



MATERNITY CARE IN CALIFORNIA: AN ENVIRONMENTAL SCAN

California's Labor and Delivery Needs Are Changing — Considerations for a Path Forward



Executive Summary

With a spate of hospital labor and delivery (L&D) unit closures over the last decade and disparities in health outcomes for Black mothers, maternal health in California has recently been in the spotlight.

While California outperforms the nation on maternal health outcomes, Black mothers remain particularly at risk, delivering just 5% of all babies yet accounting for 21% of maternal deaths.¹

Maternity care access is key to preventing poor outcomes and reducing disparities. That's one reason concerns have been growing about the availability of hospital-based birthing opportunities.

This report focuses on one aspect of access to maternity services: factors driving the decline in hospital-based L&D availability and issues to be considered by policymakers.

The key findings of this report are intended to help policymakers think through a complex issue where several things need consideration and attention: access to facilities and clinical specialists, availability of prenatal and perinatal services, distance patients must travel to receive care, and more. The report's key findings are:

- **Maintaining access to L&D care in California requires meeting the challenges in delivering these services: low delivery volumes, workforce shortages, and hospital financial instability.**
- **If staff is unavailable to support complex L&D care because of shortages or inability to recruit or retain professionals, hospitals may have no choice but to close those units — even if their community needs the services.**
- **Ensuring high-quality L&D care comes at a high cost — even when there are few patients receiving services.**
- **Approaches for ensuring access to L&D services must consider geographic disparities, including the effect travel distance has on mothers' and babies' safety.**

“Understanding that communities need a place where their residents can go and safely deliver a baby is not something that is a luxury. It is a necessity.”

State Senator Akilah Weber, MD



- **Obstetrician-gynecologists (OB/GYNs) and other L&D specialists must have opportunities to frequently use their skills to maintain the proficiency necessary for handling emergencies or complications during deliveries.**
- **Each community is unique and requires an approach tailored to its needs. Policies must prioritize mothers' and babies' safety and emphasize high-quality care.**

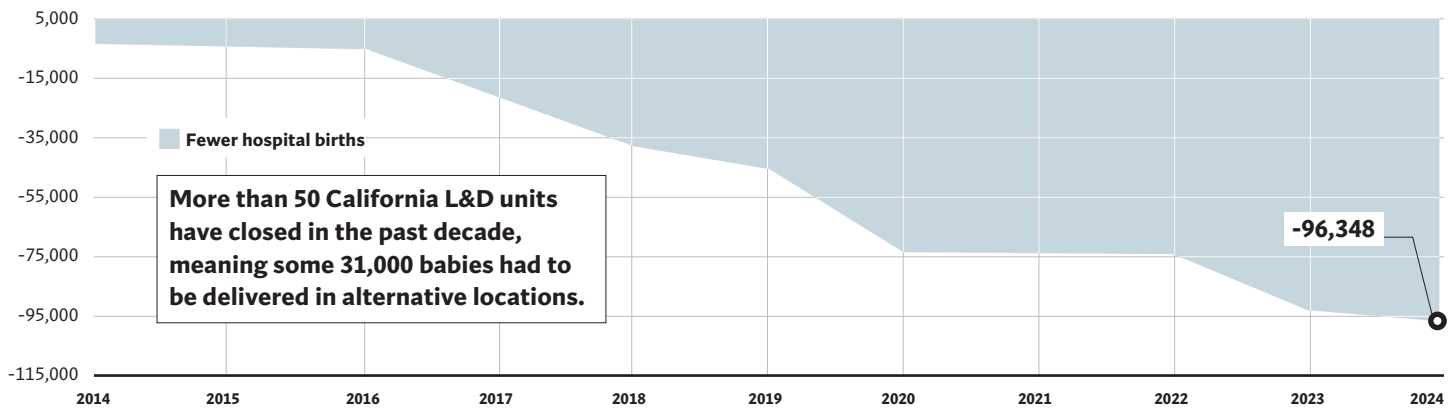
Three Factors Drive Reduced L&D Capacity in California Hospitals

Annual births have declined dramatically over the past decade — as has hospitals’ capacity to deliver babies. In 2012, at least 250 hospitals in California delivered babies.² Since 2014, more than 50 L&D departments in the state have closed, and now deliver more than 96,000 fewer babies — a 21% decrease over 10 years.³

Although births statewide are declining, the number of births is actually *increasing* in some regions — regions represented by low-income populations that are primarily non-white and non-Asian.


California’s experience mirrors national trends, with [Centers for Disease Control and Prevention data](#) showing that in the U.S., births reached a historic low — 3.6 million registered births in 2023, about 2% fewer than in 2022 — extending a 17-year decline.⁴ These data align with a decline in global fertility rates; a 2024 study by [The Lancet](#) found that by 2050, more than 75% of countries will not have high enough fertility rates to sustain population size over time; this will increase to 97% of countries by 2100.⁵


California Hospital Births Down Over Past Decade




Source: CHA analysis of data from the California Department of Public Health, Center for Health Statistics and Informatics, Vital Statistics Branch and the California Department of Health Care Access and Information, Hospital Annual Financial Disclosure Reports.

Three primary factors drive California’s reduced capacity for deliveries:

- lower birth volume**  **21%**
 – the decrease in California births over the past 10 years⁶

- workforce challenges**  **1,100**
 – the shortage of OB/GYNs in California by 2030⁷

- financial instability**  **60%**
 – the share of hospitals that closed their L&D units in the past 10 years citing negative operating margins in the year before closure⁸

KEY TAKEAWAY: Maintaining access to L&D care in California requires meeting the challenges in delivering these services: low delivery volumes, workforce shortages, and financial instability.

