

Pathways Forward

Collaborative Solutions to Allied Health Clinical Placement Challenges

IN THE SACRAMENTO SUBREGION



**PREPARED BY THE NORTH (GREATER SACRAMENTO)
CENTER OF EXCELLENCE FOR LABOR MARKET RESEARCH**



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Introduction

Clinical placement slots provide essential hands-on experience in real-world settings to prepare students to enter the allied health workforce. Linking classroom learning with workplace experience in clinical and primary care settings, the successful completion of a clinical placement is often a requirement for the successful completion of a program, state licensing, and employment in an allied health occupation.

Community colleges play an important role in allied health training and collectively serve as a major provider of preparatory programs for allied health occupations, which include clinical laboratory technologists and technicians, dental assistants and hygienists, pharmacy technicians, radiology technicians and other imaging specialists.

According to a study by the Community College Research Center, community colleges account for 68% of allied health (diagnostic, intervention, treatment) programs nationwide, and prepare 66% of allied health graduates in the postsecondary sector, which includes public four-year colleges, as well as private, not-for-profit and private, for-profit postsecondary institutions.¹

However, in recent years, the limited availability of allied health clinical placements has garnered statewide and national attention due to a shortage of these workers that is expected to worsen in the coming years, due to high rates of burnout, workforce retirements, an aging population with increased health care needs, and limited capacity within educational pipelines and among employers to take on students. A 2022 survey by SEIU-UHW found that 83% of allied health workers, who comprise 60% of medical facilities staff in California, reported understaffed departments.² Additionally, a 2021 California Competes study found that up to 6.5 million more clinical placement hours were needed to close the allied health workforce gap in the state.³

Allied health defined

Workers who provide diagnostic, therapeutic, or support services that are distinct from nursing and medicine. Examples include occupational therapists, medical assistants, and medical interpreters.

Source: California Health Care Foundation, <https://www.chcf.org/wp-content/uploads/2024/05/StrengtheningWorkforce.pdf>

¹ Elizabeth Kopko, Rebecca Proctor, James Jacobs, and Maria Cormier, "Healthcare Training Programs in Community Colleges," Community College Research Center, Teachers College, Columbia University, July 2023, <https://ccrc.tc.columbia.edu/media/k2/attachments/healthcare-training-programs-in-community-colleges.pdf>.

² "Crisis in Care: How California's Healthcare Worker Shortage is Affecting Workers and Patient Care," SEIU United Healthcare Workers-West, May 2022, https://seiuuhw.wpenginepowered.com/wp-content/uploads/2022/05/2022-04_Report_Staffing-Survey-10.1_DIGITAL.pdf.

³ "Meeting California's Demand for Allied Health Workers," California Competes, February 2021, https://californiacompetes.org/wp-content/uploads/2022/12/CA-Competes-Allied-Health_Final.pdf.

The shortage of allied health workers appears to be a symptom of a larger trend within the overall health care workforce, which is facing labor deficits in many critical areas. A 2021 national study by Mercer estimated a shortage of 3.2 million health care workers within five years for lower-wage jobs such as medical assistants, home health aides, and nursing assistants. The report notes that California and New York are expected to experience more acute shortages, each with a shortfall of 500,000 workers by 2026.⁴

Widespread reporting has documented how the demand for allied health workers is outpacing supply and how COVID-19 accelerated allied health retirements and separations while calling attention to the critical nature of these roles in the delivery of quality health care. These labor supply constraints are of growing concern as the region, state, and nation encounter increasing health care demands from an aging population.

This study focuses on the greater Sacramento subregion, which encompasses Colusa, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba counties. To understand the clinical placements gaps in the subregion and present approaches that may positively impact training capabilities, this study sought to address several distinct questions:

- What is needed to increase the capacity to train more students?
- What tools or strategies can assist with improving the efficiency of providing clinical placements?
- What internal and external challenges do employers face in offering clinical placement slots?

This report presents an overview of labor market demand for priority allied health occupations in the subregion, a concise inventory of programs offered by community colleges to provide a skilled allied health workforce, and a literature review examining collaborative models to address the shortage and potential funding sources. Also presented are insights gleaned from an online survey augmented by in-depth interviews with 13 education and employer stakeholders.

These findings can assist the subregion in adopting strategies to improve the provision of clinical placement slots, and the following sections present opportunities to expand and enhance the training for allied health workers.

⁴ “US Healthcare Labor Market,” Mercer, 2021, <https://www.mercer.com/content/dam/mercer/assets/content-images/north-america/united-states/us-healthcare-news/us-2021-healthcare-labor-market-whitepaper.pdf>.

Research Approach

The study employed quantitative and qualitative research methods to explore and develop a comprehensive understanding of the causes and potential solutions for the clinical placement shortage in the subregion, including challenges faced by educators, training providers, and students. These findings have been compiled and condensed to inform targeted strategies that may be applied toward enhancing training opportunities, ensuring a well-equipped workforce to meet the health care needs of our community.



Research Objective

To investigate the root causes of clinical placement challenges in the greater Sacramento subregion.

Project Goal

Enhanced ability to address the pressing shortage of clinical placements and externship supervisors in allied health fields.

Labor Market Demand and Supply Analysis

The quantitative findings presented in this report primarily rely on data collected by the California Community Colleges and labor market data available through the economic modeling firm and job postings aggregator Lightcast.⁵ Employment data referenced represents the historical year 2023 projected through 2028.⁶ The area of geographic focus for the labor market analysis is Colusa, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba counties.

Wage analysis is presented in this report to highlight occupations with strong wages that can enhance an individual's standard of living. It is important to note that the living wage varies by county and that there are many factors that influence wages. For example, wages can vary by occupation, employer, and locality, such as by ZIP code. The analysis in this report

⁵ Data source: Lightcast 2024.4; QCEW, non-QCEW, and Self-Employed.

⁶ Lightcast's occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates are also affected by county-level Lightcast earnings by industry.

incorporated guidelines from the “We Prosper Together Regional Plan”⁷ which establishes a higher living wage threshold for counties in the subregion, using the Self-Sufficiency Standard⁸ developed by the University of Washington. These living wage thresholds are based on the hourly earnings needed to support a small family (two adults and one school-aged child) to acknowledge the need for higher wages for workers caring for dependents. The hourly wage thresholds in the eight-county subregion are:

- Placer and El Dorado, \$34.30
- Nevada, \$33.50
- Sacramento and Yolo, \$30.70
- Colusa, \$29.50
- Yuba and Sutter, \$29.20⁹

Occupational wage data presented in the labor market analysis section of this report is derived from Lightcast.

Program analysis was conducted by pulling relevant program codes using the California Community Colleges Chancellor’s Office Taxonomy of Programs (TOP). A comprehensive program inventory was completed using the Chancellor’s Office Curriculum Inventory (COCI) 2.0. Data pertaining to awards (certificates and degrees) was obtained using the California Community Colleges Chancellor’s Management Information Systems DataMart, an online database of college programs and student completion numbers. The COE developed and regularly maintains a crosswalk that assigns Standard Occupational Classifications (SOCs) to TOP codes. The COE’s code crosswalk was used to identify occupations related to the targeted program areas. Using the TOP codes for the study area, SOC codes were then applied to retrieving and refining data to detail current employment levels, projected occupational demand, and estimated hourly wages.

Qualitative Analysis

Qualitative analysis involved an in-depth literature review, evaluation of available data sources, an online survey of education and industry stakeholders, and semi-structured interviews that collected open-ended question responses from a curated list of stakeholders with expertise in the process for developing and facilitating the provision of clinical placements.

The research team conducted interviews from late-January to mid-February 2025. A total of 13 representatives were interviewed from postsecondary educational institutions and major

⁷ “We Prosper Together Regional Plan: Strategies for a Thriving and Inclusive Economy,” We Prosper Together, 2024, <https://www.weprospertogether.org/wp-content/uploads/2024/10/We-Prosper-Togethers-Regional-Plan.pdf>.

⁸ “Self-Sufficiency Standard,” Center for Women’s Welfare, University of Washington, 2025, accessed March 10, 2025, <https://selfsufficiencystandard.org/washington/>.

⁹ “We Prosper Together: Catalyst Development Projects Application,” November 2024, <https://www.weprospertogether.org/wp-content/uploads/2024/12/Catalyst-RFP-Final-11.26.2024.pdf>.

allied health employers who are tasked in various ways with addressing workforce development needs collaboratively with community colleges either locally, regionally, or statewide. Nine interviews were conducted with leads from major health systems overseeing clinical placements and externships, and four interviews were conducted with leads at community colleges. The interviews were approximately 45 minutes in length.

These interviews explored recruitment and coordination of clinical placements, challenges and barriers faced throughout the process, and solutions for stronger partnerships. Interviews revealed several interconnected factors contributing to the shortage of allied health professionals in the region, including institutional challenges, employer barriers to offering clinical placement slots, and gaps in student preparedness. This report's following sections explore these challenges and the need for improved communication, collaboration, and employer engagement to strengthen the workforce pipeline. These insights serve as a starting point for stakeholder discussions, though further research may be needed to explore these topics in more depth for specific allied health professions.

Appendices A and B provide the interview protocol and survey instrument used for this study. All surveys were distributed via Qualtrics, and interviews were conducted via Zoom. The research team transcribed interviews and conducted thematic analysis of written transcripts.

Limitations of the Study

This study aimed to serve as a starting point for exploring challenges and barriers contributing to the pressing shortage of clinical placements in the greater Sacramento subregion's allied health fields. However, the study's scope was limited, as it only obtained feedback from specific programs facing shortages. Since many programs operate independently, this limitation highlights the growing need to better understand the unique challenges faced by individual programs and occupations. Therefore, a more comprehensive study and analysis is necessary, particularly to recognize the unique demands of each allied health occupation and expectations for clinical training.

Additionally, while this study explored feedback from community colleges and site leads from major health systems across the subregion, a more comprehensive study should also include the perspective of students, who are also directly impacted by these placement challenges. For example, when clinical placement slots are unavailable, students may experience a number of adverse effects, such as delayed future employment, impacts on financial aid eligibility and prolonged costs, and knowledge loss or skill decay. Ideally, this study would have incorporated an analysis of historical clinical placement data from the subregion. However, due to fluctuations in cohort sizes, the availability of clinical slots, and the absence of a centralized data repository, such an analysis was not feasible. This data limitation also prevented the study team from being able to adequately evaluate the variety of clinical placement settings available to students, such as whether non-profit and government-funded community health clinics and Federally Qualified Health Centers are being utilized as effectively as private health care settings for the provision of clinical placements.



Priority Allied Health Occupations

A regional Talent Pipeline Management (TPM) initiative led to the preliminary identification of five occupations of focus for this study that were validated by local health care employers:

- Cardiovascular technicians
- Pharmacy technicians
- Radiologic technologists
- Surgical technologists and technicians
- Ultrasound technicians (diagnostics medical sonography)

The research team then compared these occupations with programs in place or being developed by community colleges in the subregion. Programs under development include a cardiovascular technology program by Sacramento City College and surgical technology programs by Sierra College and Cosumnes River College. Programs currently offered include pharmacy technology by Cosumnes River College and radiologic technologist programs by Yuba College and Folsom Lake College. The medical laboratory program offered by Folsom Lake College is the only community college program of its kind in the North Far North region and is the third-largest allied health occupation in the subregion (by 2023 jobs), with the third-largest number of projected annual job openings in the subregion.

This analysis of programs yielded a much longer list of potential allied health occupations to examine. To narrow down the list of priority occupations, the research team, with the assistance of the project advisory team, evaluated which occupations are least painful, moderately painful, or most painful in terms of the provision of clinical placements or whether they fall into an area in need of more investigation. This resulted in the selection of five primary occupations and nine secondary occupations, a total of 14 occupations, as the focus of the study (Exhibit 1).

