ED Visits, and Prescribing (per 100,000 population): Humboldt and Del Norte Counties vs. California, 2014 and 2018

	2014			2018		
	Humboldt	Del Norte	California	Humboldt	Del Norte	California
Opioid deaths	19.8	7.3	4.9	11.2	0	5.8
Opioid ED visits	54.0	18.5	18.3	43.7	49.2	21.4
Buprenorphine* Rx	36.9	23.8	12.2	116.5	84.2	14.5

**Buprenorphine* is a medication used for treating opioid use disorder.

Source: "California Opioid Overdose Surveillance Dashboard," California Department of Public Health, accessed June 1, 2020.

coalition, Rx Safe Del Norte, which meets at Open Door's Del Norte site.

Much of the SUD treatment in Humboldt and Del Norte is provided through Open Door, a leader in treating addiction in primary care settings and in adopting medication-assisted treatment — which combines behavioral therapy and medications to treat SUDs — as part of routine care.[26] PHC began advocating for safe opioid-prescribing practices years ago, creating a Managing Pain Safely program for its provider network and strengthening opioid-prescribing guidelines to reduce misuse. PHC reported a decrease of 89% across plan members on very high levels of opioids between 2014 and 2018.[27] The state's planned pharmacy carve-out, which will shift pharmacy benefits from Medi-Cal managed care to fee-for-service, has raised concerns that unless the state adopts similar formulary restrictions and other tools to support safe prescribing, the region could backslide on opioid use.

Regionally, St. Joseph Hospital is the only participant in California Bridge, a statewide program supporting implementation of medication-assisted treatment in EDs and hospital inpatient settings. The model emphasizes changing hospital and clinician culture to destigmatize substance use and instead treat addiction as a chronic illness. An impetus for the hospital to participate was concern from Open Door providers that their patients receiving medication-assisted treatment could be hospitalized and discharged on high-dose opioids, disrupting SUD treatment. Through California Bridge funding, St. Joseph deployed a full-time substance use navigator in the ED starting in 2019. The hospital faces an ongoing challenge with addressing stigma associated with addiction. Nurses have proved to be the best way to shift the culture in the hospital, particularly given that St. Joseph often relies on emergency physicians and hospitalists with temporary contracts to close the workforce gap. Nurses also have led the way in establishing a culture of trauma-informed care and training physicians who rotate through the hospital.

Across the community, there is increasing acknowledgment of the importance of adverse childhood experiences (ACEs), which are a risk factor for SUD.[28] Adults in the region have higher than average ACE scores: on average, adults have experienced four or more ACEs, nearly twice the statewide average (this finding is based on data for Mendocino as well as Humboldt).[29] First 5 Humboldt, the county agency focused on children from birth to age five, has generated community awareness of the prevalence and connection between ACEs and substance use in recent years. A town hall on ACEs in November 2019 featuring California's surgeon general generated so much community interest that people had to be turned away (the event was livestreamed to accommodate more attendees). One respondent noted a "shift in community ownership, more belief that everyone in the community can do something to turn the tide." St. Joseph Hospital has partnered with several organizations in Humboldt to create the Humboldt County ACEs Connection and provides grant money to First 5 Humboldt for an ACEs and resilience coordinator.[30]

In 2017, the Humboldt Community Health Trust (HCHT) became one of 13 sites participating in the California Accountable Communities for Health Initiative. HCHT is focused on addressing substance use in the community and brings together leaders from county government, law enforcement, education, children and family services, health care, behavioral health, and community members; NCHIIN serves as the "backbone" organization. Goals are to reduce injury and overdose, increase prevention and early intervention, address social determinants of health, and enhance treatment access and coordination.

Reflected in the HCHT's portfolio of interventions are a variety of community projects related to SUD treatment and prevention. Responding to a perinatal SUD rate nearly three times the state average, a major undertaking for Humboldt RISE (Resilience and Inclusion through Support and Empowerment) is a project to support new mothers.[31] The project aims to screen all women for SUDs during prenatal care and refer those who need support to a navigator who can connect them to treatment and other resources. A

perinatal care navigator is available at St. Joseph Hospital. The project also works to support providers in obtaining training and a federal waiver required to prescribe buprenorphine for opioid use disorder and to foster community norms to discourage cannabis use during pregnancy.

A key aspect of the perinatal SUD project is a plan to use the care coordination platform developed by NCHIIN to share data across organizations providing services to enrolled women. As noted earlier, the regulatory barriers to sharing SUD treatment data are substantial. HCHT is trying to craft an approach that enables sharing information for care coordination while complying with federal requirements, an effort that should be supported by the July 2020 regulatory updates that ease the flow of data to support patient care.

