Primary Care & Specialty Care Physicians in Merced & Stanislaus Counties: A Workforce Analysis for the Legacy Health Endowment

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Foreword

The Legacy Health Endowment (LHE) serves the southern portion of Stanislaus County and the northern portion of Merced County—a region encompassing 19 specific ZIP codes. These areas face persistent, severe challenges in recruiting and retaining primary care physicians and specialists. While many rural California counties experience similar deficits, we chose to invest in a dedicated study to understand the current scope of our local crisis and project what the future holds.

Over the past decade, numerous primary care providers in our region have retired without replacements, leaving local residents searching in vain for care. Some residents have transitioned to Federally Qualified Health Centers (FQHCs); others have joined Sutter or Kaiser health plans; still others have come to rely on urgent care clinics as their primary source of healthcare.

These challenges are compounded by a critical loss of medical specialists. From OB-GYNs and neurologists to endocrinologists and beyond, many specialists have retired without successors. In several instances, aging providers have continued practicing long past typical retirement age simply to keep the community afloat.

To systematically analyze and address these challenges, we collaborated with the UCSF Institute for Health Policy Studies to produce a report focused exclusively on Merced and Stanislaus Counties. It is my hope that other rural communities will find philanthropic partners willing to underwrite similar localized analyses and lend their own regional expertise.

Historical Barriers and Structural Shifts

The healthcare workforce shortages plaguing Merced and Stanislaus Counties are massive, but they are by no means a surprise. History is a powerful teacher, and local history is telling.

Through numerous discussions with retired and aging physicians over the years, a troubling pattern emerged: some local providers historically resisted incoming workforce expansion out of a desire to limit competition. One could argue this resistance also stemmed from a fear of higher standards of care, though that remains my personal observation.

Furthermore, institutional shifts have disrupted long-term workforce pipelines. A local hospital, operating as a non-profit, originally sought to build a residency program and expand community care services. However, following its sale to a for-profit entity, the proposed residency program dissolved, along with many of the non-profit's legacy community programs. While the for-profit purchaser did attempt to maintain select initiatives, the transition ultimately signaled a shift in organizational commitment to community-wide patient care.

Innovating Local Solutions

Historically, California State University, Stanislaus (CSU Stanislaus) has maintained an excellent Bachelor of Science in Nursing (BSN) program. However, nursing staff can only do so much given standard scopes of practice and historical physician oversight frameworks.

To begin stemming the tide of this provider shortage, LHE partnered with CSU Stanislaus and Livingston Community Health (a local FQHC now rebranded as Lumira) to launch a new Master of Science in Nursing, Family Nurse Practitioner (FNP) program. Additionally, a new one-year certificate program recently graduated its first cohort of Psychiatric Nurse Practitioners, injecting a critical layer of mental health expertise into both counties.

Promising long-term pipelines are also emerging. The University of California, Merced, in partnership with UCSF Fresno, has launched a new BS/MD pathway designed to help local students become physicians. While this is a monumental step forward, its tangible impact on Merced and Stanislaus Counties is still years away.

Other institutions are also scaling up medical education. For example, Sutter Health and Santa Clara University recently announced the launch of the Mark & Mary Stevens School of Medicine—establishing the first new medical school in the San Francisco Bay Area in over a century. Yet, whether creating new medical schools or building out residencies, time remains our greatest enemy.

As our residents continue to age in place, their need for specialized care grows exponentially. Without immediate, sustained intervention, vital medical care will remain months and many miles out of reach.

This report presents a sobering analysis of our current reality and the trajectory of our future. It demonstrates not only what must be done, but why we can no longer afford to wait. This is not a new narrative; rather, it is a crisis that can no longer be relegated to casual discussion, op-eds, or fleeting news stories.

To move beyond diagnosing the problem, Legacy Health Endowment has included a dedicated tax policy section within this commentary. This section introduces an innovative framework to address the steep economic challenges implied by the analysis, serving as an invitation for elected officials at all levels of government to explore new legislative and financial mechanisms.

Ultimately, there are no easy answers. However, this report achieves LHE’s primary goal: to confront the tragedies of past inaction by focusing on the challenges of the future using objective data and fresh solutions.

Jeffrey Lewis
President and CEO, Legacy Health Endowment

Abstract

The two-county area of Merced and Stanislaus counties is dramatically undersupplied by both primary care and specialty care physicians. Forecast models anticipate that this condition will not change over the next ten years. Investing in the area's capacity to train both new primary care and specialty care physicians is critical, as are policy initiatives designed to recruit and retain physicians trained outside the area.

Acknowledgements

The principal source of data presented in this report is the California Department of Healthcare Access and Information (HCAI), Health Workforce Renewal Survey. We are grateful to Ellice Rahm and Eric Neuhauser from the California Health Workforce Research and Data Center at HCAI for their assistance in providing these data.

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Executive Summary

This report provides a quantitative description of the current primary care and (selected) specialty care physician workforce in Merced and Stanislaus counties (California) and forecast models that project physician supply to the two-county area over the next decade (2025 – 2035). The specialist physicians included in the analysis are endocrinologists, neurologists, obstetricians and gynecologists (OB-GYN), psychiatrists, pulmonologists, rheumatologists, and urologists.

- With few exceptions, the ratio of physicians per 10,000 population in Merced/Stanislaus counties is lower in comparison with the wider San Joaquin Valley region, other regions across the state, and California as a whole.
- There are approximately half as many primary care physicians per capita practicing in Merced/Stanislaus counties compared to California overall.
- Per capita ratios of physician specialists providing patient care in Merced/Stanislaus counties are all less than half the statewide average.
- Compared to statewide averages, a single psychiatrist practicing in Merced/Stanislaus counties is associated with 4 times as many people; a single neurologist is associated with 5 times as many people; a single pulmonologist is associated with 10 times as many people.
- Across all practice specialty areas, our baseline forecasts anticipate that the number of full-time equivalent (FTE) physicians practicing in Merced/Stanislaus counties will either decline or remain flat over the next ten years.
- Even under ideal conditions where growth is greater than expected and attrition less than expected across all specialty practice areas, the ratio of physicians per capita practicing in Merced/Stanislaus counties by 2035 will still be smaller than the *current* statewide physician per capita ratios.

Given that the most significant driver of growth in the supply of physicians is an expansion of education and training opportunities, the new BS to MD program at the University of California, Merced (in partnership with UCSF) is an important development. But Merced and Stanislaus counties will need more than a new medical school to address the very significant challenges it faces with respect to physician workforce development. New cooperative models and new partnerships are needed to bring together existing resources and leverage them to improve access to care, create even more opportunities for physician education and training, and encourage young people from the area to consider a career in medicine. Policy makers also need to explore new approaches to creating financial incentives that help attract physicians from outside the Merced/Stanislaus area to practice there, and not just for the short-term. The policy recommendations section at the end of this report offers specific ideas for how stakeholders could pursue these objectives.

Introduction

Healthcare workforce analysis is often conducted at the national and state level. These analyses are valuable as they highlight workforce issues experienced by all communities in some form, and they help guide macro-level healthcare workforce policy initiatives and financial investments. But national and state-level analyses are limited in their ability to inform local and regional decision-making, especially in rural communities, which often face unique circumstances. This analysis was commissioned by the Legacy Health Endowment (LHE) to help illuminate the challenges specific to the geographic region it serves: the southern portion of Stanislaus County and the northern portion of Merced County.

Merced and Stanislaus counties are geographically situated within California's San Joaquin Valley region and exemplify the region's significant population health and healthcare workforce challenges.[1,2,3,4] In both counties, agriculture is a foundational economic sector,[5] and in Merced County in particular, a comparatively large share of the population resides in a rural setting.[6] Stanislaus County ranks in the bottom half and Merced County ranks in the bottom quintile of counties in California for median household income,[7] and both counties have relatively low levels of educational attainment, and relatively high rates of poverty[8] and unemployment.[9] The public transit infrastructure in both counties is underdeveloped, resulting in unmet need and transportation-related barriers which limit residents' access to healthcare services.[10,11,12] The populations in both counties are disproportionately burdened by sources of environmental pollution.[13] Residents in both counties live with elevated risk for cardiovascular disease, suffer comparatively high rates of chronic respiratory disease and diabetes,[14] as well as higher than average rates of preventable hospitalization for both chronic conditions[15] and diabetes-related complications[16] – indicating unmet need for outpatient care. Both counties have comparatively large shares of the population who have unmet mental health services needs.[10,11,17] Large shares of residents in both counties depend on Medi-Cal for healthcare coverage.[18] Both counties have a large share of the population that relies heavily on safety-net providers, community health centers, and publicly financed healthcare programs for the provision of care.[10,19] And for at least the past two decades, both counties have experienced a shortage of both primary care and specialty care physicians.[20,21]

This report is focused on describing the shortage of primary care and (selected) specialty care physicians practicing in Merced and Stanislaus counties. A lack of physician providers leads directly to unmet healthcare needs and poorer health outcomes. The report presents data describing the relative size of the two-county area's current primary care and specialty care physician workforce, as well as a series of forecast models that project how the number of physicians is expected to change between 2025 and 2035. It also offers a series of policy recommendations intended to help expand the area's local and regional capacity to train new primary care and specialty care physicians, as well as create financial incentives to help attract and retain new physicians to the area's workforce.

Data Sources and Methods

Estimates of the number of primary care and specialty care physicians providing patient care were sourced from the Health Workforce Licensure Renewal Survey, administered by the California Department of Healthcare Access and Information (HCAI). The data were current as of November 2025. Primary care physicians (MDs and DOs) were defined according to the primary area of medical practice and clinical setting, as recorded by the Health Workforce Licensure Renewal Survey (see Appendix A for a description of the process).