Exhibit 1. Primary and secondary occupations selected for this study

PRIMARY OCCUPATIONS

Entry-level Education	Occupational Title
Associate degree	• Cardiovascular Technologists and Technicians • Diagnostic Medical Sonographers • Radiologic Technologists and Technicians
Postsecondary nondegree award	• Surgical Technologists
Bachelor's degree	• Clinical Laboratory Technologists and Technicians

SECONDARY OCCUPATIONS

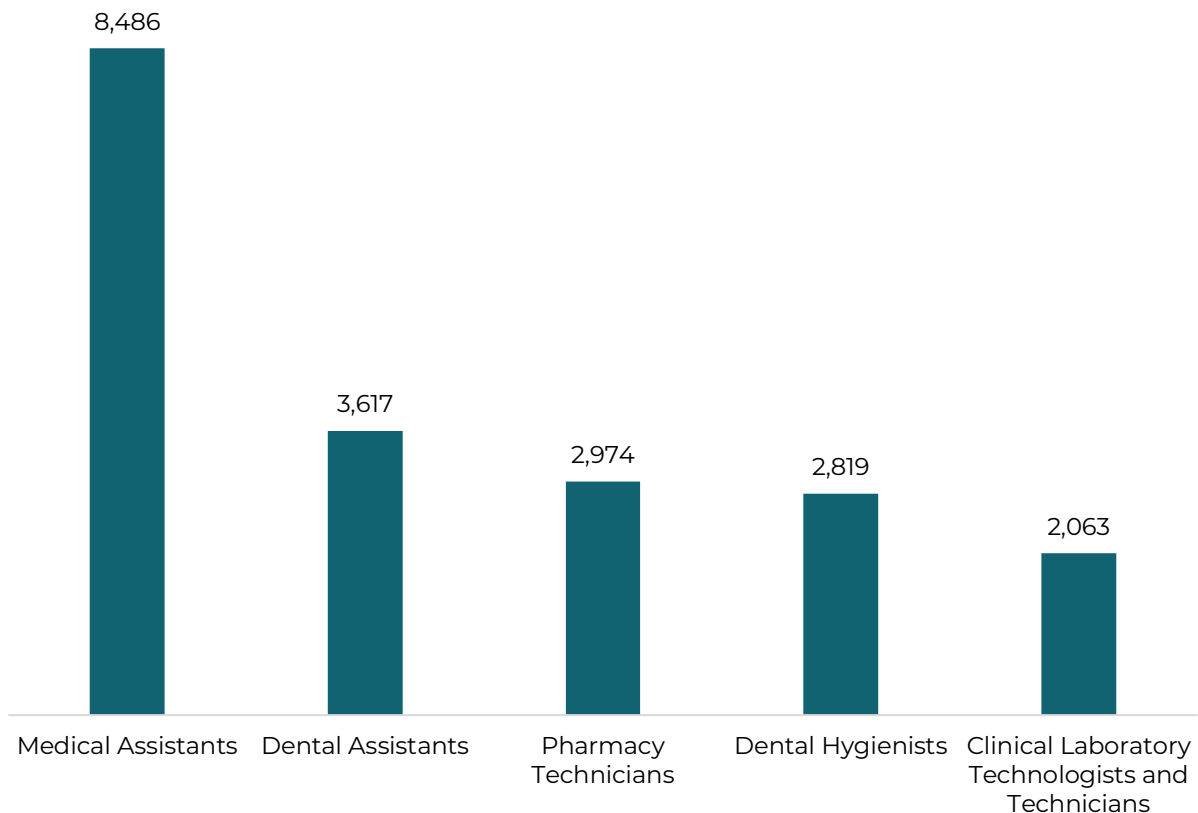
Entry-level Education	Occupational Title
High school diploma or equivalent and Moderate-term on-the-job training	• Pharmacy Technicians
Associate degree	• Dental Hygienists • Occupational Therapy Assistants • Physical Therapist Assistants • Respiratory Therapists
Postsecondary nondegree award	• Dental Assistants • Health Technologists and Technicians, All Other • Medical Assistants • Psychiatric Technicians*

*Short-term on-the-job training is also required for this occupation.

Labor Market Demand

The 14 occupations account for nearly 27,500 jobs in the eight-county subregion and are projected to offer 3,355 annual openings, representing a moderately strong growth rate of 10%. In terms of employment, medical assistants, dental assistants, and pharmacy technicians represent the three largest occupations in the subregion (Exhibit 2). These occupations are also expected to offer the greatest number of annual openings through 2028.

Exhibit 2. Top five largest occupations in terms of employment in the greater Sacramento subregion, 2023



Source: Lightcast 2024.4, QCEW Employees, Non-QCEW Employees, and Self Employed.

Among the group of 14 occupations, several other occupations have optimistic employment outlooks (Exhibit 3). With 1,332 annual openings, medical assistants accounts for more than a third of the total number of annual openings. Additionally, 575 annual openings are projected for dental assistants. With a growth rate of 19%, the demand for psychiatric technicians is projected to be robust, translating to 107 annual openings. Similarly, health technologists and technicians, all other, has a strong 16% growth rate, translating to 164 annual openings.

Exhibit 3. Current employment and projected occupational demand for the 14 allied health occupations in the greater Sacramento subregion

Occupation	2023 Jobs	2023-2028 Change	2023-2028 % Change	Annual Openings
Medical Assistants	8,486	976	12%	1,332
Dental Assistants	3,617	299	8%	575
Pharmacy Technicians	2,974	116	4%	293
Dental Hygienists	2,819	211	7%	232
Clinical Laboratory Technologists and Technicians	2,063	227	11%	184
Health Technologists and Technicians, All Other	1,599	249	16%	164
Radiologic Technologists and Technicians	1,590	176	11%	123
Respiratory Therapists	1,108	115	10%	80
Psychiatric Technicians	839	161	19%	107
Diagnostic Medical Sonographers	669	84	13%	53
Surgical Technologists	645	82	13%	57
Physical Therapist Assistants	524	89	17%	95
Cardiovascular Technologists and Technicians	359	26	7%	28
Occupational Therapy Assistants	176	34	19%	33
TOTAL	27,468	2,846	10%	3,355

Source: Lightcast 2024.4, QCEW Employees, Non-QCEW Employees, and Self Employed.

Wages were also examined for each of the 14 occupations (Exhibit 4). Most of the 14 allied health occupations are fairly well paid. However, five occupations have median wages that fall below the lowest “We Prosper” wage threshold, which is \$29.20/hour in Yuba and Sutter counties: health technologists and technicians, all other, \$27.98/hour; medical assistants, \$27.65/hour; dental assistants, \$27.33/hour; pharmacy technicians, \$25.99/hour; and psychiatric technicians, \$23.70/hour. Occupations with the highest median wages include diagnostic medical sonographers, \$65.55/hour, radiologic technologists and technicians, \$56.79/hour, and respiratory therapists, \$55.90/hour.

Exhibit 4. Entry-level, median, and experienced hourly wages for the 14 occupations in the greater Sacramento subregion¹⁰

Occupation	Entry-level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
Diagnostic Medical Sonographers	\$53.01	\$65.55	\$80.35
Radiologic Technologists and Technicians	\$39.83	\$56.79	\$69.72
Respiratory Therapists	\$46.68	\$55.90	\$61.76
Dental Hygienists	\$52.82	\$55.31	\$56.22
Physical Therapist Assistants	\$34.39	\$40.65	\$45.22
Surgical Technologists	\$35.83	\$39.73	\$48.72
Cardiovascular Technologists and Technicians	\$28.92	\$39.69	\$58.64
Occupational Therapy Assistants	\$34.88	\$39.21	\$43.62
Clinical Laboratory Technologists and Technicians	\$25.72	\$36.63	\$42.05
Health Technologists and Technicians, All Other	\$23.43	\$27.98	\$35.00
Medical Assistants	\$21.77	\$27.65	\$34.30
Dental Assistants	\$23.15	\$27.33	\$29.79
Pharmacy Technicians	\$21.99	\$25.99	\$34.06
Psychiatric Technicians	\$19.25	\$23.70	\$36.64

Source: Lightcast 2024.4, QCEW Employees, Non-QCEW Employees, and Self Employed.

¹⁰ Entry-level hourly wages are derived from the 25th percentile while experienced hourly wages are derived from the 75th percentile.

Community College Awards

The study team examined programs that crosswalk to the 14 primary and secondary occupations identified for the study. Data on postsecondary awards is often used as a proxy to estimate the size of the talent pipeline entering the workforce. However, it is important to note that the data presented in this section is a snapshot encompassing community college awards and does not include all postsecondary institutions providing allied health training in the subregion.

On average, 462 awards are conferred each year by community college programs aligned with the 14 primary and secondary allied health occupations (Exhibit 5). This number appears to indicate that strong hiring demand may exist in the region, since it is considerably lower than the overall labor market demand for the 14 occupations, a total of 3,355 annual job openings. Health professions, transfer core curriculum, is a program that confers by far the greatest number of awards, 226 on average each year. The smallest number of awards is conferred by diagnostic medical sonography, seven awards on average each year. (A detailed program inventory by TOP code and college is included in Appendix C.)

Exhibit 5. Awards (degrees and certificates) from community college programs aligned with the 14 primary and secondary occupations in the greater Sacramento subregion

Program Type - TOP6	2021-22 Academic Year	2022-23 Academic Year	2023-24 Academic Year	Three-Year Average
Dental Assistant-124010	9	8	41	19
Dental Hygienist-124020	22	14	15	17
Diagnostic Medical Sonography-122700	16	3	3	7
Health Professions, Transfer Core Curriculum-126000	204	200	275	226
Medical Assisting-120800	46	50	46	47
Medical Laboratory Technology-120500	10	12	13	12
Occupational Therapy Technology-121800	20	5	24	16
Pharmacy Technology-122100	12	7	17	12
Physical Therapist Assistant-122200	20	16	27	21
Psychiatric Technician-123900	7	14	13	11
Radiologic Technology-122500	29	26	25	27
Respiratory Care/Therapy-121000	17	0	21	13
Speech/Language Pathology and Audiology-122000	25	37	36	33
TOTAL	437	392	556	462

Source: California Community Colleges Chancellor's Management Information Systems DataMart.

Sierra College leads the subregion in conferring the greatest number of awards related to the 14 primary and secondary occupations, a total of 217 on average each year, about 46% of all awards in the subregion (Exhibit 6).

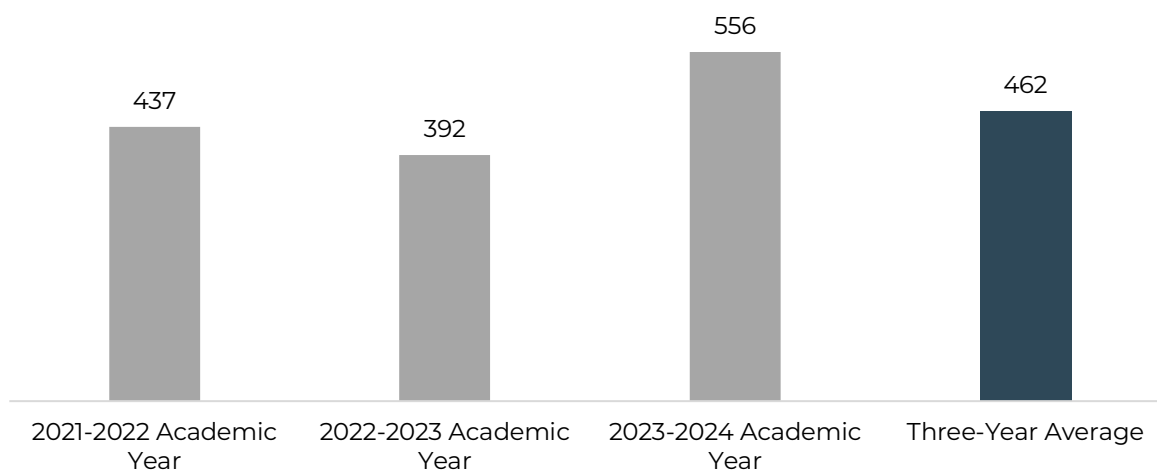
Exhibit 6. Awards (degrees and certificates) from community colleges in the greater Sacramento subregion

College	2021-22 Academic Year	2022-23 Academic Year	2023-24 Academic Year	Three-Year Average
American River	42	45	117	68
Cosumnes River	54	43	54	50
Folsom Lake	29	15	17	20
Lake Tahoe	--	--	14	14
Sacramento City	71	43	93	69
Sierra	217	209	225	217
Yuba	24	37	36	32
TOTAL	437	392	556	462

Source: California Community Colleges Chancellor's Management Information Systems DataMart.

Awards from allied health programs reached a high of 556 in the 2023-24 academic year, which is considerably above the three-year average of 462 (Exhibit 7).

Exhibit 7. Total awards related to the 14 allied health occupations in the greater Sacramento subregion, last three academic years and three-year average



Source: California Community Colleges Chancellor's Management Information Systems DataMart.



