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Agenda Item 4:

HCAI Workforce Programs Update

Facilitator: Libby Abbott, Deputy Director, Health Workforce Development, HCAI

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Highlight on Wellness Coaches

San Diego schools expand mental health support with wellness coaches

Budget Summary for Fiscal Year 2024-25

- In June 2024, Governor Newsom signed the California State Budget for FY 2024-25
- The FY 2024-25 Budget for HCAI's Health Workforce Development Programs was reduced to $88,391,000 which includes funding cuts totaling $926,462,000

General Fund Programs	Mental Health Programs
Community Health Workers & Promotores, Nursing Initiative, Social Work Initiative, Master's in Social Work, Children and Youth Behavioral Health Initiative, Psychiatric GME, Psychiatry Local Behavioral Health Programs, Health Professions Careers Opportunity Program, Song Brown Clinic Workforce, Song Brown Nurses	Psychiatrists in State Hospital Fund, Addiction and Psychiatry and Medicine Fellowships, University and College Grants for Behavioral Health Professionals, Expansion of Master's in Social Work Slots at Public Universities and Colleges, Social Work Initiative
Total Reduction: $730,062,000 General Fund	**Total Reduction: $196,400,000 Mental Health Services Fund**

- A total of $109,000,000 was restored in the final budget that had previously been proposed for cuts in the May Revision Budget.
- There are no one-time investments for Health Workforce Development programs this FY.

HCAI's Health Workforce Covers Four Categories

Behavioral Health Programs (1 of 4)

- **Wellness Coach Employer Support Grants[1]**
  - Objective: Provide funds for organizations to employ Certified Wellness Coach
  - Funding: $125,126,475
  - Status: Second application cycle closed on August 16, 2024.
    - 64 awardees total
- **Wellness Coach Scholarships**
  - Objective: Provide scholarships to individuals training to become a Certified Wellness Coach
  - Funding: Up to $50,000,000
  - Status: Two application cycles.
    - Cycle A closed on July 08, 2024.
      - 99 awardees total
    - Cycle B closed on August 16, 2024. Award announcement TBD.

[1] Link to awardees: CWCES FY 2024-25 Awardees (ca.gov)

Behavioral Health Programs (2 of 4)

- **Behavioral Health Scholarship Program**
  - Objective: Provide scholarships to increase the supply of individuals entering the behavioral health workforce in exchange for providing direct care in an underserved area for 12 months
    - Eligibility: Students enrolled in behavioral health certificate, associate, bachelor, master and/or doctoral degree programs
      - Up to $25,000 award is available for certificate and graduate applicants
      - Up to $35,000 award is available for undergraduate applicants
    - Funding: $8,066,000
    - Status: 320 awardees total

Behavioral Health Programs (3 of 4)

- **Golden State Social Opportunities Program**
  - Objective: Provide scholarships to increase the supply of individuals seeking education and training to become licensed clinical behavioral health professionals providing direct care in an underserved area for 24 months
    - Eligibility: Students accepted or enrolled in accredited graduate programs for Licensed Clinical Social Worker, Licensed Marriage and Family Therapist, Licensed Professional Clinical Counselor, Licensed Clinical Psychologist (PhD or PsyD)
    - Applicants can apply for one or two year GSSOP funding
    - Up to $25,000 award per year, or a total award amount of up to $50,000
  - Funding: $3,374,877
  - Status: 77 awardees total

Behavioral Health Programs (4 of 4)

- **Psychiatric Education Capacity Expansion**
  - Objective: Increase the number of Psychiatrists & Psychiatric Mental Health Nurse Practitioners (PMHNPs) in California by providing funds for organizations adding PMHNP field placements, recruiting PMHNP students who can provide culturally competent care, increasing the number of hours PMHNP students are trained, and providing clinical supervision that leads to credentialing or national certification.
  - Funding: $17,219,828
  - Status: 8 awardees total (5 Psychiatry Residency Grant Program awardees[1] & 3 - PMHNP Grant Program awardees[2]
- **Social Work Education Capacity Expansion**
  - Objective: Provide funds for organizations committed to increasing the number of Social Workers particularly working in Behavioral Health in California
  - Funding: $20,140,000
  - Status: 8 awardees total[3]

[1] Link to awardees: PECE Psychiatry Residency Awards Notice, June 2024.pdf (ca.gov)
[2] Link to awardees: PECE PMHNP 2024 Awardees (ca.gov)
[3] Link to awardees: Social Work Education Capacity Expansion 2024 Awardees

Nursing Programs

- **Bachelor of Science Nursing Loan Repayment Program**
  - Objective: Provide loan repayment to Registered Nurses providing direct patient care at qualified facilities in California
  - Funding: $1,500,000
  - Status: Application cycle closed August 26, 2024. Awards will be announced Fall 2024.
- **Licensed Vocational Nurse Loan Repayment Program**
  - Objective: Provide loan repayment to Licensed Vocational Nurses providing direct patient care at qualified facilities in California
  - Funding: $117,000
  - Status: Application cycle closed August 26, 2024. Award announcement TBD.

Primary Care Programs

- **Song-Brown Grant Program - Primary Care Residency**

  - Objective: Provide funds for training programs committed to increasing the number of primary care providers in California
  - Funding: $31,000,000
  - Status: Application cycle opened on July 25, 2024 and closes on September 10, 2024. Awards will be announced January 2025

Cross-Cutting Programs

- **Health Careers Education Program (formerly Mini-Grants Program)**

  - Objective: Provide funds for organizations to support conferences, workshops, or career exploration activities that expose disadvantaged individuals to health careers in primary care, behavioral health, caring for older adults, nursing, oral health and allied health
  - Funding: $200,000
  - Status: Application cycle opened on August 16, 2024 and closes on October 16, 2024

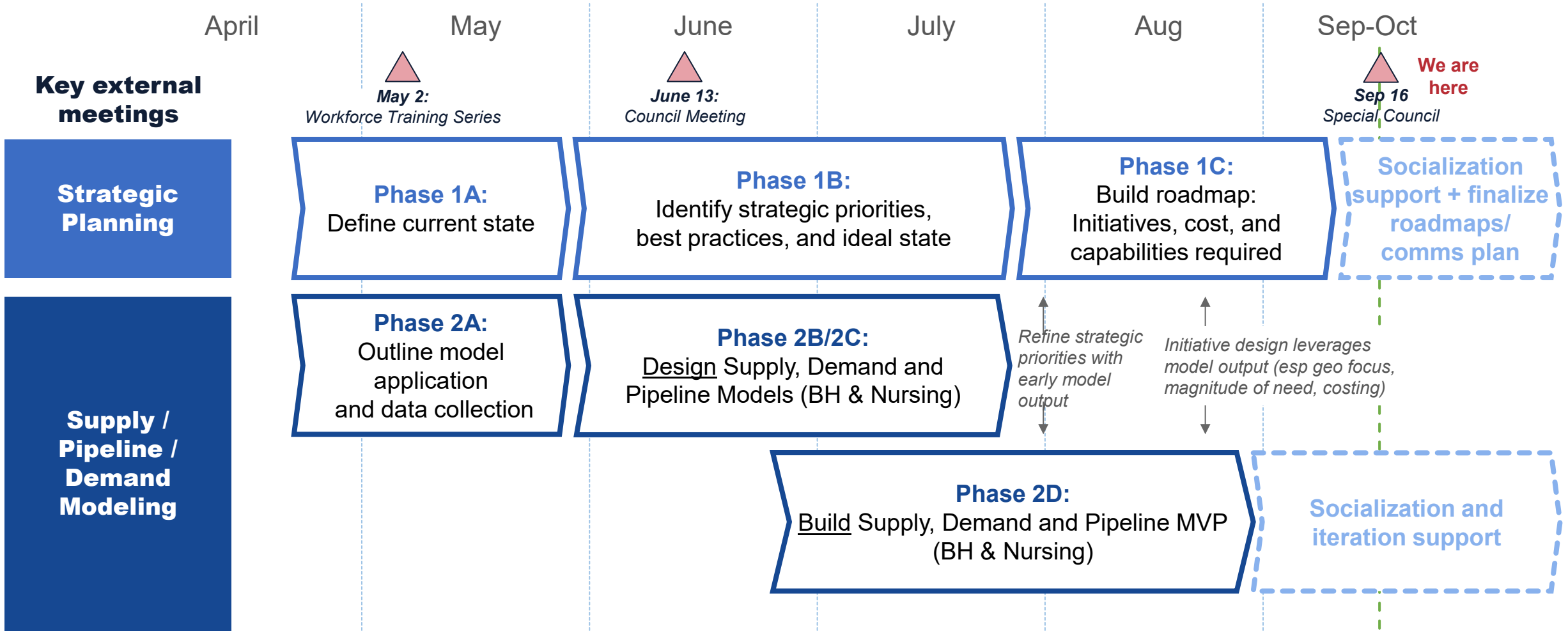
Cross-Cutting Programs: Loan Repayment

- **State Loan Repayment Program**

  - Objective: Provide loan repayment to **primary care physicians, dentists, dental hygienists, physician assistants, nurse practitioners, certified nurse midwives, pharmacists, and behavioral health providers** in exchange for working at a qualified site in a Health Professional Shortage Area in California
  - Funding: $1,333,000
  - Status: Application cycle opened on July 15, 2024 and closes on September 16, 2024. Awards will be announced December 2024

- **Steven M. Thompson Physicians Corps Loan Repayment Program**
  - Objective: Provide loan repayment to **licensed physicians and surgeons** providing direct patient care in a qualified facility in California
  - Funding: $2,100,000
  - Status: Application cycle closed on August 26, 2024. Awards will be announced October 2024

We are in the final stages of developing, and focused on socializing initial strategy and model results



What we are looking for from Council members today

Feedback and discussion on the strategy: We request your input on HCAI's strategic workforce priorities, interventions, and recommended actions – *please share relevant knowledge*

- E.g., what you have seen work well in the past, considerations for us to incorporate, innovative ideas

Thoughtful reflection on your entity's role in the strategy: HCAI cannot solve the workforce challenges alone and together we can drive more meaningful impact; therefore, we ask Council members to consider where your entity can play a role and what you need to be successful

- E.g., data you would need from HCAI to execute a specific intervention in the nursing strategy, how a partnership could work

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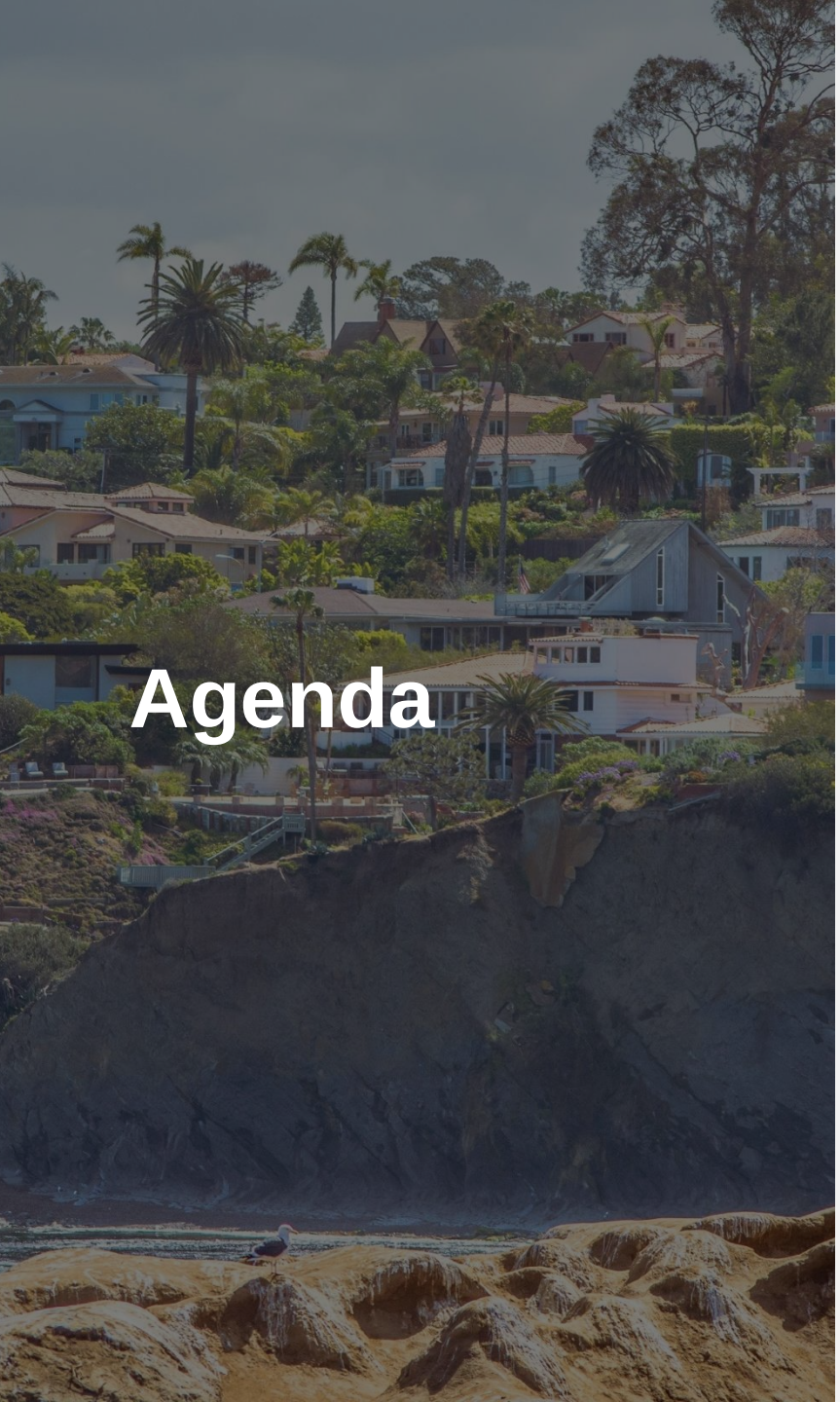
Agenda Item 5:

Summary of supply / demand model and detailed review of behavioral health workforce strategy

Facilitator: HCAI



Agenda

Overview of supply / demand model

- Summary of supply and demand model to identify critical workforce gaps

Detailed review of behavioral health workforce strategy

- Behavioral health findings and preliminary supply / demand modeling results by role
- Deep dive on behavioral health strategy, including specific interventions for roles and geographies

Detailed review of nursing workforce strategy

- Nursing findings and preliminary supply / demand modeling results by role
- Deep dive on nursing strategy, including specific interventions for roles and geographies

Our ask of you

Engage in discussion, think about your entity's role in the strategy, and share relevant knowledge

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Recap of our work

HCAI's purpose statement on workforce enables its vision and mission

HCAI enables the expansion and development of a **health workforce that reflects California's diversity in order to address supply shortages and inequities**, by administering programs and funding and generating actionable data.

A statewide workforce strategy is essential because no single organization or agency can solve workforce challenges alone.

By uniting with common goals and coordinating across organizations and sectors, we can achieve greater impact and drive meaningful change.

The statewide strategy recognizes and seeks to leverage diverse stakeholders in the health workforce ecosystem

1. Community-based organizations

Additionally, we are approaching the work with a strong equity lens, to identify key disparities in the workforce (e.g., racial, linguistic, Medi-Cal acceptance) and determine how HCAI and partner entities can address them

Our strategy process: We are following a rigorous process of gathering available data, inputs, and perspectives, all of which inform our strategy

Many inputs have gone into developing our strategy…

- *Workforce supply / demand model*
- ***50+** provider interviews & focus groups*
- *Current state analysis & deep literature review*
- *Thorough evidence review of intervention efficacy*
- *Clear definition of HCAI's role[1]*
- ***100+** stakeholder and expert interviews*
- *Comprehensive research & data analysis*

And we are following a rigorous process to develop the behavioral health and nursing workforce strategy

Setting the stage

- ✓ Defined HCAI's purpose, vision, guiding principles, and role in the ecosystem
- ✓ Developed problem statement based on comprehensive data analysis and 150+ interviews

Understanding the problem

- ✓ Modeled supply and demand for behavioral health and nursing roles at multiple geographic levels to understand greatest shortages
- ✓ Assessed racial, linguistic, and Medi-Cal representation between providers and population
- ✓ Defined 90+ levers to make change against the problem and collected evidence to test efficacy of each

Developing HCAI's strategy

- ✓ Determined interventions 'in scope' for HCAI to lead or influence
- ✓ Based on shortage drivers for role and geography combinations, created strategy with specific interventions to target most significant shortages
- ✓ Developing robust implementation planning documentation for HCAI

1. Refers to Office of Health Workforce Development within HCAI

Today, we will share results of our supply / demand modeling, focused on greatest gaps, as well as strategic recommendations for HCAI and partners

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Summary of supply / demand modeling

Our objectives for the health workforce model

- Become a **leader and go-to source** for the health workforce supply and demand; serve as an **exemplar within California and nationwide**
- **Quantify the extent of challenges we know & address future-facing shortages and inequities** before they emerge
- Drive **better and more targeted decision-making** for our funds and programs based on the **greatest gaps by role & geography**
- **Identify opportunities for collaboration** with other institutions and partners to solve identified gaps
- Track **progress on state equity goals** (e.g., racial and linguistic representation, Medi-Cal acceptance) and **address disparities**

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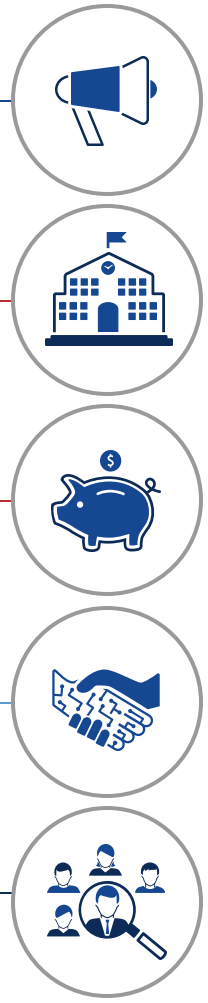
Non exhaustive

Our model outputs inform use cases for best allocating limited state resources

Use case: *a* ***practical action*** *(program, funding decision, partnership, etc.)* ***focused on areas of highest need (supply / demand gap, equitable lens)*** *informed by the data and analysis in our model*

Use cases are targeted activities in specific geographies, populations, and roles such as:



Investing in programs that **increase access to and interest in health workforce roles** *(e.g., apprenticeship programs, recruitment & marketing initiatives)*

Partnering with educational institutions to **expand & create training programs** *(e.g., increase Associate Degree in Nursing spots/acceptance criteria for students coming from key geographies)*

Directly **funding scholarships, loan replacement programs, and training programs** for students from underserved communities

Partnering with labor & educational institutions to **upskill health workforce** *(e.g., adult learner wraparound services)*

Partnering with employers to identify health workforce / recruiting needs and **promote hiring & retention initiatives**

Over time, identified outcomes from use cases will inform future activities/interventions

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Before diving into the findings of our supply / demand modeling, we want to recognize that ***all models have limitations, and no forecast of the future is guaranteed to be fully accurate …***

… but we've stuck to a few key tenets in our modeling that give us confidence in the results

Our model methodology & assumptions are **informed by existing & well-substantiated approaches to workforce modeling**

We've been **guided by input from a diverse array of experts** (including health workers) to ensure we are grounded in actual practice

Where data were unavailable or imperfect, **we've made reasonable assumptions that we have vetted and tested** with a range of stakeholders

We are **not evaluating the results in a vacuum**, but alongside qualitative input from stakeholders and additional supporting data

Note: Inputs & assumptions in model are being continuously refined; we have confidence in our initial outputs but specific results may be adjusted over time

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The supply / demand model is a living tool

Current version is an MVP (minimal viable product) that is providing initial results & output to inform HCAI's strategy

MVP model →  → "Final" model[1]

Data roadmap

Alongside the MVP model, we are developing a data roadmap to plan our future data collection and modeling efforts

Key elements of the data roadmap include (but are not limited to):

- Workforce availability for Medi-Cal vs. commercial vs. OPP
- Incorporating HPD claims data
- Modeling the need for and impact of expanding allied health professionals' (e.g., MHRS) roles in the BH workforce
- Testing other methods to calculate unmet demand for RNs (e.g., vacancy rate)
- Collecting additional data on NP site of care & potential to serve primary care demand
- Assessing the portion of BH demand served in primary care
- Incorporating commuting analysis to better reflect labor markets in model output

…and 30+ other large & small items

Note: Commute analysis already in progress across roles (completed for RNs)

1. Model will never be truly 'final' as expectation is for it to be continuously refined

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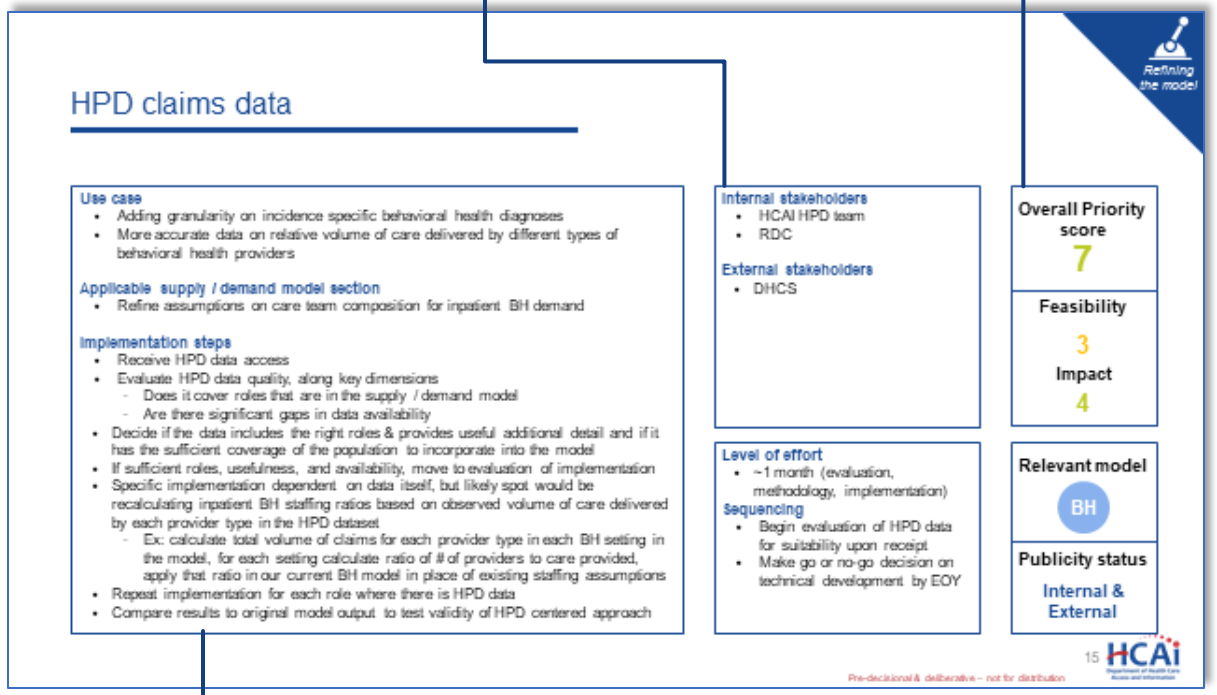
We are prioritizing and outlining key implementation steps for major elements of the data roadmap

Prioritization "scores" developed based on feasibility (e.g., data availability) and impact on results are being used to sequence which refinements to make first

Tracking which stakeholders (internal & external) will be most involved/needed to incorporate this element



Screenshot is meant to be illustrative only

Outlining overall steps needed to implement this element of the roadmap (e.g., accessing data, integrating into codebase, adjusting results, etc.)

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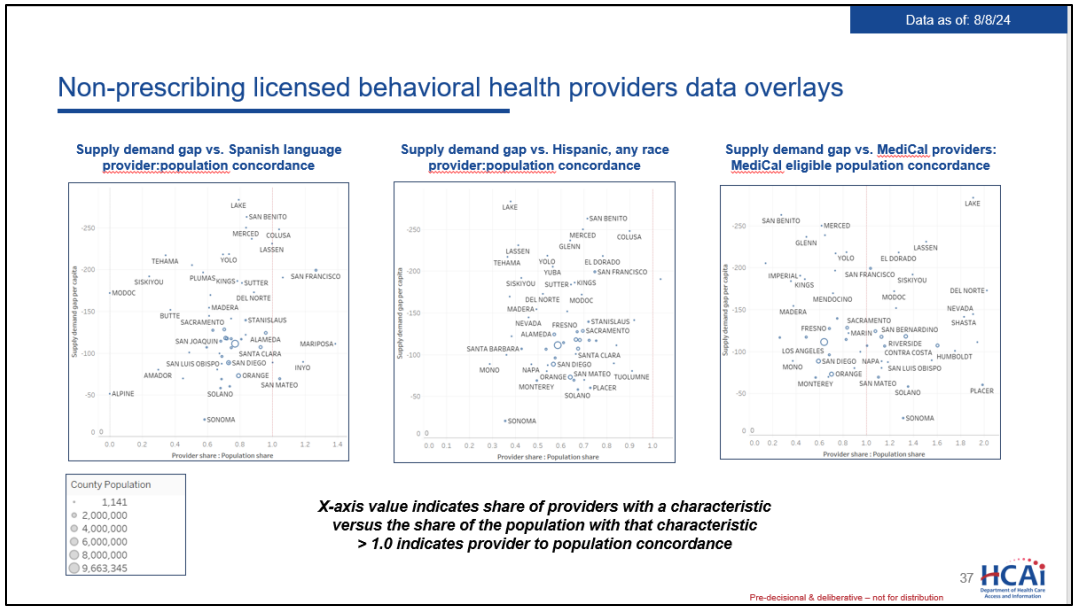
Our model includes overlays to enable comparison of supply / demand gap to language, Medi-Cal, and racial / ethnic representation of providers & population

Visual screenshots are illustrative – not updated data



Overlay **data provides a "representation value"** to compare providers to population by **language spoken**, **racial / ethnic background**, and **Medi-Cal acceptance**[1]

Overlays are **available for current state data and nearly all roles in behavioral health & nursing** (Medi-Cal information only for certain behavioral health roles)[1]

$$\frac{\text{Share of providers}}{\text{Share of population}} = \textbf{"representation"}$$

Illustrative example:

$$\frac{\text{20\% of providers in geo speak Spanish}}{\text{40\% of population in geo speaks Spanish}} = \textbf{".5 representation"}$$

representation <1.0 indicates that the share of the population which speaks Spanish exceeds the share of providers who speak Spanish

1. Results are still in development, so are not shared in these materials (for non-prescribing licensed clinicians and psychiatrists only)

We are designing scenarios to model the effect of specific HCAI interventions or broader expected trends; some are already built while others are in development

Some scenarios are designed to model the effect of a specific intervention HCAI could lead (with check mark) while others represent broader expected trends

#	Scenario	HCAI intervention	Scenario Description
1	Behavioral Health infrastructure capacity growth[1]		Model provider demand based on expected capacity growth (e.g., given BCHIP bonds) over the next 5 years
2	Reduced RN attrition	✓	Test interventions' effectiveness on reducing RN attrition
3	Shift in care team composition toward allied health		Simulate allied health professions impact on provider workload
4	Expansion of training programs and slots	✓	Model investment in expanding educational programs on provider supply
5	Alternative Payment Model adoption	✓	Model impact of APM on provider workload
6	Reduced admin time		Decreasing administrative burden on providers due to multiple factors, e.g., technological advancement (including GenAI) and increased focus on allied health professional roles
7	Increased need for NPs in primary care		Shift in primary care delivery models requiring/enabling greater contributions from NPs

Nursing *Behavioral health* *Both, or dependent on role selected*

1. Separate and related effort underway to look at the full package of BH transformation initiatives & associated impact on workforce; this scenario is under development/refinement in partnership with DHCS

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Recall | 22 roles were examined in our supply/demand modeling exercise; plan to add additional roles over time by continuously collecting new data

Behavioral health

Associate-level clinicians (BH-A)[1]
- Associate Clinical Social Worker
- Associate Marriage and Family Therapist
- Associate Professional Clinical Counselor
- Registered Psychological Associate

Non-prescribing licensed clinicians (BH-L)[1]
- Licensed Clinical Social Worker
- Licensed Marriage and Family Therapist
- Licensed Professional Clinical Counselor
- Psychologist
- Licensed Educational Psychologist
- Psychiatrist
- Psychiatric Mental Health Nurse Practitioner (PMHNP)
- Substance Use Disorder Counselor (SUDC)
- Peer Support Specialist (PSS)
- Certified Wellness Coach (WC)

Nursing

Registered Nurses (RN)
- Registered Nurse (RN)
- Public Health Nurse (PHN)
- Clinical Nurse Specialist (CNS)

Midwives
- Certified Nurse Midwife (CNM)
- Licensed Midwife (LM)

- Certified Registered Nurse Anesthetist (CRNA)
- Nurse Practitioner (NP)
- Licensed Vocational Nurse (LVN)

Note: The behavioral health professional ecosystem is especially complex, with many additional roles (e.g., MHRS, OTs, other qualified professionals, etc.) playing an important part in the care team & being critical to a well-functioning delivery model

Given the lack of sufficient data on these roles today, they have not been modeled in this version of the tool; however, these roles will be considered in our strategic interventions and are prioritized on our roadmap for future inclusion & data collection

1. In supply/demand modeling, demand for this set of roles has been calculated overall (combined) due to overlapping scopes of practice; supply results remain distinct across each role

The behavioral health provider ecosystem is especially complex, with many different types of roles playing an important part in the broader care team

Licensed Behavioral Health Clinicians
(examples, not exhaustive)

- Psychiatrist
- Clinical Social Worker
- Licensed Educational Psychologist
- Marriage and Family Therapist
- Professional Clinical Counselor
- Psychologist
- Psychiatric Mental Health Nurse Practitioner
- Psychiatric Technician

Certified Roles
(examples, not exhaustive)

- Peer Personnel
- Substance Use Disorder Counselor
- Certified Wellness Coach

Other Medical Roles
(examples, not exhaustive)

- Nurse
- Primary care clinician

Allied Health Professionals / Other Qualified Professionals
(examples, not exhaustive)

- Community Mental Health Worker
- Residential Mental Health Counselor
- School Mental Health Professional
- Pharmacist
- Mental Health Rehab Specialist
- Case Manager
- Occupational Therapist
- Other Qualified Professionals

Consist of health care related professions that **provide a range of diagnostic, therapeutic, technical work and support services** distinct from or facilitating that of physicians and other specialists in the health care system; they are **vital in the BH ecosystem** in ensuring client centric care and delivery[1]

Illustrative, non exhaustive or exclusive (roles can fit into other categories)

1. "Allied Health Services", National Institute of Health

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The model assesses roles, geographies, and populations to understand the workforce shortage for roles with data

What **roles** are facing a shortage?