Specialist physicians were identified according to their primary area of medical practice, as recorded by the Health Workforce Licensure Renewal Survey. This report focused on the following specialty practice areas:

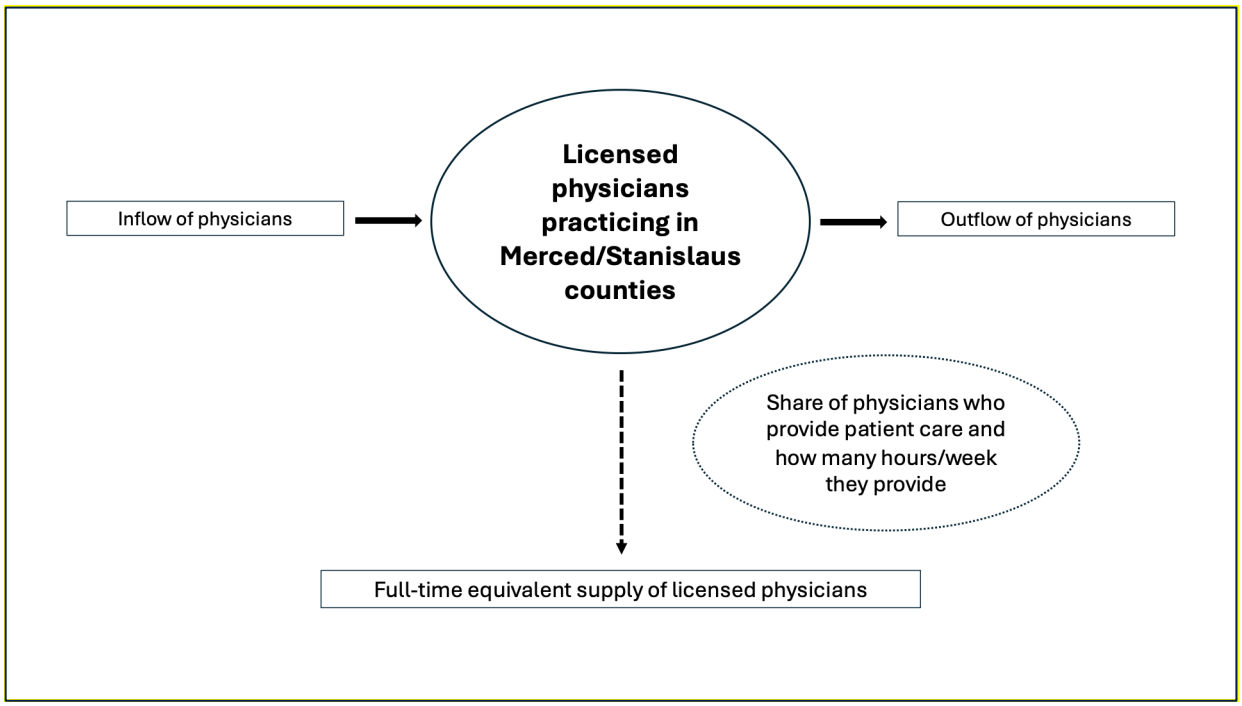
- Endocrinology
- Neurology
- Obstetrics and Gynecology (OB-GYN)

- Pulmonology
- Rheumatology
- Urology

County-level population estimates were sourced from the California Department of Finance, Demographic Research Unit.

The models forecasting the future supply of primary care and specialty care physicians used a “stock and flow” conceptual framework. Newly licensed physicians (inflow) enter the existing physician workforce (stock) and then at some point exit out of the workforce (outflow) due to retirement, career change, or other reasons.

Figure 1. A model of the supply of physicians



Stock: This is the estimated number of primary care or specialty care physicians providing patient care in either Merced or Stanislaus counties. We used physicians’ self-reported hours of patient hours provider per week to convert headcounts into estimated number of full-time equivalent (FTE) physicians. We organized the estimated number of FTEs into the following age groups: under 40; 40-59; 60 or older. As noted, all this information was sourced from the physician license renewal survey administered by HCAI.

Inflow: This is estimated number of new licenses issued to physicians (either MD or DO) each year with an address of record in either Merced or Stanislaus counties. The baseline estimate (2025) of the annual number of new licenses issued was sourced from the California Department of Consumer Affairs (DCA). The annual rates of growth for this inflow were estimated using Accreditation Council for Graduate Medical Education (ACGME) data that describe the annual number of graduates of California-based medical residency and specialty fellowship training programs over the period 2019-2024. In other words, we used growth in the number of graduates of primary care-oriented residency programs and specialty fellowship training programs in California to model future growth in the number of new licenses issued each year to physicians based in Merced and Stanislaus counties.

Outflow: This is the estimated share of the physician workforce in Merced and Stanislaus counties that exits the workforce annually. We could not obtain data that was specific to physicians in the two-county area, nor was

California-specific data available. We used a national-level, all-physician estimated annual attrition rate sourced from a recent article published in a high-impact, academic medical journal.[22]

There are several important assumptions related to age that are embedded in the supply forecast model. The first is that we assume newly licensed physicians entering the workforce are all under the age of 40. A second assumption is that physicians are evenly distributed by age across the "under 40" and "40-59" age groups. A third assumption is that physicians, on average, enter the workforce at age 30; this determines the proportion of the under 40 cohort of physicians that "ages up" into the 40-59 age cohort each year (10% because we assume new physicians enter the workforce at age 30). In the same way, because the 40-59 age cohort spans 20 years, and because we assume that physicians are evenly distributed by age across the group, in each year of the model 5% of physicians in the 40-59 age cohort "age up" into the "60 and older" cohort.

For a more detailed discussion of the supply forecast model methods (and their limitations), see Appendix B.

Findings: The Current Physician Workforce

Table 1 describes the estimated number of physicians by specialty who reported a practice address in either Merced or Stanislaus counties as of November 2025 and reported providing at least one hour of patient care per week. Table 1 also includes an estimate of how these headcounts convert to a full-time equivalent number of physicians. (See Appendix B for a description of the method used to make the FTE conversion.) The data indicate that although the number of physician specialists is very small, nearly all are providing patient care full-time. There is greater variation among primary care physicians, in terms of the number of hours per week spent providing patient care.

Table 1. Physicians by specialty, estimated number and FTEs, Merced/Stanislaus counties, 2025

Profession	Headcount	FTE
Primary Care Physicians	437	366
Endocrinologists	10	9
Neurologists	12	11
OBGYN	66	55
Psychiatrists	51	43
Pulmonologists	3	3
Rheumatologists	8	7
Urologists	9	8

Figures 2 and 3 show a variation of the commonly reported employment per population ratio; rather than a calculation of how many providers there are relative to a defined population size, these figures show the population size associated with a single, patient care-providing physician. It compares this ratio across three different geographic areas: Merced and Stanislaus counties, the San Joaquin Valley region, and California. Figure 2 compares primary care physicians while Figure 2 compares (selected) physician specialists. As noted, these data include only physicians who reported providing at least 1 hour of patient care per week.

Figure 2 demonstrates that the population-adjusted number of primary care physicians providing patient care in Merced and Stanislaus counties is slightly smaller by comparison with the wider San Joaquin Valley region in which it is located, but that both geographies are significantly undersupplied with primary care physicians relative to the state overall. In Merced/Stanislaus counties, there are nearly twice as many people associated with a single primary care physician compared to the statewide average.

Figure 2. Population per primary care physician by geography, 2025

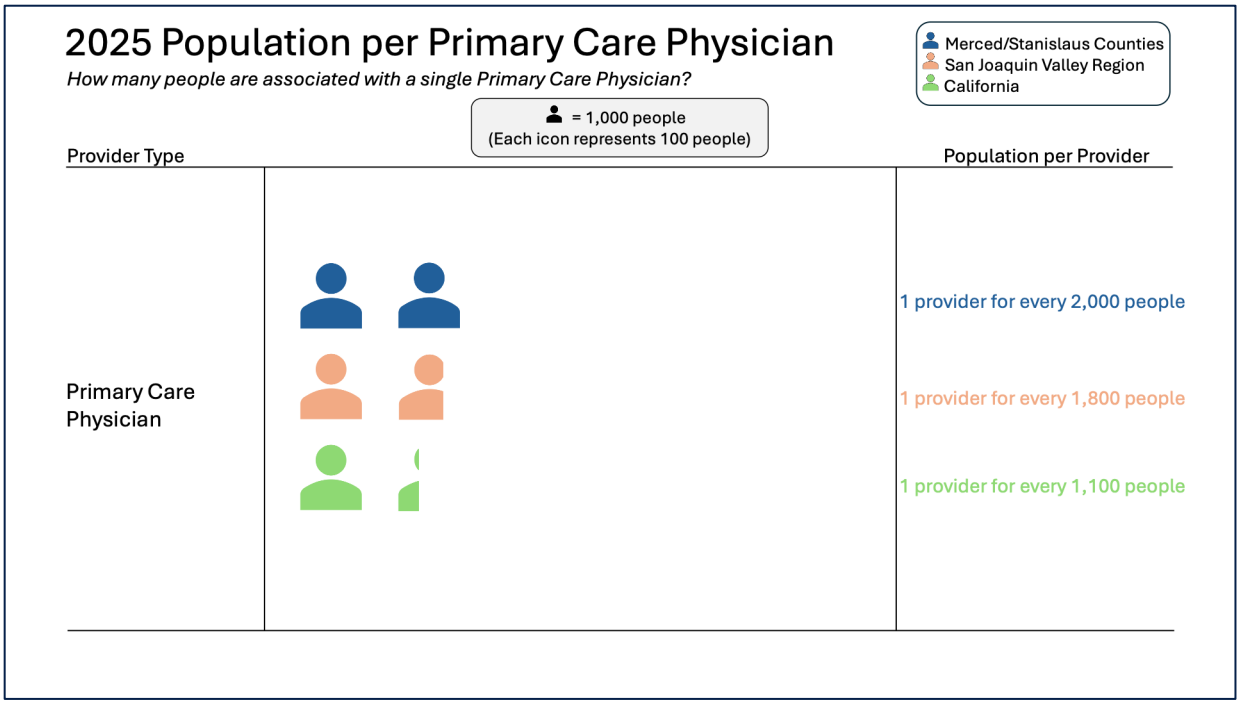


Figure 3 presents an even more dire picture of the physician specialist workforce in Merced and Stanislaus counties. Across each of the selected specialties, the population-adjusted number of physician specialists who provide patient care is tiny by comparison with the state overall. Only OB-GYNs approach a provider per population ratio that is half the statewide average (meaning a single OBGYN in Merced and Stanislaus counties is associated with twice as many people compared to California overall). All the other physician specialists practicing in Merced and Stanislaus counties are associated with many, many more people by comparison with the statewide average. A single psychiatrist is associated with four times as many people; a single neurologist, five times as many people; a single pulmonologist, ten times as many people. Figure 3 also demonstrates that, in terms of the supply of patient care-providing physician specialists, the wider San Joaquin Valley region generally fares better by comparison with the two-county area of Merced and Stanislaus.

Figure 3. Population per physician specialist by specialty and geography, 2025

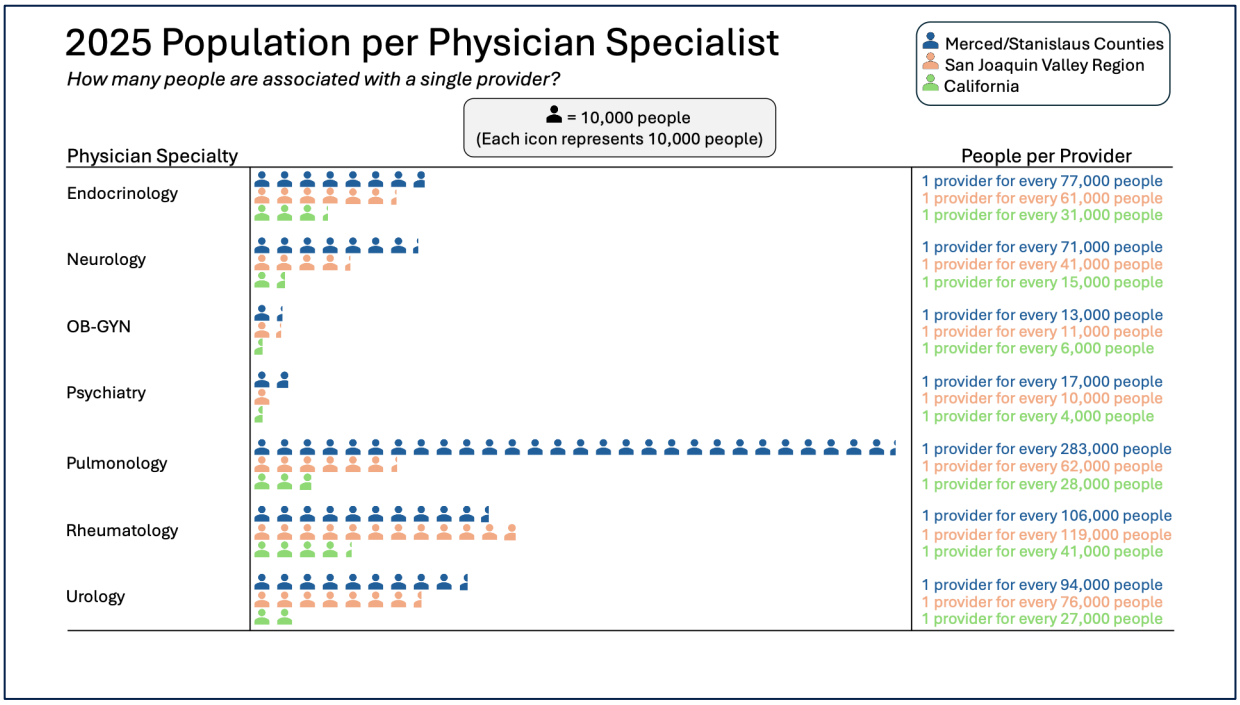


Table 2 utilizes the familiar provider per population ratio and compares estimated physician per 10,000 population ratios (by specialty) in Merced and Stanislaus counties with the wider San Joaquin Valley region, all other California Health Interview Survey (CHIS) regions, and California overall. These data underscore the picture presented in Figure 2 and Figure 3: Merced and Stanislaus counties are severely undersupplied with both primary care and specialist physicians compared with almost all other geographic regions around the state.