Workforce Training Ecosystem and Related Trends

The allied health workforce training system is a diverse landscape that primarily relies on collaborative partnerships linking health care systems, hospitals and clinics, federally qualified health centers, and other medical providers with education and training providers, such as community colleges, public four-year colleges and universities, non-profit and for-profit colleges, and non-profit entities focused on delivering various training modalities, and even large corporate entities geared toward the provision of online or in-person training at regional, state-wide or national levels.

This workforce training ecosystem is broad and varied due to the complexity of the educational pathways leading into these occupations, which run the gamut from certifications to associate degrees, bachelor's degrees, and even master's or doctoral degrees, depending on the specific allied health profession, for which state licenses may be required for employment.

Securing clinical placements from various hospitals and health care systems has become increasingly challenging. On the community college side, obtaining clinical placements for students is a competitive process and requires dedicated investment of staff time, not only to establish and maintain employer relationships but to supply a consistent stream of adequately prepared students and ensure that onboarding paperwork has been correctly submitted. On the employer side, the provision of clinical placements requires dedicated staff to oversee student training in a workforce environment that values the efficient delivery of health care to patients and prioritizes cost savings. As with community colleges, staff at these

sites must coordinate burdensome paperwork which may be compounded by HIPPA and other workforce regulations. Most health-related programs require students complete clinical hours before they can obtain their degree or certificate. Clinical externships or clinical rotations entail students work in a health care setting with a supervised preceptor who observes and teaches them in the clinical area of study. Community colleges in the subregion are required to adhere to clinical requirements that are not only set by their program's accrediting board but by their colleges as well.

It is important to note that not all programs have an accrediting board; therefore, they adhere to program-specified clinical hour requirements. Due to the competitive nature of securing clinical placements, community colleges are under great pressure to ensure their students are receiving meaningful clinical experiences. Some programs, such as those that train nurses and medical laboratory technicians (MLTs), must complete a mandatory number of hours in different modalities.

Emerging Trends

The widespread shortage of clinical placements has given rise to a multitude of collaborative models at the regional, state, and national level. The research team's analysis examined collaborative efforts that also address nursing shortages since even though this program area is separate from this study's scope, the structure of these collaborations may be transferable.

The research team examined efforts led by state governments, public education, nonprofit organizations, health systems and other employers, and large health workforce providers. One important observation is that the rise of collaborative structures, particularly those that are employer-led or led by corporate vendors or large health systems, have been rapidly evolving and the nature of these partnerships seems to reflect a highly competitive environment for training provision.

To ensure a consistent supply of adequately trained allied health workers, large health systems and corporate players are building sizable networks of partners through acquisitions and exclusivity agreements, apparently creating weblike structures determining who they are willing to collaborate with as training partners in specific localities and regions. This may raise questions about whether community colleges could be edged out of the student training arena due to the fast-paced nature of change in how clinical placement slots are offered and who has access to them.

The following examples range from state-led to non-profit and corporate collaborations. (See Appendix D for a more detailed look at various collaboration and coordination models, including lists of partners and source information.)

State example:

In Michigan, **Futures for Frontliners** is a state-led program that offers scholarships to students entering allied health careers that were essential during the COVID-19 pandemic.

The program is notable for specifically targeting the allied health workforce shortage by focusing on the important role of community colleges in offering training and encouraging student enrollment through scholarships. Community college programs include Licensed Practical Nurse, Medical Assistant, Pharmacy Technician, Physical Therapy, Nursing, and Respiratory Therapy.

Non-profit examples:

The Missouri Chamber Foundation secured federal funding and launched an “earn-and-learn” training pilot, the **Industry-Driven Healthcare Apprenticeship Program**, through which employers are incentivized to provide slots by receiving \$2,000 for each apprentice trained. Program areas are Medical Assistant, Phlebotomist, Dental Assistant, Surgical Technician, Certified Nursing Assistant, EMT, Pharmacy Technician, Medical Coder, Radiology/CT Technician, and Bio-Medical Equipment Technician.

Initially formed through a partnership between Kaiser Permanente and SEIU-UHW, **Futuro Health’s** nonprofit mission addresses the nation’s critical shortage of allied health care workers. Ten programs are currently offered, including Emergency Room Technician, Medical Assistant, Pharmacy Technician, and Surgical Technologist. The cost of the program was not immediately available although language on the website states students may be eligible for free or reduced tuition.

Inland Health Professions Consortium (IHPC), through the nonprofit Reach Out, works with industry partners, educators, and community stakeholders in the Inland Empire to address the need for a highly skilled and culturally competent health workforce and recently expanded efforts into the public health workforce. IHPC offers leadership and intermediary services and convenes regional, quarterly meetings to address the workforce shortage and offer coordination between educational institutions and employers.

Employer-led example:

In December 2024, Cedars-Sinai Health Sciences University announced the launch of the Cedars-Sinai Chuck Lorre Allied Health School in Los Angeles. The program was developed to address health care professions that have been traditionally understaffed and to provide nontraditional training pathways for candidates with diverse backgrounds.

Vendor-led example:

OpusVi, formerly Dignity Health Global Education, offers online degrees and certificates, including “Futuro Certificate programs.” (Futuro Health and CommonSpirit Health are partners.) The entity was originally formed through a joint venture between CommonSpirit Health and Global University Systems to provide online degrees and leadership training to clinical and nonclinical health professionals. Partners include Mercy College of Health Sciences, Santa Clara University, Providence, Arizona State University, and others.



Key Attributes of Successful Partnerships in the Subregion

Using a mixed-method approach, this study incorporated semi-structured interviews and a quantitative survey to explore strategies for addressing clinical placement shortages and nurturing collaborative training partnerships in the greater Sacramento subregion. The research team conducted 45-minute interviews with 13 key allied health stakeholders supporting clinical placements in the Sacramento subregion—nine interviews with leaders from major health systems overseeing placements and externships and four with community college program leads.

These interviews revealed several interconnected factors potentially contributing to the shortage of allied health professionals in the subregion, including challenges faced by educational institutions, employer barriers that contribute to the shortage of clinical slots, and gaps in student preparedness. The following section explores these challenges and the need for improved communication, collaboration, and employer engagement to strengthen the workforce pipeline. Please note that while these insights serve as a starting point for stakeholder discussions, further research is needed to explore these topics in more depth across allied health fields.

During interviews, both institutions and employers who provide clinical sites were asked about the key qualities and attributes that define effective collaboration between partners. Recurring themes that characterized these model partnerships typically included clear communication and expectations, mutual trust, and shared goals.



Employer perspective

“My longest-standing school is easy to work with, their students are well-trained, and they take ownership of the process.”

Longstanding Relationships

When education and employer stakeholders were asked about exemplary partners, a key theme highlighted was the significance of long-term relationships. Most interviewees referenced a long-standing partnership in which personal relationships played a crucial role. One educational stakeholder shared, *“The successes that we’ve had came through contacts. It came through people that I knew previously that I had worked with.”* Reflecting on why these partnerships were preferred, discussions often centered around how the process with these partners was generally streamlined and expectations had been clearly communicated. Over time, mutual trust was established, allowing institutions to rely on their clinical site partners to provide consistent placement opportunities, while employers were confident in the preparedness of students that educational institutions were providing.

Given the administrative hurdles on both sides, long-standing partners were able to work through expectations and resolve challenges. For example, one site noted that one of their most successful partnerships was established through clear communication of how many placement openings would be offered each year, eliminating the need to reassess availability annually. This approach not only streamlined the process for the site but also helped the educational institution with long-term planning. For newer programs, nurturing relationships is a critical component in sustaining successful partnerships long term.

Effective and Responsive Communication

Another prevalent theme was strong, open communication. In surveys, employers were asked about their preferred frequency for communication. Employers value institutions that take the initiative to reach out and state clearly *when* they will reach out. One clinical site provider shared, *“I tell new partners, ‘I expect a check-in every eight weeks.’ I don’t want to always be the one reaching out.”*

Survey Finding

Three clinical sites indicated they expect monthly communication, while five indicated they prefer communication on an as-needed basis. In the survey, seven out of eight sites reported they prefer communication to occur via email, while one preferred in-person meetings.

Identifying a point person on behalf of educational institutions to handle communications is valued by employers who emphasized they want to know exactly *who* they can contact if concerns emerge. For example, one employer noticed a lack of workforce readiness in terms of soft skills among students from a particular educational institution, a trend that emerged during the COVID-19 pandemic. When the site raised this concern, the institution quickly took action by implementing a more thorough vetting process and incorporating professional training into the curriculum. The employer recognized and appreciated these efforts, viewing the institution's responsiveness as a sign that the institution valued their partnership and cared about their students' success. Ultimately, these findings reveal that understanding employer preferences for frequency, method of communication, and other expectations are important elements for lasting partnerships.



Employer perspective

"Building that relationship so that there's good back-and-forth communication and feeling open to having those difficult conversations when they come up, as opposed to not knowing who to talk to—I think that's key."

Student Preparedness

Employers emphasized that student preparedness is a key factor in their decision to partner with an institution and expressed a preference for institutions that vet their students for workforce readiness. Some noted clear differences in student preparedness across institutions, stating they are often able to identify where a student received their training based on their level of preparedness. At a minimum, sites expect students to have completed foundational coursework and possess technical knowledge in their field of study. Employers also stressed that institutions should devote more attention toward soft-skills development and professionalism, such as breakroom etiquette, appropriate work attire, and proactive communication.

For smaller sites where students may briefly interact with patients, student preparedness is particularly crucial. One site shared that, although it was an isolated incident, *"We're a small business. We live and die by Google reviews. ... I got a negative review from a customer interacting with an extern."* This comment indicates how unprepared students can pose risks for the reputation of sites providing clinical placements. In the past, clinical sites have severed



Employer perspective

"I need students who are well-prepared, screened, well-trained...so when they come here, they have a foundation to build on."

ties with institutions whose students failed to demonstrate preparedness skills, and it was noted that re-establishing those relationships can be extremely challenging. One site remarked, *“I used to work with three [institutions], and now I work with two... because the third one’s students were coming woefully unprepared.”* Ensuring that students are equipped with both technical expertise and strong soft skills contributes to lasting partnerships between clinical sites and institutions.

Aligned Workforce Development Goals

Employers who view training as a critical component of workforce pipelines tend to create effective collaborations with educational institutions. This was especially true for occupations with workforce shortages, where employers use clinical training to identify and recruit high-quality candidates. One site shared, *“It’s kind of like a job interview. If they do well here and apply for a job, we always want to get them on board.”*



Employer perspective

“We need to recognize that if we don’t build the future, we won’t have the staff necessary, and ... that will just hurt us in the future.”

During placements, some sites actively engage students in discussions about their future plans to encourage retention. One site stated, *“We make it clear throughout their time here that there are [job] opportunities. We want to talk to them about their goals and help them apply to work with us.”* Departments that view clinical placements as a recruitment tool are more inclined to offer training. However, hiring opportunities vary depending on the occupation and health care system. Some sites are limited in their ability to hire new graduates, while some may receive a large pool of competitive applicants for entry-level positions.

In addition to understanding the value of workforce development, a training culture appeared to be embedded within some employers’ ethos. For these employers, staff expressed lower resistance when asked to train students since clinical placements were understood to be a key professional responsibility included in job descriptions. Furthermore, for these employers, training responsibilities were typically shared across various staff members, rather than falling solely on a few individuals.



Pinch-points in Offering Clinical Placements in the Subregion

Educational Institution Challenges

Educational institutions spoke about the persistent challenges they face in securing and maintaining clinical placements. These challenges fall into three key areas:

- Site recruitment
- Administrative burdens
- Academic scheduling misalignment

Site recruitment

While some educational institutions employ clinical placement coordinators, some institutions mentioned relying on program leads and faculty to secure clinical placement sites. It was noted that while various programs at a college might collaborate with the same employers, these programs may belong to different departments, resulting in isolated efforts to secure and manage clinical placements. Educational institutions that lack dedicated clinical placement coordinators face constraints, such as adequate employer engagement and consistent communication, both of which are crucial for sustaining strong partnerships



Educational institution perspective

"I essentially go out cold-calling hospitals, trying to find spots for our students. And the thing that a lot of folks don't understand is it's very fluid in the sense that I'll have sites that come and some that go, and so it's always a race against not running out of sites."