Efforts to support pregnant women at risk of SUDs are also ramping up in the tribal community, with funding from California's Department of Social Services. The program, a collaboration among tribal clinics (UIHS, Hoopa Valley Tribe's K'ima:w Medical Center, and Karuk Tribe's Orleans Health Clinic) and First 5 Humboldt, will train and deploy health navigators in tribal clinics. The program launched with UIHS in July 2020; COVID-19 delayed the launch at other clinics, but work is underway.

While tangible progress has been made, a steep hill remains to be climbed. The rate of ED visits for opioid overdose in Humboldt in 2018 was twice the statewide rate, falling only slightly since 2015. Several respondents were optimistic about the rollout in summer 2020 of the new Wellness and Recovery Program, PHC's name for the Drug Medi-Cal Organized Delivery System implementation in Humboldt and six other counties (not Del Norte). Statewide, the goal of the program is to provide a more effective approach to treating SUD, reframing addiction as a chronic disease.[32] Services provided through PHC's Wellness and Recovery Program include intensive outpatient treatment, detoxification services, residential treatment, and medication-assisted treatment.

Early Experience with COVID-19

Interviews for this report took place between March and May 2020, just as the COVID-19 pandemic was spreading in California. Accordingly, information about how health care organizations were responding relates to early planning and preparation. As one respondent put it, the Humboldt and Del Norte region has a "thin health system over large geography with bad roads. Cases could quickly overwhelm infrastructure." However, at least in the early phase of the pandemic, the community fared relatively well; telehealth services rapidly replaced in-person primary care, and St. Joseph led preparation for a surge of acute cases. While worst-case concerns about the outbreak had not materialized as this report was written, concerns about the economic implications of the pandemic were growing.

Fewer COVID-19 cases and deaths than statewide. Total cases of COVID-19 per 100,000 people in Humboldt and Del Norte Counties remained low in the spring and through the summer compared with California statewide and the other regions included in this study, as shown in Table 10.[33]

TABLE 10. COVID-19 Impacts: Humboldt and Del Norte Counties vs. California

	Humboldt (H)	Del Norte (DN)	H/DN Region	California
PER 100,000 RESIDENTS (AUGUST 2020)				
▶ COVID-19 cases	276	388	295	1,791
▶ COVID-19 deaths	3.0	3.6	3.1	33
UNEMPLOYMENT RATE				
▶ Pre-pandemic (FEBRUARY 2020)	3.9%	6.2%	4.2%	4.3%
▶ Mid-pandemic (AUGUST 2020)	8.4%	9.4%	8.4%	11.4%
MEDI-CAL ENROLLMENT				
▶ Percentage change (FEBRUARY TO AUGUST 2020)	–0.1%	–0.8%	–0.2%	1.0%
CARES ACT, PER CAPITA (AUGUST 2020)				
▶ Provider Relief Funds	$466	$19	$390	$148
▶ High Impact Funds	$0	$0	$0	$16

Sources: "COVID-19 Cases," California Open Data Portal; "Employment by Industry Data," State of California Employment Development Department; "Month of Eligibility, Dual Status, by County, Medi-Cal Certified Eligibility," California Health and Human Services, Open Data; and "HHS Provider Relief Fund," Centers for Disease Control and Prevention. CARES Act data accessed August 31, 2020; all other data accessed September 30, 2020.

Providers receive some CARES Act funding to offset losses. Providers in Del Norte have received significantly less CARES (Coronavirus Aid, Relief, and Economic Security) Act Provider Relief Fund money per capita ($19) than providers in Humboldt ($466 per capita) and statewide ($148 per capita). Providers in Humboldt County received $63.2 million and providers in Del Norte received half a million dollars through the CARES Act and the Paycheck Protection Program and Health Care Enhancement Act. The largest hospital, St. Joseph Health, received by far the largest amount of CARES Act funds ($36.5 million), followed by the Southern Humboldt Community Healthcare District ($3.8 million). The largest clinic providers, Open Door and UIHS, received the largest sums for clinics, $2.6 million and $2.1 million, respectively.[34]

Rapid pivot to telehealth. As California's shelter-in-place order took effect in March, clinics and physician offices began to close their doors and turn to telehealth to support nonurgent health care needs. Open Door was in an advantageous position as a result of extensive experience with telehealth, including its use for a broad array of specialty services. That experience created a solid foundation for broader use of telemedicine, particularly for primary care. Tribal care also saw a rapid shift to telehealth, with rapid uptake by patients. Respondents reported new uses of telehealth, including SUD and child welfare services, but raised concerns about services less amenable to remote provision, such as dental care and well-child visits. Lack of connectivity in some areas of the rural north, particularly for low-income families without access to internet and phone service, also limits the reach of telehealth. Several respondents noted that wider use of telehealth could potentially spark long-term shifts in patterns of care and reconsideration of investment in new facilities. During this March–May timeline, reimbursement for telehealth services was a key concern for all respondents as payers and regulators worked through how to ensure continuation of care and financial sustainability for providers during the crisis.