Table 2. Primary care and specialty physicians per 10,000 population by geography, 2025

	Practice Specialty							
Geography	Primary Care	Endocrinology	Neurology	OB-GYN	Psychiatry	Pulmonology	Rheumatology	Urology
Merced/Stanislaus	5.1	0.13	0.14	0.77	0.59	0.04	0.09	0.11
San Joaquin Valley	5.6	0.16	0.24	0.94	1.0	0.16	0.08	0.13
Central Coast	7.7	0.25	0.43	1.3	1.9	0.28	0.25	0.28
Bay Area	12.9	0.47	1.1	2.3	3.8	0.50	0.32	0.49
Inland Empire	6.4	0.16	0.40	1.0	1.5	0.24	0.14	0.25
Los Angeles County	9.4	0.38	0.79	1.6	2.4	0.45	0.30	0.44
Northern/Sierra	5.3	0.05	0.15	0.83	0.81	0.07	0.04	0.16
Orange County	10.7	0.46	0.75	1.8	2.1	0.38	0.27	0.48
Sacramento	10.0	0.35	0.65	1.8	2.4	0.27	0.24	0.32
San Diego	10.1	0.31	0.79	1.7	2.7	0.45	0.31	0.46
California	9.3	0.33	0.69	1.6	2.3	0.36	0.24	0.37

Note: Data describe physicians that reported providing at least 1 hour of patient care per week

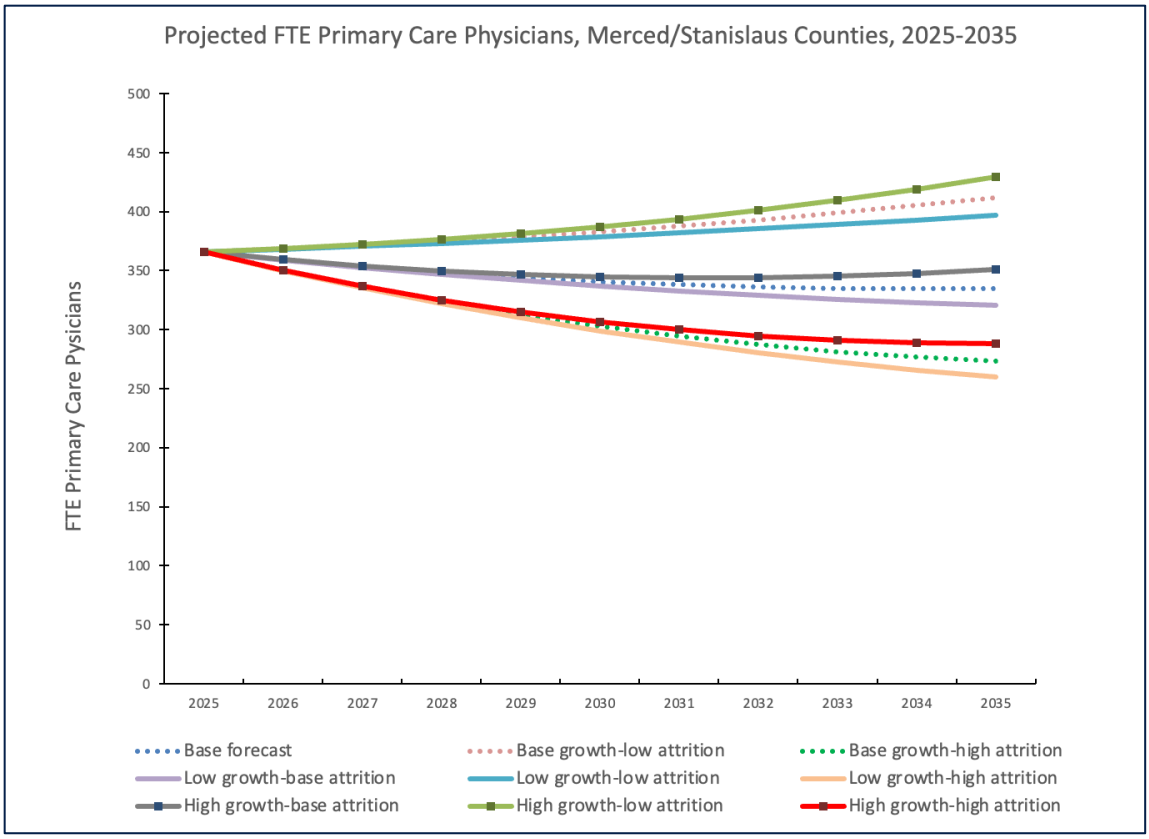
Projected Physician Supply: 2025-2035

In each of the following forecasts we present a baseline scenario utilizing the estimated annual growth rates for new physicians entering the workforce in Merced and Stanislaus counties, and the estimated annual attrition rate. The growth rates were derived from the average annual growth in the number of graduates from primary care-oriented residency programs and specialty fellowship programs based in California, over the 6-year period 2019-2024. The estimated attrition rate is an all-physicians rate (regardless of specialty practice area) sourced from a national study; the same baseline attrition rate applies to each type of physician. To test the sensitivity of these rates on outcomes (i.e. number of FTE physicians), we present alternative scenarios using growth rates and attrition rates that are either 1.5 times the baseline rate, half the baseline rate, or a combination of these higher/lower growth and attrition rates (e.g. higher growth/lower attrition; lower growth/higher attrition).

Primary Care Physicians

Our baseline forecast for primary care physicians assumes an annual growth rate of 4.4% and an annual attrition rate of 5%. As noted, these assumptions were adjusted to test for sensitivity to different growth and attrition rate parameters. The low growth rate used was 2.2%; the high growth rate used was 6.6%. The low attrition rate used was 2.5%; the high attrition rate used was 7.5%. Figure 4 shows the results in projected FTE supply of primary care physicians when these different parameters are utilized. Our baseline forecast is that the number of FTE primary care physicians practicing in Merced/Stanislaus counties will decline over the next decade, from 366 FTEs in 2025 to 344 FTEs in 2035. However, the model is sensitive to changes in these parameters. If actual attrition rates are lower than the baseline model assumes, any scenario in which the actual growth rate is at least 4.4% per year is likely to lead to an increase in the number of FTE primary care physicians. In contrast, if the actual attrition rate is higher than the baseline model assumes, the number of FTE primary care physicians could decline by as much as 25-30% of the current stock.

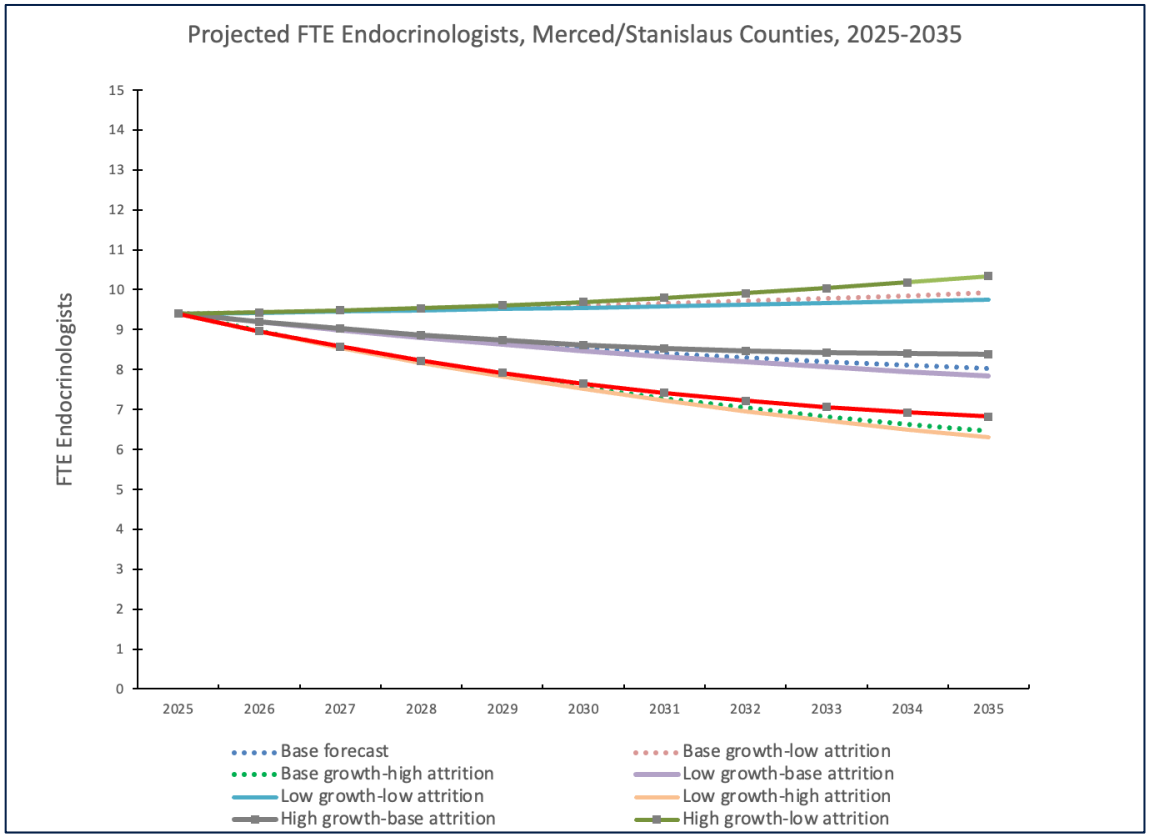
Figure 4. Projected FTE primary care physicians, Merced/Stanislaus counties, 2025-2035



Physician specialists: Endocrinology

Our baseline forecast assumes an annual growth rate of 2.5% and an annual attrition rate of 5%. As noted, these assumptions were adjusted to test for sensitivity to different growth and attrition rate parameters (e.g. half the baseline rates versus 1.5 times the baseline rates). Figure 5 shows the results in projected FTE supply of endocrinologists when these different parameters are combined. Our baseline forecast is that the number of FTE endocrinologists practicing in Merced/Stanislaus counties will decline slightly over the next decade, from 9 FTEs in 2025 to 8 FTEs in 2035. The current stock of endocrinologists is so small that even under ideal circumstances where the actual growth rate is higher than expected and the attrition rate is lower than expected, the number of FTE endocrinologists practicing in the two-county area is not likely to increase by more than 1 or 2 FTEs. Conversely, a combination of lower-than-expected growth and higher-than-expected attrition could lead to a scenario where supply of FTE endocrinologists shrinks by as much as one-third the current stock (i.e., from 9 to 6 FTEs).