What **geographies** in California?

What **populations** (e.g., racial, linguistic)?

What do **insurance acceptance patterns by professionals** tell us about access issues?[1]

1. Results are still in development, so are not shared in these materials (for non-prescribing licensed clinicians and psychiatrists only)

Supply / demand tool and preliminary modeling results

This slide is a placeholder for a short live demo of the MVP tool that will be shared during the Council meeting

- The version of the tool you will see is designed to be **internal-facing**; we are working on ways to eventually make these results **public-facing** and accessible
- **Results shown reflect our MVP** (minimum viable product); **as the model is refined, we expect some of the results to adjust**
- Results from this model should not be considered in a vacuum

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How the model output is used for strategy | We developed custom interventions for role-specific shortage areas identified by the model

Identified areas with highest workforce shortages from model output

Additionally, model has overlays for race, language and Medi-Cal acceptance[1], as shortages are not only defined as where demand exceeds supply

Developed understanding of key drivers of shortages by area, role, and equity considerations

Interviews with providers to identify key barriers

Data analysis and research to validate hypotheses of shortage drivers

Matched key shortage drivers with mitigating interventions to tailor solutions for each role x geography combination, while identifying where statewide solutions were necessary

Example: *Key shortage driver for non-prescribing licensed clinicians in San Joaquin Valley is insufficient didactic and clinical training capacity*

Therefore, a solution may be to partner to expand clinical supervision opportunities…

AND we might operationalize this by adapting HCAI grant scoring to give additional points to programs that address this need

1. Medi-Cal acceptance overlay only for non-prescribing licensed behavioral health clinicians and psychiatrists

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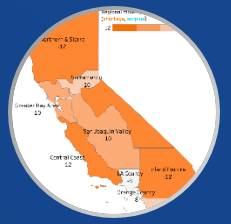
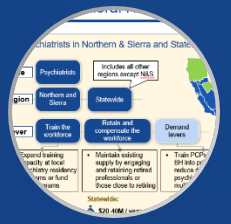
BH: Findings and preliminary supply / demand modeling results by role

Summary of findings | Behavioral Health Workforce



All behavioral health roles examined have a **statewide shortage** with highest absolute shortage numbers in **non-prescribing licensed behavioral health clinicians**[1] and most severe shortages in **Northern & Sierra and San Joaquin Valley regions.** There are **racial and linguistic disparities** and **lower access** for certain populations (e.g., Medi-Cal).

Many licensed behavioral health professionals across California are also **unable to work at the top of their license due to a lack of supporting allied health professionals**, for which data is severely lacking *(potential area for HCAI to collect data).*



HCAI should take a **multi-pronged approach to supporting the behavioral health workforce**, including significant investments in **expanding training capacity, clinical supervision opportunities, and retention initiatives,** with a focus on equity to ensure the workforce reflects California's diversity.

HCAI should also continue to **enable data collection and sharing about the behavioral health workforce**, especially as it pertains to allied health roles, and new / emerging roles.

Going forward, **HCAI remains committed to exploring innovative solutions** (e.g., supporting emerging behavioral health roles) and understanding the important changes happening in behavioral health as professionals and care delivery models shift.

1. Includes LMFT, LCSW, LPCC, Psychologist

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Summary | Model findings on **roles**

All roles affected: Every behavioral health role examined faces a shortage (supply-demand gap) across the state

For example:

- Non-prescribing licensed clinicians[1] face a 37% supply/demand gap statewide, with this gap forecasted to widen going forward
- Associate-level clinicians and psychiatrists both experience a 38% gap; while the gap for associate-level clinicians is forecasted to improve, that of psychiatrists is forecasted to worsen
- Substance use disorder counselors face a 18% shortage, with gap forecasted to continue

Data Gaps: Allied health professionals play critical and increasing roles in behavioral health care; however, there is not currently sufficient data to include most of these roles in a supply/demand model, so will be analyzed separately

For discussion: What stands out among these findings? How will you leverage these findings for your entity's behavioral health interventions?

1. LCSW, LMFT, LPCC, and Psychologist

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With the findings from our model and associated research, we have better clarified role-specific 'Problem Statements' to direct our work (1/3)

Psychiatrists

- ~38% current statewide supply/demand gap[1] (~3,100 professionals in absolute terms) despite being one of two prescribing roles; driven by insufficient training capacity (e.g., Northern and Sierra regions have 1 residency program with 4 residents, despite a forecasted gap of ~300 psychiatrists by 2033), lower accessibility of career path (longer and more expensive training), relatively high retirement rates, and some unequal distribution of inpatient infrastructure
- Statewide gap projected to grow significantly, reaching ~48% by 2029 (~5,000 professionals) and ~53% by 2033 (~6,000 professionals), likely requiring an additional ~1,250 – 1,500 residency slots to close the gap by 2033, assuming it takes 4 years to complete residency and graduating 1 cohort by 2029 (closes 2029 gap by ~25%)
- Latine psychiatrists underrepresented relative to CA population (~8% of psychiatrists vs ~40% of CA population); Black providers are slightly underrepresented
- Spanish-speaking professionals are underrepresented relative to CA population

Non-prescribing licensed clinicians *(LCSW, LMFT, LPCC, Psychologist)*

- ~37% current statewide supply/demand gap[1] (~44k in absolute terms), driven by insufficient training capacity, low wages / reimbursement (especially at non-profit or public employers), overburdened staff, barriers to completing graduate education, and lower awareness / accessibility of career pathways
- Statewide gap projected to continue, with ~37% forecasted gap in 2029 (~57k professionals) and ~34% by 2033 (~58k professions), likely requiring an additional ~11 – 12k training slots to close the gap by 2033, assuming it takes 4 years to complete graduate education and clinical supervision requirements and graduating 1 cohort by 2029 (closes 2029 gap by ~20%)
- Within this role group, LCSWs and LMFTs have the highest supply (~33% and ~45% of role group, respectively)
- Asian and Latine professionals are underrepresented relative to CA population (e.g., Psychologists in CA are ~67% White while CA's population is ~35% White; ~10% Asian vs ~15% of CA's population, and ~13% Latine vs ~40% of CA's population)
- Spanish-speaking professionals are underrepresented relative to CA population, except for LCSWs

<u>For discussion:</u> Are clinical hours paid for in some settings and not others (e.g., county)?

Associate-level clinicians *(ACSW, AMFT, APCC, Registered Psychological Associate)*

- ~38% statewide supply/demand gap[1] (~15k in absolute terms); associate clinicians are pipeline to licensed clinicians
  - Gap projected to shrink, reaching ~22% by 2029 *(see above for training slots)*
- Challenges for this level include lack of oversight / structure, complicated licensure process, potential need to pay for clinical supervision with limited supervision spots, inadequate wages, burnout, and typically only being able to get entry-level jobs at community mental health centers
- Within associate-level clinicians, ACSW and AMFTs have the highest supply (~46% and ~37% of role group, respectively)
- ~57% of Master's level graduates do not achieve licensure, indicating a significant drop-off[2]
- Asian and Latine professionals are also underrepresented in these roles

1. Current state (2022) model output, calculated as (demand-supply)/demand; 2. Motivo Health, The Mental Health Therapist Shortage Starts at Graduation: How to Help the 57% that Never Attain Licensure

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With the findings from our model and associated research, we have better clarified role-specific 'Problem Statements' to direct our work (2/3)

Psychiatric Mental Health Nurse Practitioners

- Current state shows a ~48% statewide supply/demand gap[1] (~1,900 in absolute terms); surplus forecasted[2]
- Bottlenecks include training and clinical placement capacity (e.g., not enough quality clinical placement opportunities, some students needing to find their own clinical placement sites), administrative burden on the job which contributes to retention problems
- If current state gap persists into the future, we would likely need ~200 – 300 additional training and upskilling slots to close the gap by 2033, assuming it takes ~1 year for NP to upskill to PMHNP and ~2 years for RN to complete NP program that qualifies them for PMHNP certification
- Severe racial disparities in this role (85% of PMHNs are White vs ~35% of CA's population, ~5% of PMHNs are Asian, ~4% Latine, ~4% Black)
- ~4% of PMHNs speak Spanish, vs ~28% of CA's population speaks Spanish at home
- Increasing the supply of PMHNPs may be able to offset part of the gap for psychiatrists, given PMHNPs' ability to independently practice and prescribe

Licensed educational psychologists

- ~8% statewide supply/demand gap[1] (~100 in absolute terms), driven by limited educational capacity (e.g., Chico State school psychology program regularly takes 8-10 people per year), financial barriers to training (e.g., unpaid internships), instability in public school systems (as workplace), and administrative burdens (e.g., testing paperwork)
- Asian and Latine professionals are underrepresented relative to the CA population
- ~16% of LEPs speak Spanish vs ~28% of CA's population speaks Spanish at home
- Gap is projected to close by 2026; no forecasted future shortage (therefore, not a focus for interventions)

1. Current state (2022) model output, calculated as (demand-supply)/demand 2. Forecast assumes the current % of NPs who report being a PMHNP in the HCAI license renewal survey remains constant (and thus grows with the overall NP increase)

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With the findings from our model and associated research, we have better clarified role-specific 'Problem Statements' to direct our work (3/3)

Peer Support Specialists

- Current state shows a ~47% statewide supply/demand gap[1] (~2,600 in absolute terms), especially seen in Orange County, San Joaquin Valley, Greater Bay Area, Inland Empire, and Northern and Sierra regions; driven by low pay / reimbursement, poor working conditions (e.g., biases / stigma, limited promotion opportunities), some existing peers slow or reluctant to get certified due to barriers such as training and certification fees, and potentially lower demand suppressing supply
- Peer support specialists are a rapidly growing workforce, with potential for growth; nearly all states (49 out of 50) have established certifications, indicating strong momentum for formalizing these roles[2]
- Statewide gap expected to close by 2026
  - Current model output doesn't capture significant opportunity for peer expansion, likely underestimates future demand
- Black providers are well-represented (~13% of Peer Support Specialists vs ~6% of CA's population); Latine providers are slightly underrepresented, and Asian professionals are underrepresented (~6% of Peer Support Specialists vs ~15% of CA's population)
- Only ~3% of Peer Support Specialists speak Spanish vs ~28% of CA's population speaks Spanish at home

Certified Wellness Coaches

- Due to being a new role, workforce is still growing (only ~200+ current supply, with targets to grow significantly by 2033)[3]; potential barriers include limited openings / job opportunities for Certified Wellness Coach jobs, some confusion over scope of role, and uncertainty around future (as many are currently working under grants)
- Asian and Latine professionals are underrepresented; Asian and Pacific Island-language speaking professionals are also underrepresented

Substance Use Disorder Counselors

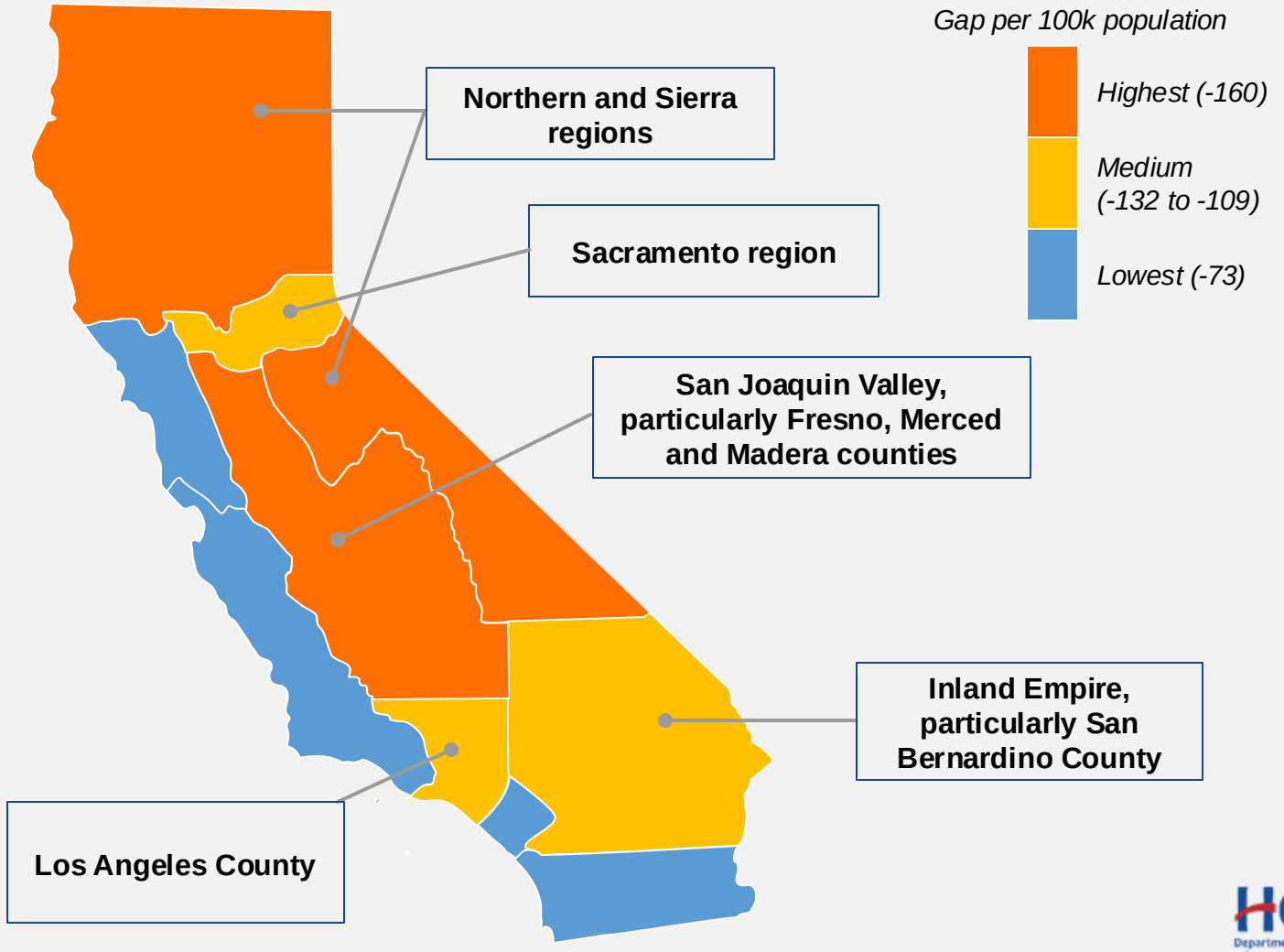
- ~18% statewide supply/demand gap[1] (~2,800 in absolute terms), especially seen in Los Angeles County, Bay Area and San Diego County, driven by challenges such as unpaid internships, maintaining personal sobriety, low pay and no direct reimbursement mechanism, and overwork / burnout
  - Many SUD Counselors have lived experience (e.g., addiction) and are in recovery themselves
- Gap projected to continue, remaining at ~18% in 2029
- Asian and Latine professionals are underrepresented (~2% of SUD Counselors are Asian vs ~15% of CA's population

1. Current state (2022) model output, calculated as (demand-supply)/demand 2. National Governors Association (2024) "The Emerging Field of Behavioral Health Paraprofessionals: State Regulatory Approaches for Peer Specialists, Community Health Workers and Behavioral Health Technicians/Aides" 3. Certified Wellness Coaches is a target-driven demand assumption

Summary | Model findings on **regional shortages**

*All regions & roles have a **behavioral health workforce shortage***

Non-prescribing licensed clinicians[1] workforce shortage areas
(all counties and regions face a behavioral health workforce shortage across roles)



1. LCSW, LMFT, LPCC, and Psychologist
Note: Appendix includes regional shortage maps for other roles

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From the model results, some **behavioral health** role x geography combinations had especially severe shortages, while all roles had statewide shortages

Role / geography combinations with especially severe shortages

- **Non-prescribing licensed professionals** – *Northern & Sierra regions and San Joaquin Valley*
- **Psychiatrists** - *Northern & Sierra regions*

Roles with statewide shortages

- **Psychiatric Mental Health Nurse Practitioners** – *statewide*
- **SUD Counselors** – *statewide*
- **Peer Support Specialist** – *statewide*
- **Non-prescribing licensed professionals** – *remainder of state (Sacramento, Inland Empire, LA County, Greater Bay Area, Central Coast, San Diego Area, Orange County)*
- **Psychiatrists** – *remainder of state (Sacramento, Inland Empire, LA County, Greater Bay Area, Central Coast, San Diego Area, Orange County, and San Joaquin Valley)*

In addition, while our model did not include them, we are considering the role of other allied health roles as a critical part of the behavioral health ecosystem

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California Statewide | BH gaps by role

Role	Current state (2022) gap	2029 forecast gap	2033 forecast gap	Gap trend
Non-prescribing licensed clinicians	**37%** (~44K)	**36%** (~56k)	**34%** (~58K)	↑
Associate-level clinicians	**38%** (~15K)	**21%** (~10k)	**18%** (~10K)	↓
Substance Use Disorder Counselor	**18%** (~3K)	**18%** (~3k)	**17%** (~3K)	–
Psychiatrist	**38%** (~3K)	**49%** (~5k)	**53%** (~6K)	↑
Licensed Educational Psychologist	**8%** (~0.1K)	**-1%** (~-0.1k)	**-13%** (~ -0.2K)	↓
Peer Support Specialist	**47%** (~3K)	*TBD considering models to account for changes in role over time, similar to 'target approach' in CWCs*		
Psychiatric Mental Health Nurse Practitioner	**48%** (~2K)	*Insufficient historical PMHNP data to support high confidence forecast*		
Certified Wellness Coach[3]	N/A	*Given CWC is a new role, value in model based on a "target value" in 2033, not supply / demand*		

↑ *Worsening gap or decreasing surplus* – *Steady gap* ↓ *Improving gap or increasing surplus*

Note: Negative gap implies 'surplus';
1. Peer support specialist forecast may shift to account for additional expected increase in peer demand 2. PMHNP forecast tied to overall Nurse Practitioner demand, limited data availability for high confidence PMHNP forecast 3. Certified Wellness Coach data reflects "target" values for wellness coach certification, given status as a new certification
Note: Negative gap indicates supply of professionals exceeds demand

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Summary | Model findings on **populations**

Racial representation of professionals is imbalanced relative to population

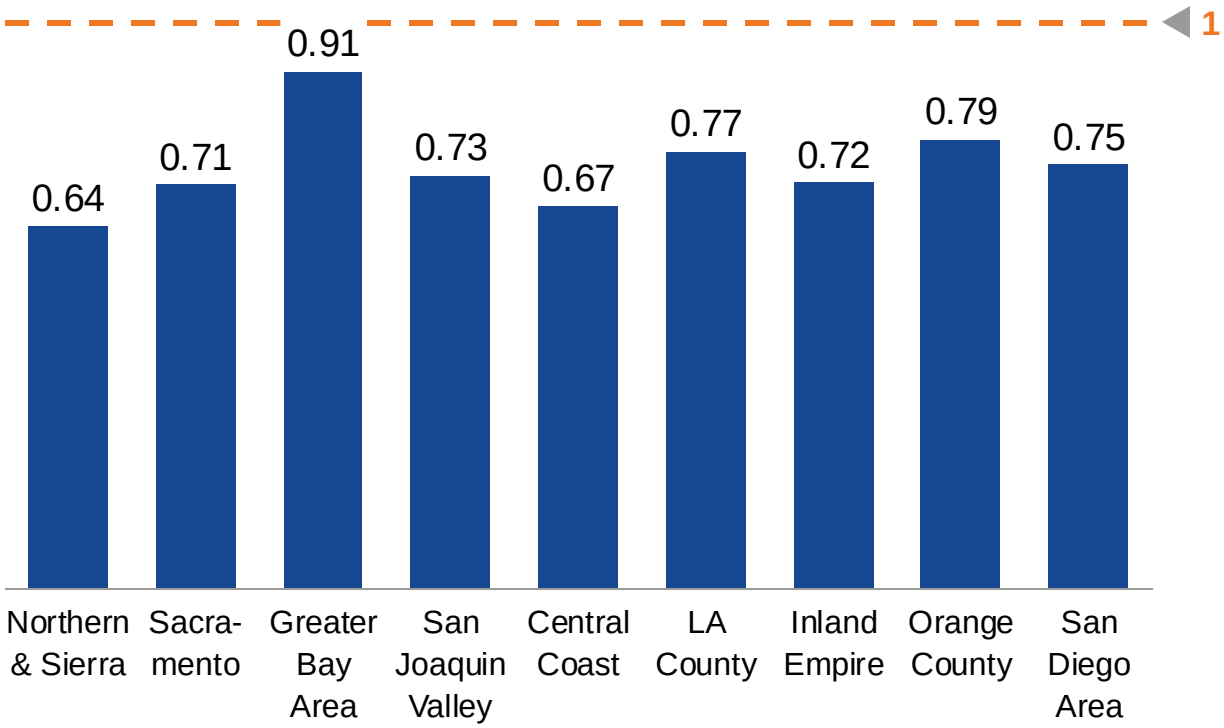
- Asian and Latine communities face the largest professional-to-population disparities
- Black professionals are underrepresented in advanced roles like psychologists and psychiatrists

Language barriers persist across the workforce

- Spanish-speaking professionals are underrepresented in all roles except Clinical Social Workers (licensed and associate) and Certified Wellness Coaches
- Asian and Pacific Island language-speaking professionals are underrepresented in all roles

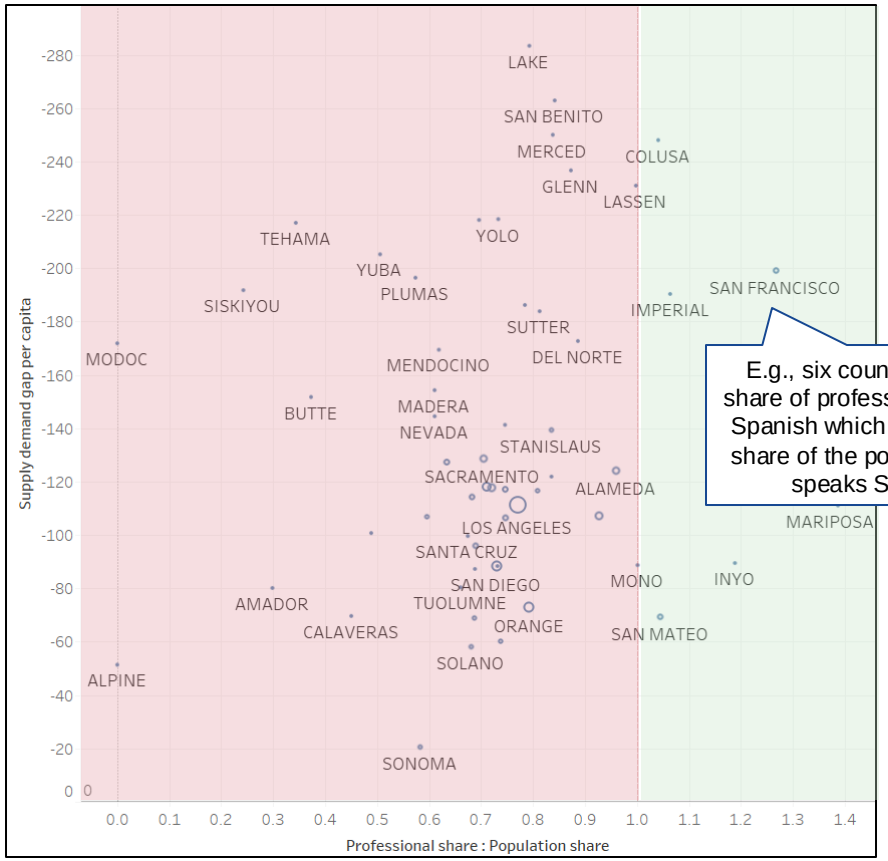
Example: Regional underrepresentation for Spanish-speaking professionals