Educational institution perspective

“Even if it’s within the same health care system, we discovered that different facilities have different processes. One facility said all onboarding goes through them, but we had never experienced that before. Each facility having its own process makes it very confusing.”

with clinical site providers. Faculty who juggle clinical placement coordination with teaching responsibilities often have to concentrate their efforts in the summer. One institution observed, *“During the semester, clinical placements get pushed aside because I’m teaching. In summer, it’s 90% of my workload.”* Another institution emphasized that having dedicated staff to manage these tasks is essential for success.

Survey Finding

Three out of four institutions selected “securing clinical placement opportunities” as their primary obstacle.

Site availability is highly fluid, and coordination is a continuous challenge for some programs. To recruit and establish new partnerships, institutions are “cold-calling”—a process often hindered by clerical staff at clinical sites who are instructed not to share contact information—leaving institutions feeling stonewalled. Employers and educational stakeholders noted many of their current, active partners were long-standing, built over many years, sometimes decades. Employers tend to maintain these established relationships because these adequately meet their training needs. They expressed a willingness to form new partnerships only if an existing relationship deteriorated or circumstances changed.

Administrative responsibilities

Institutions highlighted administrative burdens, including navigating onboarding procedures and understanding diverse hospital policies that vary widely across training sites. As one institution noted, *“The hospitals have said, ‘You, the school, are responsible for ensuring that the students know our policies and procedures.’ It’s kind of hard for us to do because we don’t know their policies and procedures.”* This becomes particularly challenging when sites only take one student at a time, with institutions managing multiple sites to meet their placement needs.

Survey Finding

The majority of programs reported managing three to four sites, while one program manages five to six sites.

Accurate and timely completion of paperwork and maintaining compliance are critical for long-term partnerships with sites. However, some institutions leave much of the onboarding paperwork to students, which can result in delays if students make mistakes. These inefficiencies can jeopardize an educational institution's relationship with a clinical site as well as disrupt student training and delay training completion and entry into the workforce. One site recalled an incident in which a student failed to properly complete paperwork and was forced to repeat the externship because the state would not accept the documentation. These mistakes can leave lasting negative impressions, diminishing sites' willingness to partner with educational institutions they feel do not adequately support their students.

Survey Finding

In the survey, five out of eight employers providing clinical sites indicated they require three to four months' notice from educational institutions that have students they wish to place with them, while one required five to six months, and only one could accommodate a one-to-two-month timeline.

Academic timelines and schedules

Institutions highlighted the need to provide advance notice to secure clinical slots since last-minute requests are generally not feasible and often go unaccommodated. Employers expressed a preference for communication several months in advance of student placements. However, some allied health programs, particularly those offered through community colleges, often do not know how many students will be ready for placement that far in advance, creating difficulties when other competing institutions, such as private colleges, are better equipped to provide this information.

Community colleges that scramble to secure last-minute placements can delay student training, impacting skill retention and creating scheduling conflicts. One institution shared, *"Some students don't start their placements until August or September, meaning they have a gap between finishing coursework and applying skills."* In addition, sites noted that educational institutions need to be more flexible with clinical training times, as some are

Educational institution perspective

"I think we need an individual at our campus, one full-time person that is doing the placement coordination, because it's not just finding a site, right? It's all the paperwork that goes with it, the follow up, the onboarding documentation, and all that kind of stuff. So that's a good chunk of time."

resistant to alternative shifts such as night or weekend hours. Sites believe that training experiences should align with real-world health care operations, and this flexibility would open up additional clinical placement opportunities.

Employer Site Challenges

Employer sites face significant challenges in sustaining and expanding clinical placement opportunities. Staffing constraints and burnout limit the capacity of preceptors, or those conducting training, while administrative complexities add further strain. Additionally, the cost of training, both in terms of staff time and resources, is compounded by a lack of incentivization to offer clinical placements. For example, most preceptors do not receive additional compensation for training students and do so voluntarily as part of their regular job responsibilities.

As with educational stakeholder interviews, challenges faced by employers fall into three main categories:

- Staffing constraints
- Administrative burdens
- Cost of training

Staffing constraints

A recurring theme in employer interviews was that the number of available clinical placements was directly tied to the number of staff available to train students. Survey data revealed that while eight clinical sites have eight or more preceptors, two sites only had two to three. As a result, early coordination with educational institutions was critical to allocate resources and schedule staff to accommodate students.

Survey Finding

When asked to identify the primary challenge for providing clinical placements at their site, four out of eight employer stakeholders indicated that a shortage of staff or staff burnout was the main issue.

Educational institutions were well aware of these challenges, noting that many sites frequently inform them that they lack the capacity to take additional students due to staff shortages. One institution stated, *"Not every clinic has a qualified and willing preceptor. ... And if they do, they may not have the bandwidth to take on a student."* Additionally, one site pointed out logistical challenges, such as limited physical space that can only accommodate one person, explaining that, *"The site is just physically too small to fit another body in there, so we just don't have externs there."*

Sites also explained that preceptors in clinical settings are concerned about maintaining the quality of patient care while supervising students. This factor, coupled with a lack of incentives, makes staff reluctant to take on the added responsibility and workload of clinical training. Furthermore, clinical sites must balance the demands of training students with training new hires without overburdening employees. Sites reported that they strive to protect staff well-being and to mitigate burnout, with unionized environments implementing structured policies to provide support.



Employer perspective

“There are certain sites that step up and do a lot of the training, and there are other organizations that maybe don’t, but get the benefit of a community producing these licensed professionals.”

In addition to challenges for staff, employer sites highlighted the impact that limited time and overworked staff have on the quality of student training. Some of these challenges are especially pronounced at sites where training falls on only a few preceptors, or when training is unevenly balanced across staff. This can cause a fluctuation in the number of available clinical placements, which can pose frustrations for institutions.

Administrative burdens

The second most frequently selected challenge by sites was the administrative burden of paperwork and onboarding, as well as tracking and reviewing student information. Sites expressed that these demands can be time-consuming, particularly when they are managing this information for multiple institutions. This increased workload discourages them from partnering with a large number of institutions and contributes to a preference for relationships where an administrative process is easy and streamlined.

Survey Finding

In the survey, two sites indicated they manage more than nine institutions, while five manage three to four, and one manages one to two.

For sites that had a third-party managing these administrative tasks, there seemed to be less mention of the workload being a particular challenge, but they shared that if an application goes through multiple touchpoints, it can create bottlenecks and delays. Meanwhile, failure by educational institutions to submit paperwork or delays can jeopardize long-term employer partnerships. One site shared, *“I may cut ties with that school and start with a new school if they can’t start complying with our requirements.”*

Training also includes standards set by accrediting bodies. Sites have set expectations for compliance and regulation requirements, such as tracking student progress, evaluations, and

reports, which can be laborious. One site shared the difficulty of navigating these regulations without a centralized source or system in California: *“If there were a centralized system for onboarding and compliance across our organization, it would eliminate many of our challenges.”*

Cost of training

Sites explained that training has a negative impact on revenue, limiting the number of students they can accommodate. Some sites say the burden and cost of training is not equitably distributed across employers in the subregion, with some feeling like they take on the responsibility more than others. They felt this was unfair since other employers benefit from the pool of workers they train.

Lost productivity and a drain on resources was another concern. Sites emphasized the considerable time-commitment required to oversee students, including communication with the student’s educational institution, administrative and onboarding checkpoints, staff time dedicated to training, providing student feedback, and the impact on a preceptor’s own productivity. In health care settings with strict performance metrics, sites are balancing efficiency and productivity expectations with being able to provide a high-quality educational experience. As a result, despite leadership and executives expressing support for training, productivity measures lead to staff reluctance to dedicate time to student training.

Additional challenges

- **Lack of Incentives:** Sites that were not facing recruitment challenges and are able to attract competitive candidates said they altruistically provide clinical placements. However, the absence of immediate hiring needs or [additional] financial incentives can make training feel burdensome in the short term.
- **Shortage of preceptors:** Most sites do not offer preceptors any [additional] financial incentives, or recognition. Sites explained that many preceptors are motivated by the personal satisfaction of mentoring and giving back to the profession, and one interviewee noted, *“It does take a little bit more time and energy in your day, and at the end of the day, you are more fatigued.”*
- **Institutional competition:** Private educational institutions can offer financial incentives for employers to provide clinical placements, an area in which community colleges are at a disadvantage. One educational stakeholder noted, *“A private program pays their clinical sites to take students. That’s a major barrier for us because we can’t compete.”*



Employer perspective

“The cost comes in the form of that productivity loss, and the person who’s training them is not moving as fast, so they’re not getting as much throughput. And so, at the end of the day, they count that as a cost.”

Pathways Forward: Conclusion and Recommendations

The project undertaken by the North (Greater Sacramento) Center of Excellence involved an online survey and qualitative analysis of semi-structured interviews with community college and employer stakeholders engaged in the provision of clinical placements to understand the strengths and challenges within the current system tasked with training the subregion's allied health workforce.

The study examined the positive attributes of sustained, successful partnerships between postsecondary institutions and employers as well as the primary drivers behind the shortage of clinical placements in the region. The causes behind the shortage of clinical placements are varied and complex, and no single strategy can address all of them. For example, health care systems and clinics have staffing and capacity limitations impacting the provision of clinical slots while educational providers are challenged by time-intensive, paperwork-heavy processes to establish clinical placement partnerships and onboard students.

Specific recommendations for strategies to close the clinical placements gap have been organized into three overarching groups to address achieving meaningful change within the existing workforce training ecosystem (Exhibit 8). These recommendations were developed through thoughtful consideration of the three questions guiding this project:

- What is needed to increase the capacity to train more students?
- What tools or strategies can assist with improving the efficiency of providing clinical placements?
- What internal and external challenges do employers face in offering clinical placement slots?

Finally, a set of actionable next steps are presented at the end of this section, and the advisory group may choose to spearhead these subsequent steps in order to help facilitate the adoption of the strategies presented in the recommendations.

Exhibit 8. Recommendations that apply individually and jointly to educational institutions and clinical site providers

Institutions	• Enhance student preparedness
Sites	• Establish clear directives for training
Institutions and Sites	• Implement collaborative strategies • Incentivize clinical placements • Streamline administrative processes • Incorporate data collection and sharing

Institutions: Enhance Student Preparedness

Community colleges should prioritize soft skills in curricula to ensure workforce readiness among students entering clinical placements.

A key study finding is that ensuring students have the ability to conduct themselves with professionalism in demanding clinical settings is a critical component of long-term successful partnerships between site providers and educational institutions. In interviews, employers described how a student's success in a clinical placement depends not only on technical proficiency but on strong interpersonal skills. As a result, educational institutions should devote attention toward ensuring soft skills competencies are an integral part of their curricula. Nearly all clinical sites emphasized the importance of workforce readiness for students, and many indicated the presence or lack of adequate student preparation affected their willingness to partner with specific educational institutions.

The Health Workforce Initiative (HWI), a Workforce and Economic Development program through the California Community Colleges Chancellor's Office, was formed to foster communication and collaboration between the health care industry and education systems. HWI has developed six modules offering soft skills training for students: communication competency, workplace ethics and professionalism, team building and collaboration, effective problem solving, embracing diversity, and demonstrating compassion.¹¹ An assessment tool for employers to evaluate which modules might be effective for staff is also available. Community colleges in the subregion can be encouraged to incorporate the modules into their training programs.

Sites: Establish Clear Directives for Training

Training should be adopted as a strategic priority throughout an employer's organization and at all levels of a health system, with clear mandates, accountability, and support.

To strengthen training efforts, employers should embed formal measures, such as performance reviews and feedback loops that recognize clinical training as key for developing leadership abilities, enhancing professional experience, and sharpening knowledge areas, among others. Although all sites indicated the value and importance of training, sites that successfully integrated it into their mission, staff expectations, and job descriptions emphasized that the provision of clinical training had become a cultural norm. One institution shared that while executives and administrators may express support for

¹¹ "Hi-touch Health Care: The Critical Six Soft Skills," Health Workforce Initiative, 2025, <https://ca-hwi.org/curriculum/soft-skills-training/>.

these initiatives, without clear mandates or training goals and incentives (both financial and non-financial), management and staff directly responsible for delivering training may struggle to prioritize it as they must manage other demands.

Additionally, aligning productivity goals with training expectations and allocating resources can help alleviate the extra workload placed on staff overseeing students in clinical placements. Holding internal collaborative planning sessions that bring together leadership and staff can ensure that training directives are effectively implemented and remain a priority.