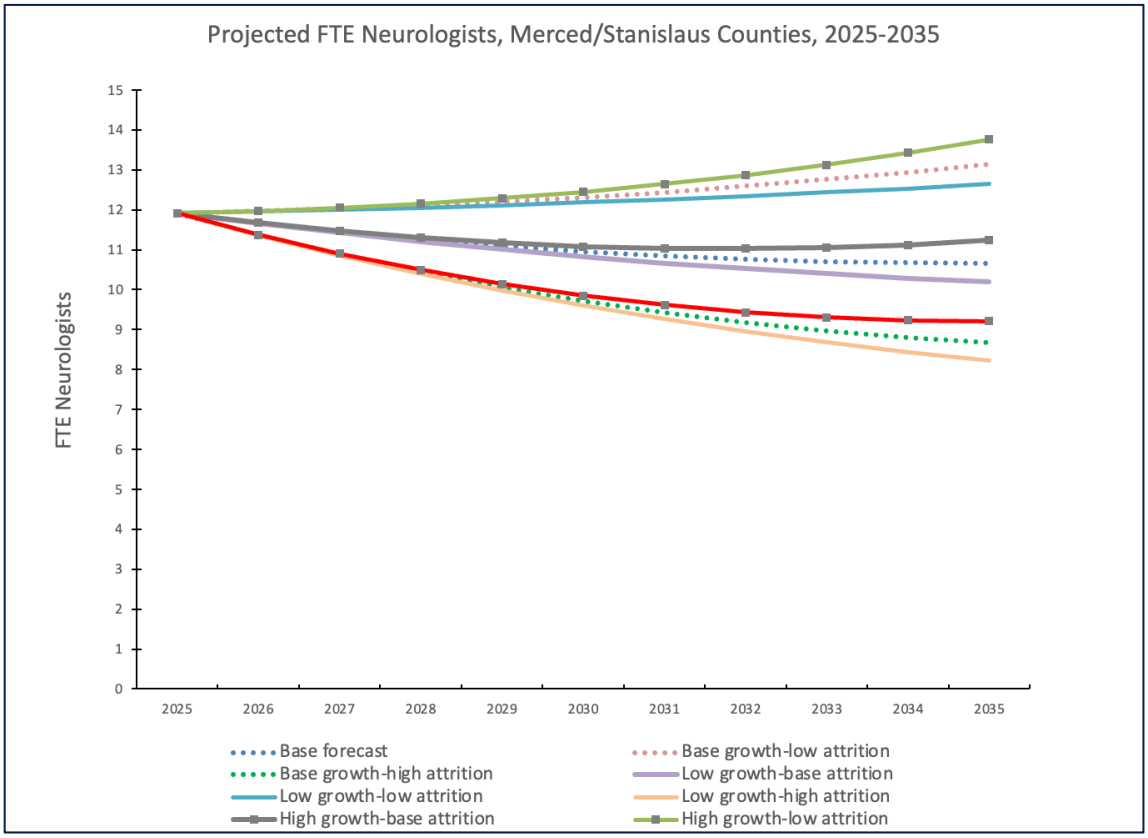
Figure 5. Projected FTE endocrinologists, Merced/Stanislaus counties, 2025-2035



Physician specialists: Neurology

Our baseline forecast assumes an annual growth rate of 4.9% and an annual attrition rate of 5%. Figure 6 shows that this results in a slight decline in the projected supply of FTE neurologists practicing in Merced/Stanislaus counties over the next decade, from 11.9 FTEs in 2025 to 10.7 FTEs in 2035. Higher-than-expected growth combined with lower-than-expected attrition might increase the number of FTE neurologists by as much as 4 over the next 10 years; a scenario that should lead to meaningful improvements in patient access to care. In contrast, the combination of lower-than-expected growth and higher-than-expected attrition could reduce the number of FTE neurologists by as much as 35%, exacerbating the challenges patients face in obtaining care.

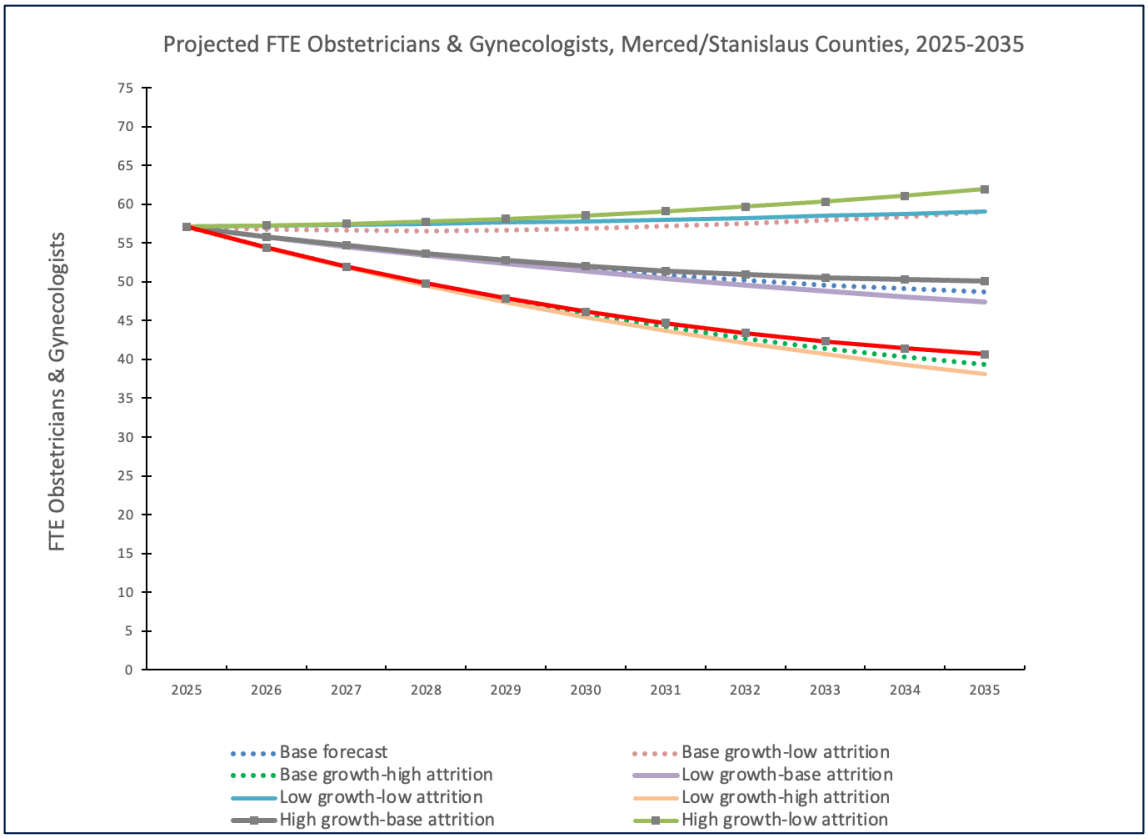
Figure 6. Projected FTE neurologists, Merced/Stanislaus counties, 2025-2035



Physician specialists: OB-GYN

Our baseline forecast assumes an annual growth rate of 3.1% and an annual attrition rate of 5%. Figure 7 shows that this results in a decline in the projected FTE supply of OB-GYN specialists practicing in Merced/Stanislaus counties over the next decade, from 57 FTEs in 2025 to 48 FTEs in 2035. The model is sensitive to changes in these parameters. Different combinations of lower, or higher-than-expected growth and attritions lead to scenarios ranging from a potential 9% increase in the number of FTE OB-GYN specialists to a 40% decline over the next ten years.

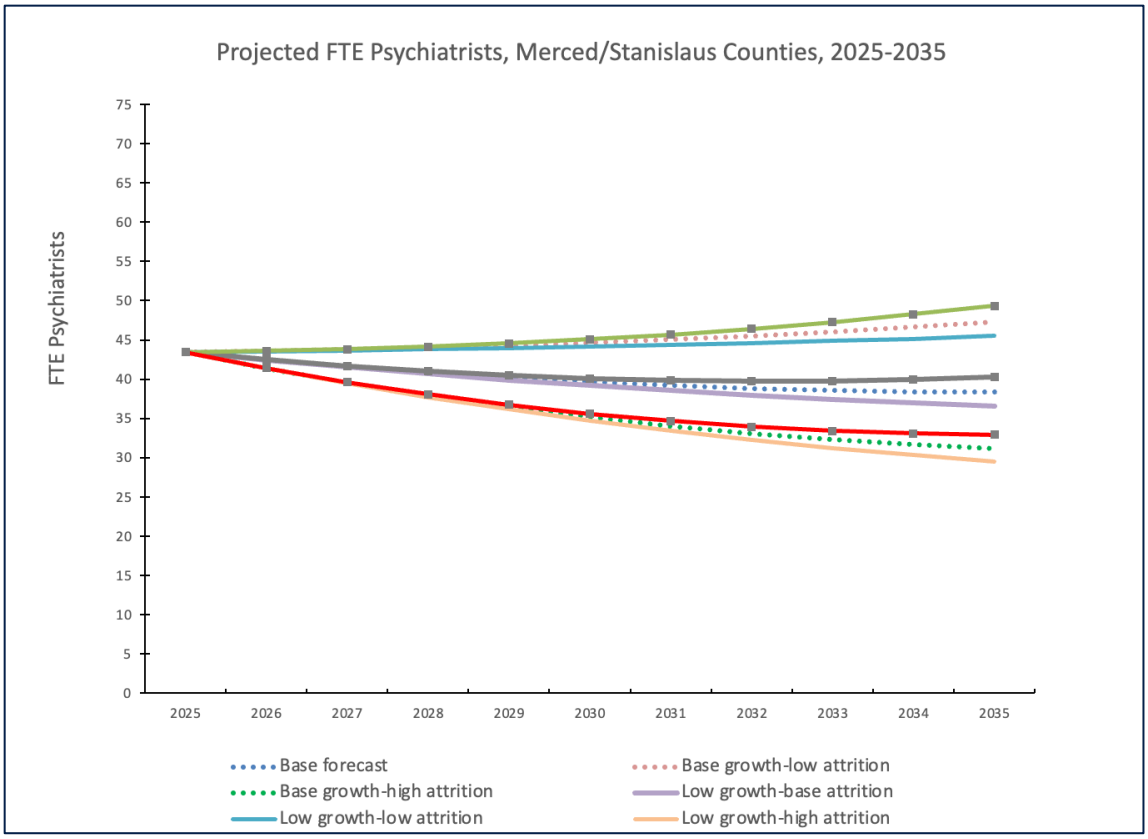
Figure 7. Projected FTE OB-GYNs, Merced/Stanislaus counties, 2025-2035



Physician specialists: Psychiatry

Our baseline forecast assumes an annual growth rate of 4.9% and an annual attrition rate of 5%. Figure 8 shows that this results in a decline in the projected number of FTE psychiatrists practicing in Merced/Stanislaus counties over the next decade, from 43 FTEs in 2025 to 38 FTEs in 2035. Changing the assumptions about these growth and attrition rate parameters produces a range of possible outcomes: high growth may lead to as much as a 15% increase in the number FTE psychiatrists; a combination of low growth and high attrition could produce a 30% decline (the loss of 13 FTEs).