Non-prescribing licensed clinician[1] Spanish speaking professional to population representation by region
Share Spanish speaking professionals / share of Spanish speaking population



Representation <1.0 indicates that the share of the population that speaks Spanish is greater than the share of professionals that speaks Spanish

Non-prescribing licensed clinician[1] Spanish speaking professional to population representation by county
Provider share to population share vs. supply / demand gap per 100k



Spanish speaking professional share *greater* than Spanish speaking population share

Spanish speaking professional share *less* than Spanish speaking population share

1. (LCSW, LMFT, LPCC, Psychologist)
Note: not all counties labeled in scatterplot, size of dot corresponds to county population
Source: American Community Survey (U.S. Census Bureau), HCAI license renewal survey

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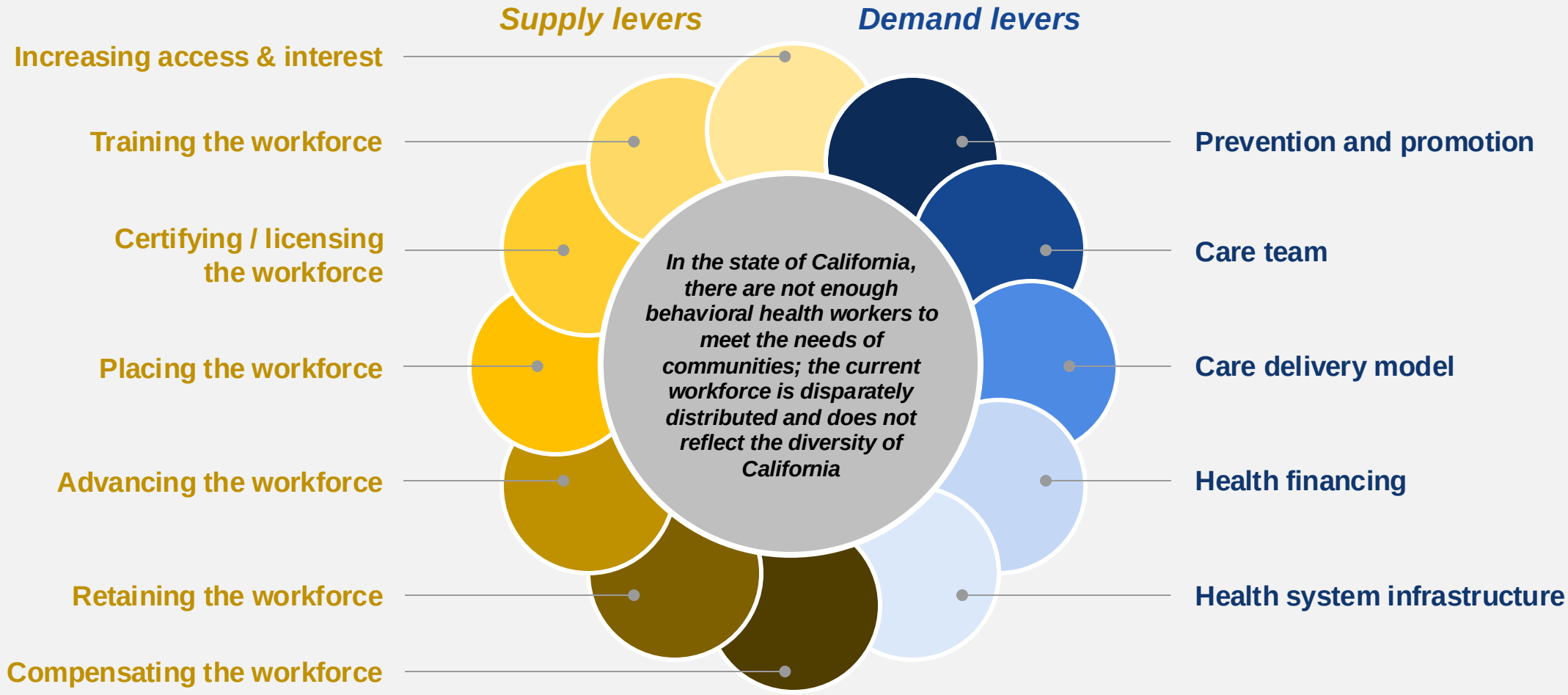
4

Levers to address the problem

Understanding the problem via data and provider / stakeholder interviews led to the development of levers that HCAI and others can pull, to make change against the problem

We reviewed evidence for a list of 90+ interventions categorized across supply and demand "levers"

What are all the levers to make change against this problem?



Supply levers aim to increase and diversify the health workforce

Demand levers aim to optimize demand, by improving workforce utilization

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Where HCAI sees its role

Detailed framework: Levers to make change

What are all the levers to make change against this problem?

Supply levers

Increasing access & interest
Generate interest from low-income, diverse individuals and improve access to pathways
Outcome: Larger, more diverse pipeline, economic mobility

Training the workforce
Lower barriers to training professionals, locate training in areas of need to address geo mismatch
Outcome: Larger, diverse pipeline, economic mobility

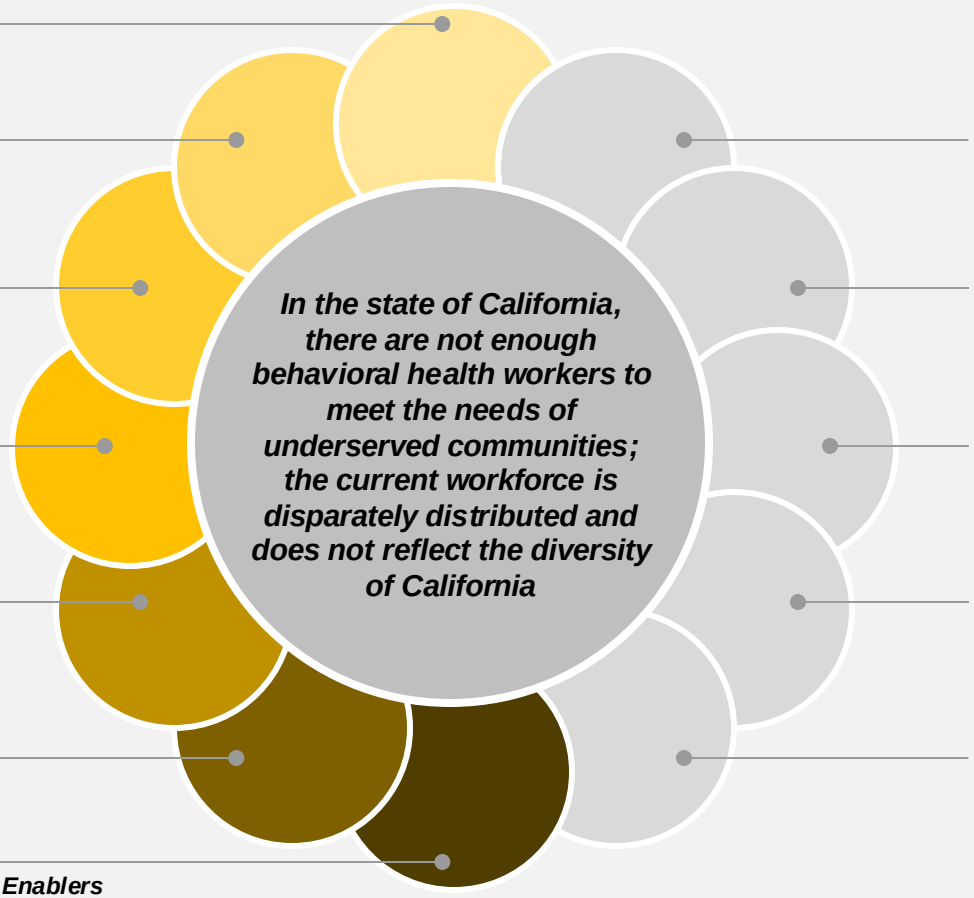
Certifying / licensing the workforce
Support workforce in becoming certified / licensed, particularly in target populations
Outcome: Larger, diverse pipeline, economic mobility

Placing the workforce
Enable workforce to practice, migrate to, and stay in areas of highest need
Outcome: More equitable access to care in areas of need

Advancing the workforce
Support workforce to upskill and advance
Outcome: More advanced professionals and economic mobility

Retaining the workforce
Address attrition drivers (e.g., admin burden, burnout)
Outcome: Preserve supply, improve care quality by retaining experienced professionals

Compensating the workforce
Improve compensation (wages & benefits)
Outcome: Enhanced satisfaction and morale, attract better talent



Demand levers

Prevention and promotion
More investment in screening and prevention (e.g., primary care, reducing stigma)
Outcome: Lower demand for acute care, improve client outcomes

Care team
Optimize care team composition to meet demand (e.g., scope of practice, professional ratios)
Outcome: Improve utilization of workforce

Care delivery model
Improve efficiency of care delivery models (e.g., through technology, integration of BH in primary care)
Outcome: Serve additional demand, improve care quality

Health financing
Promote adoption of alternative payment models; improve reimbursement
Outcome: Improve client outcomes, healthcare affordability

Health system infrastructure
Invest in additional infrastructure (e.g., healthcare facilities, transportation, etc.)
Outcome: Serve additional demand, improve client outcomes

Enablers

- *Data governance & quality (including labor market data)*
- *Continuous learning & improvement*
- *Mentorship & support*
- *Tracking effectiveness over time*
- *Centering on voice of the worker*
- *Removing administrative barriers*
- *Centering on DEI principles*
- *Driving awareness / communication of process steps & opportunities*

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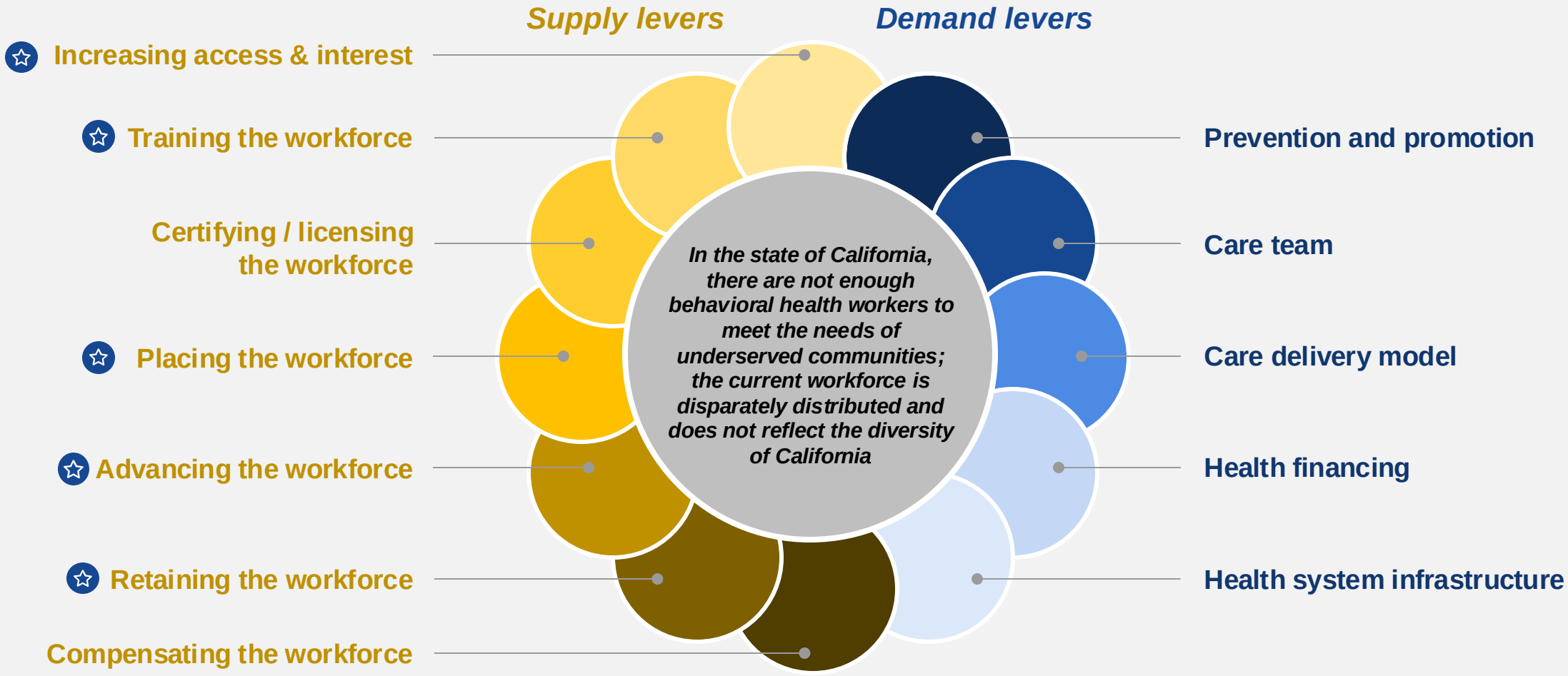
We see HCAI's primary role on the supply side of the equation, though we hope our data will support decision making across these levers

Where HCAI sees its role

Where do you see the role of other entities?



Supply levers aim to increase and diversify the health workforce

Demand levers aim to optimize demand, by improving workforce utilization

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Some interventions will be required statewide across roles to expand supply and address equity

Expand educational capacity, particularly in public education institutions and underserved areas

Expand clinical supervision – A significant share of Master's level graduates do not achieve licensure, in part due to lack of clinical supervision opportunities[1]

Recruit and retain faculty, e.g., through incentives

Lower barriers to training – Through scholarships and non-financial completion supports (e.g., childcare, living accommodation, transportation); potentially linked to service obligations

Recruit / retain BH professionals in targeted settings – Through tuition reimbursement, loan repayment with service obligation, or financial incentives to remain long term (e.g., stipends, bonuses)

Integrate behavioral health into primary care: PCPs play an extremely critical role in the behavioral health ecosystem, and primary care teams should be trained on how to treat behavioral health conditions, especially in underserved areas

1. Motivo Health

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In addition, there are interventions outside of HCAI's scope that may be required to achieve workforce and access goals

For discussion: What other interventions are outside of HCAI's scope but needed to move the needle? Who should lead them?

1. Telehealth may not always be useful or appropriate based on client needs

Not exhaustive

Some of these interventions may include:

Financial incentives

- Increase **reimbursement rates**
- Improve **compensation for professionals**, and competitive benefits (e.g., living wage, childcare)
- Lower **tuition** to make programs more accessible to low-income students

Work settings

- Reduce **professional : client ratios** to reduce burnout
- Increase **usage of telehealth** for professionals and clients[1]
- Offer more **part-time** opportunities and **flexible work schedules**

Education, training & scope

- Reduce **administrative barriers** statewide (e.g., Medi-Cal approval process, streamline billing)
- **Standardize pre-requisites** across schools
- Develop **clear career pathways** (e.g., upskilling from certified to licensed roles) and **stackable credentials**
- Expand **scope of practice** (e.g., expanding PMHNP responsibility)
- Alter **curricular content** to allow for more time in the field & provide exposure to working in the public system

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We are also exploring promising, **innovative ideas** for Behavioral Health workforce development that we have not yet considered / discussed

- Innovative interventions related to existing role types that are not currently being modeled
- Innovative interventions related to new role types

Summary | Live input received from the Advisory Group on promising, innovative solutions for BH workforce development

Note: These ideas are not limited to HCAI's own role; for many, other stakeholders are best positioned to lead (e.g., education systems, unions, associations, other CA departments, etc.)

What we heard:

HCAI should primarily focus on what works ("take care of the fundamentals") and then innovate within evidence-based and successful interventions

Serve as a connector and resource:

- Create a resource page dedicated to tracking training programs, certifications and stackable credentials
- Coordinate a statewide strategic plan on reducing behavioral health stigma
- Elevate and educate providers on the certified peer support specialist role
- Influence the expansion of cross-state licensing/certification and reciprocity

Expand educational capacity:

- Collaborate with accreditors to align training curriculum with workforce needs, including field training (outside the classroom) and supervision training (not only focused on direct care)
- Influence schools to teach to the public system / safety net and train more folks for crisis, field-based roles for populations with co-occurring SUDs and MH

Align efforts with an equity lens:

- Influence billing systems to allow for the inclusion of Spanish language notes and documentation
- Create recommendations to influence equity within licensure

<u>For discussion</u>: Is this right? Is anything missing?
We welcome feedback in comments after the presentation.

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5

Turning findings into actionable strategies for specific roles and/or geographies

Considerations for HCAI programming in Behavioral Health

Key considerations:

HCAI will employ a **geographic-specific strategy**, using the model to increase or prioritize funding for areas with the most severe current or projected workforce shortages (e.g., through programs that encourage local service commitments)

Need to support **all components of care delivery model**, with investments in allied health, licensed professionals, as well as integration of behavioral health into primary care

Bundling interventions can support a set of connected activities and can avoid bottlenecks in the pipeline (e.g., funding for training programs bundled with funding for clinical supervision / placement)

Funding across the **professional journey is key**, but areas of focus will be guided by data (e.g., early career pathways, funding for training, retention)

Support **evidence-based** interventions with proven impact (e.g., scholarships) where possible, but reserve funding for innovative programming to test and scale new interventions (e.g., new certified roles)

Funded interventions should both **increase the supply of professionals AND increase equity of access** (e.g., Medi-Cal acceptance, linguistic diversity). For example, special attention to the **public behavioral health system** can enhance equity of access

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Before we review recommended behavioral health interventions, it is important to ground in the programs that HCAI leads or has recently led

HCAI's behavioral health workforce programs

Programs in deep-dives largely reflect existing programs, with additional focus on funding clinical supervision opportunities, engaging retired professionals, incentives to redistribute existing workforce, lowering financial barriers to certification, and peer / mentor networks

Grants to educational providers

- Psychiatry Education Capacity Expansion
- Social Work Training and Fellowship Program (expands MSW programs)
- Training and stipend support for MSW students

Loan repayment programs

- Loan repayment for non-prescribing licensed BH professionals, psychiatrists, and allied health roles

Scholarship programs

- Scholarships for individuals pursuing BH careers, with focus on those who have experienced foster care and/or homelessness as well as CBO employees

Multi-intervention grants for CBOs and Regional Partnerships

- Community Based Organization (CBO) Behavioral Health Workforce Grant Program: Grants for CBOs to recruit, retain, and train their behavioral health employees
- Regional Partnerships: 5-year WET plan for 5 Regional Partnerships in CA for pipeline, scholarship, stipend, loan repayment and retention programs
  - *Note: WET funding will not continue (one-time funding only)*

Pipeline programs for youth

- Youth Mental Health Academy: Mentorship, paid project-based learning, paid internship program for high school students
- Health Careers Exploration Program: Health career conferences / workshops for students
- Health Professions Pathways Program: Recruits and supports students from underrepresented backgrounds to pursue health careers, including grant opportunity for justice system involved youth pipeline

Training primary care physicians on psychiatry

- TNT fellowships: Clinical education for primary care providers to receive advanced training in psychiatry

Certified Wellness Coaches

- Scholarship program to educate and train students to serve as Certified Wellness Coaches and support youth BH
- Employer Support Grant Program to assist CWC employers to recruit and employ the role (e.g., schools)

Programs for other certified BH roles

- Peer Support Specialist Training and Placement Program: Grants with organizations for training and support of Peer Support Specialist
- SUD Earn and Learn: Grants with organizations who provide education and paid job experience for students earning SUD certification

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Deep dives orient data and the potential range of solutions in the roles and geographies where we found the most pressing workforce gaps

The following deep dives are examples of interventions that we think will be effective for specific roles and geographies

We chose role / geography combinations (e.g., RNs in Los Angeles County, Psychiatrists in Northern & Sierra regions) to deep-dive based on **where modeling results and our research showed the most significant workforce gaps**

The potential interventions named are **not representative of HCAI funding commitments, but are meant to generate coordination across the ecosystem of stakeholders and funders** by informing them of interventions that are best suited to close workforce gaps

Deep-dive intervention bundles are **often complemented by statewide interventions** (e.g., education capacity expansion needs to happen across the board and is listed as a statewide strategy for roles, with certain geographies of focus)

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Deep dives | Opportunity to provide feedback

We have done deep-dives for 7 role-geo combinations (see appendix in pre-read); we will walk through two roles live – please flag if there is a specific role the group is most interested in

We would like to provide **an open forum** for feedback, so Council members can **focus on the sections / roles where you individually have the most expertise** (e.g., certified roles)

Your pre-read Appendix includes a more **extensive set of deep dives** – for today's discussion, we'd like to ask the following questions:

- In general, where did you **have questions?**
- What **resonated or may be missing**?
- Are there additional ways we can incorporate **innovative or promising ideas** into our strategy?

We will take comments/questions on other roles at the end of the presentation

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Behavioral Health Summary | Each "deep dive" details key interventions based on identified shortage drivers (1/2)

Non-prescribing licensed clinicians

Statewide approach (~49,000 more needed by 2033)

- Offer **scholarships** for low-income and underserved students to attend relevant graduate programs
- Offer **tuition reimbursement and loan repayment** to existing professionals to help improve retention, prioritizing those in safety net settings (e.g., Medi-Cal providers, counties)
- **Fund clinical supervision opportunities** to lower burden of completing supervision (e.g., revenue replacement for employers / sites, stipends for supervisors or students) and lower barriers to expanding program sizes; if possible, prioritize local students and settings that serve safety net and complex populations
- Expand **education capacity**, especially at public institutions (e.g., CCCs, CSUs, UCs), with investments targeted based on representation data (e.g., public schools in low-income areas)

Detail for San Joaquin Valley and Northern & Sierra regions (~9,000 more needed by 2033)

- Strategy includes statewide interventions with details and scale customized for the region – e.g., specific targets to expand scholarship, tuition reimbursement, clinical supervision opportunities, and educational capacity in San Joaquin Valley *(see deep dive)*

Psychiatrists

Statewide approach (~6,000 more needed by 2033)

- Expand **training capacity** at local psychiatry residency programs or fund new programs, potentially in partnership with public employers (estimated to cost ~$2.5 - 3B to expand residencies to close the gap of ~6,000 by 2033, and likely infeasible as California had ~240 psychiatry residency matches in 2024[1])
- Maintain existing supply by **retaining those close to retiring** and engaging retired professionals (e.g., incentives like hiring more admin, paid time training new professionals)
- **Train PCPs** (including MD, DO, NP, and PA) to integrate BH into primary care, to reduce demand for psychiatrists and promote multidisciplinary care
- *Additionally, HCAI can increase the supply of psychiatric mental health nurse practitioners (PMHNPs) to offset the gap, given this role's ability to independently practice and prescribe*

Detail for Northern & Sierra regions (~300 more needed by 2033)

- Statewide strategy includes statewide interventions with details and scale customized for the region – e.g., specific targets to expand training capacity, retain psychiatrists, and train PCPs in Northern & Sierra (*see deep dive)*

Note: Appendix includes complete role deep dives 1. NRMP Program Results 2020-2024 Main Residency Match

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Behavioral Health Summary | Each "deep dive" details key interventions based on identified shortage drivers (2/2)

Psychiatric Mental Health Nurse Practitioners (PMHNP) statewide (~2,000 more needed by 2029)

- Expand **training capacity**, particularly for upskilling existing NPs (e.g., 1-year postgraduate certificate programs), as well as for highest shortage regions (e.g., Northern & Sierra regions)
- Fund **increased clinical placement opportunities** for students, prioritizing students at public schools and, if possible, students who are from or study in highest shortage regions (e.g., Northern & Sierra regions, Central Coast)

SUD counselors statewide (~3,000 more needed by 2029)

- Offer **scholarships** for low-income and underserved students from highest shortage regions to attend relevant programs (including funding non-financial competition supports such as housing)
- Offer **"Earn and Learn" programs** (e.g., paid internships) to reduce attrition from registered to certified professionals
- Provide incentives to **redistribute existing workforce** from overage to shortage regions – e.g., stipends, signing bonuses (will address maldistribution but will not address statewide shortage)

Peer Support Specialists statewide (~2,500 more needed by 2029)

- **Lower financial barriers** to certification (e.g., training and certification fees)
- **Fund peer / mentor networks** for professionals

Note: Appendix includes complete role deep dives

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Example deep-dive to walk-through in live discussion
(remainder in appendix – option to choose other(s) for live discussion)

Non-prescribing licensed clinicians in San Joaquin Valley and Northern & Sierra regions

Preliminary

Summary

Increasing supply and diversity of non-prescribing licensed clinicians in San Joaquin Valley and Northern & Sierra regions

Region: San Joaquin Valley, Northern & Sierra regions
- Counties with most significant gaps in current state are Sierra, Lake, Merced

Role(s): Non-prescribing licensed clinicians (e.g., LCSW)

Time period: 9 years

Potential investment required: TBD

Equity: Key disparities include Asian, Latine, American Indian, Pacific Islander, Asian & Pacific Island language-speaking, Other Indo-European language-speaking, Spanish-speaking professionals

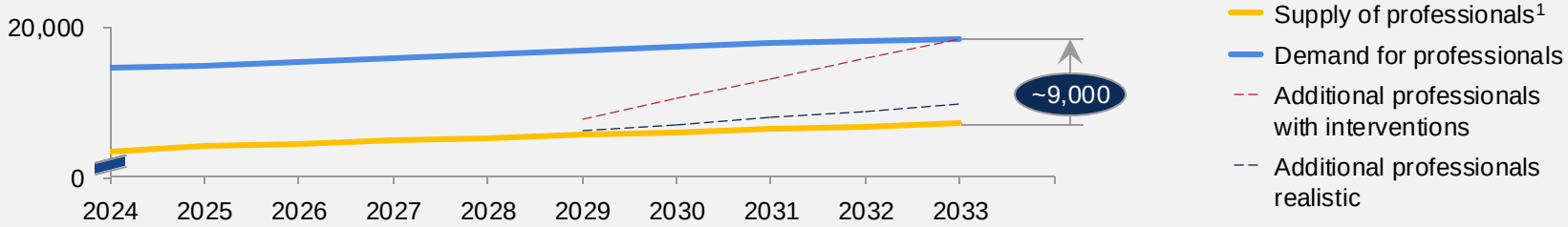
HCAI has, or had, an existing program for intervention

Forecasted supply and demand

Ratio of professionals to population <1.0 indicates disparity

Key professional-to-population disparities:
- ~0.7 representation for Latine professionals in San Joaquin Valley; ~0.6 in Northern & Sierra regions
- ~0.6 representation for Spanish-speaking professionals in Northern & Sierra regions

non-prescribing licensed clinicians in San Joaquin Valley and Northern & Sierra regions



*By **2029**, we will **need ~9,000 more non-prescribing licensed clinicians in San Joaquin Valley and Northern & Sierra regions** to meet forecasted demand, a gap that it likely to persist until 2033*

We conducted deep-dives on the following intervention options:

Intervention #1: Offer **scholarships** for low-income and underserved students from San Joaquin Valley and Northern & Sierra regions to attend relevant graduate programs, prioritizing students who are from and study in San Joaquin Valley and Northern & Sierra regions (to support "grow your own" efforts) and those speaking languages with disparities
- **Target to close the gap**: Support ~9,000 students over the next 9 years
  - **Realistic target:** ~1,500 – 2,000 additional students over the next 9 years, given current number of completions / graduates in San Joaquin Valley and Northern & Sierra regions as well as historical growth rates of completions[2]