Institutions and Employers: Implement Collaborative Strategies

Convening educational institutions, employers, and other community stakeholders into a subregional consortium or a similar structured collaborative model could build trust, foster open dialogue, and pave the way for implementing creative solutions to address clinical placement shortages.

Interviews demonstrated that community colleges and employers can improve both internal and regional coordination. In interviews, community college representatives were asked about collaboration to address clinical shortages, but none of the participants mentioned active collaboration in the subregion, and many noted that little coordination occurs even *within* their own educational institutions. They explained that although multiple programs at a college may work with the same employers, those programs may fall under different departments, leading to siloed efforts to secure and manage clinical placements.

Additionally, both employers and community college stakeholders highlighted the importance that relationships play in successful, sustained partnerships and that relationship building was negatively impacted by the COVID-19 pandemic which eliminated in-person meetings. The infrastructure supporting in-person relationship building has not been re-established.

Interviews also revealed the value of coordinators based at educational institutions who are tasked with facilitating communication, overcoming paperwork and regulatory hurdles, collecting feedback, and tracking the overall experiences of employers, students, and program leaders. A dedicated regional coordinator or a non-profit similar to the Inland Health Professions Consortium tasked with convening stakeholders could foster buy-in among stakeholders, reduce competition among educational institutions for clinical slots, and nurture a greater willingness among employers to accept new partners. (See Appendix D for more information on the Inland Health Professions Consortium and other collaborative models.)

Meanwhile, within each community college, regular internal meetings that pull together various departments to share best practices and streamline clinical placement processes could improve coordination. An opportunity may exist to organize inter-institutional forums or other types of events where educational institutions can jointly devise ways to simplify processes for employer engagement. In interviews, clinical sites said they appreciated being invited to institutions to attend seminars or participate in events where they can network. To build new employer partnerships, institutions should consider consulting with sites on program goals, invite them to advisory boards, incorporate their feedback in curriculum, and share data on student employment outcomes—all factors that sites use to evaluate potential new collaborations.

Institutions and Sites: Incentivize Clinical Placements

Establishing new incentives and compensation models could help sustain precepting and expand clinical placement capacity among employer partners.

The study findings demonstrate that most preceptors are not financially compensated for the additional responsibilities and workload of precepting. To attract and retain qualified preceptors, institutions and sites should explore implementing a combination of financial and non-monetary incentives that acknowledge the added responsibilities and workload preceptors acquire. Further work may be needed to explore various forms of incentivization, such as whether payment should be provided directly to preceptors, such as through stipends, or whether incentivization should be offered in other forms, such as staff recognition programs, career development opportunities, or extra time off.

Financial incentives are an important way that some fields compensate preceptors, in the form of stipends or reimbursements. One study conducted with preceptors in nursing found that 88% would take more students if they were financially compensated.¹² In light of the positive impact that incentives can have on the provision of clinical placements, the study team investigated legislative approaches to facilitate these strategies long term. To attract and retain preceptors, primarily in nursing, some states have also introduced legislation and tax credit programs to support precepting, including initiatives in Maryland,¹³ Alabama,¹⁴ and Georgia.¹⁵

¹²“Alabama Preceptor Tax Incentive Program (APTIP),” Alabama AHEC Statewide Program, 2025, <https://www.alahec.org/aptip/>.

¹³ “Maryland Income Tax Credit for Preceptors,” Office of Population Health Improvement, Maryland Department of Health, February 6, 2025, <https://health.maryland.gov/pophealth/pages/taxcredit.aspx>.

¹⁴ “Today’s Teachers of Tomorrow’s Healthcare Professionals: A Study of Community-Based Precepting,” North Carolina Area Health Education Centers Program, January 2025, <https://www.ncahec.net/wp-content/uploads/2025/02/AHEC-Report-on-Preceptors-02.03.25-1.pdf>.

¹⁵ “States with Preceptor Tax Credits,” National Conference of State Legislatures, memo, October 18, 2023, <https://www.healthworkforceta.org/wp-content/uploads/2023/12/Preceptor-Tax-Credits.pdf>.

Beyond financial incentives, interviewees also discussed non-monetary incentives that were valued, such as professional recognition, continuing education credits, opportunities for academic collaboration, or professional development. For example, one employer spoke about an initiative by the Respiratory Care Board of California (RCB), effective January 1, 2024, that allows licensed professionals who serve as preceptors to earn continuing education hours.¹⁶ The interviewee shared, *“It was a win-win across the board. That way our staff members are getting continuing education units out of it, while also building relationships and a skill-set that supports our students.”* This appears to be another legislative approach that could be effective in encouraging staff to serve as preceptors.

In some fields, institutions provide preceptors with access to university resources such as libraries and professional development programs.¹⁷ These non-monetary incentives for preceptors can enhance professional growth, ultimately benefitting the students they oversee. Sites also mentioned staff forming preceptor groups in which they could share experiences and successes, providing an opportunity to build a community that valued mentorship. As a bonus, individuals are compensated for the additional hours that are part of training and engaging in group discussions. Further work in this area could explore formalizing or expanding the use of best practices related to incentives for preceptors in the subregion.

Institutions and Sites: Streamline Administrative Processes

Improved coordination through a collaborative model could address the need for a resource sharing system, including simplified paperwork and communication processes, to facilitate the creation of more clinical placement slots.

In interviews with institutions and sites, burdensome administrative paperwork was a recurring theme, as was its detrimental effect on staff, students, and partnerships. To be most effective, it is essential to support students with onboarding and compliance paperwork to prevent delays in the completion of mandatory educational training. The onerous nature of administrative paperwork is mirrored in a 2021 report assessing New Hampshire’s clinical placements shortage, which described a “lack of resources on both sides of the placement process, and a frustration with documentation redundancies, poorly aligned deadlines, and the disruption that staff turnover creates.”¹⁸

¹⁶ “Continuing Education,” Respiratory Care Board of California, 2025, <https://www.rcb.ca.gov/licensees/ce>.

¹⁷ “Teaching and Learning Center,” OHSU, 2025, <https://www.ohsu.edu/education/teaching-and-learning-center>.

¹⁸ “Tomorrow’s Healthcare Workforce: Strengthening NH’s Clinical Placement Opportunities,” Clinical Placements Project, New Hampshire Area Health Education Center, December 14, 2021, https://www.snhahec.org/uploads/1/3/2/1/132121212/clinical_placements_report-digital-final.pdf.

Institutions and Sites: Incorporate Data Sharing and Collection

The use of a common technological platform to manage data related to clinical placement slots in the subregion would address the need for accurate and timely data tracking of clinical slot availability. A centralized data tracking system also would assist with implementing measurable strategies to reduce the shortage of clinical placements in the subregion.

Over the course of the study, it became evident during interviews that no centralized system appears to be in place to collect and share data on clinical placement slots. In fact, a key limitation of this study was a lack of access to an accurate representation of the number of clinical slots available in the subregion and the occupational areas those slots are assigned to.

Some employers use platforms like myClinicalExchange, which streamlines rotation requests and assists with compliance management and clinical progress tracking.¹⁹ Among the employers surveyed, three indicated they were “not familiar at all” with the system, three were “slightly familiar,” and only one was “extremely familiar” with the platform.

Additionally, the Foundation for California Community Colleges maintains the Centralized Clinical Placement System (CCPS) online tool which streamlines the nursing and allied health clinical placement process.²⁰ The tool is used by nine regions in the U.S. and has facilitated nearly 1 million student placements for approximately 600 schools, clinics, and hospitals.²¹ The tool’s benefits are: more efficient processes for hospitals and clinics, the availability of clinical placements identified for schools, and a simplified onboarding process for students.²²

At a minimum, institutions can offer training or support to program leads and coordinators to encourage the adoption of these platforms. If these platforms are unavailable, institutions and sites should work collaboratively to streamline administrative processes by creating checklists and structured timelines.

A shared data tracking platform that is also used by employers and community colleges could lessen duplicative efforts and reduce the number of hours required for entering, tracking, and confirming slots. Additionally, a shared data collection system could provide

¹⁹ “MyClinicalExchange by HealthStream,” HealthStream, 2025, accessed March 10, 2025, <https://www.healthstream.com/solution/clinical-development/clinical-placement/>.

²⁰ “Streamlining the Healthcare Clinical Placement Process for Students,” press release, Foundation for California Community Colleges, February 8, 2022, <https://foundationccc.org/centralized-clinical-placement-system-announces-launch-of-student-ready-to-streamline-the-healthcare-clinical-placement-process-for-students/>.

²¹ “Improving Healthcare Availability,” Foundation for California Community Colleges, 2024, accessed January 29, 2025, <https://foundationccc.org/our-work/workforce-development/improving-health-care-availability/>.

²² “Features,” CCPS (Centralized Clinical Placement System), 2025, accessed January 25, 2025, <https://centralizedplacements.org/>.

accurate numbers of clinical slots which could be used to gauge how large the clinical placements shortage is in the subregion and measure progress toward closing the gap. Specifically, data tracking could be used to identify particular programs or occupations in need of intervention, so that institutions and sites could focus and coordinate efforts around those placements. Ideally, allied health occupations with the greatest number of annual openings in the subregion, such as medical assistants and dental assistants, would have the greatest number of clinical slots. This may be a particular need for pharmacy technicians, an occupation with the third highest number of annual openings of the 14 occupations, a total of 293, but which has a three-year average of only 12 awards.

Data tracking would also allow an evaluation of the type of clinical settings students have the most access to and would allow analysis of whether clinical placements are concentrated in private, for-profit health care settings or in non-profit or government-funded settings, such as community clinics and Federally Qualified Health Centers.

Finally, implementation of a widely-used data tracking platform, such as myClinicalExchange, would assist with facilitating transparent data sharing. Incorporating a data-sharing platform into the establishment of a subregional collaborative would be a critical component of building trust among stakeholders to reduce competition among educational institutions seeking to secure clinical placement slots.



Next Steps

1. Evaluate the feasibility and benefits of joining existing collaboratives in the region or forming a new collaborative model. A critical component of any collaborative effort should incorporate progress toward data collection and tracking since addressing the clinical placements shortage is not feasible without accurate, real-time numbers. Part of the work toward joining or building a coalition of partners may involve identifying local assets and shared interests across various stakeholders. (Appendix D contains a detailed description of collaborative models and existing partnerships.) At the local level, Futuro Health and Health Careers Connection are existing collaboratives in the Sacramento area that community colleges in the subregion could choose to partner with. Elsewhere in the state, My Pathway to Health through Unite LA²³ and the Inland Health Professions Consortium²⁴ are two nonprofits working to address shortages of health professionals in Los Angeles and the Inland Empire (San Bernardino and Riverside counties), respectively, with attention toward K-12 pathways. These entities could serve as models for creating a collaborative entity in the subregion.

2. Explore funding sources to support the creation of a collaborative model tasked with coordination or incentivize the creation of more clinical placements. This next step complements Governor Newsom's "California Master Plan for Career Education," which outlines aligning regional coordinating efforts and strengthening employer engagement to identify critical skills for the workplace and expand opportunities for work-based learning.²⁵ In California, one of the latest initiatives to address workforce development is Governor Newsom's "California Jobs First Economic Blueprint," which includes \$92 million in funding for new apprenticeship and jobs programs.²⁶ Additionally, there are a number of states that have investigated and implemented innovative strategies to address clinical placement shortages: Michigan through a community college scholarship program,²⁷ Missouri through a grant program that awards \$2,000 to health care employers for each apprentice they train,²⁸ and New Hampshire through area health education center workforce pipeline development.²⁹ (Appendix E contains a list of possible funding sources.)

²³ "My Pathway to Health," UniteLA, accessed January 28, 2025, <https://www.unitela.com/mypathwaytohealth>.

²⁴ "Inland Health Professions Consortium (IHPC)," Reach Out, 2023, <https://we-reachout.org/ihpc/>.

²⁵ "California Master Plan for Career Education," The Governor's Office, December 2024, <https://www.gov.ca.gov/wp-content/uploads/2024/12/CA-Master-Plan-Framework-Governors-Office.pdf>.

²⁶ "Governor Newsom announces statewide plan for economic growth, \$245 million for more jobs — with additional investment for LA's recovery," The Governor's Office, press release, February 26, 2025, <https://jobsfirst.ca.gov/governor-newsom-announces-statewide-plan-for-economic-growth-245-million-for-more-jobs-with-additional-investment-for-las-recovery/>.