California L&D Workforce Challenges

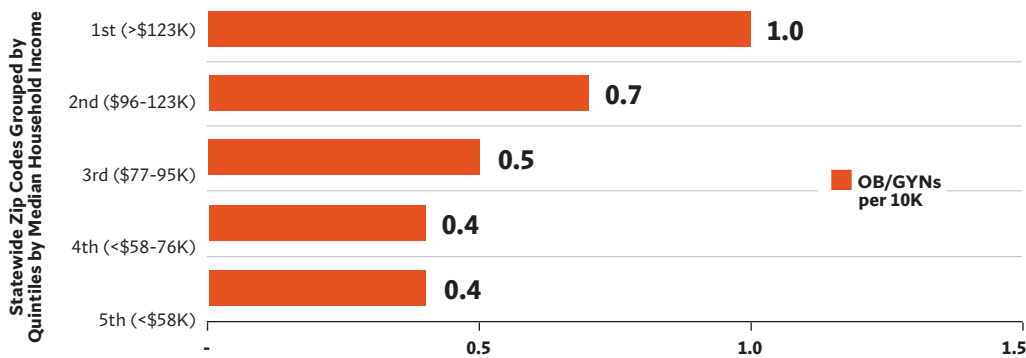


One of the key drivers of California’s L&D unit closures is a workforce shortage — the **inability to recruit and retain specialized providers.**

The U.S. Department of Health and Human Services (HHS) recommends one OB/GYN or certified nurse midwife per 1,500 females aged 15-44.⁹ But widespread shortages of qualified health care professionals exist, including primary care professionals, specialty care physicians, and allied health professionals.¹⁰

In California, virtually all regions are experiencing a shortage of OB/GYNs — but the need is most acute in the lowest-income areas — the poorest regions in California have the fewest providers.^{11, 12, 13}

Poorer Regions in California Have Less Access to OB/GYNs



Source: CHA analysis of Medical Board of California data

Eight California counties have no licensed OB/GYNs, and 11 other counties have only a handful.¹⁴

To meet the recommended ratio, counties with median household incomes less than \$96,000 need a 168% increase in OB/GYNs in the next five years, and that percentage only increases as median household income decreases.

The gap will widen as time goes on; California is estimated to have a shortage of more than 1,100 OB/GYNs by 2030.¹⁵ In many cases, a hospital is limited in how many deliveries it can handle due to these types of shortages.



KEY TAKEAWAY: If staff is unavailable to support complex labor and delivery care, hospitals may have no choice but to close those units — even if their community needs the services.

Financial Instability

Every day, 53% of all hospitals statewide lose money caring for patients.¹⁶ Although L&D services are among the most difficult to sustain financially,¹⁷ hospitals work hard to keep their L&D units open. Maintaining a fully functional L&D unit at a hospital is akin to a fire department that is fully staffed and ready for action even when there are no fires to extinguish.

Several factors determine whether an L&D unit can safely and effectively deliver babies, but there is one constant: Providing comprehensive and continuous specialized staffing for a unit responsible for complex care is costly.

Hospitals work to ensure that the necessary specialists are available at a moment's notice to keep moms and infants healthy and safe — no matter how many babies are being delivered.

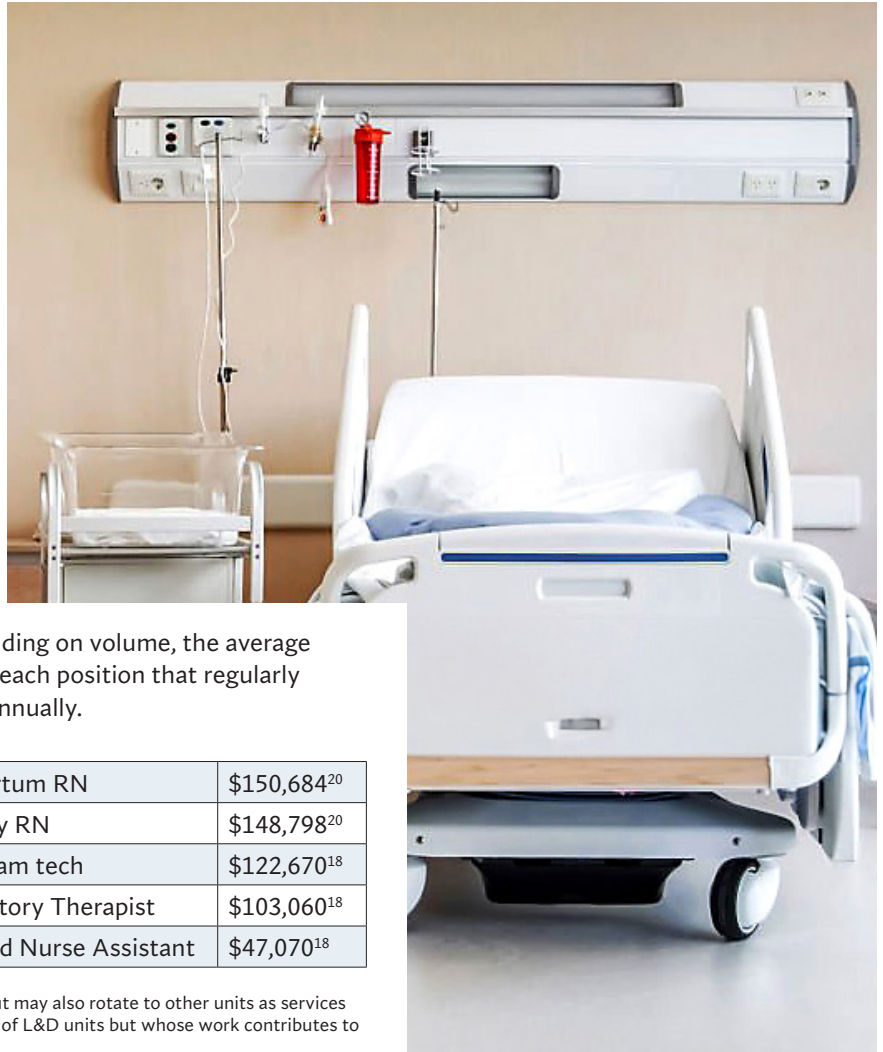
While the cost to operate an L&D unit varies depending on volume, the average salaries of just a single professional or employee at each position that regularly works in an L&D unit total more than \$1.9 million annually.