Intervention #2: Offer **tuition reimbursement and loan repayment** to existing professionals in San Joaquin and Northern & Sierra regions to improve retention, prioritizing safety net settings (e.g., Medi-Cal providers, counties) and those speaking languages with disparities
- **Target to close the gap:** Support ~7k professionals (roughly all existing professionals)
  - **Realistic target:** ~2 – 3k professionals, limited to professionals estimated exit supply who also have student loan debt

Intervention #3: Fund **clinical supervision** opportunities to lower burden of completing supervision (e.g., revenue replacement for employers / sites, stipends for supervisors or students) and lower barriers to expanding program sizes; if possible, prioritize local students and settings that serve safety net and complex populations to support "grow your own" efforts
- **Target to close the gap:** Support ~9,000 students / associate professionals over the next 9 years
  - **Realistic target:** ~1,500 – 2,000 additional students over the next 9 years

Intervention #4: Expand education capacity, especially at public institutions (e.g., CCCs, CSUs, UCs), with investments targeted based on representation data (e.g., public schools in low-income areas)
- **Target to close the gap:** Support ~9,000 additional professionals over the next 9 years
  - **Realistic target:** ~1,500 – 2,000 additional students over the next 9 years, needing 300 – 400 additional slots, assuming it takes ~4 years to complete graduate education and supervision / experience needed to qualify for licensing

1. Includes pipeline, as projected supply 2. IPEDS

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Example deep-dive to walk-through in live discussion
(remainder in appendix – option to choose other(s) for live discussion)

SUD Counselors statewide

Preliminary

Summary

Increasing supply and diversity of Substance Use Disorder Counselors statewide

Region: Statewide
- In current state, all regions have a shortage except Inland Empire and Sacramento
- The regions with most significant gaps in current state are Greater Bay Area, San Diego Area, LA County

Role(s): SUD counselors

Time period: 5 years

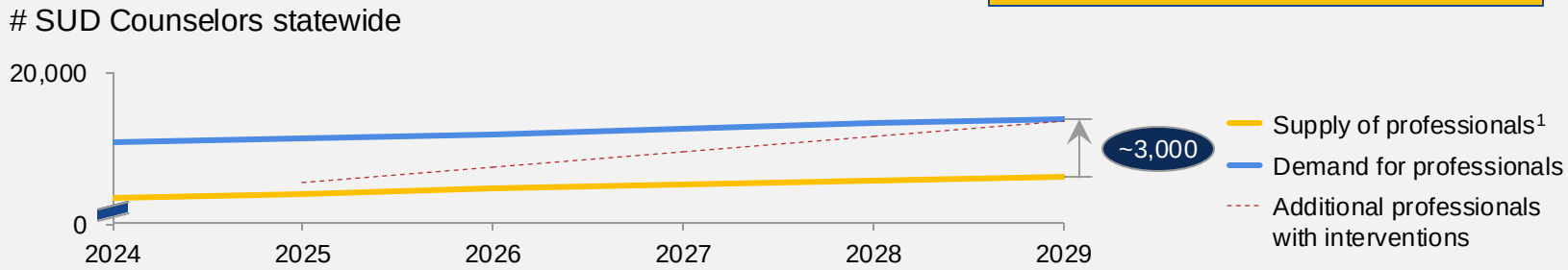
Potential investment required: TBD

Equity: SUD Counselors are generally more diverse than other BH professional types; key disparities include Asian and Latine professionals

HCAI has, or had, an existing program for intervention

Key professional-to-population disparities[2]:
- **Asian**: ~2% of SUD Counselors; ~15% of CA population
- **Latine**: ~22% of SUD Counselors; ~40% of CA population

Forecasted supply and demand



*By **2029**, we will **need ~3,000 more SUD counselors statewide** to meet forecasted demand*

We conducted deep-dives on the following intervention options:

- **Intervention #1:** Offer **scholarships** for low-income and underserved students from highest shortage regions to attend relevant programs (including funding non-financial competition supports such as housing)
  - **Target to close the gap**: Support ~3,000 students over the next 5 years
- **Intervention #2:** Offer **"Earn and Learn" programs** (e.g., paid internships, registered apprenticeships) to reduce attrition from registered to certified professionals
  - **Target:** Support ~3,000 students / registered counselors over the next 5 years
- **Intervention #3:** Provide **incentives to redistribute existing workforce** from surplus to shortage regions[3] – e.g., signing bonuses, stipends to individuals (will address maldistribution but will not address statewide shortage)
  - **Target:** Support ~300 existing professionals (forecasted surplus across all surplus regions in 2029)

1. Includes pipeline, as projected supply
2. Data obtained from California Consortium of Addiction Programs and Professionals (largest certifying entity for SUD Counselors in California) and extrapolated to represent whole population of SUD Counselors in California. Data accessed May 2024.
3. Some maldistribution of SUD counselors exists across California, with several regions having surpluses (Inland Empire, Sacramento) while other regions have shortages (e.g., San Joaquin Valley, Bay Area, Los Angeles County, San Diego).

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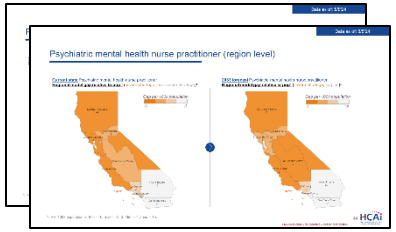
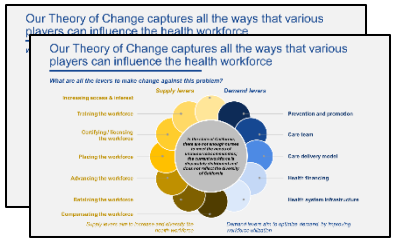
The deep-dives and local strategies are supported by a comprehensive range of supporting analyses and materials

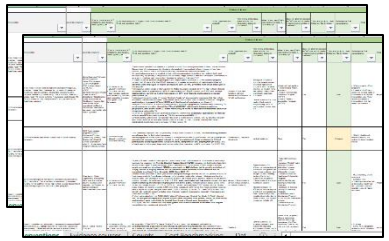
What we've completed



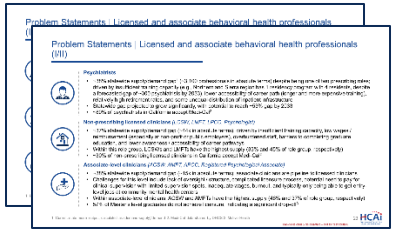
Model results at region, county, SPA level for all sets of roles



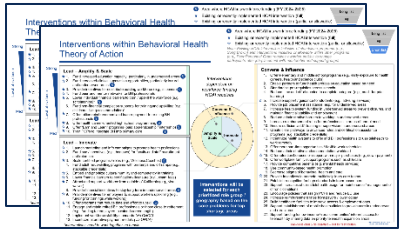
Theory of Change framework



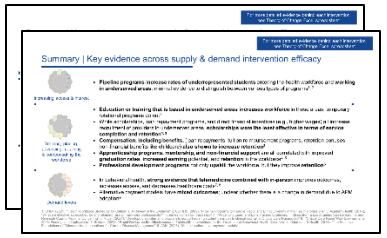
Theory of Change Excel detailing 90+ interventions, including evidence, requirements to implement, owners, metrics, and more



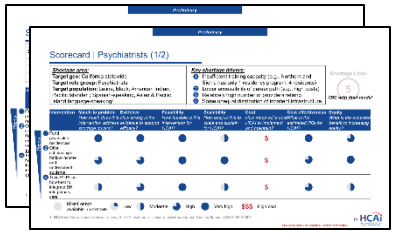
Problem statement for each role, with quantified gap and shortage drivers



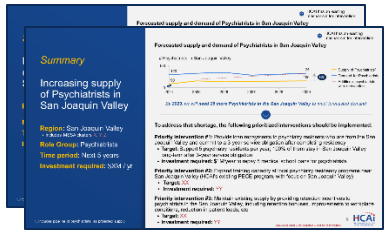
Theory of Action has menu of 40+ options for interventions



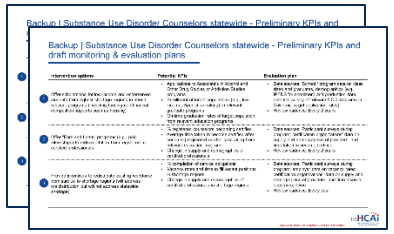
More detailed evidence review for 40+ interventions within Theory of Action



10+ role and geo-specific scorecards matching shortage drivers to interventions from ToA

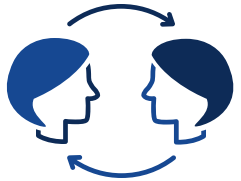


12 deep-dives on role/geo combinations with greatest shortages



Monitoring and evaluation plans for 30+ interventions within deep-dives

With more interviews planned



***170+** stakeholders engaged via interviews, focus groups, forums, etc.*

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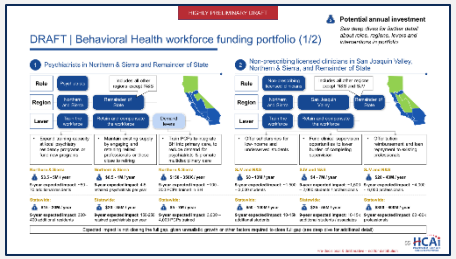
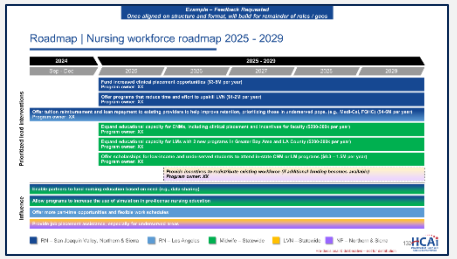
Additional analyses underway

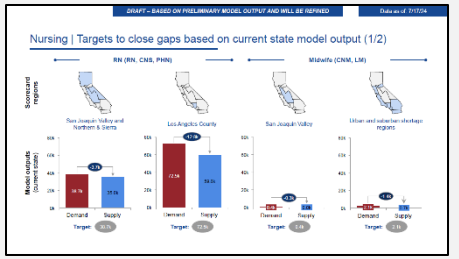
In progress



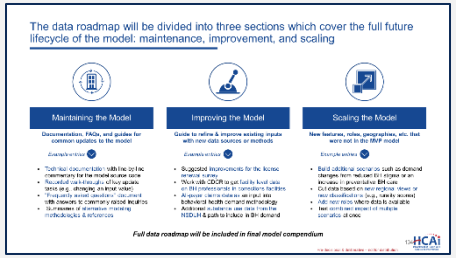
Funding scenarios and program implications



Roadmaps for interventions

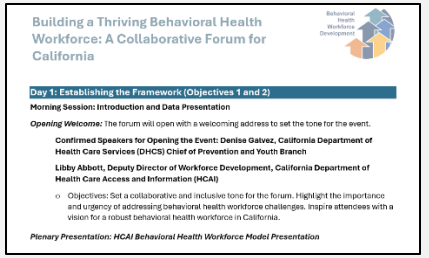


Targets by role to close workforce gaps



Data roadmap

Tracking tools (e.g., funding, KPIs)



Detailed communications plan for strategy socialization

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We are very excited to **connect these findings** to be able to better direct our **programs and grant making**

Over the next few months, in coordination with this Council and other agencies, we'll continue to share and analyze the findings, **detail our strategy and begin to apply the learnings to our programming**

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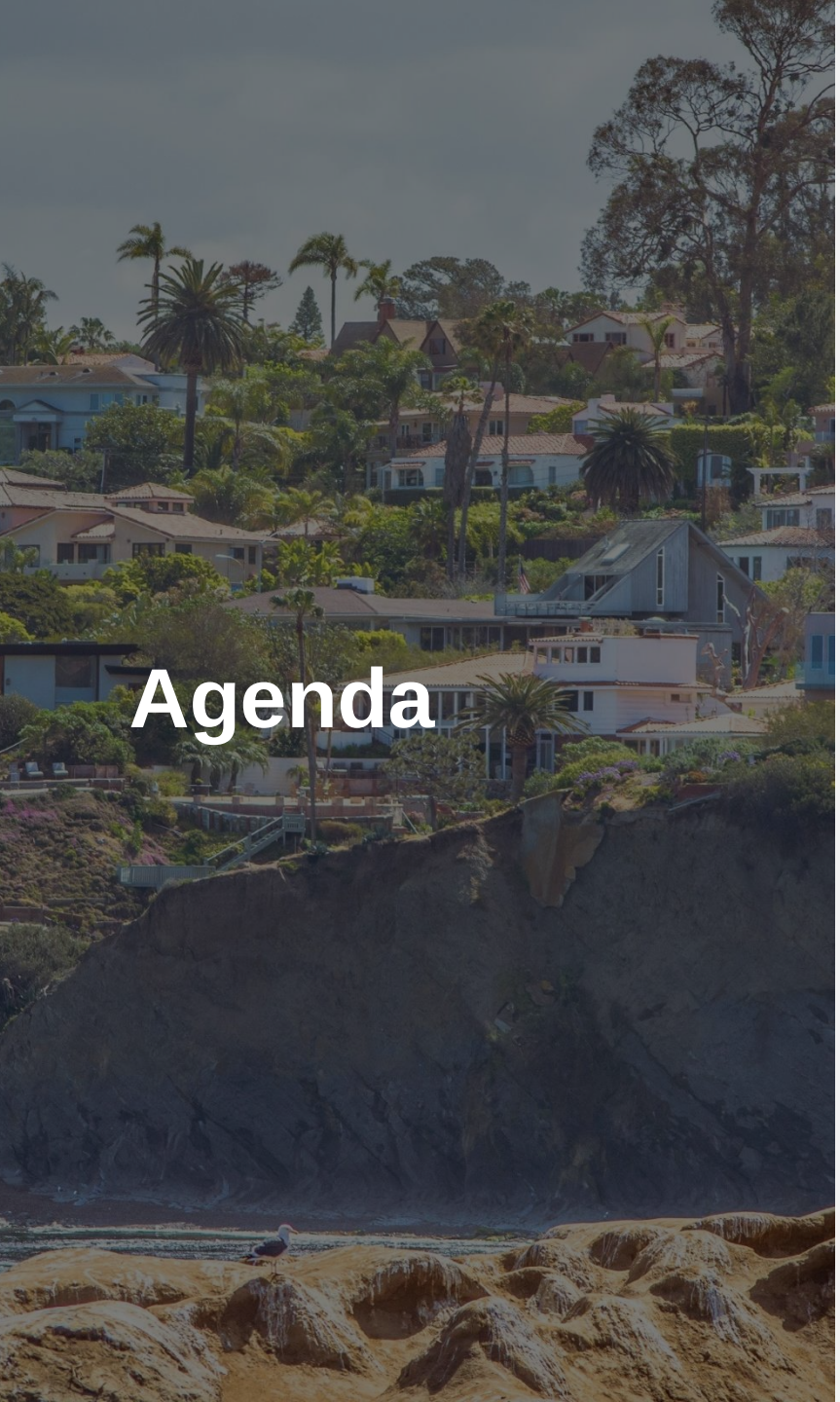
Agenda Item 6:

Detailed review of nursing workforce strategy

Facilitator: HCAI



Agenda

Overview of supply / demand model

- Summary of supply and demand model to identify critical workforce gaps

Detailed review of behavioral health workforce strategy

- Behavioral health findings and preliminary supply / demand modeling results by role
- Deep dive on behavioral health strategy, including specific interventions for roles and geographies

Detailed review of nursing workforce strategy

- Nursing findings and preliminary supply / demand modeling results by role
- Deep dive on nursing strategy, including specific interventions for roles and geographies

Our ask of you

Engage in discussion, think about your entity's role in the strategy, and share relevant knowledge

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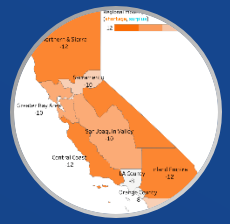
1

Nursing: Findings and preliminary supply / demand modeling results by role

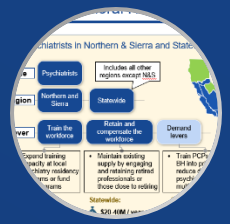
Summary of findings | Nursing Workforce



Registered Nurses, Midwives and Nurse Anesthetists have a **statewide shortage** with some regional variations. **Northern & Sierra** regions face a shortage of all nursing roles, and **San Joaquin Valley** faces a shortage of all roles except Licensed Vocational Nurses. There are **racial and linguistic disparities** between populations and providers.

Gaps are largely driven by **insufficient education and clinical placement capacity** to accommodate all qualified applicants, and **insufficient upskilling opportunities** in some cases (e.g., RN to midwife, LVN to RN).

Additionally, **maldistribution exists across nursing roles** today, with some roles (Nurse Practitioners, Licensed Vocational Nurses) facing shortages in certain regions but sufficient supply in others. **Registered Nurses have a statewide shortage, but some regions have a surplus, also suggesting maldistribution**.



HCAI should take a **multi-pronged approach to supporting the nursing workforce**, including significant investments in **expanding training capacity, clinical placement opportunities, retention, scholarships, and upskilling,** with a focus on equity to ensure the workforce reflects California's diversity.

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Recall | The model assessed roles, geographies, and populations to understand the workforce shortage for roles with data

What **roles** are facing a shortage?

What **geographies** in California?

What **populations** (e.g., racial, linguistic)?

Summary | Model findings on **roles**

Maldistribution of nurses creates regional shortages for almost all roles: Shortages in some regions and overages in others for registered nurses, midwives, nurse practitioners, and licensed vocational nurses (e.g., RNs in San Joaquin Valley)

RNs and midwives face statewide shortages:

- RNs face a ~2% supply/demand gap statewide
- Midwives face a ~17% supply/demand gap statewide, with largest gaps in San Joaquin Valley, Inland Empire, and Northern and Sierra regions

Gaps projected to continue: Gaps forecasted to persist and even widen in some cases (e.g., RNs), and slightly shrink for midwives

Data Gaps: Data on demand by specialty (e.g., for NPs) is not available, but would help further break down any gaps

For discussion: What stands out among these findings? How will you approach interventions for the nursing workforce, given this regional variation?

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With the findings from our model and associated research, we can better clarify role-specific 'Problem Statements' to direct our work (1/2)

Registered Nurses *(Registered Nurse, Public Health Nurse, Clinical Nurse Specialist)*

- ~2% statewide supply/demand gap[1] (~4,700 in absolute terms) with some regions showing an overage of RNs (e.g., Greater Bay Area, Orange County, Sacramento, and San Diego) & other regions a gap (e.g., Northern and Sierra regions, San Joaquin Valley, Los Angeles County) – **suggesting maldistribution**
- **Based on middle of projected confidence interval, statewide gap forecasted to grow slightly, but remain moderate overall**, reaching ~11% by 2029 (~37k RNs) and ~16% by 2033 (~60k RNs); gap is mainly driven by increased demand due to aging population, while **variation in assumptions of current workforce retention & education capacity could significantly reduce that gap**[2]
- Forecast suggests an additional ~10-11k slots needed to close the gap by 2033 (~50% of gap closed by 2029); in order to quickly produce a diverse workforce, ADN programs should be prioritized
- In San Joaquin Valley and Northern & Sierra, gaps are driven by insufficient training capacity (didactic and clinical), relatively low wages, overburdened staff, limited voluntary migration to areas, and insufficient LVN upskilling in San Joaquin Valley despite LVN surplus
- In Los Angeles County, gaps are driven by high concentration of health infrastructure, high cost of living, and poor working conditions (e.g., patient load, admin burden), especially in community and safety net hospitals
- Experts and providers also cited long commute times for this role (e.g., from Inland Empire to Los Angeles County), which may explain some surplus vs shortage region imbalances
- Latine providers are underrepresented vs the CA population (~17% of providers vs 40% of CA's population is Latine)
- Spanish-speaking providers are underrepresented (~14% of providers speak Spanish vs 28% of CA's population speaks Spanish at home)

Midwives *(Certified Nurse Midwife, Licensed Midwife)*

- **~17% statewide supply/demand** gap[1] (~150 in absolute terms), **with largest gaps in San Joaquin Valley, Inland Empire and Northern & Sierra regions**
  - Statewide gap projected to slightly shrink, at ~13% by 2029 (~120 providers) and ~11% by 2033 (~100 providers), driven primarily by lower demand
  - Licensed midwife supply has grown (~25% increase 2016-2022) while the supply of certified nurse midwives has stayed flat
- Modeled demand based on need for maternity care overall (including OB-GYNs) with midwives serving a portion of that need
- Gaps are driven by insufficient training capacity (didactic and clinical), differing interest in rural vs urban locations, insufficient supply and upskilling of RNs to become CNMs and retention (burnout, challenging work conditions, high retirement rates)
- CNMs are nearly all in hospitals, while LMs tend to be in other settings such as home birth (split is largely a function of where they have traditionally worked)
- There is only 1 certified nurse midwife training program in operation in CA; 0 active licensed midwifery programs; to reach the ideal number of midwives, California will need ~120 additional midwives by 2029, suggesting an additional ~15-20 CNM and ~10-15 LM training spots needed to close the gap by 2029, ~5 – 10 additional CNM and ~5 – 10 LM training spots needed to close the gap by 2033[4] (as gap shrinks, and more cohorts have time to complete training)
- Asian and Latine providers are underrepresented across CNM and LM; Black, Pacific Islander, or American Indian Licensed Midwives are significantly underrepresented, indicating a significant disparity in those populations.
- ~35% of Certified Nurse Midwives and ~20% of Licensed Midwives speak Spanish, which is generally in-line with CA's population (well represented for CNM)

1. Current state (2022) model output, calculated as (demand-supply)/demand 2. Note: UCSF 2023 forecast show statewide RN gap closing by 2027 3. HCAI CA Health Workforce Education Pathways dashboard 4. Assumes same split of CNMs and LMs as today (60% vs 40%) and CNM and LM FTEs are equivalent

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With the findings from our model and associated research, we can better clarify role-specific 'Problem Statements' to direct our work (2/2)

Certified Registered Nurse Anesthetists (CRNA)

- *Given CRNA demand best understood as need for anesthesia services and could be combined with anesthesiologist demand, shortage drivers were not explored for this role. The absolute number of providers is also very low (~1,630 providers in current state), so small shifts make the difference between surplus and shortage at the regional level.*
- Latine, Black and Spanish-speaking providers are underrepresented relative to the CA population

Nurse Practitioners

- **Regional maldistribution of nurse practitioners today** with Northern & Sierra regions experiencing a shortage while supply meets or exceeds demand in other regions; statewide overage of ~3,670 providers, or ~24% of demand[1] today, but forecasted to significantly narrow reaching just ~5% overage by 2033; Latine providers are underrepresented relative to the CA population (~15% of NPs vs ~40% of CA's population); Spanish-speaking providers are also underrepresented
- **Note**: *Given the under-utilization of NPs in primary care settings and the fact that our data is based on historical practice patterns, this could overstate this statewide "surplus" and a shift in care models could drive greater need for NPs*
- ***Model also does not break down NPs by specialty**, so employers may experience shortages of certain NP specialties, despite statewide results*

Licensed Vocational Nurses

- Statewide overage of licensed vocational nurses (surplus of ~4,120 providers, or ~6% of demand[1]), with **maldistribution across regions** (e.g., Northern and Sierra regions, Central Coast, Los Angeles County face supply-demand gaps while San Joaquin Valley and Inland Empire have surpluses); statewide surplus forecasted to continue
- Some regions with overage of LVN correlate with RN shortage (e.g., San Joaquin Valley), suggesting LVNs could be upskilled to fill RN gap
- LVNs have the lowest wages across nursing roles examined (~$77k annual mean wage)[2]
- LVNs have the lowest share of White providers across nursing roles examined (~18%) and are largely at parity in all other races (except for a slight underrepresentation in Latine providers)
- ~25% of LVNs speak Spanish vs ~28% of CA's population speaks Spanish at home – indicating close to parity

1. Current state (2022) model output, calculated as (demand-supply)/demand 2. BLS May 2023 California OEWS; Salary.com; Indeed.com; Glassdoor.com

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California Statewide | Nursing gaps by role

Role	Current state (2022) gap	2029 forecast gap	2033 forecast gap	Gap trend
Registered Nurse	**2%** (~ 5K)	**12%** (~ 40k)	**19%** (~ 68K)	↑
Licensed Vocational Nurse	**-6%** (~ -4K)	**-5%** (~ -4k)	**-4%** (~ -3K)	—
Nurse Practitioner	**-24%** (~ -4K)	**-12%** (~ -3k)	**-5%** (~ -1K)	↑
Nurse Anesthetist	**23%** (~ 0.5K)	**14%** (~ 0.3k)	**9%** (~ 0.2K)	↓
Midwives (CNM & LM)	**17%** (~ 0.2K)	**13%** (~ 0.1k)	**11%** (~ 0.1K)	↓

↑ *Worsening gap or decreasing surplus* — *Steady gap or surplus* ↓ *Improving gap or widening surplus*

Note: Negative gap implies 'surplus'

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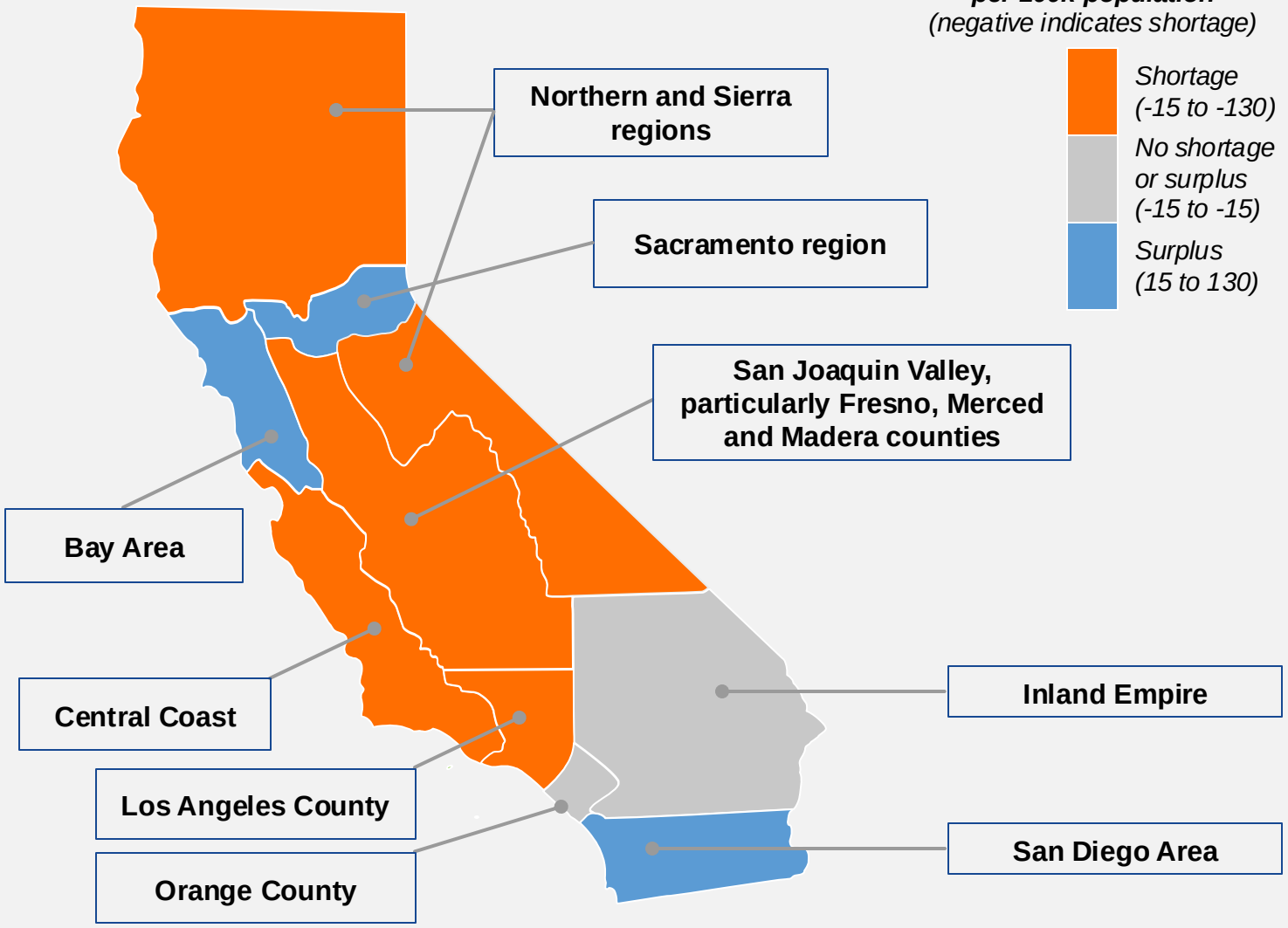
Summary | Model findings on RN regional shortages & surplus