²⁷ "Futures for Frontliners", Michigan Department of Labor and Economic Opportunity, 2025, <https://www.michigan.gov/frontliners>.

²⁸ "Industry-Driven Healthcare Apprenticeship Program," Missouri Chamber of Commerce and Industry, accessed January 28, 2025, <https://mochamber.com/workforce/industry-driven-healthcare-apprenticeship-program/>.

²⁹ "Tomorrow's Healthcare Workforce: Strengthening NH's Clinical Placement Opportunities," New Hampshire Area Health Education Center, 2021, https://www.snhahcec.org/uploads/1/3/2/1/132121212/clinical_placements_report-digital-final.pdf.

3. Engage with established experts who have been working to address clinical placement shortages regionally, statewide, or nationally. At the national level, assistance or guidance may be available through SUNY Albany’s Health Workforce Technical Assistance Center at the Center for Health Workforce Studies, which provides technical assistance to states and organizations engaged in health workforce planning.³⁰ In California, the Area Health Education Center (AHEC) Program in Fresno overseen by the University of California, San Francisco may be another good resource.³¹ National AHECs are tasked with improving the health of individuals in rural and underserved areas through education and workforce development. Other organizations in the state working on this issue include:

- **California Workforce Healthcare Education and Training Council**—a state entity, composed of 18 members who represent various graduate medical education and training programs, health professions, including, but not limited to, specialties for primary care and behavioral health, and consumer representatives.³²
- **Health Workforce Initiative**—a program of the Workforce and Economic Development division of the California Community Colleges Chancellor's Office that fosters communication and collaboration between the health care industry and education systems.³³
- **California Health Professions Consortium**—a statewide consortium focusing on increasing the representation of under-represented minority students in the health professions.³⁴ The topic of the consortium’s 2024 member conference was “Expanding Health Workforce Through Collaborative Partnerships.”

³⁰ “HWTAC: The Health Workforce Technical Assistance Center,” Center for Health Workforce Studies, 2025, <https://www.chwsny.org/our-work/current-projects/hwtac/>.

³¹ “Area Health Education Centers Directory Report,” Health Resources and Services Administration, U.S. Department of Health and Human Services, accessed March 11, 2024, <https://data.hrsa.gov/data/reports/datagrid?gridName=AHECDirectoryReport>.

³² “California Health Workforce Education and Training Council,” California Department of Health Care Access and Information, 2025, <https://hcai.ca.gov/workforce/health-workforce/council/>.

³³ “Health Workforce Initiative,” Health Workforce Initiative, 2025, <https://ca-hwi.org/>.

³⁴ “California Health Professions Consortium,” California Health Professions Consortium, 2025, <https://chpc.ucsf.edu/california-health-professions-consortium-chpc>.

Appendix A. Interview Protocol

Interview Section	Estimated Time
Welcome and Introductions	2 min
Current Landscape of Clinical Placements	10 min
Process Strengths & Challenges	15 min
Opportunities to Close Gaps in Clinical Placement Provision	15 min
Wrap-Up	3 min
Total Estimated Time	45 min

I. Welcome and Introduction

II. Current Landscape of Clinical Placements

1. Can you briefly walk me through the steps to establish a partnership and secure or offer clinical placements for students?
 - a. *How long does recruiting an organization to work with generally take?*
2. How do you coordinate with your partners?
 - a. *Do you use My Clinical Exchange (MCE), or other platform to manage placements?*
 - i. *What features or permissions in MCE would be helpful?*
 - b. *How are updates or changes related to clinical placements communicated?*
 - i. *How does your institution handle last-minute changes or cancellations, and how does this impact students?*
3. How are you collaborating with other institutions (e.g., such as educational institutions or health care organizations) to coordinate clinical placements?
 - a. *Are you part of a formal coalition or consortium working together to address the shortage of clinical placements in the region? If so, tell me more about that.*

[Community colleges faculty/program leads only]

4. Do you work with a clinical placement coordinator and what is their role? If so, who?
 - a. *How often are you in contact with this coordinator?*
 - b. *What are ways in which this relationship is working well?*
 - c. *What are ways in which this relationship could improve?*
5. [If no clinical placement coordinator exists] Who establishes and coordinates opportunities for clinical placements? Tell me about the process.

[Leads from major health systems overseeing externships only]

6. Approximately how many openings for clinical placements do you have, on average?
[probe about whether this is by semester, annually, blocks, etc.]
 - a. *How do you decide how many openings will be offered? What factors impact the number of clinical placement slots?*
 - i. *How far in advance do you typically decide how many clinical placement opportunities will be available?*
 - ii. *What is the process for communicating updates or changes related to placements?*
7. Approximately how many institutions do you currently have partnerships or agreements with (e.g., a current relationship)?
 - a. *Do you generally only work with the same institutions?*
 - b. *How open are you to new partnership opportunities with institutions?*
 - i. *What are important factors you consider when establishing new partnerships?*
 - ii. *What are key steps to establish a relationship with your organization?*
8. What are important factors your organization considers when deciding to accept students from an educational institution?
 - a. *Are there specific skills or educational requirements that you prefer for clinical placements?*

III. Process Strengths and Challenges

[Leads from community colleges (coordinators and faculty/program leads) and leads from major health systems overseeing externships]

1. Think about a partnership where everything went smoothly. What was successful and why?
 - a. *Were any particular roles effective?*
 - b. *What was helpful from your partner?*
2. What are the biggest challenges your institution encounters when securing or offering clinical placements?
 - a. *What part of the process is the most difficult to manage (e.g., recruitment, scheduling, communication, compliance, staffing)?*
3. If you have an example in which clinical placement coordination fell apart, please feel free to share. You do not have to name the partner, if you don't want to.
 - a. *What factors do you think impacted the situation?*
 - b. *How could it have been addressed differently?*
4. What tools, technologies, or processes are needed to address these challenges?
 - a. *Are there any strategies your organization is exploring to help address these challenges?*

[Leads from community colleges (coordinators and faculty/program leads)]

5. Are employers clearly communicating what they need to establish clinical placement partnerships?
 - a. *[If applicable] How do you think communicating expectations could be improved?*
6. Are there any compliance or onboarding requirements that are particularly challenging or time-consuming?
7. Have there been internal challenges within your institution that impact securing clinical placements or the process (e.g., budget for preceptors, etc.)?
 - a. *How has this impacted students?*
8. Do you think expectations are communicated clearly? How so?
 - a. *[If applicable] How do you think clarifying expectations could be improved?*

[Leads from major health systems overseeing externships]

1. How can we increase the capacity of employers to offer more clinical placements to local students?
2. Are there any internal challenges within your organization that impact clinical placement slots or the process?
 - a. *What is the sentiment from staff about overseeing clinical placements?*
 - i. *Is there a shortage of staff?*
 - b. *Are additional roles needed, such as clinical preceptors that are not part of your current staff, to provide oversight?*
3. Are there any compliance or onboarding requirements that are particularly challenging or time-consuming?
 - a. *Is there a way for institutions to provide support?*
4. Do you think expectations are communicated clearly? How so?
 - a. *[If applicable] How do you think clarifying expectations could be improved?*

IV. Opportunities to Close Gaps in Clinical Placement Provision

1. Are there any data tools, systems, or processes that could better support coordination and the provision of clinical placement slots between training sites and educational institutions?
 - a. *What type of support would make providing clinical training opportunities more manageable?*

[Leads from community colleges (coordinators and faculty/program leads)]

2. What processes exist to obtain feedback from partners regarding the preparedness of students, scheduling, etc.)?
 - a. *How often does this happen?*
 - b. *[If applicable] How could this be incorporated into the process?*
3. What type of support or information from clinical sites would be helpful to facilitate partnerships?

[Leads from major health systems overseeing externships only]

4. How could offering more clinical placements be facilitated or encouraged?

- a. Which strategies might be most effective in increasing the number of clinical placements offered?*
- 5. Are you more likely to hire students who complete their clinical placement at your site? Why, or why not?
 - a. Are you more likely to hire students who are trained locally (e.g., local institution), or does it matter?*
 - b. How could we ensure local students have access to local clinical placements?*
- 6. What do you need to know about community college programs in order to consider partnering with them? [Probe about perceived differences in rigor, requirements, etc.]
 - a. What specific information is most important to know?*
- 7. Are there any other ideas or any other feedback you can provide about possible ways to address the shortage of clinical placements and strengthen partnerships in the region?

Appendix B. Online Survey Instrument

Audience	Question
[All]	Please select your primary role. a. Clinical coordinator b. Program faculty/program lead c. Health care provider or personnel
[Leads from major health systems overseeing externships only]	What are your organization's primary sources for recruiting allied health staff? (Select all that apply) a. Direct sourcing (e.g., employer website) b. Clinical placements c. College or institution partnerships d. Staffing or temp agencies e. Internal promotions or transfers f. Employee referrals g. Online job platforms (e.g., Indeed, LinkedIn, etc.) h. Recruitment agencies or recruiters i. Other, please specify
[All]	What type of organization or health care setting do you represent? a. Academic or Institution b. Dental Office or Dental Clinic c. Hospital or Medical Center d. Medical and Diagnostic Laboratories e. Nursing Home or Long-Term Care Facility f. Outpatient Clinic (e.g., urgent care) g. Pharmacy or Retail Pharmacy h. Physical Therapy or Rehabilitation Center (e.g., occupational therapy, speech-language pathology) i. Specialty Care Facility (e.g., oncology, cardiology) j. Surgical Center k. Other, please specify
[All]	Please select the program area or department. a. Dental b. Imaging and Radiology c. Medical Assisting d. Medical Laboratory e. Nursing f. Pharmacy g. Physical Therapy and Rehabilitation h. Respiratory Care i. Speech and Language Pathology j. I work across multiple programs/departments k. Other, please specify

Audience	Question
[Leads from community colleges only]	How many openings for clinical placements does your institution need for your specific program per year, on average? Give your best estimate. a. [Open-ended]
[Leads from major health systems overseeing externships only]	How many openings for clinical placements do you offer per year, on average? Give your best estimate. a. [Open-ended]
[Leads from community colleges only]	Approximately, how many sites do you currently have partnerships or agreements with (e.g., a current relationship) for clinical placements? Give your best estimate. a. [Open-ended]
[Leads from major health systems overseeing externships only]	Approximately how many educational institutions do you currently have partnerships or agreements with that fill clinical placements for your department(e.g., a current relationship)? Give your best estimate. a. 1 to 2 institutions b. 3 to 4 institutions c. 5 to 6 institutions d. 7 to 8 institutions e. 9+ institutions f. We do not have current partnerships
[Leads from community colleges only]	How many sites do you currently have partnerships or agreements with that offer clinical placements (e.g., a current relationship) for your specific program? Give your best estimate. a. 1 to 2 sites b. 3 to 4 sites c. 5 to 6 sites d. 7 to 8 sites e. 9+ sites f. We do not have current partnerships
[Leads from community colleges only]	Do you work with a clinical placement coordinator? a. Yes, they are very involved b. Yes, they are somewhat involved c. Yes, they are minimally involved d. No e. I'm not sure
[Leads from community colleges only]	Ideally, how far in advance should clinical sites notify you about the number of clinical placement opportunities available? a. Less than 1 month b. 1 to 2 months in advance c. 3 to 4 months in advance d. 5 to 6 months in advance e. More than 6 months in advance

Audience	Question
[Leads from major health systems overseeing externships only]	Ideally, how far in advance of students starting their clinical training should institutions reach out to you regarding the number of placements they need? a. Less than 1 month b. 1 to 2 months in advance c. 3 to 4 months in advance d. 5 to 6 months in advance e. More than 6 months in advance
[All]	How flexible or varied are the clinical placement settings that are required for your program? For example, is strictly hospital training preferred, or is there flexibility on where training occurs? a. [Open-ended]
[Leads from major health systems overseeing externships only]	Approximately how many staff members can serve as clinical preceptors or supervisors for students during their clinical training? Please do not include temporary staff and your best estimate is fine. a. No preceptors or supervisors are available b. 1 preceptor or supervisor c. 2 to 3 preceptors or supervisors d. 4 to 5 preceptors or supervisors e. 6 to 7 preceptors or supervisors f. 8+ preceptors or supervisors
[Leads from major health systems overseeing externships only]	What is your preferred frequency for communicating with educational institutions providing students for clinical placements? a. Weekly b. Bi-weekly c. Monthly d. As needed e. Other, please specify
[Leads from major health systems overseeing externships only]	What is your preferred method of communicating with these institutions (e.g., clinical coordinators, program faculty or leads, etc.)? Select one. a. Email b. Online platform (e.g., myClinicalExchange) c. Phone d. In-person meetings e. Other, please specify
[Leads from major health systems overseeing externships only]	How often are you communicating with leads from health systems regarding clinical placements? Select one. a. Weekly b. Bi-weekly c. Monthly d. As needed e. Other, please specify
[Leads from community colleges only]	What is your typical method of communicating with leads from health systems regarding clinical placements? Select one. a. Email