Anesthesiologist	\$452,930 ¹⁸	Postpartum RN	\$150,684 ²⁰
Neonatologist	\$316,600 ¹⁹	Delivery RN	\$148,798 ²⁰
OB/GYN	\$285,470 ¹⁸	Sonogram tech	\$122,670 ¹⁸
Midwife	\$183,740 ¹⁸	Respiratory Therapist	\$103,060 ¹⁸
NICU RN	\$163,562 ²⁰	Certified Nurse Assistant	\$47,070 ¹⁸

Note: Many of these positions include staff who work in L&D units but may also rotate to other units as services are needed. Other hospital staff members who typically work outside of L&D units but whose work contributes to these units' function, such as admitting clerks, are excluded.

In addition to high costs for around-the-clock clinical care experts, other challenges include the cost to purchase and maintain equipment and a low reimbursement rate per patient, particularly from Medi-Cal. Other threats to this care include spending growth targets from the Office of Health Care Affordability, cuts to federal Medicaid programs, Affordable Care Act cuts, and more.

Despite these challenges, the decision to close an L&D unit is a difficult and protracted one. L&D units are at the heart of serving patients and central to hospitals' mission of care.



KEY TAKEAWAY: Ensuring high-quality L&D care comes at a high cost — even when there are few patients receiving services.

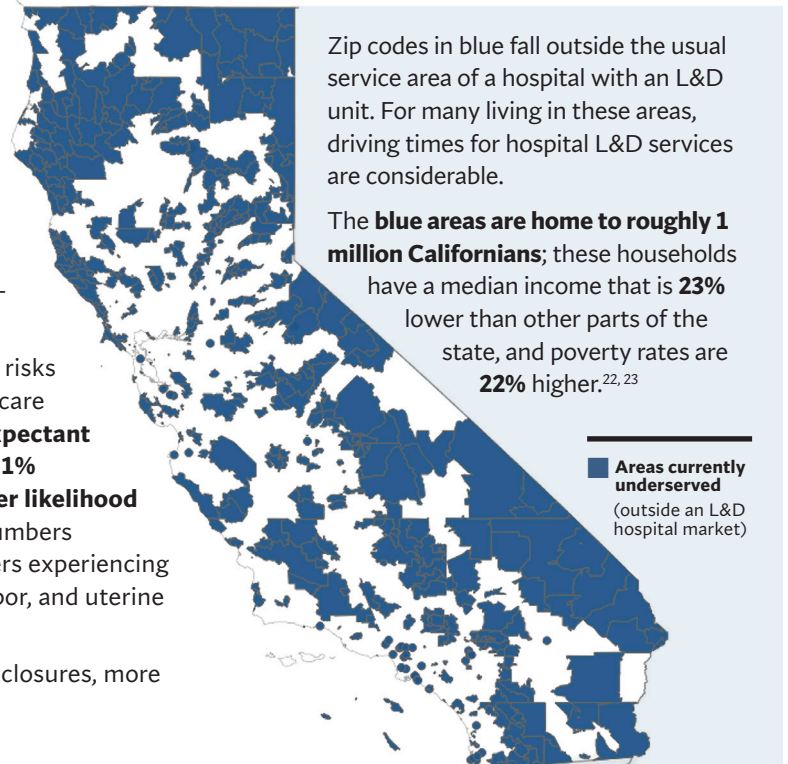
How Closures Affect Communities

L&D hospital unit closures disproportionately affect California’s low-income and Latino populations, along with communities where access to maternity care is already limited.²¹ Additionally, households in areas without maternity services have a median income 23% lower than other parts of the state.^{22, 23}

Data suggest that future closures are likely not to occur where ample or excess capacity exists; instead, some closures may happen in areas that rely on a single hospital — expanding maternity care deserts.

Increased travel times to deliver are associated with greater risks of adverse outcomes and higher rates of neonatal intensive care unit (NICU) admissions. In areas without an L&D unit, **an expectant mother traveling as few as an additional 6 miles faces an 11% increase in the risk of negative outcomes and a 15% greater likelihood that her baby will be admitted to the NICU** — and those numbers worsen the farther a patient must travel.²⁴ Expectant mothers experiencing complications such as eclampsia, pre-eclampsia, preterm labor, and uterine rupture are placed in the greatest jeopardy by longer drives.

If low delivery volume continues to be a harbinger of future closures, more mothers and newborns will be placed at risk.