*Shortages in **Northern and Sierra regions, San Joaquin Valley, & LA County**; overall statewide shortfall is small at around 2%*

Registered nurse workforce shortages & surplus
(4 regions shows registered nurse shortages)



Note: Appendix includes regional shortage maps for other roles

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Summary | Model findings on populations

Racial representation of providers is imbalanced relative to population

- Latine providers are underrepresented across all roles relative to their population percentage
- Black providers are likely underrepresented across RN, CNS, nurse anesthetist and licensed midwife roles (e.g., 0% of HCAI license renewal survey respondents were Black)[1]

Language barriers persist across the workforce

- Spanish-speaking providers are underrepresented in all roles except certified nurse midwives
- Asian and Pacific Island language-speaking providers are well-represented in most roles relative to the population, except for nurse anesthetists and midwives

1. 2022 – 2024 HCAI Survey of Race and Ethnicity of California's Health Workforce

Observations across roles and geographies

These observations were the foundation for our statewide strategy

Although there are **nursing shortages in some roles and geographies** (e.g., RNs in San Joaquin Valley), there is currently a significant maldistribution at the regional level. For the **largest roles** we see:

- **RNs:** ~2% statewide supply/demand gap[1] (~4,700 in absolute terms) with some regions showing a surplus (e.g., Greater Bay Area) and other regions with a gap (e.g., San Joaquin Valley, Northern & Sierra regions, and Los Angeles County); the gap may reach ~11% by 2029 if it falls in the middle of the forecast confidence interval
- **NPs:** Maldistribution with shortage of NPs in Northern & Sierra regions. Statewide supply exceeds demand by ~3,600 providers, or ~24% of demand today, but that overage is forecasted to significantly decrease narrowing to just ~5% by 2033
- **LVNs:** Statewide surplus (surplus of ~4,100 providers, or ~6% of demand), with maldistribution across regions

A **range of drivers emerged** which point to **potential solutions and interventions:**

- Across areas with current and projected shortages, **educational capacity emerged as a leading constraint**, with additional bottlenecks at specific training steps especially **clinical placements** for students in the public system
- **Imbalances across roles** (e.g., LVN surplus in San Joaquin Valley but RN shortage) point to **opportunity for upskilling** (which also offers economic mobility)
- **Retention problems** especially in safety net settings, driven by low wages, overburdened staff (e.g., high patient load), workplace violence, admin burden, etc.
- **High cost of living**, especially in Los Angeles County and for nursing roles with lower wages (e.g., LVN), which indicates **financial support for providers is needed**
- **Maldistribution** can potentially be alleviated via incentives to **redistribute existing workforce** (e.g., loan repayment) and **stay long-term in underserved areas**

1. Current state (2022) model output, calculated as (demand-supply)/demand

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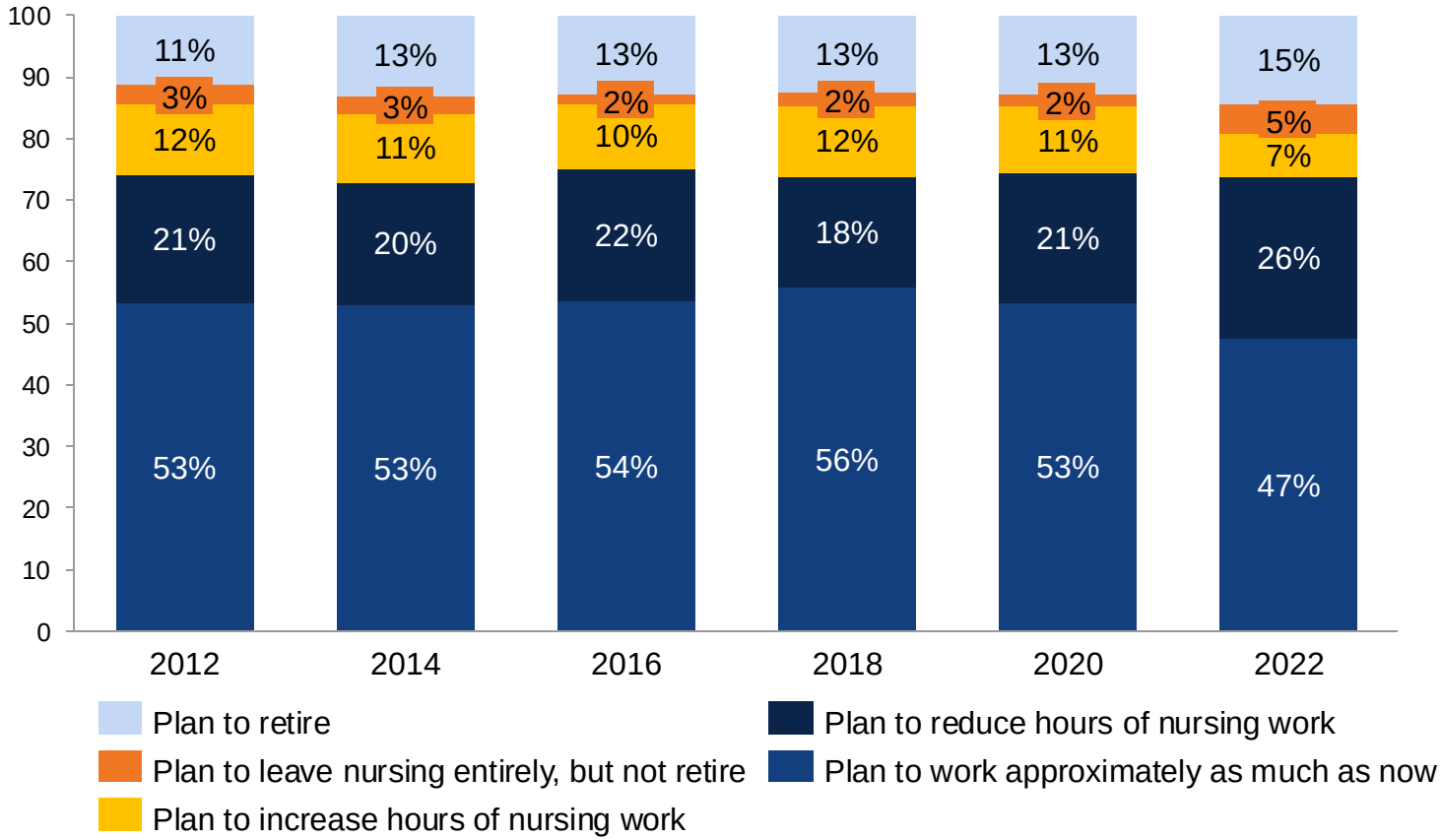
Addressing nurse retention is crucial to mitigate the impact of declining retention rates on nursing shortages according to BRN survey of registered nurses

Plans for the next five years of RNs who resided in California and were employed in nursing, by survey year



Greater share (~26%) of RNs **planning to reduce the hours they work** in 2022 vs previous years

Growing share of RNs plan to retire or leave nursing entirely for another vocation

Percentage of RNs planning to **maintain the hours they work decreased significantly** from 2020 to 2022

Critical that HCAI and its partners prioritize retention strategies to prevent worsening shortages**. Given the limited nursing retention budget for FY24-25, we **aim to enable partners to lead in this effort.

Source: California BRN 2022 Survey of California Registered Nurses by Joanne Spetz & Lela Chu

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3

Turning findings into actionable strategies for specific roles and/or geographies

Before exploring findings and potential interventions, it is important to ground in the nursing programs that HCAI leads or has recently led

HCAI's nursing workforce programs

Ongoing programs

Song-Brown suite of programs (~$2.7M in funding for FY 24-25)

- Education capacity funding to train a range of nursing roles (e.g., NPs, midwives, RNs)

Reproductive Healthcare Access Initiative (one-time funding in FY 22-23, no funding in FY 24-25)

- Scholarship and loan repayment programs for advanced practice nurses, RNs, LVNs, CNMs, and licensed midwives
- California Reproductive Health Service Corps: Statewide consortium that creates new and expanded training pathways and fills provider gaps; open to a range of nursing roles

Scholarship and loan repayment programs (~$2.3M in funding for FY 24-25)

- Individuals pursuing nursing careers, including ADN degrees, LVN degrees, LVN to ADN degrees, and BSN degrees

Retired programs

CNA training programs (e.g., Leading Age Gateway-In Project)

- Training, wraparound service, financial support, job placement assistance, incentives for career growth, and more – programs include CNAs

Home and Community Based Services (HCBS)

- Caring4Cal: Training, coaching and financial incentives to grow the home and community-based care workforce

HCAI's nursing dollars have decreased significantly for the upcoming year (nursing program funding was over $60M in FY 2023-24 and over $100M in FY 2022-2023). Going forward, HCAI will need to be thoughtful about how to target earmarked funds in a limited funding environment and how best to partner with other entities.

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Key considerations for HCAI programming in Nursing

Key considerations:

Funding will prioritize candidates or programs who are most likely or have committed to working in **underserved geographies** (while gaps identified in the model should will used to guide this funding, the model will not be used as an ‘exact science’)

Funding will prioritize **roles with the highest shortages** (while gaps identified in the model should will used to guide this funding, the model will not be used as an ‘exact science’)

Funded interventions will be **evidence-based** (e.g., scholarships), or could also be **innovative** (e.g., apprenticeships), when possible

Collaborate with other stakeholders to **coordinate funding efforts**

Where possible, funded interventions should not only **increase supply of providers** but should **increase equity of access / diversity of providers** (e.g., linguistic diversity) such as through known equity pathways (e.g., ADN programs, scholarships, upskilling)

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From the model results, some **nursing** role x geography combinations had especially severe shortages, while others had statewide strategies (e.g., to address maldistribution)

Role / geography combinations with especially severe shortages

- **RNs** – *Northern & Sierra regions, and San Joaquin Valley*
- **RNs** – *LA County*
- **NPs** – *Northern & Sierra regions*

Roles with statewide strategy

- **Licensed Vocational Nurses –** *statewide, focused on redistribution across surplus vs shortage regions*
- **Midwives –** *statewide*

Recall | Deep dives are an opportunity to provide feedback

We have done deep-dives for 5 role-geo combinations (see appendix in pre-read); we will walk through two roles live – please flag if there is a specific role the group is most interested in

We would like to provide **an open forum** for feedback, so Council members can **focus on the sections / roles where you individually have the most expertise** (e.g., midwives)

Your pre-read Appendix includes a more **extensive set of deep dives** – for today's discussion, we'd like to ask the following questions:

- In general, where did you **have questions?**
- What **resonated or may be missing**?
- Are there additional ways we can incorporate **innovative or promising ideas** into our strategy?

We'll take comments/questions on other roles at the presentation's end

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Nursing Summary | Each "deep dive" details key interventions for a role/geo based on identified shortage drivers

Registered nurses

San Joaquin Valley and Northern & Sierra approach (~7,500 more needed by 2029)

- Provide **incentives to redistribute existing workforce** from surplus to shortage regions
- Offer **tuition reimbursement and loan repayment** to existing providers in San Joaquin and Northern & Sierra regions to help improve retention, prioritizing those serving in safety net settings (e.g., Medi-Cal)
- Fund **increased clinical placement opportunities** for students, prioritizing students at public schools and, if possible, students are from San Joaquin Valley or Northern & Sierra regions
- Offer **programs that reduce time and effort to upskill** (e.g., LVN to RN bridge, 30-unit option)
- Expand education capacity, particularly at public institutions (e.g., CCCs, CSUs, UCs), including ADN, BSN, concurrent enrollment

Los Angeles County approach (~12,000 more needed by 2029)

- Offer **tuition reimbursement and loan repayment** to RNs who live and/or work in LA County
- Fund **peer and mentor networks** for RNs who work in LA County to improve retention, prioritizing those serving in safety net settings (e.g., Medi-Cal, FQHC)
- Maintain existing supply by **retaining those close to retiring** and engaging retired providers in Los Angeles County
- Expand **education capacity**, particularly at public institutions (e.g., CCCs, CSUs, UCs), including ADN, BSN, concurrent enrollment

Note: Appendix includes complete role deep dives

Nursing Summary | Each "deep dive" details key interventions for a role/geo based on identified shortage drivers

Nurse Practitioners

Northern & Sierra approach (~900 more needed by 2029)

- Provide **incentives to redistribute existing workforce** from surplus regions to Northern & Sierra regions (e.g., stipends, loan repayment, signing bonuses)
- Provide **financial incentives to stay long term** (>5 years) in Northern & Sierra regions

Licensed Vocational Nurses

Statewide approach (~4,000 more needed by 2029 in California's shortage regions)

- Provide **incentives to redistribute existing workforce** from surplus regions to shortage regions (e.g., stipends, loan repayment, signing bonuses)
- Provide **financial incentives to stay long term** (>5 years) in shortage regions (e.g., Central Coast)

Midwives

Statewide approach (~120 more needed by 2029)

- Expand **educational capacity for CNMs** at existing or new programs, including funding clinical placement opportunities as well as incentives for faculty
- Expand **educational capacity for LMs** with 2 new programs in Greater Bay Area and LA County
- Offer **scholarships for low-income and underserved students** from key shortage areas (e.g., San Joaquin Valley) to in-state CNM or LM programs

Note: Appendix includes complete role deep dives

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Example deep-dive to walk-through in live discussion
(remainder in appendix – option to choose other(s) for live discussion)

RNs in San Joaquin Valley and Northern & Sierra regions

Preliminary

Summary

Increasing supply and diversity of RNs in San Joaquin Valley and Northern & Sierra regions

Region: San Joaquin Valley, Northern & Sierra regions
- Counties with most significant gaps in current state are Modoc, Yuba, Madera

Role(s): RNs

Time period: 5 years

Potential investment required: TBD

Equity: Key disparities include American Indian, Latine, Pacific Islander, Black, Spanish-speaking

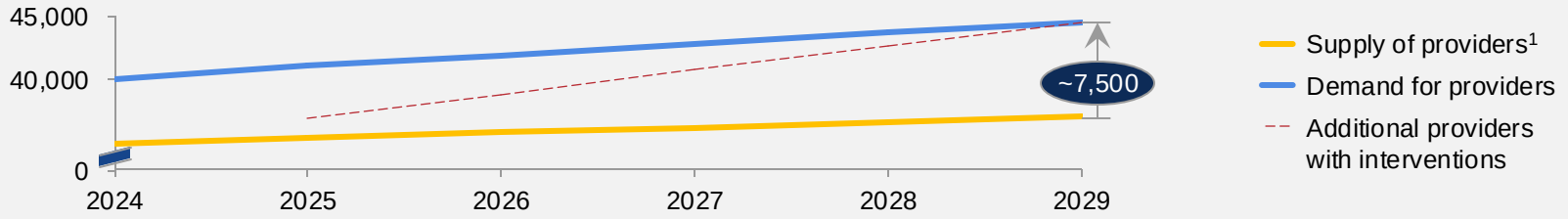
Note: we are continuing to refine targets as we obtain more information about expected impact of interventions

HCAI has, or had, an existing program for intervention

Key professional-to-population disparities:
- ~0.4 representation for Latine providers in San Joaquin Valley; ~0.5 in Northern & Sierra regions
- ~0.4 representation for Spanish-speaking providers in SJV; ~0.7 in Northern & Sierra regions

Forecasted supply and demand

RNs in San Joaquin Valley and Northern & Sierra regions



*By **2029**, we will **need ~7,500 more RNs in San Joaquin Valley and Northern & Sierra** regions to meet forecasted demand*

We conducted deep-dives on the following eco-system intervention options:

Intervention #1: Provide **incentives to redistribute** existing workforce from surplus to shortage regions (e.g., loan repayment, stipends, signing bonuses for RNs in Sacramento to move to Northern & Sierra regions)
- **Target**: Support ~900 providers relocating over 5 years, based on 2029 forecasted surplus in surplus regions

Intervention #2: Offer **tuition reimbursement and loan repayment** to existing providers in San Joaquin and Northern & Sierra regions to help improve retention, prioritizing those serving in safety net settings (e.g., Medi-Cal, FQHC)
- **Target to close gap:** Support ~30k – 40k providers for 2-years or 4-years, retain all existing providers
  - **Realistic target:** Support ~6 – 7k providers, limited to providers estimated exit supply who also have student loan debt

Intervention #3: Fund increased **clinical placements opportunities** for students, prioritizing students attending public nursing programs and, if possible, students are from San Joaquin Valley or Northern & Sierra regions and settings that serve safety net and complex populations
- **Target:** Support ~7,500 additional placement spots over the next 5 years

Intervention #4: Offer programs that **reduce time and effort to upskill** (e.g., LVN to RN bridge, LVN to RN 30-unit)
- **Target:** Support ~1500 LVN upskilling to RN over 5 years, based on expected surplus of LVNs by 2029[2]

Intervention #5: Expand education capacity, particularly at public institutions (e.g., CCCs, CSUs, UCs), including ADN, BSN, and concurrent enrollment programs
- **Target:** Support ~7,500 additional students over the next 5 years, which is an estimated ~1-2k ADN slots and ~3-4k BSN slots, based on current proportions of ADN vs BSN in San Joaquin Valley and Northern & Sierra regions (however, preference should be given to ADN to quickly produce a diverse workforce)[3]

For discussion: What players, funders, and partners would need to be engaged in each intervention?

1. Includes pipeline, as projected supply 2. LVN shortage estimates continue to be refined with commuting patterns 3. HCAI CA Health Workforce Education Pathways dashboard

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Midwives statewide

Preliminary

Summary

Increasing supply and diversity of Midwives statewide

Geography: CA statewide
- Regions with shortages in current state are San Joaquin Valley, Inland Empire, Northern & Sierra regions
- Counties with most significant gaps in current state are Colusa, Yuba, Modoc

Role(s): Midwives

Time period: 5 years

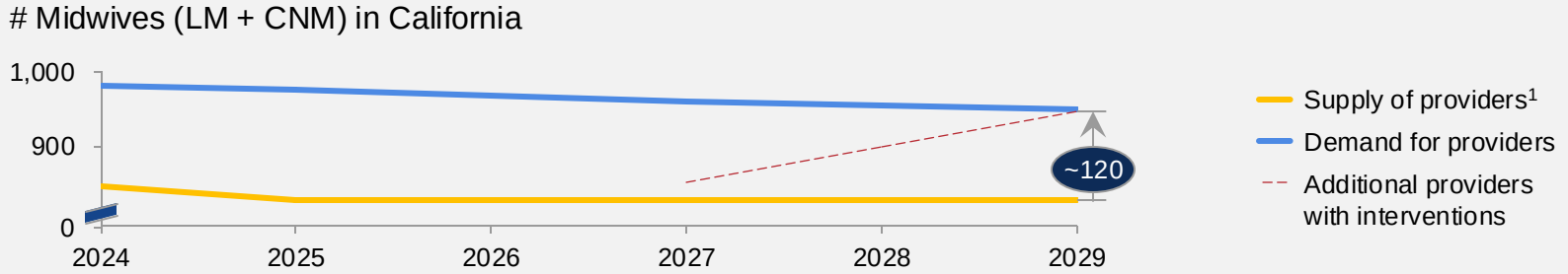
Potential investment required: TBD

Equity: Key disparities include Pacific Islander, American Indian, Asian, Latine, Asian & Pacific Island language-speaking, Other Indo-European language-speaking

HCAI has, or had, an existing program for intervention

Key professional-to-population disparities:
- ~0.4 representation for Latine providers in California; ~0.2 for American Indian; ~0.0 for Pacific Islander
- ~0.2 representation for Asian & Pacific Island language-speaking providers in California

Forecasted supply and demand



*By **2029**, we will **need ~120 more midwives (LM + CNM) across California** to meet forecasted demand*

We conducted deep-dives on the following eco-system intervention options:

Intervention #1: Expand educational capacity at existing or new CNM programs, including funding clinical placement opportunities as well as incentives for faculty
- **Target**: Support ~70 additional CNM spots[2] over 5 years (or 50 – 60 with UCSF midwifery program reopening after it's transition from MSN to DNP)

Intervention #2: Expand educational capacity for LMs with 2 new programs in Greater Bay Area and LA County
- **Target:** Support ~50 additional LM[2] spots over the next 5 years

Intervention #3: Offer **scholarships** for low-income and underserved students from key shortage areas (e.g., San Joaquin Valley, Northern & Sierra regions) to attend in-state CNM or LM programs
- **Target:** Support ~120 students for duration of their program (~70 CNM and ~50 LM[2])

***For discussion:* What players, funders, and partners would need to be engaged in each intervention?**

1. Includes pipeline, as projected supply 2. Assumes same split of CNMs and LMs as today (60% vs 40%) and CNM and LM FTEs are equivalent

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2

What needs to get done

In nursing, where HCAI funds are limited, focus on high impact interventions in areas of greatest need and providing data to partners to support external funding

Expanding public educational capacity in specific geographies: Education capacity in the public system continues to be a challenge with long waitlists and low acceptance rates, especially at community colleges which are in the best position to promote economic mobility and a diverse student body. However, to increase educational slots, faculty shortages and clinical placement must be addressed in parallel.

Tracking and supporting public clinical placement: Clinical placements are consistently cited as a barrier, driving inequities across the public and private systems. Role, setting and geography are all factors in a system which is hampered by little visibility, no data, and unclear ownership at the State level.

Upskilling is part of the solution: Given surpluses in some roles (e.g., LVN), opportunity to upskill existing nurses to fill RN and Midwife roles, which also addresses important racial and linguistic disparities in Advanced Practice areas. Pathways between Associate and employer-preferred Bachelor's degrees may also be important. Partnerships with unions and employers could be an important unlock in this dimension.

Relocation and local retention to address maldistribution: Both relocation incentives or commitments for recent graduates to stay in shortage areas (e.g., service obligations) and safety net settings will be a component of targeting interventions to specific geographies.

Where possible, interventions should be targeted to decrease racial, linguistic, Medi-Cal and other disparities

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In addition, there are interventions outside of HCAI's scope that may be required to achieve workforce and access goals

For discussion: What other interventions are outside of HCAI's scope but others need to do to move the needle? Who should own them?

1. The Future of Nursing: Leading Change, Advancing Health, 2016

Not exhaustive

Some of these interventions may include:

Financial incentives & support

- Increase **reimbursement rates**
- Improve **compensation for providers**, and competitive benefits (e.g., living wage, childcare)
- Lower **tuition costs** to make nursing education more affordable

Work-life balance & job flexibility

- Reduce **provider : patient ratios** to reduce burnout
- Offer more **part-time** opportunities and **flexible work schedules** (e.g., ability to choose shifts or types of shifts)

Administrative & structural improvements

- Reduce **administrative barriers** (e.g., insurance reimbursement models[1])
- **Standardize pre-requisites** across schools (e.g., leverage the forthcoming HealthImpact pre-requisites report) to ease transferring across programs

Education & professional development

- Develop **clear career pathways** (e.g., LVN to RN) and **stackable credentials**
- Alter **curricular content** for educational and clinical programs (e.g., use of simulation) to provide more clinical opportunities in varied settings (e.g., pediatrics, obstetrics, mental health)

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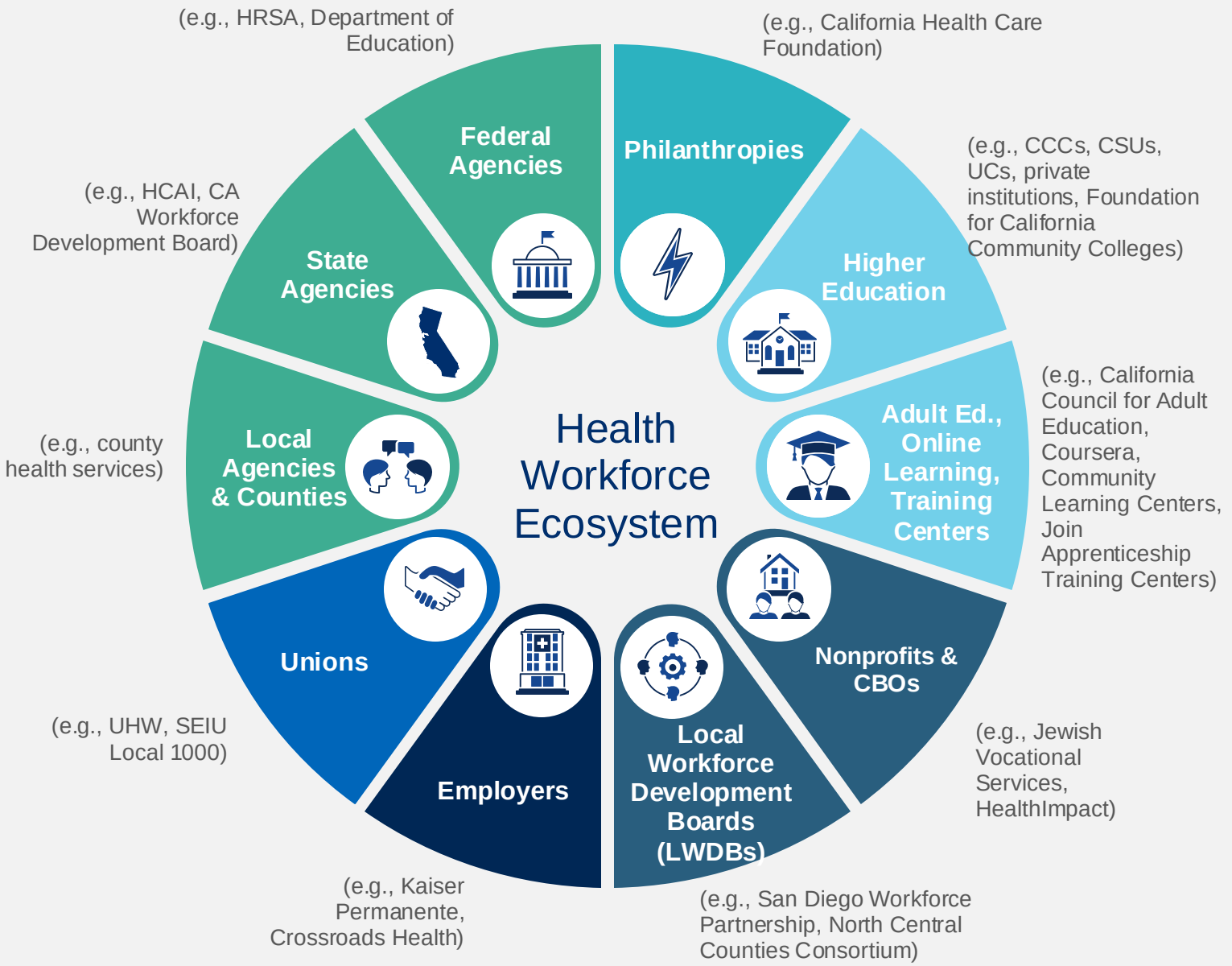

Discussion

What role does each player in the ecosystem need to play to move the needle to address the nursing shortage across California?