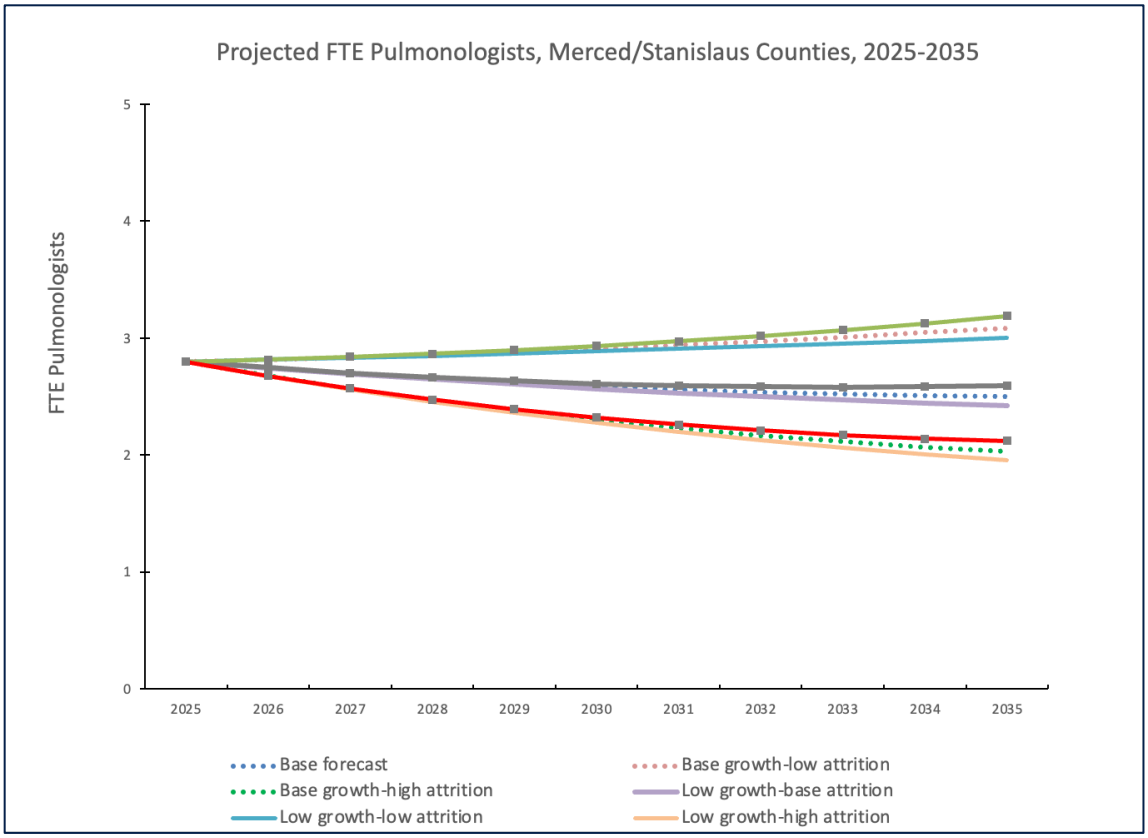
Figure 8. Projected FTE psychiatrists, Merced/Stanislaus counties, 2025-2035



Physician specialists: Pulmonology

Our baseline forecast assumes an annual growth rate of 3.5% and an annual attrition rate of 5%. The current stock of FTE pulmonologists practicing in Merced/Stanislaus counties is so small that no realistic set of growth and attrition rate parameters is likely to lead to much change in the number of FTEs over the next decade. Figure 9 shows that our baseline scenario results in the projected number of FTE pulmonologists remaining flat over the next ten years. Sensitivity tests of these parameters produce outcomes ranging from a decline of .5 FTEs to no change.

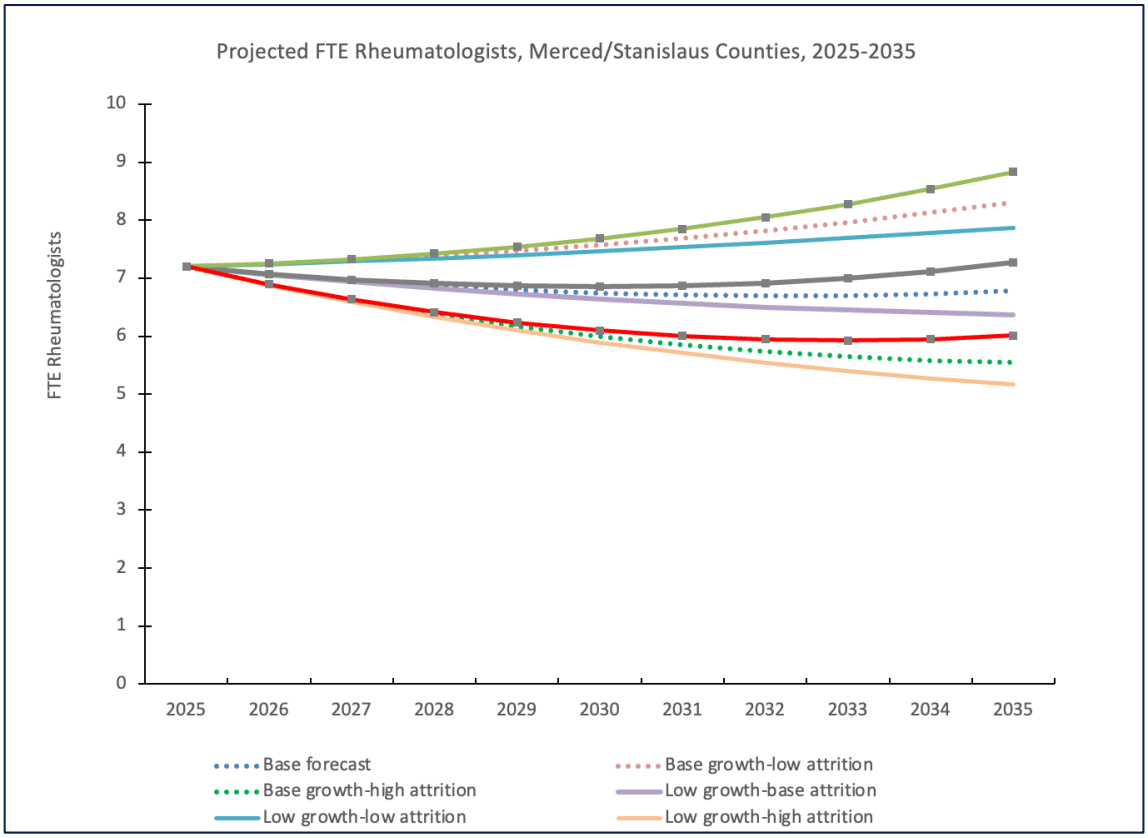
Figure 9. Projected FTE psychiatrists, Merced/Stanislaus counties, 2025-2035



Physician specialists: Rheumatology

Our baseline forecast assumes an annual growth rate of 6% and an annual attrition rate of 5%. Figure 10 shows that this results in the projected number of FTE rheumatologists practicing in Merced/Stanislaus counties remaining flat over the next decade, at 7 FTEs. Sensitivity tests produced outcomes ranging from a decrease of 2 FTEs to an increase of 2 FTEs in the next ten years. Although these are small changes, a shift of 2 FTEs in either direction could have a meaningful impact on patient care access.

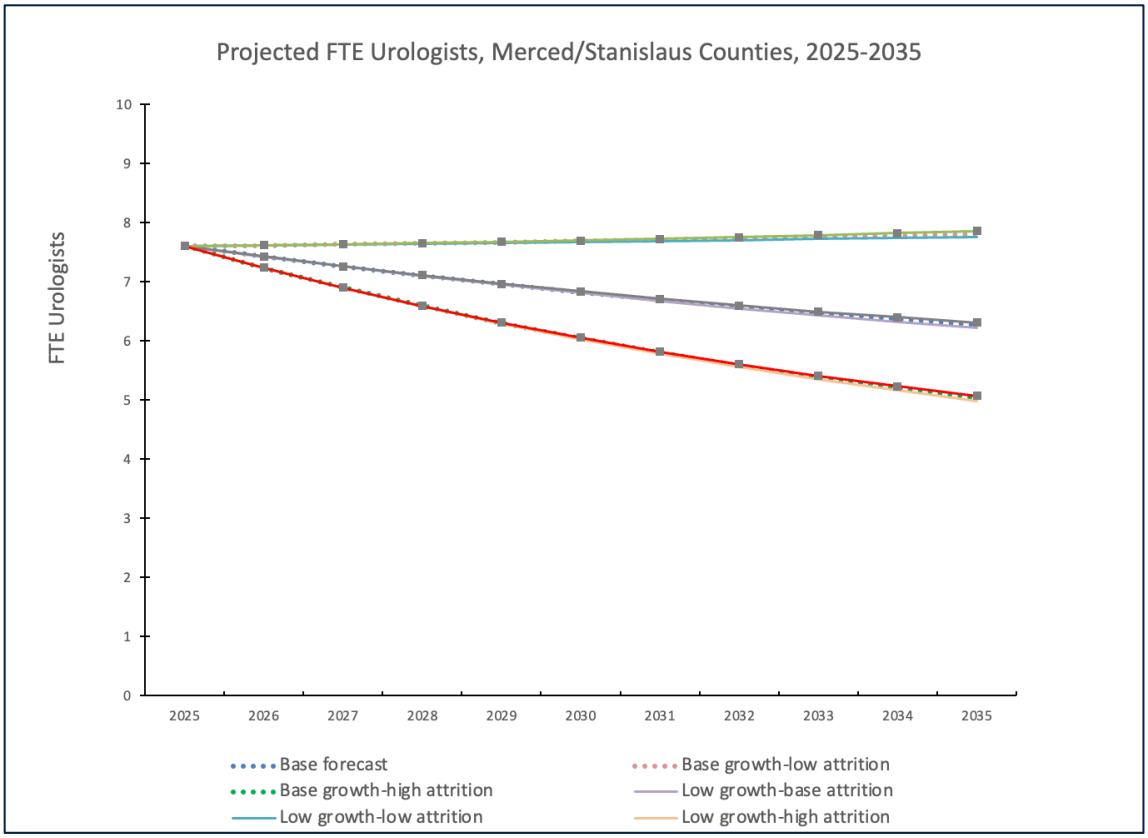
Figure 10. Projected FTE rheumatologists, Merced/Stanislaus counties, 2025-2035



Physician specialists: Urology

Our baseline forecast assumes an annual growth rate of 1% and an annual attrition rate of 5%. Figure 11 shows that this results in the projected FTE supply of rheumatologists practicing in Merced/Stanislaus counties declining over the next decade, from 8 FTEs to 6 FTEs. Sensitivity tests produced outcomes ranging from a decline of 3 FTEs to the current number of FTE urologists remaining stable. As with several of the other specialist physician types, there are very few urologists practicing in the two-county area. Even a loss of 1 to 3 FTEs over the next ten years would have a significantly negative impact on patient care.