Rural Ridgecrest L&D Closure Creates Access Problem



Photo courtesy of Ridgecrest Regional Hospital

After more than 65 years delivering babies, the Central Valley’s Ridgecrest Regional Hospital shuttered L&D services in the spring of 2024, due to a shortage of obstetric clinicians and an annual loss

of \$5 million to \$6 million attributed to the high costs associated with running an L&D unit and low reimbursement rates for services. Expectant moms in the tight-knit community, built around the Naval Air Weapons Station China Lake, had to travel as many as two hours to deliver their babies.

“Think of the wait times [at the nearest hospitals]. Then there’s the drive time,” said Ridgecrest CEO Jim Suver, noting that some expectant mothers had to travel as far as Bakersfield, 100 miles away, along a rough mountain pass. Others were forced to choose between taking hours out of their day for travel — assuming they even had the means — or

skipping appointments altogether.

Emergency funding from the U.S. military has enabled services to resume — for now.

Suver isn’t sure exactly what will happen when that funding runs out at the end of 2025. He continues to seek other funding, but with nothing solidified, he is concerned that the need to subsidize L&D may significantly reduce funding for other hospital services. For pregnant moms in Ridgecrest, the future is uncertain.

“The Ridgecrest closure created an access problem.”

Jim Suver, CEO,
Ridgecrest Regional
Hospital



KEY TAKEAWAY: Approaches for ensuring access to L&D services must consider geographic disparities, including the effect travel distance has on mothers’ and babies’ safety.

Low Delivery Volume Reduces Quality and Safety

The age-old saying “If you don’t use it, you’ll lose it” applies to any learned or acquired skill — and L&D care is no different. If clinical specialists don’t deliver a certain number of babies annually, their skills may not be adequate to handle emergencies or complications during deliveries.

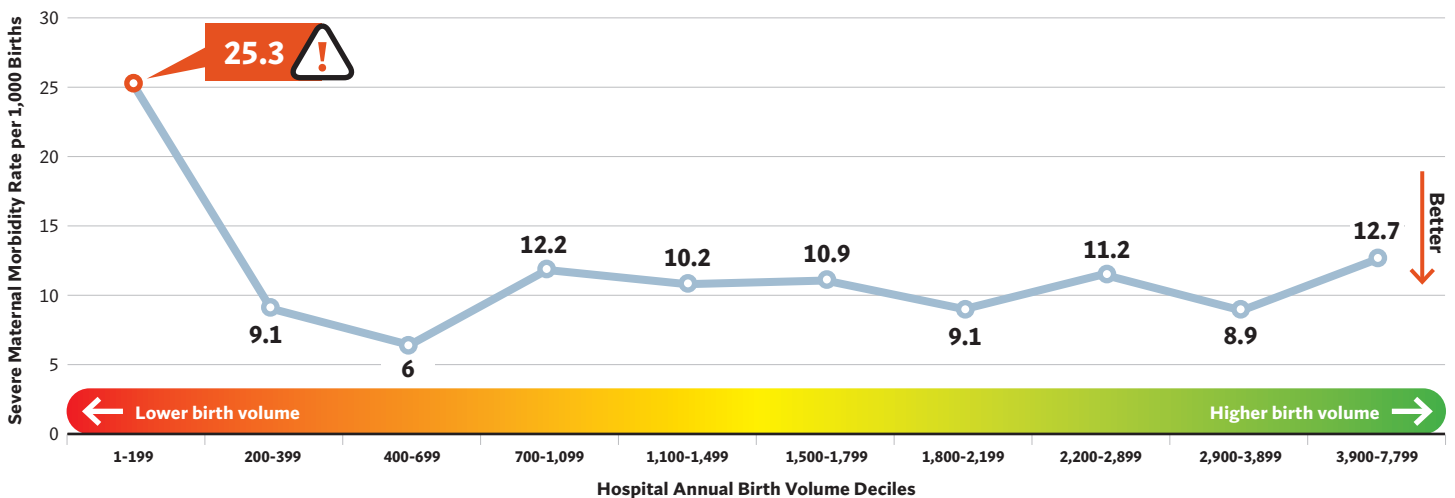
In a [recent JAMA study](#), the risk of severe maternal morbidity was higher for patients in lower-volume rural hospitals

compared with similar patients giving birth at rural hospitals with more than 460 annual births.²⁵

An analysis of statewide data, shown in the graph below, indicates that lower birth volume leads to worse patient outcomes — hospitals that deliver 199 babies or fewer annually have a severe maternal morbidity rate near double that of hospitals that deliver 200 or more babies annually.²⁶

Low delivery volumes don’t just affect quality of care — they also hurt recruitment and retention. OB/GYNs are unlikely to take or remain in a position where there is risk of a diminishing skillset — because even in a low-risk pregnancy, anything can go wrong at any point during delivery, and providers must be prepared.

Higher Birth Volume Leads to Better Patient Outcomes



A Possible Approach

In rural Alaska, one health center’s approach is to collaborate. Every two years or so, its nurse midwives spend two weeks at a partnering tertiary care facility in Anchorage delivering as many babies as possible. “We have five nurse midwives here, and they’re not all going to get enough deliveries to stay,” said Maniilaq Health Center Medical Director Robert Onders, MD, JD, MPA. “We send them down [to Anchorage], and they can do 20 deliveries in two weeks.”

[Read more about the Maniilaq Health Center on page 9.](#)



KEY TAKEAWAY: OB/GYNs and other L&D specialists must have opportunities to frequently use their skills to maintain the proficiency necessary for handling emergencies or complications during deliveries.