- What role should CCCs, CSUs, UCs play in expanding education capacity? What specific barriers can other partners help alleviate (e.g., faculty shortages, space, clinical placement, coordination)?
- How can employers partner with HCAI to generate and share data on nursing shortages and collaborate on shared strategies for retention of nurses?
- Which institutions and funds can be used to support upskilling (e.g., SEIU's LVN-to-RN apprenticeship program)?

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Findings used to provide recommendations for deep-dive nursing interventions that engage all partners, given HCAI's limited funding

Initial funding portfolio is based on HCAI's limited available dollars

We are building a portfolio based on HCAI's available funding to inform how HCAI can best spend its nursing dollars

- *HCAI's limited dollars (<$10M) should target the greatest workforce shortage areas with proven interventions (e.g., education capacity, loan repayment)*

Updated version that is inclusive of all partner needs

We are also developing a recommended funding portfolio for all entities in the nursing workforce ecosystem to collectively address (e.g., specific interventions in specific areas) and forums to collectively discuss path forward (e.g., Council)

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Proposal for how we will use Council as mechanism to bring partners together going forward

We are defining what needs to be shared with partners to enable change, as part of HCAI's influence model. For example:

- *Providing model data on workforce gaps*
- *Sharing demographic overlays with partners, to enable equity focus*
- *Creating feedback loops for specific role/geo-specific strategies*
- *Addressing both demand and supply needs with partners to quickly launch demonstration projects*

HCAI will leverage the Council as its main influence mechanism, by facilitating discussions, determining ownership, and tracking progress against internal goals and broader ecosystem goals. For example:

- *Reporting out on HCAI's program changes and program impact measurement*
- *Facilitating cross-agency discussions and ownership of clinical placement expansion intervention*
- *Using the Council as a forum for HCAI, Council members, and the public to hear and receive updates on key initiatives and commitments to addressing identified gaps*

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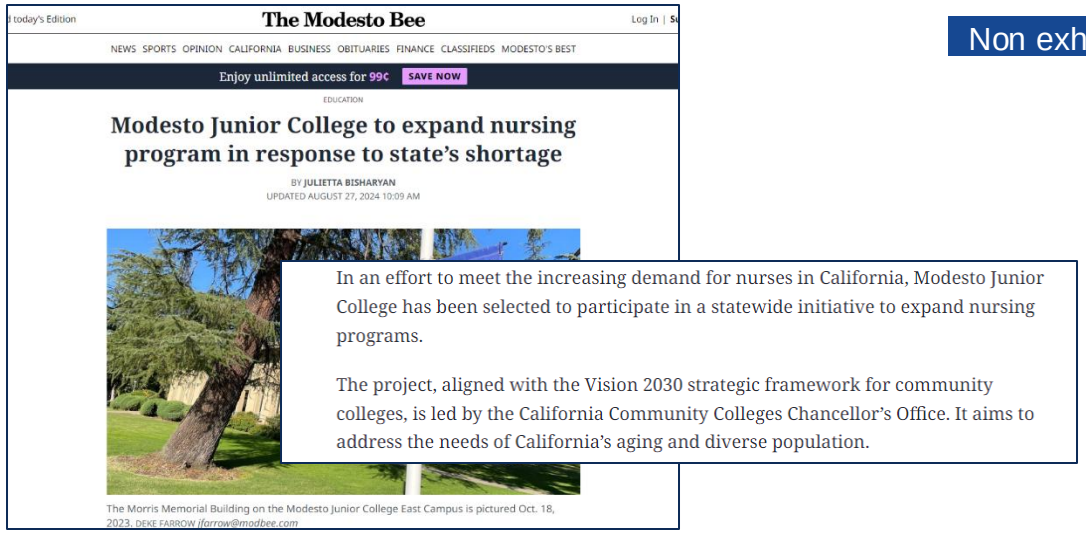
We are starting to work on specific use cases for the modeling results

Use case: a ***practical action*** *(program, funding decision, partnership, etc.)* ***focused on areas of highest need (supply / demand gap, equitable lens)*** *informed by the data and analysis in our model*

For discussion: What are some additional specific opportunities you see for the model results?

Examples of use cases we are starting to work on with partners:

- CCCs leveraging workforce shortage data to understand areas of highest need, for ADN Expansion Demonstration Project, pathways planning, and addressing equity in education
- Organizations using the modeling data to project how changes in workforce supply/demand will impact their long-term strategies (e.g., for their own workforce initiatives)
- Other state agencies seeking recommendations from HCAI on how to allocate their funding (e.g., which interventions, which areas, how many people, what cost), leveraging our data to inform



Non exhaustive

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6

What's coming next

How we are closing out this initial phase of the work

Not exhaustive

Strategy & Implementation:

Providing HCAI with a compendium document with implementation detail on strategy (e.g., roadmaps, tracking tools, change management processes, capabilities required)

*The strategy is a **living document that HCAI will continue to refine** – we will continue to report progress at future council meetings*

Grant-making principles:

Translating the strategy into programmatic implications and considerations for grant making

Key data to inform decisions:

Compiling the data required to make decisions on funding and programming, for HCAI and partners

HCAI's influence model:

Defining HCAI's influence model to enable partners to address workforce shortages in areas HCAI may be unable to (due to scope, limited funding, etc.)

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Next steps

If you would like to share offline feedback on these materials, please email **mancia.ana@bcg.com** with your input by September 20, 2024 at 5pm PT

Our **November Council meeting** will focus on:

- More detail on program implications and principles for grant-making
- Scenario examples that can test impact of various future state assumptions
- Data roadmap

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Appendix

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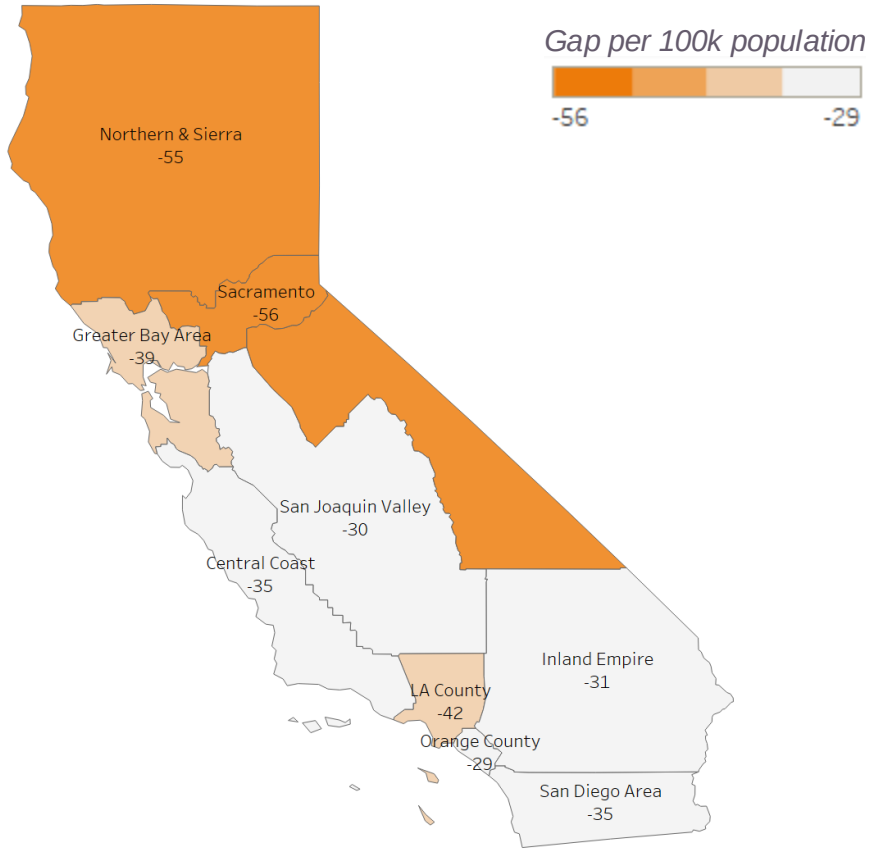
Preliminary supply / demand modeling results by role

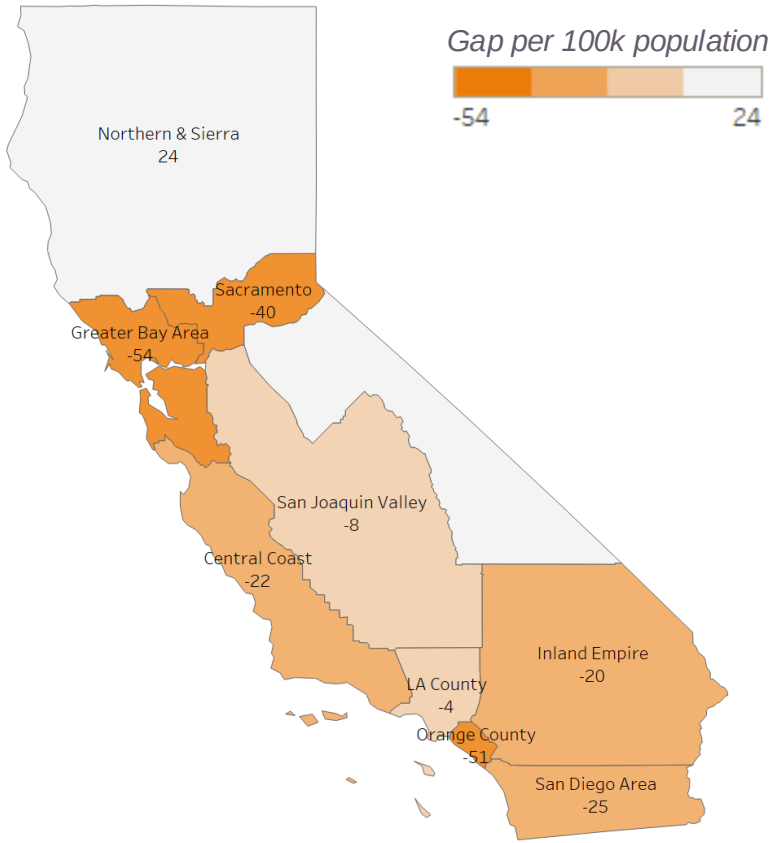
Behavioral Health

Non-prescribing associate level clinicians (region level)

Current state (2022) Non-prescribing associate behavioral health professional
Regional model gap relative to pop [1] (severe shortage, less severe shortage)[2]



2033 forecast Non-prescribing associate behavioral health professional
Regional model gap relative to pop[1] (severe shortage, surplus)[3]



Note: Includes Associate Clinical Social Worker, Associate Marriage and Family Therapist, Associate Professional Clinical Counselor, and Registered Psychological Associate
1. Per 100k population 2. Min = -56, max = -29. 3. Min = -54, max = 24.

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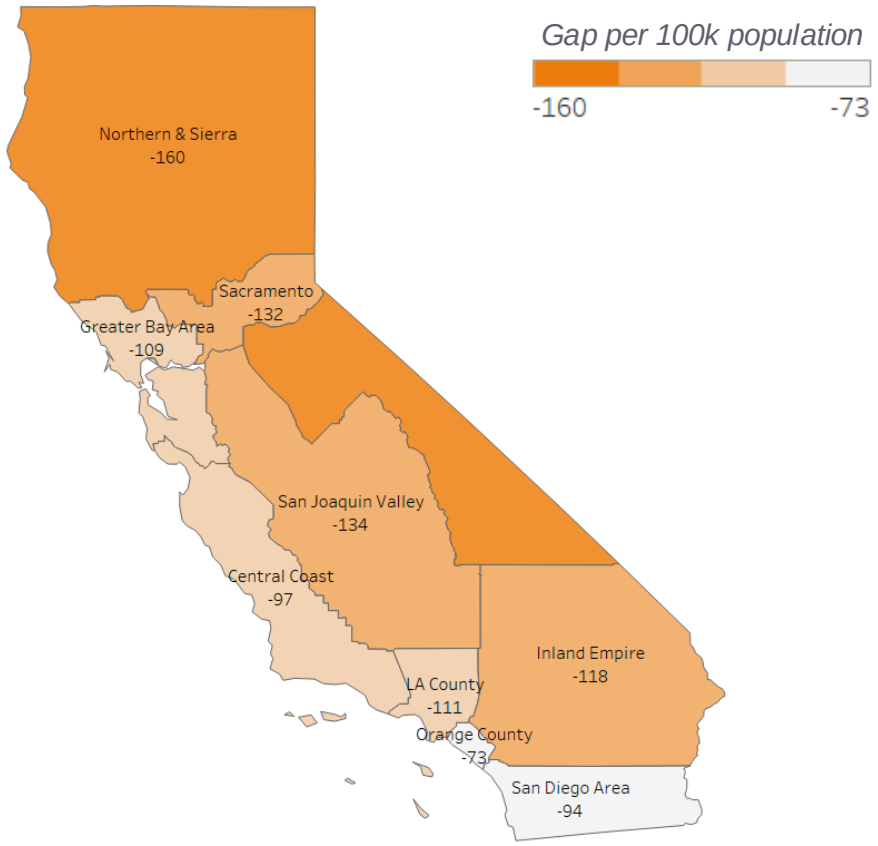
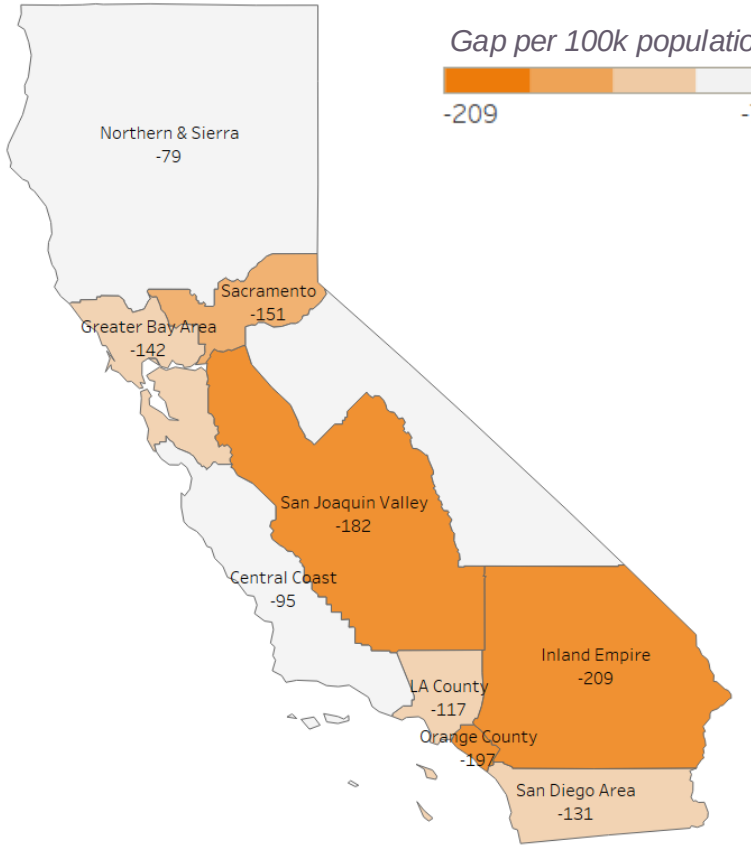
Non-prescribing licensed behavioral health professional (region level)

Current state (2022) Non-prescribing licensed behavioral health professional
Regional model gap relative to pop [1] (severe shortage, less severe shortage)[2]



2033 forecast Non-prescribing licensed behavioral health professional
Regional model gap relative to pop[1] (severe shortage, less severe shortage)[3]



Note: Includes Licensed Clinical Social Worker, Licensed Marriage and Family Therapist, Licensed Professional Clinical Counselor, and Psychologist
1. Per 100k population 2. Min = -160, max = -73. 3. Min = -209, max = -79.

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Licensed educational psychologist (region level)

Current state (2022) License educational psychologist
Regional model gap relative to pop [1] (severe shortage, surplus)[2]

2033 forecast License educational psychologist
Regional model gap relative to pop[1] (severe shortage, surplus)[3]

1. Per 100k population 2. Min = -2, max = 2. 3. Min = -1, max = 1.

Peer support specialist (region level)

Current state (2022) Peer support specialist
Regional model gap relative to pop [1] (severe shortage, less severe shortage)[2]

2033 forecast Peer support specialist
Regional model gap relative to pop[1] (small surplus, larger surplus)[3]

1. Per 100k population 2. Min = -8, max = -6. 3. Min = -5, max = 13.

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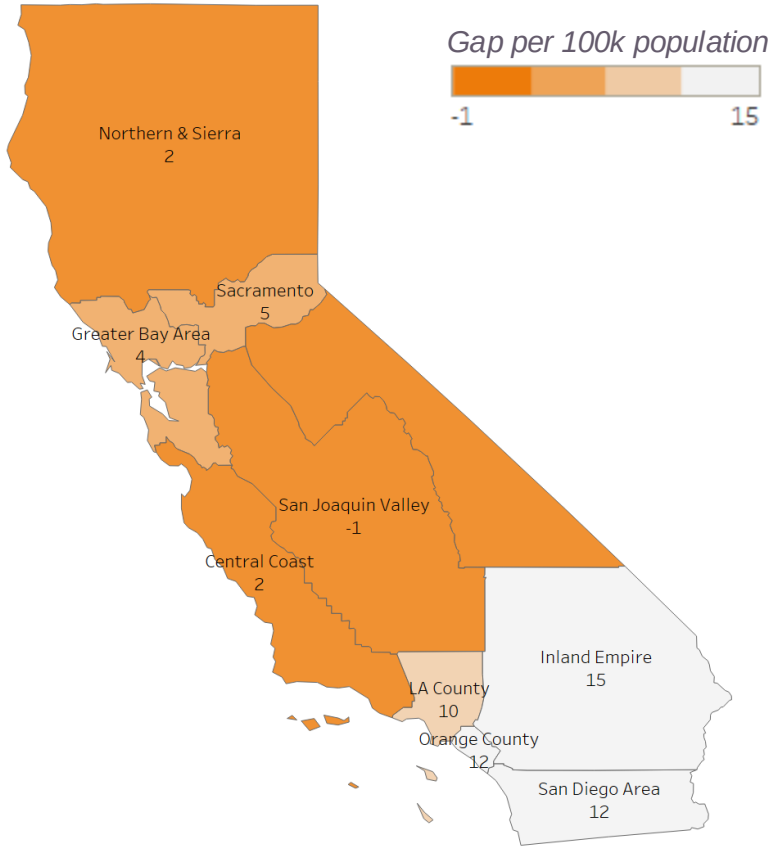
Psychiatric mental health nurse practitioner (region level)

Current state (2022) Psychiatric mental health nurse practitioner
Regional model gap relative to pop [1] (severe shortage, less severe shortage)[2]

2033 forecast Psychiatric mental health nurse practitioner
Regional model gap relative to pop[1] (severe shortage, surplus)[3]



1. Per 100k population 2. Min = -6, max = -3. 3. Min = -1, max = 15.

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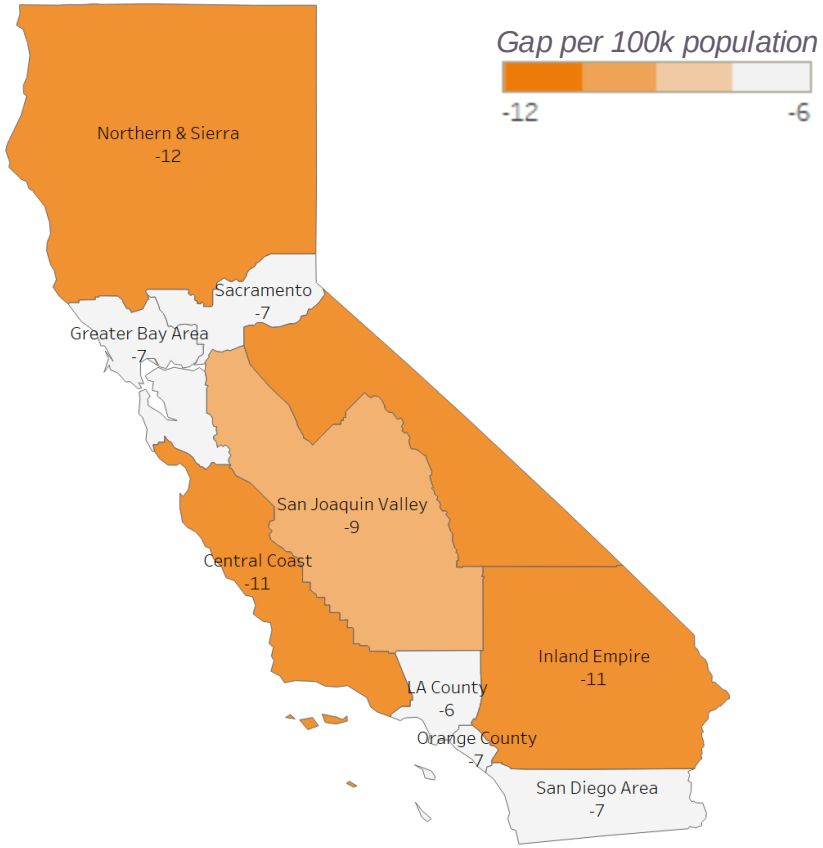
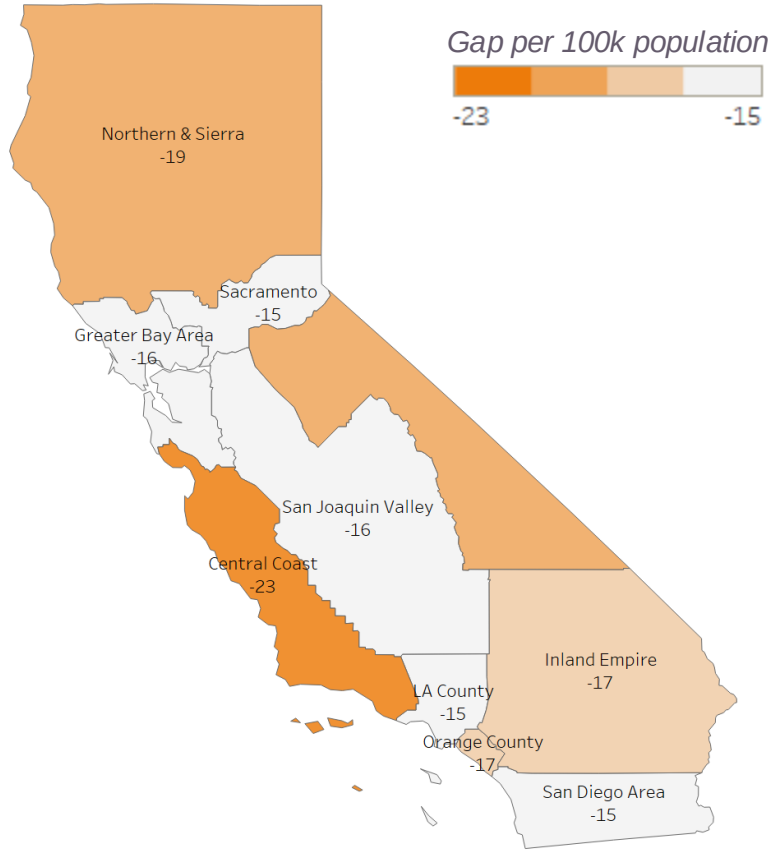
Psychiatrist (region level)

Current state (2022) Psychiatrist
Regional model gap relative to pop [1] (severe shortage, less severe shortage)[2]



2033 forecast Psychiatrist
Regional model gap relative to pop[1] (severe shortage, less severe shortage)[3]



1. Per 100k population 2. Min = -12, max = -6. 3. Min = -23, max = -15.

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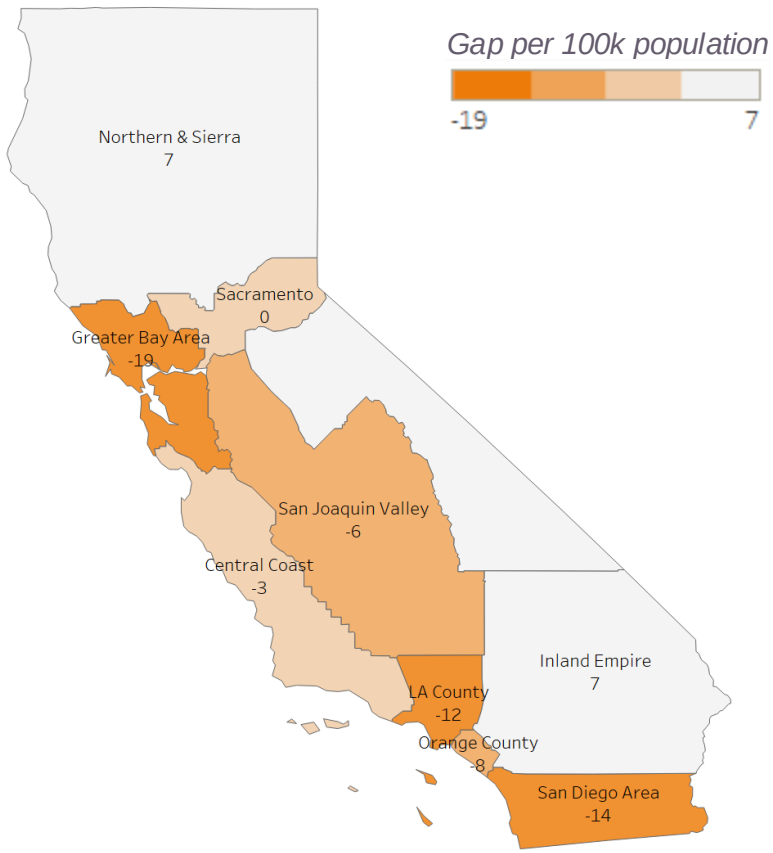
Substance use disorder counselor (region level)

Current state (2022) Substance use disorder counselor
Regional model gap relative to pop [1] (severe shortage, surplus)[2]