Figure 11. Projected FTE urologists, Merced/Stanislaus counties, 2025-2035



Conclusion

Merced and Stanislaus counties are undersupplied with primary care and specialty care physicians. The number of residents associated with a single physician provider is anywhere from 2 to 10 times as large by comparison with the statewide average. Table 3 illustrates the magnitude of the workforce development challenge. It compares how many additional primary care and specialty care physicians the two-county area would need to achieve parity with current statewide physician per 10,000 population ratios, with the forecast model's baseline projected change in FTEs over the next decade and its "best case" scenario (i.e. higher-than-expected growth combined with lower-than-expected attrition). The massive difference in how many physicians are needed just to match the levels of current statewide per capita ratios and the projected change in FTEs over the next ten years is sobering. These data may even understate the challenge, as they compare current headcounts with projected FTEs. Typically, one FTE physician is composed of more than one actual physician due to variation in the number of hours worked. Addressing the challenge will require a multifaceted approach that combines different policy levers designed to attract and retain physicians from outside the two-county area, as well as to build and expand the area's capacity to train its own physician workforce.

Table 3. Physicians by specialty, estimated number and FTEs, Merced/Stanislaus counties, 2025

		Forecast Model	
Physician Type	Number needed to = current CA per 10,000 pop ratio	Baseline FTE Δ 2025 – 2035	High growth/low attrition FTE Δ 2025 – 2035
Primary Care	357	-31	64
Endocrinologist	17	-1	2
Neurologist	46	-1.2	2
OB-GYN	71	-8	5
Psychiatrist	149	-5	6
Pulmonologist	28	0	0
Rheumatologist	13	0	2
Urologist	22	-2	0

Policy Recommendations

Alleviating the shortages of primary care and specialist physicians in Merced/Stanislaus counties will require a multi-pronged strategy that both addresses the immediate need to improve access to care and creates pathways for young people in these counties to become the next generation of physicians.

Improving Access to Physicians in the Legacy Health Endowment's Catchment Area

- **Develop partnerships with academic health centers under which specialists provide telehealth services and travel to the Legacy Health Endowment's catchment area to evaluate patients and provide office-based care**

Partner with academic health centers to provide telehealth visits and establish specialty clinics in Merced and Stanislaus counties. These virtual and in-person clinics would be staffed by faculty who would travel to Merced or Stanislaus County on a regular basis (e.g., weekly, monthly) to evaluate patients and provide office-based care. Bringing specialist physician faculty to Merced and Stanislaus counties virtually or in-person would enable some persons to be treated locally and facilitate referral to academic health centers outside these counties for those whose needs cannot be met locally.

- **Provide loan repayment to primary care and specialist physicians who agree to practice in the Legacy Health Endowment's catchment area for at least two years**

Loan repayment programs repay a substantial share of physicians' student loan debt in exchange for practicing in an underserved area or a health care facility that serves an underserved population. Studies of loan repayment programs have found them to be is an effective strategy for recruiting physicians to practice in underserved areas.

Historically, eligibility for federal and state loan repayment programs has been limited to primary care physicians and psychiatrists. To address the shortages of specialists in the Legacy Health Endowment's catchment area, the Endowment should consider establishing a loan repayment program for physicians in critical specialties in which Merced and Stanislaus counties have low supplies.

Increasing the Number of Physicians Trained Locally

- **Advocate for the State of California to provide the resources needed to establish a UC medical school in the San Joaquin Valley**

The University of California, Merced, the University of California, San Francisco, and the University of California, San Franciso at Fresno have partnered with one another to establish San Joaquin Valley PRIME+, an eight-year BS to MD program that enrolls 15 students per year. The first class was enrolled in 2023 and will complete their bachelor's degrees at UC Merced in 2027 and then transition to medical school. Students would complete the first two years of pre-clinical education in a new building at UC Merced followed by two years of clinical education at UCSF-Fresno. The University of California aims to build upon this foundation to establish a four-year medical school that would enroll a class of 50 students per year. To realize this vision, UC needs ongoing funding for medical education ($25 to $40 million per year), capital funding to build more clinical training space at UCSF-Fresno ($50 million) and expand clinical training.

The Legacy Health Endowment should support the University's efforts by educating state and local elected officials and the public about the need for a medical school in Merced and connecting the University with local physicians who could serve as clinical faculty.

- **Invest in San Joaquin Valley PRIME and advocate for the resources needed to sustain and expand this program**

Since 2011, UCSF and UCSF-Fresno have operated the San Joaquin Valley Program in Medical Education (SJV PRIME), a track within the UCSF medical school for students who are committed to improving health and health care in the San Joaquin Valley. Students complete 1.5 years of medical school at UCSF main campus in San Francisco and 2.5 years at UCSF-Fresno. A cohort of 12 students are admitted each year.

The Legacy Health Endowment should collaborate with UCSF and UCSF-Fresno to identify potential SJV PRIME applicants from Merced and Stanislaus counties and explore the feasibility of offering clinical training for SJV PRIME students in Merced or Stanislaus counties.

- **Collaborate with UCSF-Fresno and health systems in the San Joaquin Valley to establish residency programs in high-priority specialties**

Increasing the number of medical residents and fellows trained in the San Joaquin Valley is critical to increasing the number physicians in Merced and Stanislaus counties. Otherwise, students educated at the new UC medical school will leave the region for residency and may not return to practice. Increasing the number of residents and fellows trained in the region also expands opportunities for persons from the San Joaquin Valley who attend medical school elsewhere to complete residency in the region and increases the likelihood that they will practice in the region. Top priority should be placed on specialties and subspecialties in which training is not currently available in the region, such as neurology, rheumatology, and urology.

Access to Medicare graduate medical education (GME) funding is critical to achieving this vision because state sources of funding for residency programs are insufficient and for the most part focus on funding residency programs in primary care. Caps on the number of residency positions that Medicare will fund at each sponsoring institution limit the ability of established teaching hospitals to establish new residency programs or expand existing programs. The Legacy Health Endowment can educate elected officials and the Centers for Medicare and Medicaid Services about the need to fund additional residency positions at established teaching hospitals and identify additional health systems in Merced and Stanislaus counties that could sponsor residency and fellowship programs.

- **Partner with UCSF and other UC campuses to establish residency or fellowship rotations in the San Joaquin Valley**

For some specialties and subspecialties, it may not be feasible to establish full residency or fellowship programs in the San Joaquin Valley. Establishing rotations in which residents or fellows complete part of their training in the San Joaquin Valley and part of their training at an academic health center outside the region may be a more feasible option.

The Legacy Health Endowment should collaborate with UCSF-Fresno and other academic health centers to explore the feasibility of establishing rotations for residents or fellows at hospitals, clinics, or other health care facilities in Merced and Stanislaus counties.

Preparing Young People for Medical Education

- **Partner with SJV Med Bridge/California Medicine Scholars**

UCSF Fresno leads SJV Med Bridge a pathway program that prepares community college students to earn a bachelor's degree and enroll in medical school. This program is a partnership between UCSF Fresno, California State University, Fresno, and multiple community colleges, including Modesto Junior College and the Merced Community College District. It enrolls a cohort of 50 new students per year. Participants receive advising regarding requirements for transfer to a four-year college or university and admission to medical school, along with clinical internships and networking opportunities.

The Legacy Health Endowment could provide funding to SJV Med Bridge to support students enrolled in community colleges in Merced and Stanislaus counties and develop internship opportunities for students in these counties.

Leveraging the Tax Code to Create Financial Incentives

Merced and Stanislaus Counties, like other rural areas of the United States, face persistent difficulty recruiting and retaining primary care physicians and specialists, and even promising pathways such as the UC Merced/UCSF Fresno BA/MD program will take years to translate into practicing physicians. A five-year, tax-based medical education initiative could respond to that timing problem directly by mobilizing private capital now, while giving Congress a defined pilot period to evaluate cost, uptake, and workforce impact before deciding whether to renew or expand the incentives.

The Internal Revenue Code of 1986, as amended (the "Code"), already contains familiar tools for this kind of public-private response. Code Section 170 recognizes charitable giving to tax-exempt nonprofit and educational organizations; Code Section 117 excludes many qualified scholarships from a student's income; Code Section 529 uses tax-advantaged accounts to help families save for education; and the new Federal Scholarship Tax Credit under Code Section 25F offers a structural model for turning private scholarship contributions into a targeted federal tax benefit. A medical education version could borrow that architecture: certified intermediaries, clear eligible expenses, contribution caps, anti-abuse rules, reporting obligations, and no double tax benefit for the same dollar.

Additionally, each of the proposals below could be enacted with a deliberate five-year sunset. A time-limited incentive is easier to score, easier to oversee, and more realistic politically. It also sends the right message to wealthy individuals, philanthropic organizations, hospitals, health plans, and other healthcare entities: the window to build the next generation of physicians is open now, but it will not remain open indefinitely.

- **Sponsor students through individual and corporate tax incentives**

Currently, individuals and corporations may receive tax benefits for charitable contributions made to nonprofit tax-exempt universities, medical schools, and other charitable organizations. But those donations often go into a general pool or institutional endowment, which can leave donors with little connection to the human impact of their giving. For a donor who wants to help a local student become a physician, the current system can feel too indirect.

One idea is a super-charged student sponsorship incentive. Under this model, an individual donor, family foundation, donor-advised fund, private foundation, community foundation, or corporate contributor could sponsor tuition, books, required equipment, and a defined housing stipend for a class or cohort of medical students through an accredited intermediary foundation affiliated with a university, medical school, or approved private foundation. To preserve charitable integrity, the donor(s) would not be part of the student selection process; instead, the donor(s) could fund an objective cohort, such as students from rural counties, students committed to primary care, or students who agree to serve in medically underserved communities.

Mechanically, Congress could design the incentive in several ways, including:

- An above-the-line deduction for qualified medical education sponsorship contributions, available whether or not the donor itemizes;
- A limited, nonrefundable credit modeled on Code Section 25F, giving donors a dollar-for-dollar reduction in federal income tax up to a statutory annual cap;
- A hybrid approach that preserves the existing Code Section 170 itemized deduction for general charitable gifts but provides an enhanced benefit for donations restricted to tuition, books, required equipment, and

housing for qualifying medical students, such as a longer carryforward for qualifying contributions exceeding the donor's limitation, exempting such contributions from the 0.5% or 1% floors on individual and corporate charitable contribution deductions, respectively, or excluding such contributions from the caps on corporate donors and itemized deductions for individual donors in the highest tax bracket.

The incentive(s) could be used for qualifying students entering medical school, students already in medical school, or even those who have already graduated with outstanding medical school debt.