Approaches Aren't 'One Size Fits All'

One way to provide maternity care and L&D services to patients is the “hub-and-spoke” model in which a larger hospital partners with smaller facilities throughout a region for care coordination, training, and other resources needed to maintain L&D services. Innovative approaches are especially helpful in extreme cases where care is more geographically remote (read “In Rural Alaska, Collaboration Is Key” on [Page 9](#)).

Using this model in urban areas could help ensure that expectant mothers still receive the necessary care.

The key when considering any approaches related to a hospital's L&D unit is to remember that **each community is unique and requires a resolution tailored to its needs — and all potential approaches must prioritize mothers' and babies' safety and emphasize high-quality care.**

Hub-and-Spoke Strategy Expands Access to Maternity Care

In rural Mendocino County, providing high-quality care means collaborating to meet patients' needs.

The Adventist Health Ukiah Valley (AHUV) Family Birth Center is where expectant mothers as far north as Fortuna, two and a half hours away, and through the coastal areas of Fort Bragg, Mendocino, and Point Arena (including numerous tribal communities and rural regions) come to deliver their babies.

The AHUV Family Birth Center serves as the **central hub** in a hub-and-spoke model for L&D, providing complex OB/GYN services, including surgical procedures, inpatient care, and high-risk pregnancy management, said AHUV Patient Care Executive Amy Buckingham, DNP, MSN, RN, CEN.

“Our OB/GYN providers currently work with several outpatient clinics, including rural health clinics (RHCs) and Federally Qualified Health Centers (FQHCs),” Buckingham added. “These clinics act as **community spokes**, providing essential prenatal and postnatal care while seamlessly connecting patients to the hospital for advanced services when needed.”

The AHUV Family Birth Center — which also provides support to its surrounding critical access hospitals — has a goal in 2025 to do even more for its patients. It aims to provide better access to care, strengthen care coordination, reduce barriers to care, and ensure efficient use of resources — and it will improve upon its services in several ways, including:

- Assessing its needs by reviewing staffing, equipment, and infrastructure to prepare for increased or decreased patient volume
- Strengthening partnerships by collaborating with OB/GYN providers at RHCs and FQHCs to align care practices
- Engaging the community by partnering with tribal leaders and rural health advocates to address unique health care needs
- Developing care pathways by establishing standardized protocols for patient transfers, high-risk pregnancies, and postpartum care

“This model strengthens coordination between clinics and hospitals. It reduces delays and ensures that expectant mothers across our region receive the highest quality care close to home, improving maternal and infant health outcomes,” Buckingham said. “But I don't think we can ever be good enough or strong enough. So, in 2025, we will further collaboration and strengthen our partnerships across all rural health care clinics and federally funded clinics. Functioning from an optimal state will always be our goal.”



Photo courtesy of Adventist Health

“This model ... ensures that expectant mothers across our region receive the highest quality care close to home, improving maternal and infant health outcomes.”

Amy Buckingham, Adventist Health Ukiah Valley

Approaches Aren't 'One Size Fits All' (continued)

In Rural Alaska, Collaboration Is Key

Much farther north in rural Kotzebue, Alaska — 33 miles above the Arctic Circle — the Maniilaq Health Center (MHC) takes collaboration to the next level. Here, rather than try to bring services needed to pregnant people, pregnant people go to where the services are available.

MHC's five certified nurse midwives provide maternity care via telemedicine and periodic in-person trips to 11 surrounding villages where community health aides (local residents medically trained) and advanced practice providers at each village clinic see 14 to 18 pregnancies (or fewer in smaller villages) each year. Via telemedicine and quarterly in-person visits to MHC, the nurse midwives are supported by OB/GYNs from the Alaska Native Medical Center (ANMC) — a tertiary care facility 500 miles south in Anchorage — to ensure their skills are honed and they can adapt to sudden changes in patients' needs.

There are no roads between Kotzebue and the 11 communities it supports, so expectant mothers fly into MHC quarterly for in-person appointments and stay in the local hotel. At 36 weeks, moms experiencing low-risk pregnancies fly to MHC and stay in local lodging while awaiting delivery — in the future, MHC plans to have patient housing with a separate “maternal home” area, where pregnant people will stay not just leading up to delivery, but also if they're at MHC for a specialist appointment. This maternal home concept will include rooms with cooking capabilities, said Maniilaq Health Center Medical Director Robert



Photo courtesy of Maniilaq Health Center

Onders, MD, JD, MPA, and allow for additional family members to stay with the patient during their visit.

Moms with high-risk pregnancies are seen virtually by ANMC's OB/GYNs, Dr. Onders said, adding that at 36 weeks, those moms fly to ANMC. There, they stay in patient housing until delivery — on a designated maternity floor in a “home away from home” environment.

“You have to have that support from the higher levels of care to the lower levels of care,” Dr. Onders said. “That's, I think, pretty critical. And it's not an adversarial ‘us’ vs. ‘them’ model — it's collaborative.”

Other approaches include the:



Maternal home model, in which expectant mothers can temporarily live in hospital-based housing prior to delivery



OB hospitalist model, in which physicians with dedicated shifts in the L&D unit provide continuous monitoring of patients



Midwifery-based birth center care,²⁷ for low-risk births



Telehealth, which allows women facing barriers to regular in-person care to receive prenatal, postpartum, and other related care remotely via virtual maternal health providers



KEY TAKEAWAY: The key to any approach is remembering and considering that each community is unique and requires a resolution tailored to its needs — and all potential solutions must prioritize mothers' and babies' safety and emphasize high-quality care.