St. Joseph Health Hospital prepared for surge that did not materialize. As noted previously, St. Joseph is part of the Providence system, which includes the hospital in Washington State where the first US case of COVID-19 was diagnosed. Support from Providence included early clinical guidance, rapidly developed policies and protocols, and access to personal protective equipment via the large system's supply chain. Along with many hospitals in California, St. Joseph Hospital moved quickly to prepare for a surge in cases by postponing imaging, elective procedures, and cancer care, as well as through operational measures, including temperature takers in the lobby and a moratorium on visitors and staff training. In May, when a surge did not materialize, the hospital began to reopen for routine care. For St. Joseph, as for hospitals across the state and country, the reduction in utilization during the lockdown highlighted providers' reliance on elective procedures and associated billings and their financial vulnerability.

Data exchange to support COVID-19 care. Humboldt's vendor and partner for the care coordination platform, Activate Care, provided a free implementation of the platform for the County COVID-19 Response Team to support active management of COVID-19-positive individuals. The platform, implemented in less than a week, was used for rapidly housing at-risk homeless individuals in motels; it provided the care coordination framework for the newly housed and was described as a "major success."

Recession and emerging funding crisis compound pandemic challenges. Unemployment in Humboldt County jumped from 3.9% in February 2020 to 8.4% in August 2020 and from 6.2% to 9.4% in Del Norte County (see Table 10).[35] As of August 2020, Medi-Cal enrollment had not increased from February 2020, though most observers expected to see an increase in the coming months as a result of employment losses.[36]

County budgets across California were hit hard by increased public health costs associated with COVID-19, such as testing, acquiring personal protective equipment, and

contact tracing. Community needs for food and housing also increased as the economic shutdown led to job losses. And just as costs increased, revenue decreased. Counties rely on realignment funds from vehicle license fees and sales taxes to fund social services, such as child welfare and behavioral health, and on Mental Health Services Act funding from high earners (1% income tax on personal income over $1 million) for case management of homeless individuals.

Yet, counties and cities with populations under 500,000, including Humboldt and Del Norte, were excluded from receiving direct funding through the federal CARES Act in late March. Counties across the state banded together to advocate for state and federal funding to support local services in early May; officers from both Humboldt and Del Norte Counties signed a letter to Governor Gavin Newsom requesting help on behalf of the 42 (of 58) county governments ineligible for CARES Act funding.

A May 4, 2020, letter from the Humboldt County administrative officer to state legislators requesting funding outlines the costs Humboldt incurred through April 2020, including $2 million for the Emergency Operations Center and Joint Information Center, which established a centralized hub at a Eureka conference center staffed largely by DHHS personnel. Additional costs were incurred by the county for overtime staffing in the correctional facility, public health field nurses and administration, child welfare, and social services.

The state budget agreement reached in June 2020 provided some funding for counties that did not receive federal support, and both counties and the state were banking on substantial additional federal funding.

Issues to Track

- What results will the workforce initiatives yield for Humboldt and Del Norte? Will the family medicine residency program help shrink the primary care access gap? What will long-term retention look like for the NP residency at Open Door? Can efforts to train local residents for health care jobs ease the shortage and improve the region's economic outlook?
- What steps will Mad River Community Hospital take to gain financial stability? How will service reductions affect access to care?
- How will Humboldt's efforts to manage SUDs fare? Will Humboldt be able to sustain — and even accelerate — improvements? Will the programs to support perinatal women with SUD be effective?
- Will Humboldt expand community information exchange that allows for data sharing among community-based organizations and across sectors? How will a CIE contribute to addressing social service needs in the community and coordination across medical and social service sectors?
- What will happen with utilization of telehealth services as the pandemic continues to unfold? Will more flexible reimbursement for such services, provided temporarily, become permanent? Will telehealth become the norm for routine primary care, behavioral health, and other services previously provided mainly face-to-face? How will the community improve internet connectivity?
- How will the economic consequences of COVID-19, including big revenue losses for the county government and providers, play out in Humboldt and Del Norte? How severe will job loss — and loss of employment-based health coverage — be for local residents? How will safety net services and community initiatives fare in an era of budget cuts?