Audience	Question
	b. Online platform (e.g., myClinicalExchange) c. Phone d. In-person meetings e. Other, please specify
[Leads from community colleges only]	Which aspect of the clinical placement process do you find <u>most</u> challenging? Select one. a. Securing clinical placement opportunities b. Direct communication with clinical sites c. Communication internally (within institution) d. Managing last-minute cancellations of clinical positions e. Managing changes or updates to scheduling f. Tracking and managing student information g. Ensuring compliance h. Other, please specify
[Leads from community colleges only]	Which <u>other aspects</u> of the clinical placement process do you find challenging? Select all that apply. a. Securing clinical placement opportunities b. Direct communication with clinical sites c. Communication internally (within institution) d. Managing last-minute cancellations of clinical positions e. Managing changes or updates to scheduling f. Tracking and managing student information g. Ensuring compliance h. Other, please specify
[Leads from major health systems overseeing externships only]	Which aspect of the clinical placement process do you find <u>most</u> challenging? Select one. a. Communication with institutions b. Communication internally (within organization) c. Staff burnout d. Shortage of staff e. Paperwork/on-boarding f. Managing changes or updates to scheduling g. Tracking and reviewing student information h. Ensuring compliance i. Other, please specify
[Leads from major health systems overseeing externships only]	Which <u>other aspects</u> of the clinical placement process do you find challenging? Select all that apply. a. Communication with institutions b. Communication internally (within organization) c. Staff burnout d. Shortage of staff e. Paperwork/on-boarding f. Managing changes or updates to scheduling g. Tracking and reviewing student information h. Ensuring compliance i. Other, please specify

Audience	Question
[Leads from community colleges only]	How satisfied are you with your institution's current clinical placement process overall? a. Very satisfied b. Somewhat satisfied c. Neutral (neither satisfied or unsatisfied) d. Somewhat unsatisfied e. Very unsatisfied
[Leads from major health systems overseeing externships only]	How satisfied are you with your organization's current clinical placement process overall? a. Very satisfied b. Somewhat satisfied c. Neutral (neither satisfied nor dissatisfied) d. Somewhat dissatisfied e. Very dissatisfied
[Leads from major health systems overseeing externships only]	What is the likelihood that your organization would hire a student after they completed their clinical training at your site? a. Very likely b. Somewhat likely c. Neutral (neither likely nor unlikely) d. Somewhat unlikely e. Very unlikely
[Leads from community colleges only]	How familiar are you with data tools or systems used to manage clinical placements (e.g., myClinicalExchange)? a. Not familiar at all b. Slightly familiar c. Moderately familiar d. Very familiar e. Extremely familiar

Appendix C. Program Inventory

Program Type - TOP6	College Name	Award Type	2021-22 Academic Year	2022-23 Academic Year	2023-24 Academic Year	Three-Year Average
Dental Assistant-124010	Lake Tahoe	Certificate requiring 16 to fewer than 30 semester units	--	--	14	14
Dental Assistant-124010	Sacramento City	Associate of Science (A.S.) degree	7	6	17	10
Dental Assistant-124010	Sacramento City	Certificate requiring 30 to < 60 semester units	2	2	10	5
Dental Hygienist-124020	Sacramento City	Associate of Science (A.S.) degree	22	14	15	17
Diagnostic Medical Sonography-122700	Cosumnes River	Associate of Science (A.S.) degree	8	3	2	4
Diagnostic Medical Sonography-122700	Cosumnes River	Certificate requiring 30 to < 60 semester units	8	0	1	3
Health Professions, Transfer Core Curriculum-126000	American River	Associate of Science (A.S.) degree	0	8	60	23
Health Professions, Transfer Core Curriculum-126000	Folsom Lake	Associate of Science (A.S.) degree	5	0	1	2
Health Professions, Transfer Core Curriculum-126000	Folsom Lake	Certificate requiring 16 to fewer than 30 semester units	2	0	1	1
Health Professions, Transfer Core Curriculum-126000	Sierra	Associate of Science (A.S.) degree	197	192	213	201
Medical Assisting-120800	Cosumnes River	Associate of Science (A.S.) degree	12	16	18	15
Medical Assisting-120800	Cosumnes River	Certificate requiring 30 to < 60 semester units	14	17	16	16
Medical Assisting-120800	Sierra	Certificate requiring 16 to fewer than 30 semester units	20	17	12	16
Medical Laboratory Technology-120500	Folsom Lake	Associate of Science (A.S.) degree	10	12	13	12

Program Type - TOP6	College Name	Award Type	2021-22 Academic Year	2022-23 Academic Year	2023-24 Academic Year	Three-Year Average
Occupational Therapy Technology-121800	Sacramento City	Associate of Science (A.S.) degree	20	5	24	16
Pharmacy Technology-122100	Cosumnes River	Associate of Science (A.S.) degree	12	7	10	10
Pharmacy Technology-122100	Cosumnes River	Certificate requiring 16 to fewer than 30 semester units	0	0	7	2
Physical Therapist Assistant-122200	Sacramento City	Associate of Science (A.S.) degree	20	16	27	21
Radiologic Technology-122500	Folsom Lake	Certificate requiring 8 to fewer than 16 semester units	12	3	2	6
Radiologic Technology-122500	Yuba	Associate of Science (A.S.) degree	17	23	23	21
Respiratory Care/Therapy-121000	American River	Associate of Science (A.S.) degree	17	0	21	13
Speech/Language Pathology and Audiology-122000	American River	Associate of Science (A.S.) degree	25	26	24	25
Speech/Language Pathology and Audiology-122000	American River	Certificate requiring 30 to < 60 semester units	0	7	9	5
Speech/Language Pathology and Audiology-122000	American River	Certificate requiring 16 to fewer than 30 semester units	0	4	3	2
TOTAL			437	392	556	462

Appendix D. Clinical Placement Collaborative Models

Please note the following list includes collaborative efforts that also address nursing shortages since although this program area is separate from this study's scope, the structure of these collaborations may be transferable. Partners have been included to illustrate the breadth of some collaborative partnerships and as a reference for future collaborative efforts in the greater Sacramento subregion.

Efforts led by state governments

- In Michigan, **Futures for Frontliners** is a state-led program to offer scholarships to students entering careers that were essential during the COVID-19 pandemic.³⁵ Community college programs include Licensed Practical Nurse, Medical Assistant, Pharmacy Technician, Physical Therapy, and Nursing, Respiratory Therapy.

Efforts led by public education

- The **College of Allied Health Professions** at the University of Nebraska Medical Center is the state's only "public academic health science center."³⁶ The college was launched in 2015. The college offers programs in Cardiovascular Interventional Technology, Clinical Perfusion, Computed Tomography, Diagnostic Cytology, Diagnostic Medical Sonography, Genetic Counseling, Magnetic Resonance Imaging, Medical Laboratory Science, Medical Nutrition, Occupational Therapy, Physical Therapy, Physician Assistant, Radiation Therapy, and Radiography.

Efforts led by nonprofits

- **Health Career Connection** is a national nonprofit with roots in Northern California that offers paid allied health internships.³⁷ Summer internships are full-time (up to 40 hours per week) for 10 consecutive weeks, typically beginning in May or June and lasting through August (dependent on the academic calendar) with stipends that range from \$4,200-\$6,000. Interns must attend mandatory HCC workshops and events throughout the summer. HCC does not offer clinical or bio-medical research-related internships.

³⁵ "Governor Whitmer Announces 'Futures for Frontliners', a G.I. Bill Program for Essential Workers," the Michigan Governor's Office, press release, April 29, 2020, <https://www.michigan.gov/frontliners/news/2020/04/29/governor-whitmer-announces-futures-for-frontliners-a-gi-bill-program-for-essential-workers>.

³⁶ "Welcome to the UNMC College of Medical Health Professions!" University of Nebraska Medical Center, 2025, accessed January 29, 2025, <https://www.unmc.edu/alliedhealth/about/dean.html>.

³⁷ "Northern California," Health Career Connection (HCC), 2024, accessed January 29, 2025, <https://www.healthcareers.org/regions/northern-california/>.

Northern California Areas served	Partners
The Greater East Bay	Alta Bates Summit Medical Center Berkeley and Oakland
Contra Costa	Alameda Health System – Oakland
Solano	Alameda County Public Health Department – Oakland
Sacramento area up to El Dorado Hills	Blue Shield of California – Sacramento California Primary Care Association – Sacramento
Marin	Children’s Hospital Oakland – Oakland
San Francisco	Contra Costa Health Services – Martinez
The Peninsula	Contra Costa Regional Medical Center – Martinez
San Jose	Health Access – Oakland and Sacramento
Greater South Bay	La Familia Counseling Center – Sacramento
Santa Cruz	UCSF Medical Center – San Francisco
Salinas	Dignity Health – Saint Francis Memorial Hospital – San Francisco San Francisco General Hospital San Francisco San Mateo Medical Center – San Mateo Santa Clara County Health and Hospital System – Santa Clara Lucile Packard Children’s Hospital Marin Community Clinics, La Clinica de la Raza – Oakland UCSF Benioff Children’s Hospital, Oakland CHAMPS program, LifeLong Medical Clinic – Berkeley Monterey County Department of Public Health Ravenswood Family Health Center East Palo Alto Sutter Health – multiple hospitals in the Bay Area, Sacramento, and Santa Cruz, including Alta Bates Medical Center, East Bay Medical Foundation, Eden Medical Center, Mills-Peninsula Medical Center, Pacific Medical Center, Palo Alto Medical Foundation, and Santa Cruz Maternity & Surgery Center The California Endowment’s Building Healthy Communities Initiative – multiple locations at hub offices in South Sacramento, Richmond, East Oakland, and East Salinas

Northern California Areas served	Partners
	Kaiser Permanente- multiple hospitals and medical groups throughout Northern California, including Oakland, San Francisco, Santa Clara, Santa Rosa, San Jose, Santa Clara, Hayward, Fremont, Antioch, Walnut Creek, Vallejo, and Sacramento

- The Missouri Chamber Foundation secured federal funding and launched the **Industry-Driven Healthcare Apprenticeship Program** which awards \$2,000 to employers for each apprentice they train.³⁸ Program areas are Medical Assistant, Phlebotomist, Dental Assistant, Surgical Technician, Certified Nursing Assistant, EMT, Pharmacy Technician, Medical Coder, Radiology/CT Technician, and Bio-Medical Equipment Technician.
- **My Pathway to Health** through UniteLA (a nonprofit with employer and education partners including the Los Angeles Community College District) offers paid, work-based learning opportunities during the summer for young adults, ages 18-24, connecting them to career pathways in allied health.³⁹ Certification training is available for Phlebotomist, EKG Technician, Medical Assistant, Certified Nursing Assistant, Community Health Worker and EMT, as well as Basic Life Support certification.
- **Inland Health Professions Consortium (IHPC)** through the nonprofit Reach Out works with industry partners, educators, and community stakeholders in the Inland Empire to address the need for a highly skilled and culturally competent health workforce and recently expanded efforts into the public health workforce. IHPC offers leadership and intermediary services and convenes regional, quarterly meetings to address the workforce shortage and offer coordination between educational institutions and employers.⁴⁰

³⁸ "Industry-Driven Healthcare Apprenticeship Program," Missouri Chamber of Commerce and Industry, accessed January 28, 2025, <https://mochamber.com/workforce/industry-driven-healthcare-apprenticeship-program/>.

³⁹ "My Pathway to Health," UniteLA, accessed January 28, 2025, <https://www.unitela.com/mypathwaytohealth>.

⁴⁰ "A Decade of Impact: A Retrospective Evaluation Report on 10 Years of Service," Inland Health Professions Coalition, 2017, <https://we-reachout.org/wp-content/uploads/2024/10/IHPC-Evaluation-Report.pdf>.