Maternity Care Facts and Considerations

Drivers of L&D unit closures are intertwined: A declining birth rate creates low volume, which creates concern for maintaining the clinical skill level required to handle emergency situations. This generates physician and health care workforce recruitment and retention issues, and ongoing cost and quality considerations persist.

Potential approaches must consider not only these drivers, but also the impact on health equity, with an eye toward addressing the health disparities that already exist — predominantly in the regions of California represented by low-income populations that are primarily non-white and non-Asian.

Problem/Driver	Experts Say	Considerations for California
Declining Birth Rate/ Low Birth Volume	In 2021, California's birth rate was at its lowest level in more than 100 years. The number of births had fallen from 613,000 in 1992 — the peak number of births in the state — to 420,000 in 2021. ²⁸	Given this decline, study the current and projected need for maternity care services accounting for projections for continued decline in California's birth rate — while addressing the needs of those who face access challenges.
Workforce Shortage	An insufficient number of qualified health care professionals exists across sectors, including primary care professionals, specialty care physicians, and allied health professionals. ²⁹ HHS recommends one OB/GYN or certified nurse midwife per 1,500 females aged 15-44. California is experiencing a shortage of OB/GYNs, and the most underserved areas are in the poorest regions (median household incomes less than \$96,000 need a 168% increase in OB/GYNs to meet HHS' recommended ratio, and that percentage increases as median household income decreases). ^{30, 31, 32} It is estimated that California will have a shortage of more than 1,100 OB/GYNs by 2030. ³³	If hospitals cannot find or retain staff to support complex labor and delivery care, hospitals may have no choice but to close those units — even if their community needs the services. Study potential benefits of workforce investments. Increase support for programs like CalMedForce, which focuses residency training slots for OB/GYNs in rural and underserved areas. Consider what is required to meet U.S. HHS' recommended ratio from a cost and recruitment standpoint and ways to assist California communities in meeting this ratio.
Recruitment and Retention	In California, eight counties have no licensed OB/GYNs. Meanwhile, 11 other counties have a handful of OB/GYNs or fewer. ³⁴ The wealthiest areas in California have the highest concentration of physicians. ^{31, 32, 35}	OB/GYNs and other L&D specialists must have opportunities to frequently use their skills to maintain the proficiency necessary for safely handling emergencies or complications during deliveries. Study alternative models that foster and enhance professional development and job satisfaction within the obstetric communities, especially to improve retention in underserved areas. Consider implementing incentives that encourage OB/GYNs from wealthier areas to practice in poorer regions, where the need is most acute. Consider training programs that allow OB/GYNs to spend time offsite at high-volume facilities performing births to refresh their skills.
Proximity to Care Affects Quality	An analysis of statewide data indicates that lower birth volume leads to worse patient outcomes — hospitals that deliver 199 babies or fewer annually have a maternal morbidity rate nearly double that of hospitals that deliver 200 or more babies annually. ³⁶ In areas without an L&D unit, an increase of as little as 6 miles in driving distance can increase the risk of maternal outcomes by 11% and the risk of NICU admissions by 15%. ³⁷	Approaches for ensuring access to L&D services must consider geographic disparities, including the effect travel distance has on mothers' and babies' safety. Examine the impact of potential approaches on the quality of care and safety of mothers and babies, accounting for how low volume and increased driving times contribute to negative health outcomes.
Government Underfunding	Obstetrics and delivery services are one of the most under-reimbursed of all hospital service offerings. ³⁸ Many hospitals are subsidizing their L&D departments because government reimbursements do not include "standby costs."	Ensuring high-quality L&D care comes at a high cost — even when there are few patients receiving services. Examine improved Medicaid (Medi-Cal) reimbursement for these services. ³⁹
Broader Hospital Financial Distress	Every day, more than half of California's hospitals lose money caring for patients, and those with the highest percentage of revenue from Medicare and Medi-Cal have, on average, operating margins five percentage points lower than hospitals with the lowest revenue percentage from government payers.	Examine the extent to which bolstering hospitals' overall financial sustainability could support L&D service lines.

Additional Resources on Maternal Health

- **“Association of Driving Distance to Maternity Hospitals and Maternal and Perinatal Outcomes.”** National Library of Medicine. <https://pubmed.ncbi.nlm.nih.gov/36201778/>
- **The American College of Obstetricians and Gynecologists.** <https://www.acog.org/community/districts-and-sections/district-ix/programs-and-resources/california-maternal-quality-care-collaborative-toolkits>
- **Maternal Quality Improvement Toolkits.** California Maternal Quality Care Collaborative. <https://www.cmqcc.org/resources-tool-kits/toolkits>
- **“Strengthening California’s Health Care Workforce to Drive Equitable Access.”** Insure the Uninsured Project. <https://www.itup.org/california-health-care-workforce-shortage-itup-convenes-regional-equity-collaboratives-to-address-solutions/>
- **“Where You Live Matters: Maternity Care in California.”** March of Dimes. <https://www.marchofdimes.org/peristats/assets/s3/reports/mcd/Maternity-Care-Report-California.pdf>