2033 forecast Substance use disorder counselor
Regional model gap relative to pop[1] (severe shortage, surplus)[3]



1. Per 100k population 2. Min = -15, max = 6. 3. Min = -19, max = 7.

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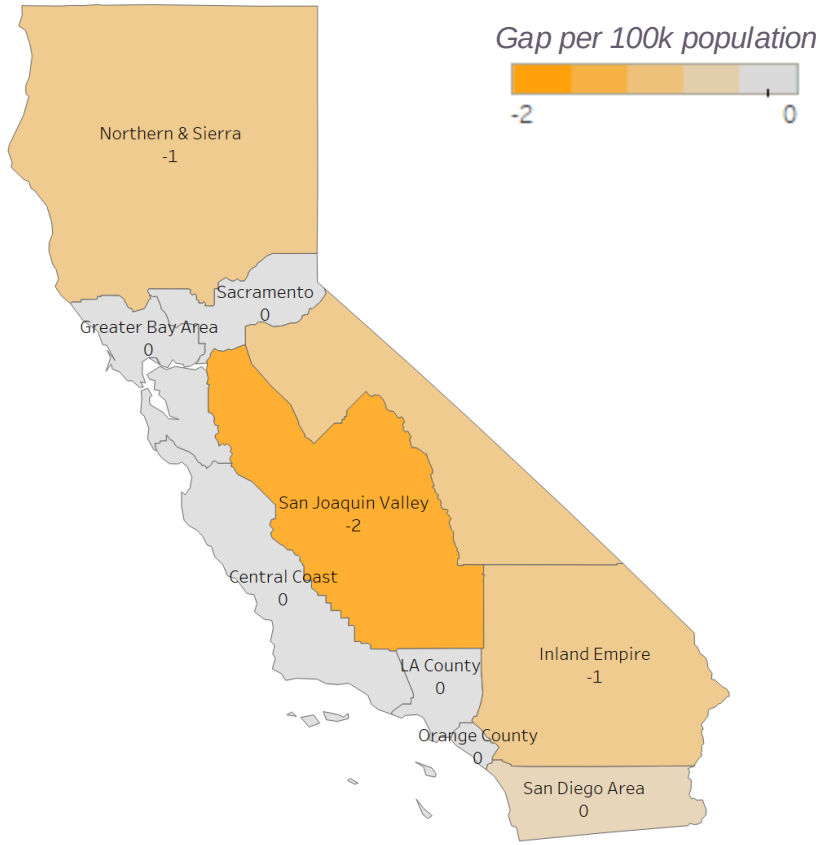
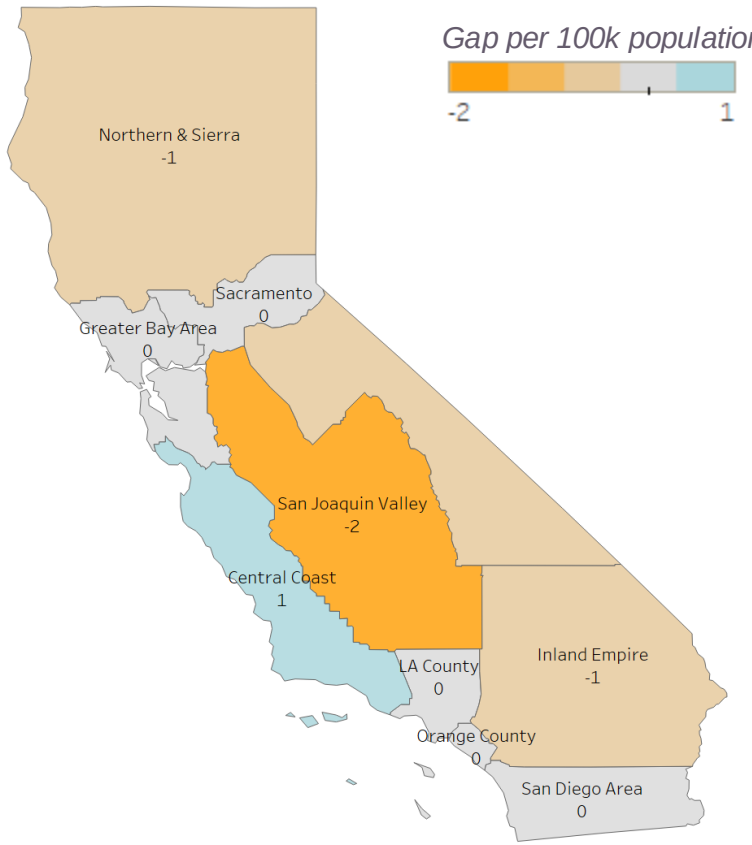
Nursing

Midwives (region level)

Current state (2022) Midwives
Regional model gap relative to pop [1] (shortage, surplus)[2]



2033 forecast Midwives
Regional model gap relative to pop[1] (shortage, surplus)[3]



1. Per 100k population 2. Min = -2, max = 0. 3. Min = -2, max = 1.

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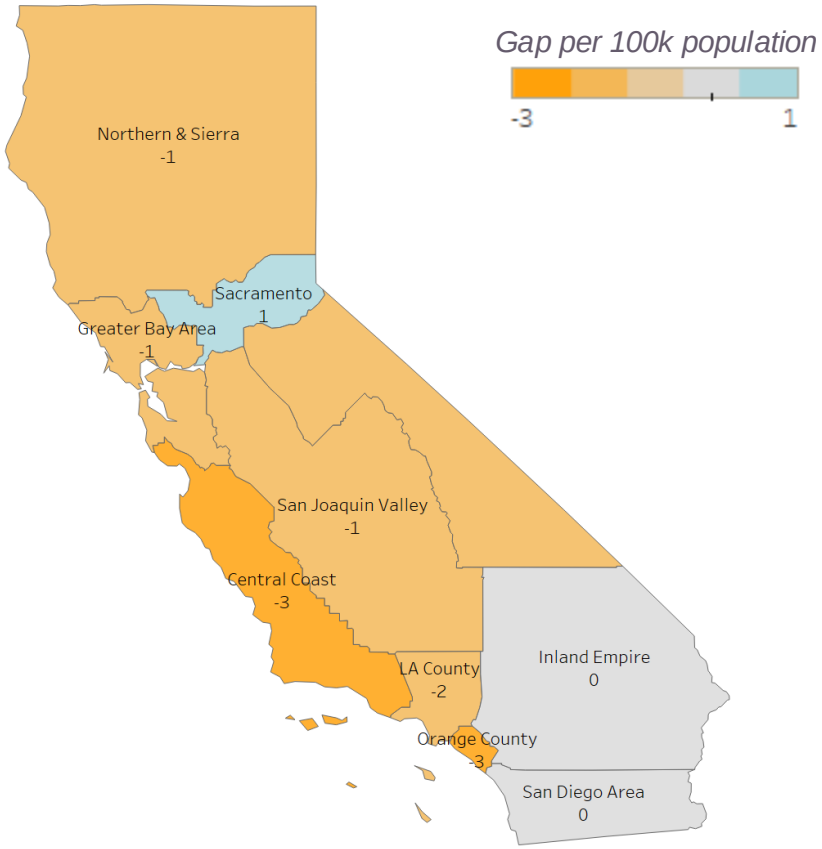
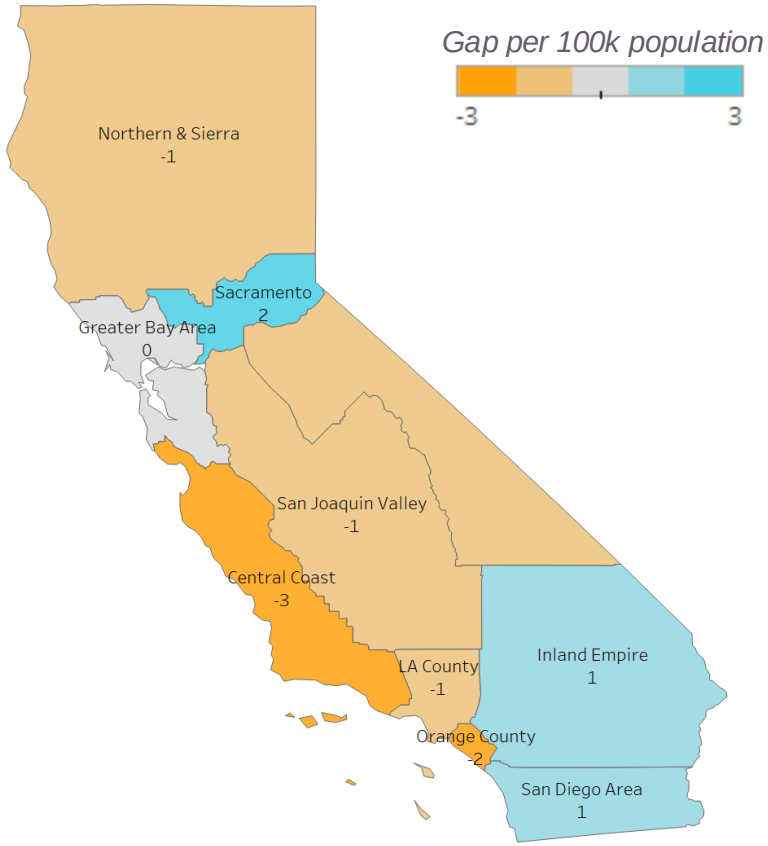
Nurse anesthetist (region level)

Current state (2022) Nurse anesthetist
Regional model gap relative to pop [1] (shortage, surplus)[2]



2033 forecast Nurse anesthetist
Regional model gap relative to pop[1] (shortage, surplus)[3]



1. Per 100k population 2. Min = -3, max = 1. 3. Min = -3, max = 2.

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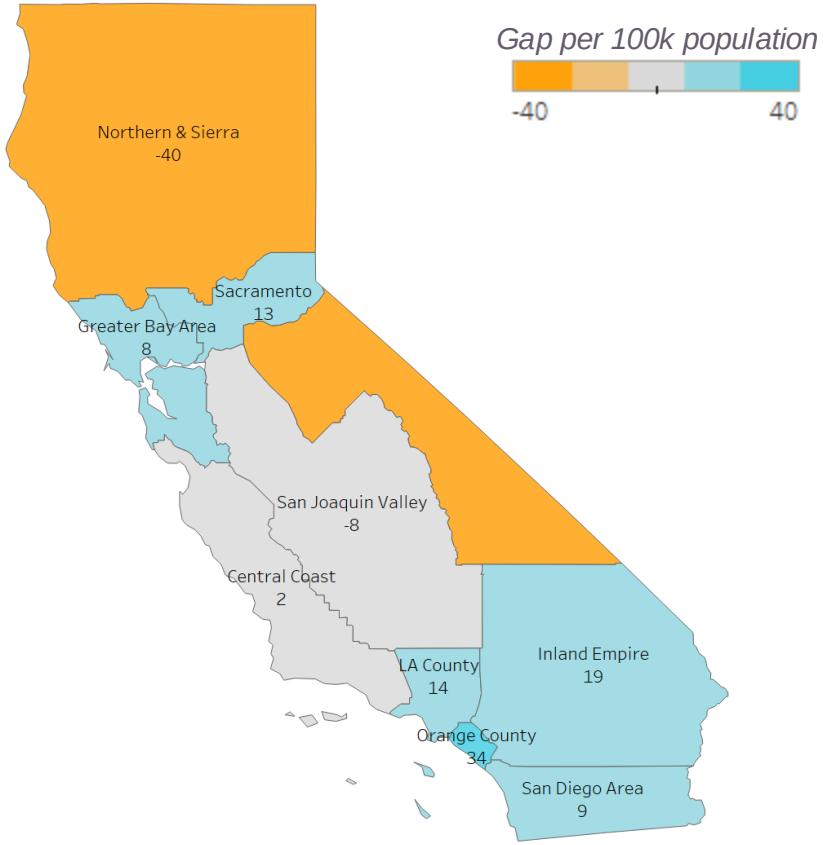
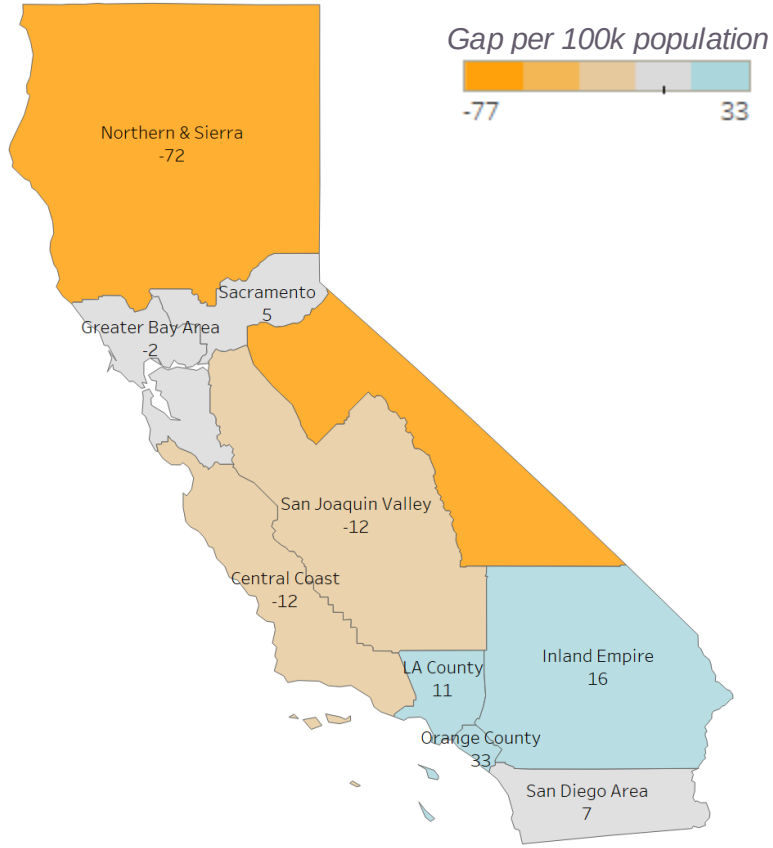
Nurse practitioner (region level)

Current state (2022) Nurse practitioner
Regional model gap relative to pop [1] (shortage, surplus)[2]



2033 forecast Nurse practitioner
Regional model gap relative to pop[1] (shortage, surplus)[3]

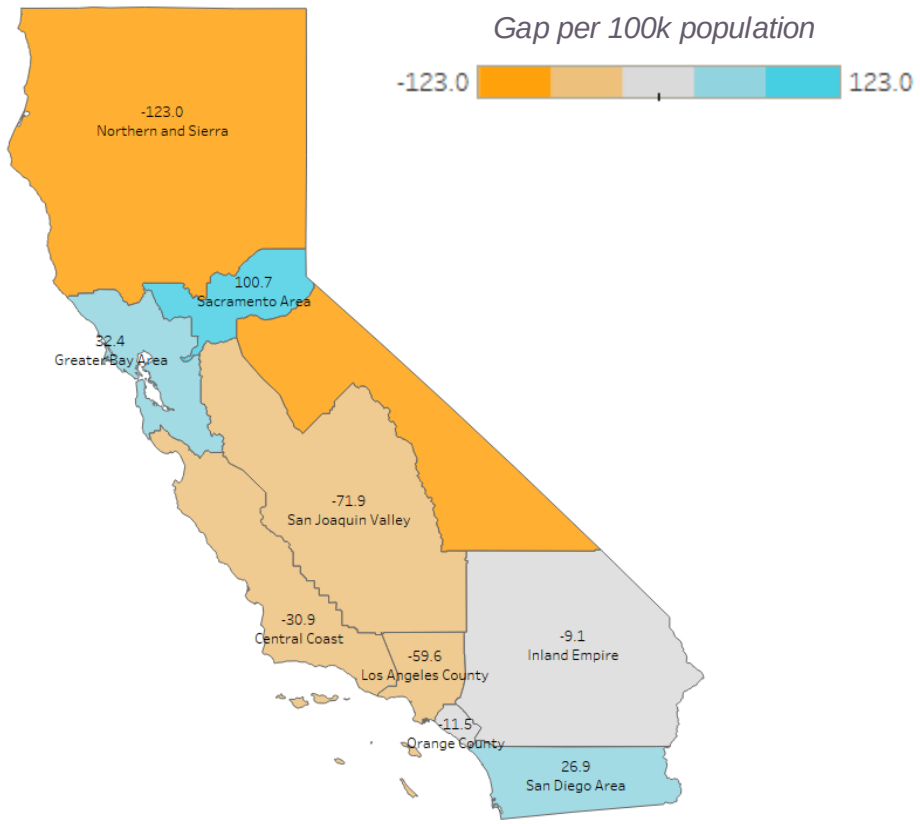


1. Per 100k population 2. Min = -40, max = 34. 3. Min = -72, max = 33.

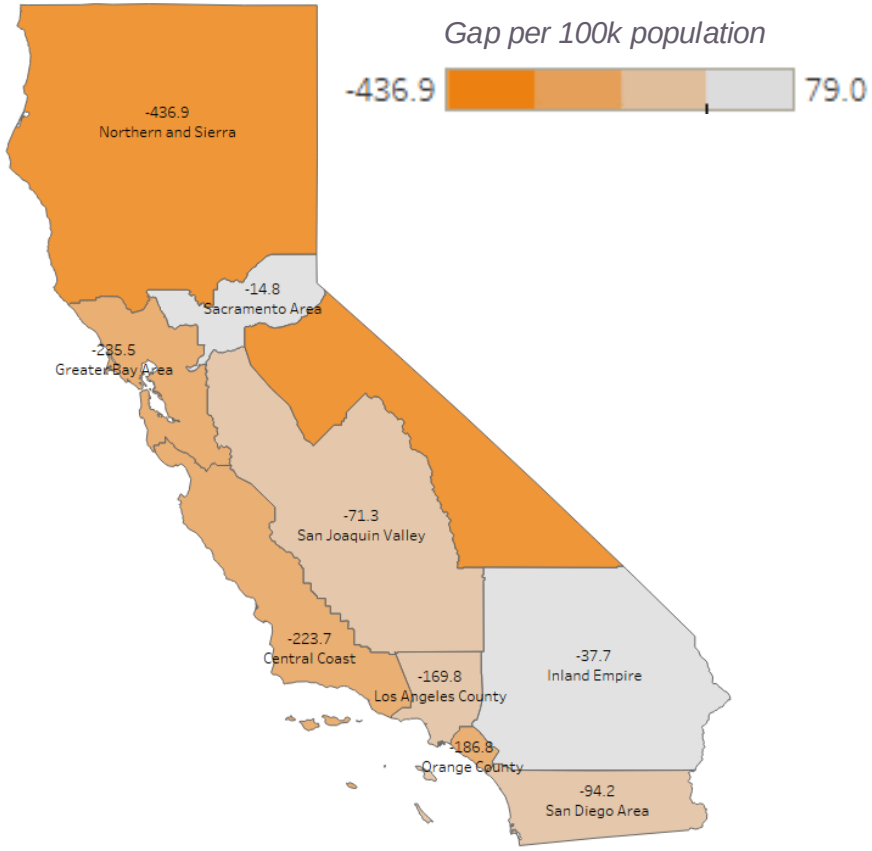
Registered nurse (region level)

Note: RN supply has been adjusted based on commute pattern data from HCAI license renewal survey. Other roles have not yet been adjusted.

Current state (2022) Registered nurse
Regional model gap relative to pop [1] (shortage, surplus)[2]



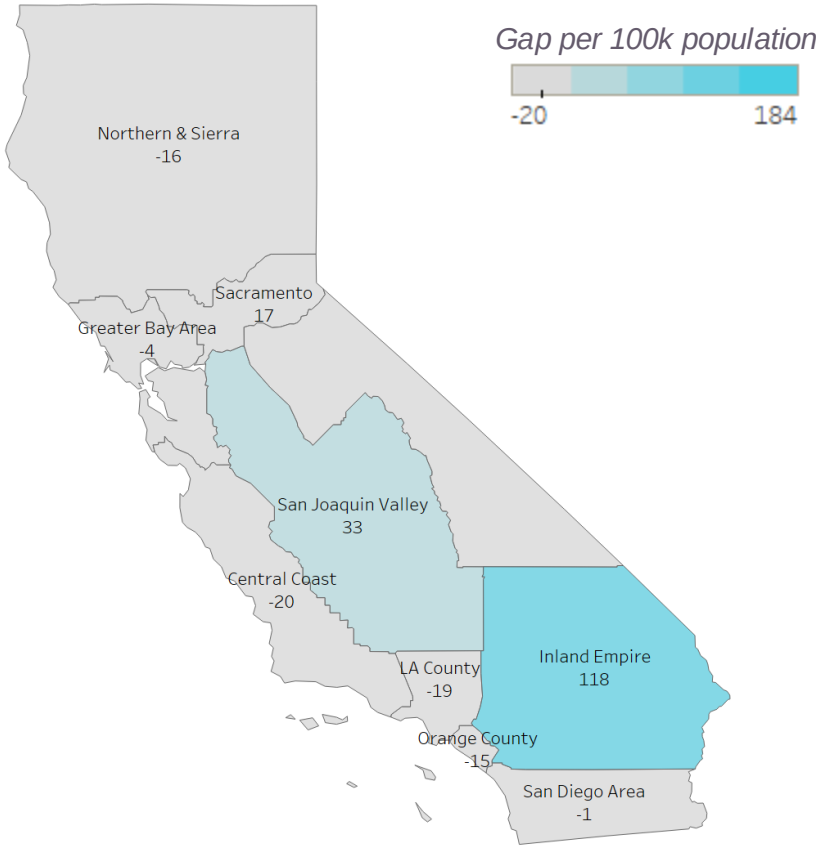
2033 forecast Registered nurse
Regional model gap relative to pop[1] (shortage, surplus)[3]



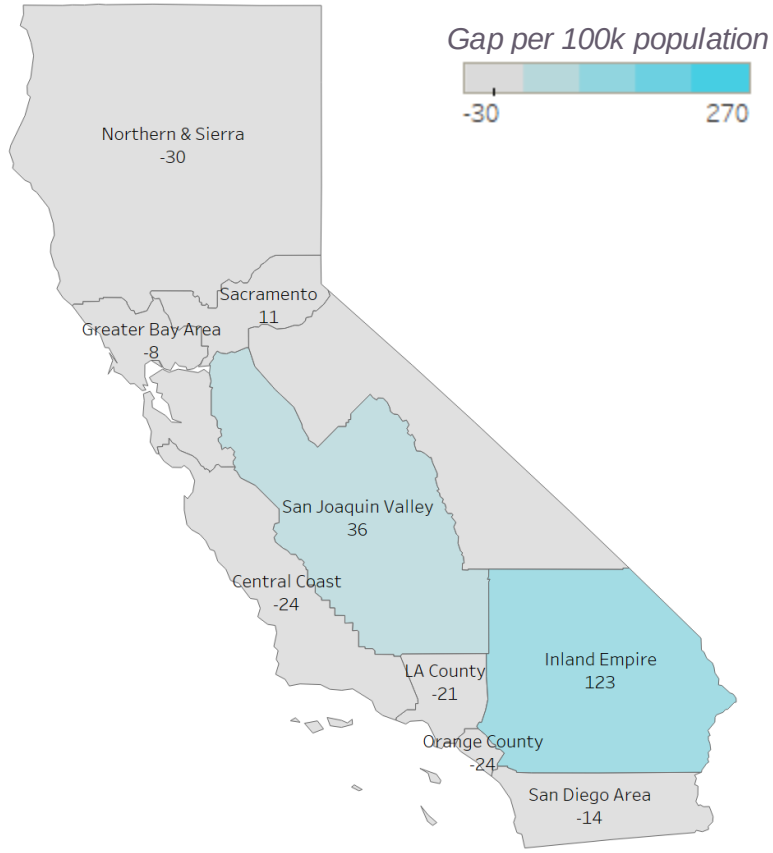
1. Per 100k population 2. Min = -123, max = 123. 3. Min = -437, max = 79.