The five-year sunset is central to the design. Donors would know that enhanced treatment is available only for a limited period, encouraging them to act now. At the same time, Congress could require annual reporting by participating intermediaries on the number of students supported, the dollars deployed, the eligible expenses paid, and post-graduation practice commitments.

- **Create healthcare organization tax credits for "Adopt-a-Student" programs**

Hospitals, private healthcare networks, health insurance companies, and other healthcare employers have a direct financial interest in ensuring a steady supply of physicians. In communities where specialist shortages are already severe, and new medical school or residency capacity takes years to affect local care, the Code could incentivize these entities to invest earlier in the training pipeline.

One idea is a Medical Residency & Education Tax Credit, or MRETC. A hospital system, health plan, medical group, or other qualifying healthcare entity that pays the medical school tuition, books, required equipment, and reasonable housing costs of local students could receive a substantial corporate tax credit. In return, the student would agree to work for a specified number of years in the sponsoring organization's network or in a designated underserved area after graduation and licensure.

A credible MRETC would need several mechanical features:

- The credit could be structured as a general business credit, subject to annual per-student and per-taxpayer limits, for qualified payments made directly to an accredited medical school or approved intermediary;
- The student service commitment could be capped at five years, with fair proration or recapture rules if the student does not complete medical training or does not satisfy the agreed service obligation;
- The sponsoring entity would receive no additional deduction for the same dollars that generate the credit, avoiding a double tax benefit while preserving ordinary business expense treatment for separate workforce development costs;
- The credit should apply only to new commitments made during the five-year authorization window, encouraging immediate investment rather than an open-ended subsidy.

For healthcare entities, the mutual benefit is straightforward: money that would otherwise go to federal taxes could instead help create a sustainable pipeline of physicians with ties to the community. For students, the benefit is equally concrete: less debt, a clearer path to training, and a defined opportunity to return home or serve where the need is greatest.

- **Tax-free crowdfunding and community sponsorship**

In the digital age, crowdfunding has become a safety net for medical bills and other urgent needs. A similar model could help finance medical education, but it should be backed by tax rules that make community giving easier, more transparent, and more durable. For rural and marginalized communities, this approach would allow neighbors, local businesses, civic organizations, and hometown philanthropies to rally behind their own future physicians.

The proposed change is a Community Medical Savings Account, or CMSA. Similar to how a Code Section 529 plan helps families save for education, a CMSA would allow non-relatives to pool money in a tax-advantaged account for a specific, verified medical student or a qualifying cohort of students from a defined community. The account would be administered by an approved trustee, educational institution, or charitable intermediary, not directly by the student or donors.

A CMSA could be designed with the following tax features:

- Contributions would be deductible or creditable for verified donors, subject to annual caps and anti-abuse rules;
- Account earnings would grow tax-free, and distributions for tuition, books, required equipment, fees, and reasonable housing would be excluded from the student's income;
- Unused funds would roll to another qualifying medical student, community scholarship fund, or approved rural workforce program; and
- The authority to make tax-advantaged CMSA contributions would expire after five years, creating a clear window for communities to identify students and organize support, but Congress could extend it.

This proposal would be especially powerful for communities that cannot build a medical school in the near term – or at all – but can identify talented students today. A CMSA would let a town, county, employer coalition, or civic network say, in effect, "We will help you become a physician, and we hope you will come back to care for us."

- **Reform the taxation of medical scholarships and stipends**

Current federal tax law generally excludes qualified scholarships used for tuition and required course-related expenses from income. Still, amounts used for room, board, travel, and incidental living expenses can be taxable. For a medical student already relying on loans or charitable support, a tax bill on the stipend that pays rent or groceries can reduce the real value of the very aid intended to keep that student in school.

The proposed change is to amend the Code so that all medical school stipends and living grants are completely tax-exempt when paid to students enrolled in accredited medical degree programs and used for tuition, books, required equipment, fees, housing, and reasonable living costs. This would ensure that a donor's or an institution's gift is maximized for the student's survival and training.

The mechanics could be direct and administrable:

- Code Section 117 could be amended, or a new medical education subsection could be added, to treat qualified medical school living stipends as excludable scholarship aid rather than taxable income;
- Existing geographic-based cost-of-living tools could be used to establish reasonableness of living costs and maximum scholarship amounts;
- The exclusion should apply only to bona fide scholarship or grant aid, not to compensation for teaching, research, clinical labor, or other services;
- Schools and intermediaries should report qualified payments so students can substantiate the exclusion without unnecessary tax complexity; and
- The expanded exclusion should sunset after five years unless Congress affirmatively renews it based on evidence that it increased full-ride medical education packages and reduced financial barriers for students entering shortage fields or underserved communities.

The practical result would be immediate. Philanthropic organizations could offer true full-ride packages, high-net-worth donors could fund living support without unintentionally creating negative tax consequences for students, and medical students could focus on training rather than on whether their housing stipend will produce an unexpected tax bill.

These proposals are not a substitute for expanding residency slots, strengthening local training programs, or improving clinician retention. They are a bridge strategy. A five-year medical education tax incentive package would give private philanthropy and healthcare institutions a reason to move quickly, give students a reason to choose medicine despite rising costs, and give rural communities a practical way to invest in the physicians they need.

References

1. Finocchio L, Yegian J, Calvert T, et al. San Joaquin Valley Regional Market Report 2025. California Health Care Foundation; 2026. https://www.chcf.org/resource/san-joaquin-valley-regional-market-report-2025/. Accessed June 2026.

2. Coffman JM, et al. California Healthcare Almanac: Physicians. UCSF Healthforce Center; California Health Care Foundation; 2025. https://www.chcf.org/resource/california-physicians-almanac/. Accessed June 2026.

3. Coffman JM, et al. California's Physicians: Headed for a Drought? UCSF Healthforce Center; California Health Care Foundation; 2018. https://www.chcf.org/resource/2018/06/25/californias-physicians-headed-drought/. Accessed June 2026.

4. California Department of Healthcare Access and Information. Supply and Demand Modeling for California's Behavioral Health Workforce. https://hcai.ca.gov/visualizations/supply-and-demand-modeling-for-californias-behavioral-health-workforce/. Accessed June 2026.

5. California Employment Development Department, Labor Market Information Division, Local Area Profile for Merced County, Stanislaus County. https://labormarketinfo.edd.ca.gov/data/industries.html. Accessed June 2026.

6. Public Policy Institute of California. Rural California Fact Sheet 2024. https://www.ppic.org/publication/rural-california/. Accessed June 2026.

7. U.S. Census Bureau. American Community Survey 5-year Estimates, 2020-2024. U.S. Data Explorer. https://usdataexplorer.com/state/california/income-rankings/counties. Accessed June 2026.

8. U.S. Census Bureau, Quick Facts for Merced County; Stanislaus County; California; United States. https://www.census.gov/quickfacts/ Accessed June 2026.

9. California Employment Development Department, Labor Market Information Division. Current Month Unemployment Rate and Labor Force Data for California and all 58 Counties. April 2026. https://labormarketinfo.edd.ca.gov/file/lfmonth/countyur-400c.pdf. Accessed June 2026.

10. Dignity Health Mercy Medical Center 2025 Community Health Needs Assessment. https://www.dignityhealth.org/content/dam/dignity-health/central-ca/pdfs/Mercy-Merced-2025-CHNA-FINAL.pdf. Accessed June 2026.

11. Kaiser Permanente Modesto Medical Center 2025 Community Health Needs Assessment (CHNA). https://about.kaiserpermanente.org/content/dam/kp/mykp/documents/reports/community-health/modesto-chna-2025_ada.pdf. Accessed June 2026.

12. Merced County Association of Governments. Unmet Transit Needs, Analysis and Recommendations Report. February 2023. https://www.mcagov.org/DocumentCenter/View/4295/Unmet-Transit-Needs-FY-2023-2024-Analysis-and-Recommendations-Report---Final?bidId=. Accessed June 2026.

13. CalEnviroScreen 5.0, Office of Environmental Health Hazard Assessment, State of California. https://oehha.ca.gov/calenviroscreen. Accessed June 2026.

14. Centers for Disease Control. PLACES Project. UCSF Health Atlas. University of California, San Francisco School of Medicine Dean's Office of Population Health and Health Equity, 2024. Accessed from: www.healthatlas.ucsf.edu. June 2026.

15. HCAI – Patient Discharge Data – Preventable Hospitalizations for Chronic Conditions; Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators, SAS Software, PQI Version v2023 (2019-2022, ICD-

10-CM) and PQI Version v2024 (2023, ICD-10-CM). https://hcai.ca.gov/visualizations/preventable-hospitalizations-for-chronic-conditions/. Accessed June 2026.

16. HCAI – Patient Discharge Data – Preventable Hospitalizations for Diabetes Conditions; Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators, SAS Software, PQI Version v2023 (2019-2022, ICD-10-CM) and PQI Version v2024 (2023, ICD-10-CM). https://hcai.ca.gov/visualizations/preventable-hospitalizations-for-diabetes/. Accessed June 2026.

17. Levin JS, Cantor JH, McBain RK, et al. Psychiatric and Substance Use Disorder Bed Capacity, Need, and Shortage Estimates in California: Merced, San Joaquin, and Stanislaus Counties. RAND Health Q. 2023;10(2):6. https://www.rand.org/content/dam/rand/pubs/research_reports/RRA1800/RRA1824-3/RAND_RRA1824-3.pdf. Accessed June 2026.

18. California Department of Healthcare Services. County Penetration Rates for Medi-Cal Certified Eligibles by Age Group, July 2025. https://www.dhcs.ca.gov/wp-content/uploads/2025/12/Medi-Cal-Eligibles-County-Populations-JULY2025.pdf. Accessed June 2026.

19. Stanislaus Health Services Agency. 2025 Community Health Assessment. https://www.schsa.org/PublicHealth/community-health-reports/. Accessed June 2026.

20. UC Merced Newsroom. UC Merced Submits Proposal to Establish Medical Education Program in the San Joaquin Valley. June 26, 2006. https://news.ucmerced.edu/news/2006/uc-merced-submits-proposal-establish-medical-education-program-san-joaquin-valley. Accessed June 2026.

21. California Healthline Daily Edition. Health Reform Grant Takes Aim at Physician Shortage. October 18, 2011. https://californiahealthline.org/morning-breakout/health-reform-grant-takes-aim-at-physician-shortage/. Accessed June 2026.

22. Rotenstein LS, He Z, Dziura J, Tsugawa Y, Venkatesh AK, Melnick ER, Gettel CJ. Trends in and predictors of physician attrition from clinical practice across specialties: a nationwide, longitudinal analysis. Ann Intern Med. 2025;178(12):1698-1708. doi:10.7326/ANNALS-25-00564

Appendix A: Defining Primary Care and Specialty Care Physicians

Estimates of the number of primary care and specialty care physicians practicing in either Merced or Stanislaus counties were sourced from the Health Workforce Licensure Renewal Survey, administered by the California Department of Healthcare Access and Information (HCAI). These estimates are current as of November 2025. All physicians included in this analysis reported a primary practice address located in either Merced or Stanislaus counties. Specialty physicians included in this analysis reported their primary area of practice was one of the selected specialties (i.e. pulmonology, rheumatology, etc.). Identifying primary care physicians to be included in this analysis was a multiple step process, described below.