References

- 1 Hwang, K. (2023, October 27). Despite high Black maternal death rate, California hospitals ignored training about bias in care. CalMatters. <https://calmatters.org/health/2023/10/despite-high-black-maternal-death-rate-california-hospitals-ignored-training-about-bias-in-care/>
- 2 Hwang, K., Ibarra, A. B., Yee, E. (2023, November 15). As hospitals close labor wards, large stretches of California are without maternity care. CalMatters. <https://calmatters.org/health/2023/11/california-hospitals-close-maternity-wards/>
- 3 California Department of Public Health. (2024, November 4). *Statewide Live Birth Profiles*. [Data file]. California Open Data Portal. <https://data.ca.gov/dataset/statewide-live-birth-profiles>
- 4 Martin, J. A., Hamilton, B. E., Oserman, M. J. K. (2024, August). *Births in the United States, 2023*. National Center for Health Statistics. https://www.cdc.gov/nchs/products/databriefs/db507.htm#section_1
- 5 Schumacher, A. E., Aali, A., Abate, Y. H., Abbasgholizadeh, R., Abbasian, M., Abbasi-Kangevari, M., ... & Arafa, E. A. (2024). *Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100: a comprehensive demographic analysis for the Global Burden of Disease Study 2021*. The Lancet.
- 6 California Department of Public Health. (2024, November 4). *Statewide Live Birth Profiles*. [Data file]. California Open Data Portal. <https://data.ca.gov/dataset/statewide-live-birth-profiles>
- 7 U.S. Department of Health and Human Services. (2021, March). *Projections of Supply and Demand for Women's Health Service Providers: 2018–2030*. Bureau of Health Workforce. <https://bhwh.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/projections-supply-demand-2018-2030.pdf>
- 8 Department of Health Care Access and Information. (2024, October 9). *2010–2023 Hospital Annual Financial Data – Selected Data & Pivot Tables*. [Data file]. CalHHS. <https://data.chhs.ca.gov/dataset/hospital-annual-financial-data-selected-data-pivot-tables/resource/879f1a0c-c476-4248-bdae-0c883d02e5a0>
- 9 Criteria for Determining Maternity Care Health Professional Target Areas, 86 Fed. Reg. 53325 (2021, September 27). <https://www.govinfo.gov/content/pkg/FR-2021-09-27/pdf/2021-20855.pdf>
- 10 Insure the Uninsured Project. (2024, October 14). *California Health Care Workforce Shortage: ITUP Convenes Regional Equity Collaboratives to Address Solutions*. <https://www.itup.org/california-health-care-workforce-shortage-itup-convenes-regional-equity-collaboratives-to-address-solutions/>
- 11 Medical Board of California. (2024). *Physician and Surgeon Public License Information*. [Data file]. <https://www.mbc.ca.gov/Resources/Statistics/Public-Information.aspx>
- 12 U.S. Census Bureau. (2022). *2018–2022 American Community Survey 5-year Estimates* [Data file]. Retrieved from [https://data.census.gov/table?q=Income%20\(Households,%20Families,%20Individuals\)&t=Income%20and%20Poverty&g=040XX00US06](https://data.census.gov/table?q=Income%20(Households,%20Families,%20Individuals)&t=Income%20and%20Poverty&g=040XX00US06)
- 13 U.S. Census Bureau. (2022). *2018–2022 American Community Survey 5-year Estimates* [Data file]. Retrieved from [https://data.census.gov/table/ACSDP5Y2023.DP05?g=040XX00US06\\$8600000](https://data.census.gov/table/ACSDP5Y2023.DP05?g=040XX00US06$8600000)
- 14 Canto, M. (2020, June 23). *Despite dire OB-GYN shortage, lawmakers won't expand role of nurse-midwives*. CalMatters. <https://calmatters.org/health/2016/09/state-faces-dire-ob-gyn-shortage-but-lawmakers-wont-expand-role-of-nurse-midwives/>
- 15 U.S. Department of Health and Human Services. (2021, March). *Projections of Supply and Demand for Women's Health Service Providers: 2018–2030*. Bureau of Health Workforce. <https://bhwh.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/projections-supply-demand-2018-2030.pdf>
- 16 Department of Health Care Access and Information. (2024, October 9). *2023 Hospital Annual Financial Data – Selected Data & Pivot Tables*. [Data file]. CalHHS. <https://data.chhs.ca.gov/dataset/hospital-annual-financial-data-selected-data-pivot-tables/resource/879f1a0c-c476-4248-bdae-0c883d02e5a0>
- 17 Kaufman, K., Swanson, E. (2024, February 21). *The Numbers Behind the Numbers*. KaufmanHall. <https://www.kaufmanhall.com/insights/thoughts-ken-kaufman/numbers-behind-national-hospital-flash-report>
- 18 U.S. Bureau of Labor Statistics. (2023). *Occupational Employment and Wage Statistics*. [Data file]. <https://data.bls.gov/oes/#/home>
- 19 Salary.com. (2024). *Neonatologist Salary in California*. <https://www.salary.com/research/salary/alternate/neonatologist-salary/ca>
- 20 Department of Health Care Access and Information. (2024, August 27). *2022–2023 Fiscal Year Hospital Annual Financial Disclosure Report – Complete Data Set*. [Data file]. CalHHS. <https://data.chhs.ca.gov/dataset/hospital-annual-financial-data-selected-data-pivot-tables/resource/879f1a0c-c476-4248-bdae-0c883d02e5a0>