Vocational nurse (region level)

Current state (2022) Vocational nurse
Regional model gap relative to pop [1] (shortage, surplus)[2]



2033 forecast Vocational nurse
Regional model gap relative to pop[1] (shortage, surplus)[3]



1. Per 100k population 2. Min = -20, max = 118. 3. Min = -30, max = 123.

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MENTAL HEALTH FOR ALL

Additional role/geo deep-dives – Behavioral Health

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MENTAL HEALTH FOR ALL

Psychiatrists in Northern & Sierra regions

Preliminary

Summary

Increasing supply and diversity of Psychiatrists in Northern & Sierra regions

Region: Northern & Sierra regions
- Counties with most significant gaps in current state are Sutter, Mendocino, and Tehama

Role(s): Psychiatrists

Time period: Next 9 years

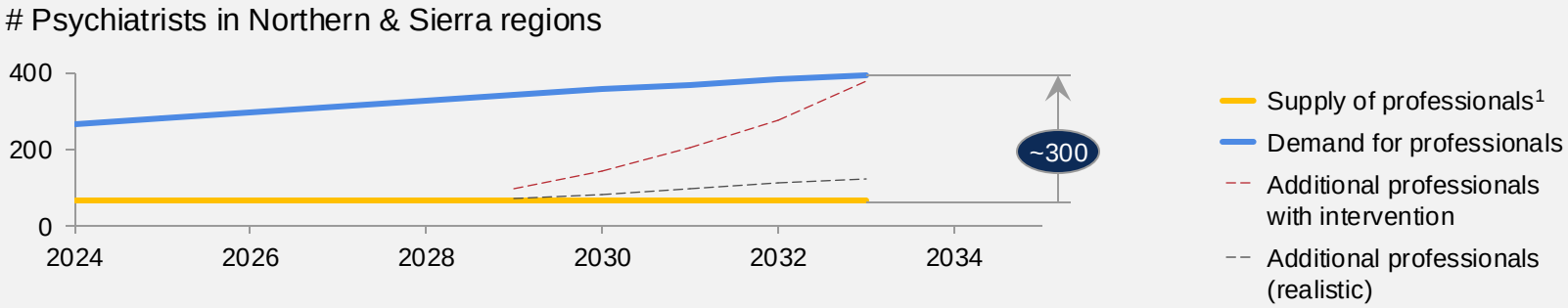
Potential investment required: **TBD**

Equity: Key disparities include Latine, Black, American Indian, Pacific Islander, Spanish-speaking, Asian & Pacific Island language-speaking

☆ HCAI has, or had, an existing program for intervention

Key professional-to-population disparities:
- **Latine:** ~10% of psychiatrists in Northern & Sierra regions, vs. ~19% of population
- **Spanish-speaking:** ~12% of psychiatrists in Northern & Sierra regions vs. ~14% speaking at home

Forecasted supply and demand



*By **2033**, we will **need ~300 more Psychiatrists in Northern & Sierra regions** to meet forecasted demand*

We conducted deep-dives on the following intervention options:

☆ **Intervention #1: Expand training capacity** at existing local psychiatry residency program (Healthy Rural California) or fund new residency programs (e.g., Oroville Hospital has become accredited and may be launching a psychiatry residency in 2025, or at sites with other residency specialties and a behavioral health unit, like Adventist Health Ukiah Valley)
- **Target to close the gap**: Support ~300 additional psychiatry residents over next 9 years
  - **Realistic target:** Support ~50 - 70 additional residents over next 9 years, by growing existing psychiatry residency to 8-10 spots (average residency size in CA), and introducing 1 new psychiatry residency of ~8 spots[2]. Potential to address remaining gap with other professionals such as PMHNPs or BH trained PCPs

Intervention #2: Maintain existing supply by **retaining those close to retiring and engaging retired professionals** (e.g., incentives like hiring more admin support, providing paid time training new professionals)
- **Target:** Retain ~4 – 5 retired or near retired psychiatrists per year, over the next 9 years, based on the share of psychiatrists in Northern & Sierra regions reporting expectations to retire within next 5 years[3]

☆ **Intervention #3: Train PCPs** (including MD, DO, NP, and PA) **to integrate BH** into primary care, to reduce demand for psychiatrists and promote multidisciplinary care
- **Target:** Train ~100 - 300 PCPs over the next 9 years

Additionally, HCAI can increase the supply of psychiatric mental health nurse practitioners (PMHNPs) to offset the gap, given this role's ability to independently practice and prescribe *(see PMHNP deep dive).*

1. Includes pipeline, as projected supply 2. NRMP (2024), "NRMP Program Results 2020-2024 Main Residency Match" 3. HCAI license renewal survey

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MENTAL HEALTH FOR ALL

Non-prescribing licensed clinicians – remainder of state

Sacramento, Inland Empire, LA County, Greater Bay Area, Central Coast, San Diego Area, Orange County

Preliminary

We conducted county, provider, and stakeholder interviews to validate that the key shortage drivers were consistent across California

Summary

Increasing supply and diversity of non-prescribing licensed clinicians – remainder of state

Geography: CA statewide

- All regions have shortages in current state, including Sacramento, Inland Empire, LA County, Greater Bay Area, Central Coast, San Diego Area, Orange County ***(Northern & Sierra regions and San Joaquin Valley have separate deep-dive)***
- Counties outside Northern & Sierra regions and San Joaquin Valley with most significant gaps in current state are San Benito, El Dorado, Yolo

Role(s): Non-prescribing licensed clinicians

Time period: 9 years

Potential investment required: TBC

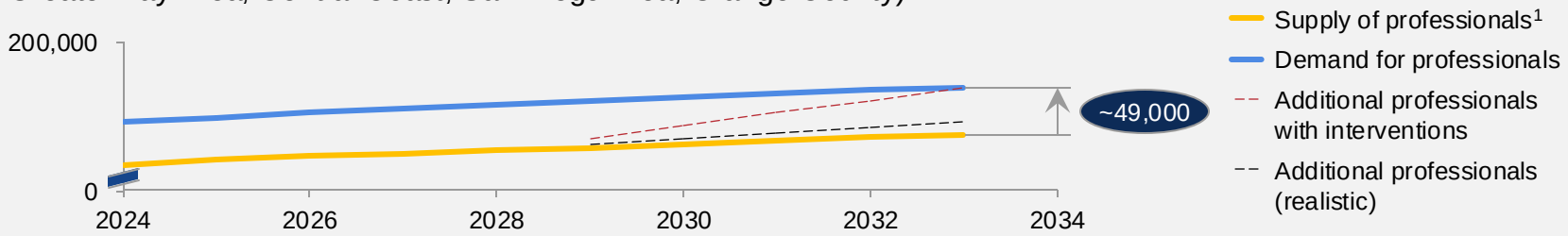
Equity: Key disparities include Asian, Black, Latine, American Indian, Pacific Islander, Spanish-speaking, Asian & Pacific Island language-speaking, Other Indo-European language populations

HCAI has, or had, an existing program for intervention

Key professional-to-population disparities:
- ~0.7 representation for Latine professionals in remainder of state
- ~0.7 representation for Spanish-speaking professionals in remainder of state

Forecasted supply and demand

non-prescribing licensed clinicians in California (Sacramento, Inland Empire, LA County, Greater Bay Area, Central Coast, San Diego Area, Orange County)



*By **2033**, we will **need ~49,000 more non-prescribing licensed clinicians in CA** (Sacramento, Inland Empire, LA County, Greater Bay Area, Central Coast, San Diego Area, Orange County) to meet forecasted demand*

We conducted deep-dives on the following intervention options:

Intervention #1: Offer **scholarships** for low-income and underserved students from California to attend relevant graduate programs, prioritizing students who are from and study in California, particularly the Inland Empire, which has one of the fastest growing shortages, as well as those speaking languages with disparities

- **Target to close the gap**: Support ~49,000 students over the next 9 years
  - **Realistic target:** ~10,000 – 15,000 additional students over the next 9 years, given current number of completions / graduates in San Joaquin Valley and Northern & Sierra regions as well as historical growth rates of completions[2]

Intervention #2: Offer **tuition reimbursement and loan repayment** to existing professionals in California to improve retention, prioritizing safety net settings (e.g., Medi-Cal providers, counties)

- **Target to close the gap:** Support ~100,000 professionals (roughly all existing professionals), each for a 2-year period
  - **Realistic target:** Support ~20,000 – 30,000 professionals, limited to professionals estimated exit supply who also have student loan debt

Intervention #3: Fund **clinical supervision opportunities** to lower burden of completing supervision (e.g., revenue replacement for employers / sites, stipends for supervisors or students) and lower barriers to expanding program sizes; if possible, prioritize students are from California and settings that serve safety net and complex populations

- **Target:** Support ~49,000 students / associate professionals over the next 9 years
  - **Realistic target:** ~10,000 – 15,000 additional students over the next 9 years

Intervention #4: Expand education capacity, especially at public institutions (e.g., CCCs, CSUs, UCs), with investments targeted based on representation data (e.g., public schools in low-income areas)

- **Target to close the gap:** Support ~49,000 additional professionals over the next 9 years
  - **Realistic target:** ~10,000 – 15,000 additional students over the next 9 years, needing 2,000 – 3,000 additional slots, assuming it takes ~4 years to complete graduate education and experience needed to qualify for licensing exam

1. Includes pipeline, as projected supply 2. IPEDS

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MENTAL HEALTH FOR ALL

Psychiatrists – remainder of state

Sacramento, Inland Empire, LA County, Greater Bay Area, Central Coast, San Diego Area, Orange County, and San Joaquin Valley

Preliminary

We conducted county, provider, and stakeholder interviews to validate that the key shortage drivers were consistent across California

Summary

Increasing supply and diversity of Psychiatrists – remainder of state

Geography: CA statewide
- All regions have shortages in current state, including Inland Empire, Central Coast, San Joaquin Valley, Sacramento, Greater Bay Area, San Diego Area, Orange County, LA County ***(Northern & Sierra regions has separate deep-dive)***
- Counties outside Northern & Sierra regions with most significant gaps in current state are San Benito, Santa Cruz, El Dorado

Role(s): Psychiatrists

Time period: Next 9 years

Potential investment required: TBD

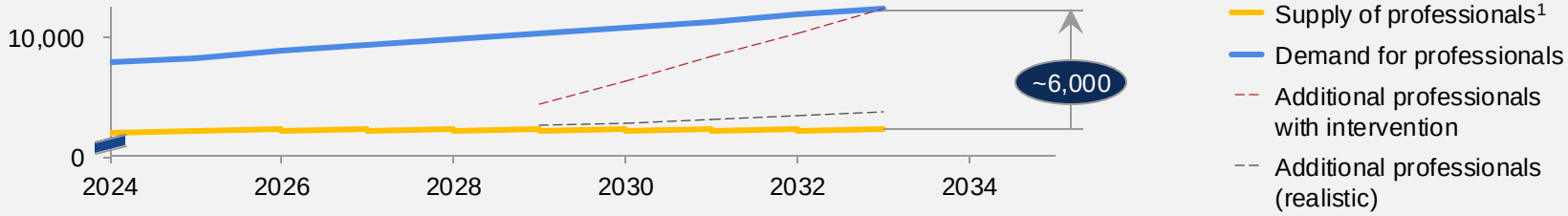
Equity: Key disparities include Latine, Black, American Indian, Pacific Islander, Spanish language, Asian & Pacific Island language

HCAI has, or had, an existing program for intervention

Key professional-to-population disparities:
- **Latine:** ~8% of psychiatrists in remainder of state, vs. ~40% of population
- **Spanish-speaking:** ~12% of psychiatrists in remainder of state vs. ~28%

Forecasted supply and demand

Psychiatrists in California (Inland Empire, Central Coast, San Joaquin Valley, Sacramento, Greater Bay Area, San Diego Area, Orange County, LA County)



*By **2033**, we will **need ~6,000 more Psychiatrists in California** (Inland Empire, Central Coast, San Joaquin Valley, Sacramento, Greater Bay Area, San Diego Area, OC, LA) to meet forecasted demand*

We conducted deep-dives on the following intervention options:

Intervention #1: Expand training capacity at the existing 27 psychiatry residency programs or fund new residency programs, potentially in partnership with public employers
- **Target to close the gap**: Support ~6,000 additional psychiatry residents over next 9 years
  - **Realistic target:** Support ~400 - 500 additional residents over next 9 years, considering historical growth of psychiatry residents in CA[2, 3], through expanding the size of existing residencies and introducing 3 - 5 new residencies (based on the average rate of new CA psychiatry residencies since 2019[3]). Potential to address remaining gap with other professionals such as PMHNPs or BH-trained PCPs.

Intervention #2: Maintain existing supply by **retaining those close to retiring and engaging retired professionals** (e.g., incentives like hiring more admin, paid time training new professionals)
- **Target:** Retain ~150 – 250 retired or near retired psychiatrists per year, over the next 9 years

Intervention #3: Train PCPs (including MD, DO, NP, and PA) **to integrate BH** into primary care, to reduce demand for psychiatrists and promote multidisciplinary care
- **Target:** Train ~3,000 – 5,000 PCPs over the next 9 years

Additionally, HCAI can increase the supply of psychiatric mental health nurse practitioners (PMHNPs) to offset the gap, given this role's ability to independently practice and prescribe *(see PMHNP deep dive).*

1. Includes pipeline, as projected supply 2. NRMP (2024), "NRMP Program Results 2020-2024 Main Residency Match" 3. UCSF (2020), "California's Psychiatry Workforce Challenges"

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Psychiatric Mental Health Nurse Practitioners statewide

Preliminary

Summary

Increasing supply and diversity of PMHNPs statewide

Region: Statewide
- All regions have a shortage, but the regions with most significant gaps in current state are Central Coast, Northern & Sierra regions, Greater Bay Area

Role(s): PMHNPs

Time period: Next 2 years

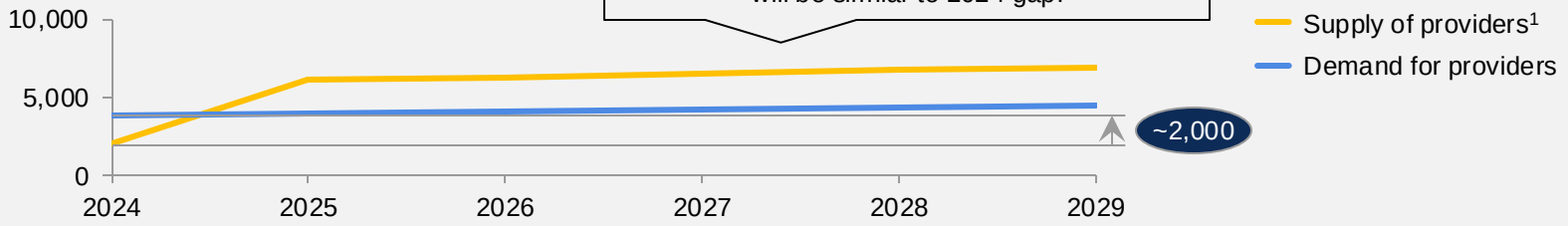
Potential investment required: **TBD**

Equity: Key disparities could include Latine, American Indian, Pacific Islander, Spanish-speaking, if the population of PMHNPs is similar to overall population of NPs

HCAI has, or had, an existing program for intervention

Forecasted supply and demand

PMHNP is not its own license, so we do not have historical data for this role. Forecast assumes PMHNPs will stay at a constant % of overall NP supply. We are assuming future gap will be similar to 2024 gap.



*By **2029**, we will likely **need ~1,500 – 2,000 more PMHNPs in California** to meet estimated demand*

We conducted deep-dives on the following intervention options:

Intervention #1: Expand training capacity, particularly for **upskilling** existing NPs (e.g., 1-year postgraduate certificate programs), as well as for highest shortage regions (e.g., Northern & Sierra regions) by prioritizing through scoring sheets

- **Target to close PMHNP gap**: Support ~1,500 – 2,000 additional PMHNP students over next 5 years; NPs forecasted to have statewide surplus of ~2,500 in 2029, so upskilling existing NPs could help close the statewide gap (though NPs also have a shortage in Northern & Sierra regions, which has a significant PMHNP gap)
  - **Target to close PMHNP and part of Psychiatrist gap:** Support ~2000 - 3,000 additional PMHNP students over next 5 years, by supporting expansion of PMHNP training and upskilling programs, assuming that ~50% of surplus NPs are upskilled to PMHNPs (~5% of overall NP supply), and considering historical growth rates[2]

Intervention #2: Fund increased **clinical placement opportunities** for students, prioritizing students at public schools and, if possible, students are from or study in highest shortage regions (e.g., Northern & Sierra regions, Central Coast) through extra points in scoring

- **Target to close PMHNP gap**: Support ~1,500 – 2,000 additional PMHNP students over next 5 years
  - **Target to close PMHNP and part of Psychiatrist gap:** Support ~2000 - 3,000 additional PMHNP students over next 5 years

Key professional-to-population disparities[2]:
- ~0.4 representation for Latine NPs across California; ~0.2 for American Indian
- ~0.8 representation for Spanish-speaking NPs across California

1. Includes pipeline, as projected supply 2. IPEDS

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MENTAL HEALTH FOR ALL

Peer Support Specialists statewide

Preliminary

Summary

Increasing supply and diversity of Peer Support Specialists statewide

Region: Statewide
- In current state, all regions have a shortage
- The regions with most significant gaps in current state are Greater Bay Area, Orange County, Central Coast

Role(s): Peer Support Specialist

Time period: 5 years

Potential investment required: TBD

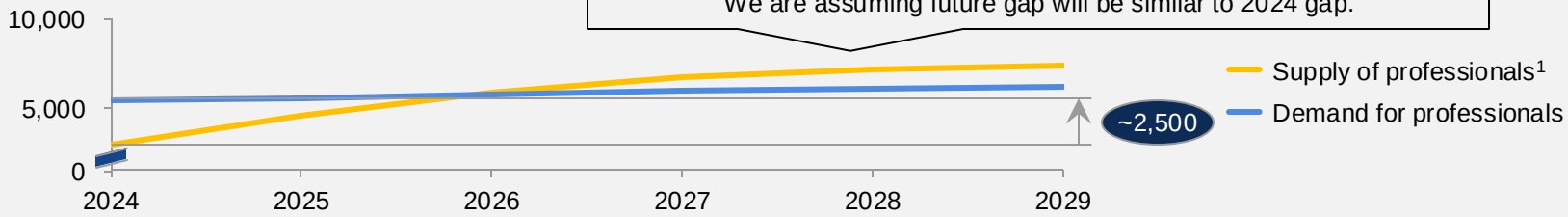
Equity: Key disparities include Asian, Latine, Spanish-speaking, Asian and Pacific Island languages-speaking, Other Indo-European languages-speaking

1. Includes pipeline, as projected supply
2. CalMHSA

HCAI has, or had, an existing program for intervention

Forecasted supply and demand

Peer support specialists is a relatively new certification, first implemented by CalMHSA in 2022, so limited historical data exists to inform forecasting. In addition, a "speculative / target driven" forecast, similar to that for Certified Wellness Coaches, may be more appropriate.
We are assuming future gap will be similar to 2024 gap.



*By **2029**, we will likely **need ~2,500 more Peer Support Specialists in California** to meet estimated demand*

We conducted deep-dives on the following intervention options:

Intervention #1: Lower **financial barriers to certification** (e.g., training and certification fees)
- **Target to close the gap**: Support ~2,500 peer support specialists becoming certified over the next 5 years

Intervention #2: Fund **peer / mentor networks** for professionals to help increase retention of existing professionals
- **Target:** Over the next 5 years, support development of peer and mentor networks at the ~10 – 20 highest shortage counties, targeting ~10 – 20 peers per county

Key professional-to-population disparities[2]:
- **Asian**: 6% of certified peer support specialists; 15% of CA population
- **Latine**: 33% of certified peer support specialists; 40% of CA population

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MENTAL HEALTH FOR ALL

Additional role/geo deep-dives – Nursing

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MENTAL HEALTH FOR ALL

RNs in Los Angeles County

Preliminary

Summary

Increasing supply and diversity of RNs in Los Angeles County

Region: Los Angeles County
- SPA-level results in development

Role(s): Registered Nurses

Time period: 5 years

Potential investment required: TBD

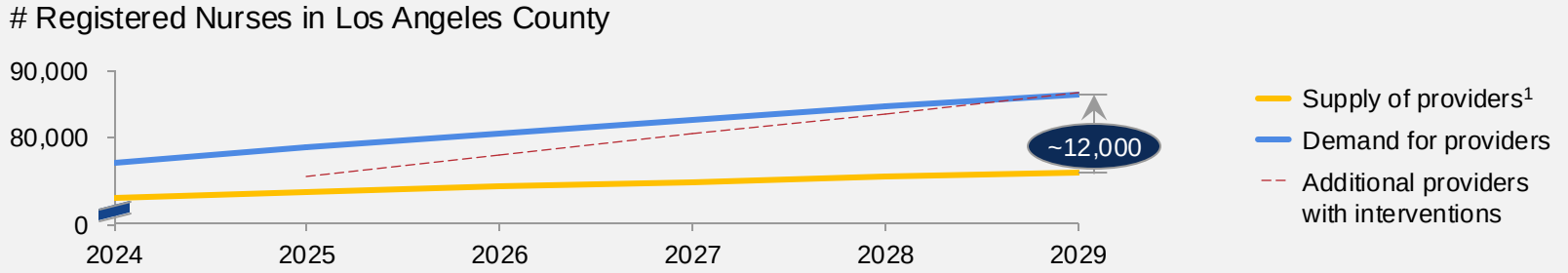
Equity: Key disparities include American Indian, Latine, Black, Spanish-speaking, and Other Indo-European language-speaking

1. Includes pipeline of RNs, as projected supply

HCAI has, or had, an existing program for intervention

Key professional-to-population disparities:
- ~0.4 representation for Latine providers in LA; ~0.1 for American Indian providers in LA
- ~0.5 representation for Spanish-speaking providers in LA

Forecasted supply and demand



*By **2029**, we will **need ~12,000 more Registered Nurses in Los Angeles County** to meet forecasted demand*

We conducted deep-dives on the following eco-system interventions:

Intervention #1: Offer **tuition reimbursement and loan repayment** to RNs who live and/or work in Los Angeles County, prioritizing those serving in safety net settings (e.g., Medi-Cal, FQHC)
- **Target**: Support ~60k RNs, retain all existing providers
  - **Realistic target:** Support ~12k providers, limited to providers estimated exit supply who also have student loan debt, and not exceeding forecasted gap

Intervention #2: Fund **peer and mentor networks** for RNs who work in Los Angeles County, prioritizing those serving in safety net settings (e.g., Medi-Cal, FQHC)
- **Target:** Grant ~10 – 20 employers per year to develop peer and mentor networks, targeting participation of 50 - 100 nurses per employer; each employer gets 3 years of funding

Intervention #3: Engage and retain retired nurses or those close to retiring who live and/or work in Los Angeles County (e.g., incentives like hiring more admin, paid time training new providers)
- **Target:** Retain ~1000 - 2000 retired or close-to-retiring nurses per year, based on anticipated RN retirement rates in LA county[2], each nurse retained for 3 years

Intervention #4: Expand education capacity, particularly at public institutions (e.g., CCCs, CSUs, UCs), including ADN, BSN, concurrent enrollment
- **Target:** Support ~10 – 15k additional students over next 5 years, needing ~1-2k ADN slots and ~5-10k BSN slots, based on current proportions of ADN vs BSN in LA (however, preference should be given to ADN to quickly produce a diverse workforce)[3]

For discussion: What players, funders, and partners would need to be engaged in each intervention?

1. Includes pipeline, as projected supply 2. HCAI license renewal survey 3. HCAI CA Health Workforce Education Pathways dashboard

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MENTAL HEALTH FOR ALL

Nurse Practitioners in Northern and Sierra regions

Preliminary

Summary

Increasing supply and diversity of NPs in Northern & Sierra regions

Region: Northern & Sierra regions
- Counties with most significant gaps in current state are Sierra, Modoc, Plumas

Role(s): Nurse Practitioners

Time period: 5 years

Potential investment required: **TBD**

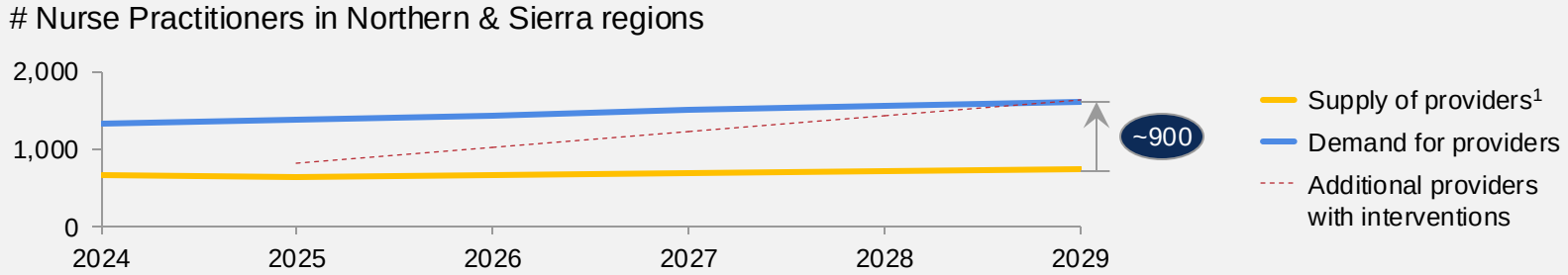
Equity: Key disparities include Pacific Islander, American Indian, Latine, Black, Asian & Pacific Island language-speaking

1. Includes pipeline as projected supply

HCAI has, or had, an existing program for intervention

Key professional-to-population disparities:
- ~0.3 representation for American Indian providers in Northern & Sierra regions; ~0.4 for Latine
- ~0.6 representation for Asian & Pacific Island language-speaking in Northern & Sierra regions

Forecasted supply and demand



*By **2029**, we will **need ~900 more Nurse Practitioners in Northern & Sierra** regions to meet forecasted demand*

We conducted deep-dives on the following eco-system interventions:

Intervention #1: Provide **incentives to redistribute** existing workforce from surplus regions to Northern & Sierra regions
- **Target**: Support ~900 - 1000 providers relocating over 5 years from surplus regions (e.g., Sacramento), assuming 90-95% remain until 2029 since intervention paired with long-term incentives, to close gap of ~900

Intervention #2: Provide financial **incentives for providers to stay long term** (>5 years) in underserved areas like Northern & Sierra regions
- **Target:** Support ~900 - 1000 providers from surplus regions to stay long term in Northern & Sierra regions (>5 years), assuming 90-95% remain until 2029, to close gap of ~900

Education capacity expansion not prioritized for this role and region combination as NP forecasted to have statewide surplus across all years shown in the model (though surplus narrows over time)

***For discussion:* What players, funders, and partners would need to be engaged in each intervention?**

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MENTAL HEALTH FOR ALL

Licensed Vocational Nurses statewide

Central Coast, LA County, Northern & Sierra regions, Orange County, Greater Bay Area, San Diego Area

Preliminary

Summary

Addressing maldistribution and diversity of LVNs across California

Geography: CA statewide
- Regions with shortages in current state are Central Coast, LA County, Northern & Sierra regions, Orange County, Greater Bay Area, San Diego Area
- Counties with most significant gaps in current state are Colusa, Marin, Plumas

Role(s): Licensed Vocational Nurses

Time period: 5 years

Potential investment required: **TBD**

Equity: Key disparities include American Indian, Latine, Spanish-speaking, Other Indo-European Language-speaking

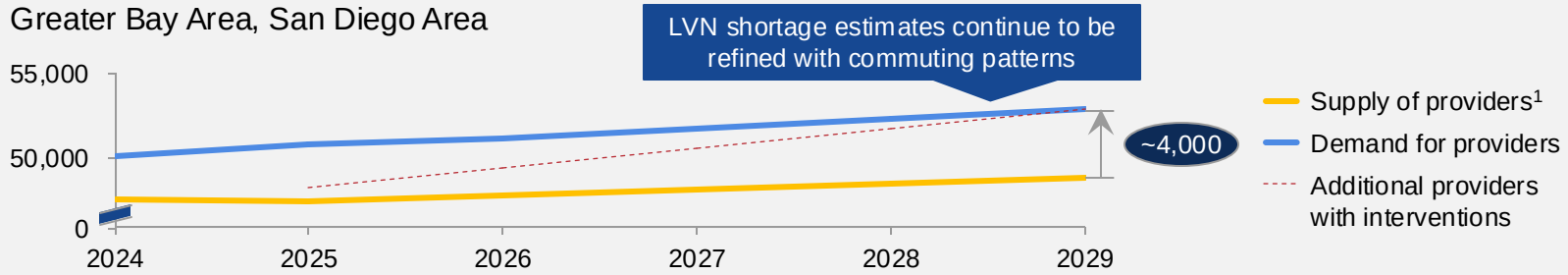
1. Includes pipeline as projected supply

HCAI has, or had, an existing program for intervention

Key professional-to-population disparities:
- ~0.8 representation for Latine providers in shortage regions; ~0.2 for American Indian
- ~0.8 representation for Spanish-speaking providers in shortage regions

Forecasted supply and demand

Licensed Vocational Nurses in Central Coast, LA County, Northern & Sierra regions, Orange County, Greater Bay Area, San Diego Area



*By **2029**, we will **need ~4,000 more LVNs in CA shortage regions** (Central Coast, LA County, Northern & Sierra regions, Orange County, Greater Bay Area, San Diego Area) to meet forecasted demand*

We conducted deep-dives on the following eco-system interventions:

Intervention #1: Provide **incentives to redistribute** existing workforce from surplus regions (e.g., Inland Empire) to shortage regions (e.g., Central Coast)
- **Target**: Support ~4000 - 4500 providers relocating over 5 years from surplus regions (e.g., Sacramento), assuming 90-95% remain until 2029 since intervention paired with long-term incentives, to close gap of ~4000

Intervention #2: Provide financial **incentives for providers to stay long term** (>5 years) in shortage areas (e.g., Central Coast)
- **Target:** Support ~4000 - 4500 providers from surplus regions to stay long term in shortage regions (~5 years), assuming 90-95% of relocated LVNs remain until 2029

Education capacity expansion not prioritized for this role and region combination as LVN forecasted to have statewide surplus across all years shown in the model (though surplus narrows over time)

***For discussion*: What players, funders, and partners would need to be engaged in each intervention?**

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