Primary care physicians (MDs and DOs) were defined using two pieces of data recorded by the Health Workforce Licensure Renewal Survey: 1) the specialty area that best describes primary area of practice; and 2) the setting that best describes primary practice location.

For the purposes of this analysis, we considered primary care physicians those who reported their primary medical practice in any one of the following specialty areas:

- Family Medicine
- General Practice
- Internal Medicine
- Pediatrics

AND their primary practice location as any one of the following settings:

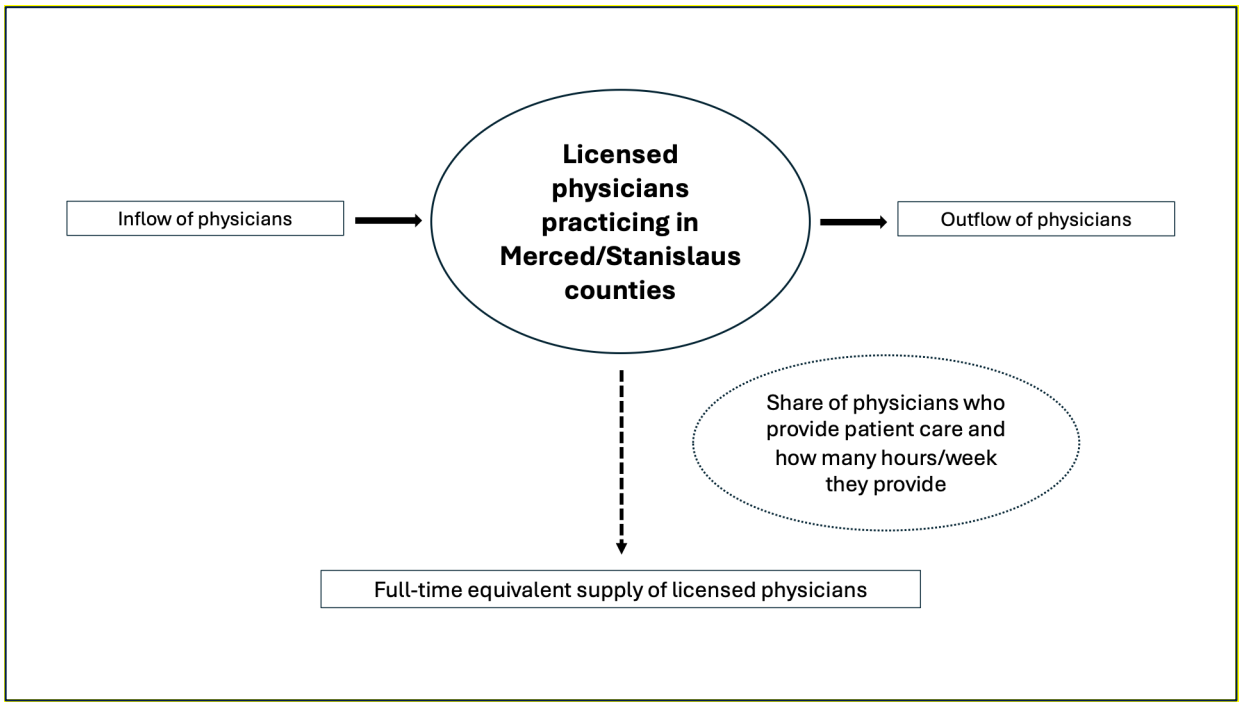
- Clinic/Community Health Center/FQHC
- Hospital – Outpatient
- Managed Care Organization
- Mobile Unit
- Private Practice – Group
- Private Practice – Solo
- School Based Service
- Academic Institution
- Correctional Facility
- Government Institution – Federal
- Government Institution – State/Local
- Home Health/Hospice Setting
- Long-Term Care/Skilled Nursing Facility

Appendix B. Constructing the Forecast Models

Forecast Model Components and Data Sources

The models forecasting the future supply of primary care and specialty care physicians used a "stock and flow" conceptual framework. Newly licensed physicians (inflow) enter the existing physician workforce (stock) and then at some point exit out of the workforce (outflow) due to retirement, career change, or other reasons.

Figure 2. A model of the supply of physicians



Stock: This is the estimated number of primary care or specialty care physicians providing patient care in either Merced or Stanislaus counties. We used physicians' self-reported hours of patient hours provider per week to convert headcounts into estimated number of full-time equivalent (FTE) physicians. We organized the estimated number of FTEs into the following age groups: under 40; 40-59; 60 or older. As noted, this information was sourced from the physician license renewal survey administered by HCAI.

Inflow: This is estimated number of new licenses issued to physicians (either MD or DO) each year with an address of record in either Merced or Stanislaus counties. The baseline estimate (2025) of the annual number of new licenses issued was sourced from the California Department of Consumer Affairs (DCA). The annual rates of growth for this inflow were estimated using Accreditation Council for Graduate Medical Education (ACGME) data that describe the annual number of graduates of California-based medical residency and specialty fellowship training programs over the period 2019-2024. In other words, we used growth in the number of graduates of primary care-oriented residency programs and specialty fellowship training programs in California to model future growth in the number of new licenses issued each year to physicians based in Merced and Stanislaus counties.

Outflow: This is the estimated share of the physician workforce in Merced and Stanislaus counties that exits the workforce annually. We could not obtain data that was specific to physicians in the two-county area, nor was California-specific data available. We used a national-level, all-physician estimated annual attrition rate sourced from a recent article published in a high-impact, academic medical journal.

Forecast Model Methods

To establish a baseline number of new entrants into the workforce in 2025, we averaged the number of "physicians and surgeons" licenses issued by the DCA (both allopathic and osteopathic) to persons with an address of record in either Merced or Stanislaus counties, in each of three most recent years (2023, 2024, 2025). We used a three-year average to account for the possibility of an unusually high or low number of new licenses issued in a single year. Because the DCA licensing data did not include information about age, and because we did not have access to data describing already licensed professionals migrating into Merced/Stanislaus counties, the forecast models assumed that all new entrants into the workforce were under the age of 40.

The DCA license data are not specific to different areas of specialty practice. For example, they do not distinguish between primary care physicians and physician specialists in endocrinology or psychiatry. As a proxy for specialty-specific license information, we used the distribution of the current workforce across different specialty practice areas in Merced/Stanislaus counties to estimate the number of licenses issued to each of the different specialty practice areas. For example, in 2025, primary care physicians (MDs and DOs combined) accounted for 29% of all physicians active in practice in Merced/Stanislaus counties. Accordingly, we assumed that 29% of all new allopathic and osteopathic "physicians and surgeons" licenses issued in 2025 to persons with an address of record in Merced/Stanislaus counties, were issued to primary care physicians. We used the same method and assumptions for each of the different types of physician specialists (endocrinology, neurology, obstetrics and gynecology, psychiatry, pulmonology, rheumatology, and urology).

We used the following method to estimate annual growth in the number of new licenses issued to each type of physician:

Primary Care Physicians

We combined the annual number of graduates of Family Medicine, Internal Medicine, and Pediatrics residency programs in California in each of the 6 most recent years of available data (2019-2024), as reported by ACGME. We calculated the year-over-year growth rate, and then we calculated a 5-year average growth rate for the period. This 5-year average growth rate was used to project the annual number of licenses issued to primary care physicians practicing in Merced/Stanislaus counties over the period 2026-2035.

Specialty Care Physicians

We used the annual number of graduates from California-based residency or fellowship programs in each of the selected specialty practice areas, in each of the 6 most recent years of available data (2019-2024), as reported by ACGME to calculate a year-over-year growth rate. We then calculated a 5-year average growth rate for the period, which was used to project the annual number of licenses issued physician specialists practicing in Merced/Stanislaus counties over the period 2026-2035.

As noted, we could not obtain data that would allow us to estimate age and gender specific attrition rates, by physician practice specialty. Instead, we used a national-level, all-physician attrition rate estimated by the authors of an academic journal article recently published (October 2025) in the Annals of Internal Medicine. As a result, our estimated attrition rate is the same for all physicians regardless of specialty. We acknowledge that this is an important limitation in our model; we subjected the model to a sensitivity analysis in which this attrition rate was both cut in half, and increased by half again, to present a range of plausible outcomes.

There are several important assumptions related to age that are embedded in the supply forecast model. The first is that we assume newly licensed physicians entering the workforce are all under the age of 40. A second assumption is that physicians are evenly distributed by age across the "under 40" and "40-59" age groups. A third assumption is that physicians, on average, enter the workforce at age 30; this determines the proportion of the under 40 cohort of physicians that "ages up" into the 40-59 age cohort each year (10% because we assume new

physicians enter the workforce at age 30). In the same way, because the 40-59 age cohort spans 20 years, and because we assume that physicians are evenly distributed by age across the group, in each year of the model 5% of physicians in the 40-59 age cohort "age up" into the "60 and older" cohort.

Converting headcounts into FTEs

The Healthcare Workforce Renewal Survey (administered by HCAI) provides information regarding the number of patient care hours that physicians provide in a week. We used these data to convert estimates of individual providers into their full-time equivalents (FTEs). The renewal survey data report patient care hours provided using categories (e.g. 20-29 hours per week). We used the midpoint of each category to generate weighted estimates of FTEs. For example, physicians reporting 20-29 hours per week of patient care were assumed to provide 24.5 hours per week.

We assigned weights to each of the hours per week category as follows:

No patient care = (0 * number of providers)
0-9 patient care hours/week = (.2 * number of providers)
10-19 patient care hours/week = (.4 * number of providers)
20-29 patient care hours/week = (.6 * number of providers)
30-39 patient care hours/week = (.8 * number of providers)
40 or more patient care hours/week = (1* number of providers)

We summed across these FTE-adjusted categories of hours of patient care provided to obtain an overall number of FTE physicians.

Methodological limitations

Our method for estimating new entrants to the workforce in Merced/Stanislaus counties does not account for already licensed physicians who migrate into the area from either another location in California, or from another state. We used state-level estimates of growth in the number of graduates from the different health professions education and training programs. Given the fact that Merced/Stanislaus counties are home to a single medical education program that is currently producing graduates, and a limited number of postgraduate residency and fellowship training programs, the state-level data may not be representative of local conditions. Moreover, growth in the number of graduates is largely dependent on expanding the number of existing programs (as opposed to expanding capacity at existing programs); if new programs do not continue to come online, the growth estimates will overstate the flow of new entrants into the workforce.

As noted, we used a proxy rate of physician attrition because we could not obtain data that would allow us to calculate rates that are specific to the workforce in Merced/Stanislaus counties. The rate we used did not account for differences by sex, by age, by practice specialty, or by rural versus urban geographic setting. These are all factors that influence the rate at which physicians attrit from the workforce. As a hedge, we applied different attrition rates to the model to produce a range of plausible outcomes.

Age is reported in 10-year age groups in the physician renewal survey data. Because of the very small numbers of physicians practicing in Merced and Stanislaus counties, we needed to collapse these 10-year groups into 20-year groups. Our forecast model assumes that physicians are evenly distributed across our constructed age groups. This is almost certainly not the case, and we don't know the effect this assumption has on the accuracy of the forecast model.