Efforts led by employers

- Initially formed through a partnership between Kaiser Permanente and SEIU-UHW, **Futuro Health's** nonprofit mission addresses the nation's critical shortage of allied health care workers.⁴¹ Ten programs are currently offered: Emergency Room Technician, Healthcare Customer Service Paraprofessional, Medi-Cal Peer Support Specialist, Medical Assistant, Patient Care Representative, Patient Care Technician, Pharmacy Technician, Phlebotomy, and Surgical Technologist. The cost of the program was not immediately available although language on the website states students may be eligible for free or reduced tuition. Education partners are Cal State Long Beach, Carrington College, Cerro Coso Community College, Concorde, Condensed Curriculum International, Coursera, Herzing University, Campus (MTI College), NCTI, North-West College, Northern California Nursing Academy, OpusVi, Phlebotomy Training Specialists, Pima Medical Institute, and others. Employer and workforce partners include Sutter Health, AlliedUp Cooperative, California Department of Aging, California Workforce Development Board, CVS Health, Kaiser Permanente, and SEIU-UHW (United Healthcare Workers West).
- In December 2024, Cedars-Sinai Health Sciences University announced the launch of the **Cedars-Sinai Chuck Lorre Allied Health School** in Los Angeles. The program is "intended to create a pipeline of health care professionals in areas that are understaffed, while simultaneously creating opportunities through nontraditional pathways for candidates with diverse backgrounds who are interested in careers within the medical field."⁴² Cedars-Sinai's Youth Employment and Development (YED) Health Careers Academy is a two-year, paid program through Fairfax High School through which students can earn up to 10 high school credits will serve as a pipeline for the school. Program areas include respiratory therapy, pharmacy technician training, clinical laboratory science, and radiation therapy technician training.
- The **Kaiser Permanente Bernard J. Tyson School of Medicine** in Pasadena opened in 2020 and prides itself on its "'forward-thinking,'" integrated, small-group approach to traditional medical education."⁴³ Students focus on biomedical science, clinical science and health systems science across a four-year program that also includes clinical training.

⁴¹ "Careers," Futuro Health, accessed January 28, 2025, <https://futurohealth.org/about/careers/>.

⁴² "Cedars-Sinai Chuck Lorre Allied Health School Steps Closer to Welcoming First Students," Cedars-Sinai, December 14, 2024, <https://www.cedars-sinai.org/newsroom/cedars-sinai-chuck-lorre-allied-health-school-steps-closer-to-welcoming-first-students/>.

⁴³ Victoria Ivie, "Kaiser Permanente's inaugural Pasadena medical school cohort set to graduate," Pasadena Star News, May 10, 2024, <https://www.pasadenastarnews.com/2024/05/09/kaiser-permanentes-inaugural-pasadena-medical-school-cohort-set-to-graduate/>.

Health systems partnering with a vendor to administer education

- In 2024, private company **Guild**, formerly Guild Education, which aggregates online courses to curate specific programs, partnered with 12 health care organizations to fill allied health workforce gaps.⁴⁴ Partners included MultiCare, OSF Healthcare, OU Health, Penn State Health, UW Health and Wellstar Health System. Guild's Learning Marketplace now offers more than 400 health care-focused programs and offers allied health programs through ed2go, MedCerts, and Pima Medical Institute.
- Health care provider **Community Health Systems** partnered with **Western Governors University** as its preferred education provider in exchange for discounted tuition rates for its employees.⁴⁵
- In 2020, health care provider **HCA Healthcare** acquired a majority stake in **Galen College of Nursing** in 2020.⁴⁶ The acquisition was conducted to provide access to nursing programs across five campuses and online to address the nation's nursing workforce shortage. HCA Healthcare invested more than \$300 million in Galen College of Nursing in 2023,⁴⁷ and in 2024 opened four new Galen campuses in Texas, Utah, and Nevada.⁴⁸ Galen announced plans to further expand in 2025, including the opening of campuses in Colorado, Georgia, and Florida.

Efforts led by health vendors and health workforce providers

- In the 2023-24 academic year, health care training provider **MedCerts** began offering certification-based online allied health credentialing for high school students that funnels students into jobs through MedCerts' partner employers. Education partners include Franklin University, Capella University, Strayer University, University of Phoenix, American College of Education, and Trine University. Another partner is Emerge Education, an educational consulting firm.
- **OpusVi**, formerly Dignity Health Global Education, offers online degrees and certificates, including "Futuro Certificate programs."⁴⁹ (Futuro Health and

⁴⁴ "Guild Doubles Down on Commitment to Building a Sustainable Healthcare Workforce, Partners with 12 Additional Healthcare Organizations Across the Country," Guild, press release, June 27, 2024, <https://www.businesswire.com/news/home/20240627122881/en/Guild-Doubles-Down-on-Commitment-to-Building-a-Sustainable-Healthcare-Workforce-Partners-with-12-Additional-Healthcare-Organizations-Across-the-Country>.

⁴⁵ Brandon Carrus, Connor Essick, Martha Laboissiere, Meredith Lapointe, and Mhoire Murphy, "How health systems and educators can work to close the talent gap," McKinsey & Company, September 29, 2023, <https://www.mckinsey.com/industries/healthcare/our-insights/how-health-systems-and-educators-can-work-to-close-the-talent-gap>.

⁴⁶ "HCA Healthcare Completes Purchase of Majority Stake in Galen College of Nursing," HCA Healthcare, press release, January 7, 2020, <https://investor.hcahealthcare.com/news/news-details/2020/HCA-Healthcare-Completes-Purchase-of-Majority-Stake-in-Galen-College-of-Nursing/default.aspx>.

⁴⁷ "HCA Healthcare announces more than \$300 million in clinical education and training investments for nurses," HCA Healthcare Today, May 8, 2023, <https://hcahealthcaredotcom/2023/05/08/hca-healthcare-announces-more-than-300-million-in-clinical-education-and-training-investments-for-nurses/>.

⁴⁸ "Year in Review: HCA Healthcare's top 10 stories of 2024," HCA Healthcare Today, December 30, 2024, <https://hcahealthcaredotcom/2024/12/30/year-in-review-hca-healthcares-top-10-stories-of-2024/>.

⁴⁹ "Upskilling Your Workforce for Impact," OpusVi, 2024, accessed January 29, 2025, <https://opusvi.com/certificate-programs>.

CommonSpirit Health are partners.) The entity was originally formed through a joint venture between CommonSpirit Health and Global University Systems to provide online degrees and leadership training to clinical and nonclinical health professionals.⁵⁰ Other partners are Mercy College of Health Sciences, Santa Clara University, Providence, Phoenix Children's, CHI Health, Northern Arizona University, Arizona State University, Thunderbird School of Global Management, and Premier (a GPO or Group Purchasing Organization).

⁵⁰ Brandon Carrus, Connor Essick, Martha Laboissiere, Meredith Lapointe, and Mhoire Murphy, "How health systems and educators can work to close the talent gap," McKinsey & Company, September 29, 2023, <https://www.mckinsey.com/industries/healthcare/our-insights/how-health-systems-and-educators-can-work-to-close-the-talent-gap>.

Appendix E. Funding Sources

To support the expansion of clinical placement provision, grant funding through foundations and non-profit organizations that supports health care workforce development may prove to be a promising avenue. Potential funders include United Health Foundation, McKesson Foundation, Cigna Group Foundation, and Hearst Foundations.

California offers several funding sources that could possibly assist with clinical training site development:

- **Apprenticeship Innovation Funding (AIF).**⁵¹ AIF focuses on sustaining and scaling registered apprenticeship programs in industries beyond traditional apprenticeships in the building and fire trades. These apprenticeship sectors include health care, advanced manufacturing, technology, education, and many more sectors. AIF provides critical funding and reimbursement to apprenticeship program partners and local education agencies for the costs of running those programs and training apprentices. The State has allocated \$95 million over three years to support ongoing costs of these programs and classroom training. DAS awarded \$17.3 million during the first round of the AIF (FY 2022-2023) and \$24.8 million during the second round of AIF (FY 2023 – 2024). The third round of AIF (FY 2024-2025) makes available \$52 million that will build upon the successes of its first and second-round efforts.

HEALTH CARE-RELATED REGISTERED APPRENTICESHIPS	
Case Worker	Strive Community Health Institute (Strive) Social Science Occupational Health Apprenticeship Program
Certified Nursing Assistant	Strong Workforce Apprenticeship Group Health Care Apprenticeship Program
Chemistry Quality Control Technician	Rx Research Services Unilateral Apprenticeship Committee
Clinical Data Coordinator	Rx Research Services Unilateral Apprenticeship Committee
Clinical Doc Improvement Specialist	Rightvarsity Technology Workforce Immersion Program
Clinical Research Coordinator	Rx Research Services Unilateral Apprenticeship Committee
Clinical Trial Associate	Rx Research Services Unilateral Apprenticeship Committee
Community Health Care Worker	El Sol Neighborhood Educational Center Apprenticeship
Community Health Worker	Launch Apprenticeship Network Healthcare
Community Health Worker (Chw)	Community Health Worker (Chw)

⁵¹ "Apprenticeship Innovation Funding (AIF)," California Department of Industrial Relations, 2025, <https://www.dir.ca.gov/DAS/Grants/Apprenticeship-Innovation-Funding.html>.

- **California Opportunity Youth Apprenticeship (COYA).** Established in SB 191, COYA provides funding for existing apprenticeship and pre-apprenticeship programs or to develop new apprenticeship and pre-apprenticeship programs to serve opportunity youth.⁵² Previous funding has supported apprenticeship programs for Licensed Practical Nurse, Dental Technician, Optical Technician, Medical Assistant, Certified Nurse Assistant, and Phlebotomy.⁵³
- **Employment Training Panel (ETP).**⁵⁴ Reimburses companies for training new or existing employees in specific fields. The types of training ETP funds does not appear to align with clinical settings, but ETP offers support for classroom, simulated laboratory, productive laboratory, instructor-led distance learning/e-learning, or computer-based training.
- **High Road Training Partnerships Healthcare Grant Program,** which launched in 2017 and had its latest round of applications close in January,⁵⁵ offers grants for planning, training implementation, and expansion of health care partnerships.

Federal funding:

- **Medicare GME Funding.** The Medicare program provides separate funding to support certain programs that train nursing and allied health residents, such as pharmacists and nurse midwives. Most Medicare reimbursement for allied health education consists of cost-based reimbursement for "provider-operated" programs (though reimbursement also may be available under certain circumstances for on-campus clinical training costs of longstanding, non-provider-operated programs).⁵⁶

⁵² "California Opportunity Youth Apprenticeship (COYA) Grant," California Department of Industrial Relations, March 2025, accessed March 10, 2025, <https://www.dir.ca.gov/das/Grants/California-Youth-Apprenticeship-Grant.html>.

⁵³ "California Opportunity Youth Apprenticeship (COYA) Grant," (Grantee Announcement), California Department of Industrial Relations, accessed March 10, 2025, <https://www.dir.ca.gov/das/Grants/COYAGrantWebsiteAnnouncement.pdf>.

⁵⁴ "Program Overview," California Employment Training Panel, accessed February 25, 2025, <https://etp.ca.gov/program-overview/>.

⁵⁵ "High Road Training Partnerships 2024-25 Healthcare Grant Program," California Grants Portal, accessed February 25, 2025, <https://www.grants.ca.gov/grants/high-road-training-partnerships-2024-25-healthcare-grant-program/>.

⁵⁶ "Key funding issues for provider-operated allied health residency programs," Dentons, July 13, 2017, <https://www.dentons.com/en/insights/newsletters/2017/july/13/gme-dentons/key-funding-issues-for-provider-operated-allied-health-residency-programs>.

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The Centers of Excellence (COE) for Labor Market Research deliver regional workforce research and technical expertise to California Community Colleges for program decision making and resource development. This information has proven valuable to colleges in beginning, revising, or updating economic development and Career Education (CE) programs, strengthening grant applications, assisting in the accreditation process, and supporting strategic planning efforts.

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Prepared by

North (Greater Sacramento) Center of Excellence

Hosted by Los Rios Community College District

Ebony J. Benzing, Regional Director

Phone: (916) 563-3215

Email: ebony.benzing@losrios.edu

Supported by

POWERED BY



- **Ashpreet Singh**, Regional Clinical Placement Coordinator
Los Rios Community College District
- **Priscilla Fernandez**, Research Consultant
Mod Research Consulting
- **Lauren McSherry**, Writer and Editor
L.M. McSherry Consulting

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