- 21 Hwang, K., Ibarra, A. B., Yee, E. (2023, November 15). As hospitals close labor wards, large stretches of California are without maternity care. CalMatters. <https://calmatters.org/health/2023/11/california-hospitals-close-maternity-wards/>
- 22 Department of Health Care Access and Information. (2021, October 1). *2022–2023 Patient Origin/Market Share (Pivot Profile)*. [Data file]. CalHHS. <https://data.chhs.ca.gov/dataset/patient-origin-market-share-pivot-profile-inpatient-emergency-department-and-ambulatory-surgery/resource/24168867-3bc8-4d98-8107-0037f6a59b4>
- 23 U.S. Census Bureau. (2022). *2018–2022 American Community Survey 5-year Estimates* [Data file]. Retrieved from [https://data.census.gov/table?q=Income%20\(Households,%20Families,%20Individuals\)&t=Income%20and%20Poverty&g=040XX00US06](https://data.census.gov/table?q=Income%20(Households,%20Families,%20Individuals)&t=Income%20and%20Poverty&g=040XX00US06)
- 24 Minion, S. C., Krans, E. E., Brooks, M. M., Mendez, D. D., & Haggerty, C. L. (2022). Association of driving distance to maternity hospitals and maternal and perinatal outcomes. *Obstetrics & Gynecology*, 140(5), 812–819. <https://pubmed.ncbi.nlm.nih.gov/36201778/>
- 25 Kozhimannil, K. B., Leonard, S. A., Handley, S. C., Passarella, M., Main, E. K., Lorch, S. A., & Phipps, C. S. (2023, June). Obstetric volume and severe maternal morbidity among low-risk and higher-risk patients giving birth at rural and urban US hospitals. In *JAMA Health Forum* (Vol. 4, No. 6, pp. e232110–e232110). American Medical Association. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10290751/>
- 26 California Department of Health Care Access and Information. (2024). *2022 Patient Discharge Data*. [Data file]. <https://hcai.ca.gov/data/request-data/data-documentation/>
- 27 Wallace, J., Hoehn-Velasco, L., Tilden, E., Dowd, B. E., Calvin, S., Jolles, D. R., ... & Stapleton, S. (2024). An alternative model of maternity care for low-risk birth: Maternal and neonatal outcomes utilizing the midwifery-based birth center model. *Health services research*, 59(1), e14222. <https://pubmed.ncbi.nlm.nih.gov/37691323/>
- 28 Johnson, H. (2023, January 26). *California's Plunging Birth Rates*. Public Policy Institute of California. <https://www.ppic.org/blog/californias-plunging-birth-rates/>
- 29 Insure the Uninsured Project. (2024, October 14). *California Health Care Workforce Shortage: ITUP Convenes Regional Equity Collaboratives to Address Solutions*. <https://www.itup.org/california-health-care-workforce-shortage-itup-convenes-regional-equity-collaboratives-to-address-solutions/>
- 30 Criteria for Determining Maternity Care Health Professional Target Areas, 86 Fed. Reg. 53325 (2021, September 27). <https://www.govinfo.gov/content/pkg/FR-2021-09-27/pdf/2021-20855.pdf>
- 31 Medical Board of California. (2024). *Physician and Surgeon Public License Information*. [Data file]. <https://www.mbc.ca.gov/Resources/Statistics/Public-Information.aspx>
- 32 U.S. Census Bureau. (2022). *2018–2022 American Community Survey 5-year Estimates* [Data file]. Retrieved from [https://data.census.gov/table?q=Income%20\(Households,%20Families,%20Individuals\)&t=Income%20and%20Poverty&g=040XX00US06](https://data.census.gov/table?q=Income%20(Households,%20Families,%20Individuals)&t=Income%20and%20Poverty&g=040XX00US06)
- 33 U.S. Department of Health and Human Services. (2021, March). *Projections of Supply and Demand for Women's Health Service Providers: 2018–2030*. Bureau of Health Workforce. <https://bhwh.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/projections-supply-demand-2018-2030.pdf>
- 34 Canto, M. (2020, June 23). *Despite dire OB-GYN shortage, lawmakers won't expand role of nurse-midwives*. CalMatters. <https://calmatters.org/health/2016/09/state-faces-dire-ob-gyn-shortage-but-lawmakers-wont-expand-role-of-nurse-midwives/>
- 35 U.S. Census Bureau. (2022). *2018–2022 American Community Survey 5-year Estimates* [Data file]. Retrieved from [https://data.census.gov/table/ACSDP5Y2023.DP05?g=040XX00US06\\$8600000](https://data.census.gov/table/ACSDP5Y2023.DP05?g=040XX00US06$8600000)
- 36 California Department of Health Care Access and Information. (2024). *2022 Patient Discharge Data*. [Data file]. <https://hcai.ca.gov/data/request-data/data-documentation/>
- 37 Minion, S. C., Krans, E. E., Brooks, M. M., Mendez, D. D., & Haggerty, C. L. (2022). Association of driving distance to maternity hospitals and maternal and perinatal outcomes. *Obstetrics & Gynecology*, 140(5), 812–819. <https://pubmed.ncbi.nlm.nih.gov/36201778/>
- 38 Kaufman, K., Swanson, E. (2024, February 21). *The Numbers Behind the Numbers*. KaufmanHall. <https://www.kaufmanhall.com/insights/thoughts-ken-kaufman/numbers-behind-national-hospital-flash-report>
- 39 Condon, A. (2024, March 28). *A leading money loser for hospitals: Kaufman Hall*. Becker's Hospital CFO Report. https://www.beckershospitalreview.com/finance/a-leading-money-loser-for-hospitals.html?oly_enc_id=9030C8707201B4D

*Data points were generated based on available data at time of authorship in 2024.



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