ENDNOTES

1. *Humboldt County Maternal Child and Adolescent Health Community Profile (2017–18)*, California Dept. of Public Health (CDPH); and *Del Norte County Maternal Child and Adolescent Health Community Profile (2017–18)*, CDPH, accessed July 21, 2020.

2. "QuickFacts: Population Estimates, July 1, 2019," US Census Bureau, accessed July 24, 2020. The population of Humboldt County in 2019 was 135,558, Eureka 26,710, and Arcata 18,431.

3. "QuickFacts: Population Estimates, July 1, 2019," US Census Bureau, accessed July 24, 2020. The population of Del Norte County was 27,812 in 2019.

4. *United Indian Health Services, Inc. (UIHS) Community Health Profile* (PDF), California Rural Indian Health Board, December 2015; and *Humboldt County Maternal Child and Adolescent Health Community Profile (2017–18)* (PDF), CDPH, accessed July 24, 2020.

5. *2018 Humboldt County Community Health Assessment: Data for Planning and Policy Making* (PDF), Humboldt County Dept. of Health & Human Services, accessed July 21, 2020; Humboldt Maternal Child, CDPH; and "Major Employers in California: Humboldt County," California Employment Development Dept. (EDD), accessed July 21, 2020.

6. "Major Employers in California: Del Norte County," EDD, accessed July 21, 2020.

7. "Poverty Guidelines," US Dept. of Health and Human Services (HHS), last modified January 8, 2020.

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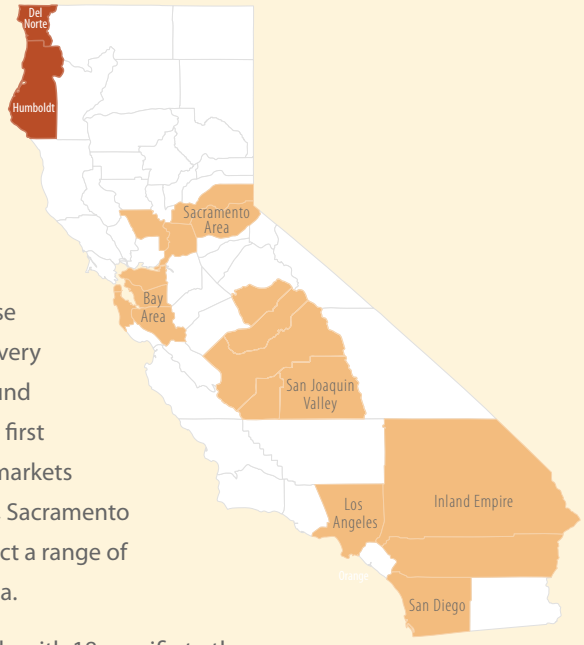
Background on Regional Markets Study: Humboldt/Del Norte

Between March and May 2020, researchers from Blue Sky Consulting Group conducted interviews with health care leaders in Humboldt and Del Norte Counties in the north coast region of California to study the market's local health care system. The market encompasses the Eureka-Arcata-Fortuna Micropolitan Statistical Area and the Crescent City Micropolitan Statistical Area.



Humboldt/Del Norte is one of seven markets included in the Regional Markets Study funded by the California Health Care Foundation. The purpose of the study is to gain key insights into the organization, financing, and delivery of care in communities across California and over time. This is the fourth round of the study; the first set of regional reports was released in 2009. This is the first time the Humboldt/Del Norte region was included in the study. The seven markets included in the project — Humboldt/Del Norte, Inland Empire, Los Angeles, Sacramento Area, San Diego, San Francisco Bay Area, and the San Joaquin Valley — reflect a range of economic, demographic, care delivery, and financing conditions in California.

Blue Sky Consulting Group interviewed nearly 200 respondents for this study with 18 specific to the Humboldt/Del Norte market. Respondents included executives from hospitals, physician organizations, community health centers, Medi-Cal managed care plans, and other local health care leaders. Interviews with commercial health plan executives and other respondents at the state level also informed this report. The onset of the COVID-19 pandemic occurred as the research and data collection for the regional market study reports were already underway. While the authors sought to incorporate information about the early stages of the pandemic into the findings, the focus of the reports remains the structure and characteristics of the health care landscape in each of the studied regions.

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ABOUT THE FOUNDATION

The **California Health Care Foundation** is dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford. CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with changemakers to create a more responsive, patient-centered health care system.

California Health Care Almanac is an online clearinghouse for key data and analysis examining the state's health care system.