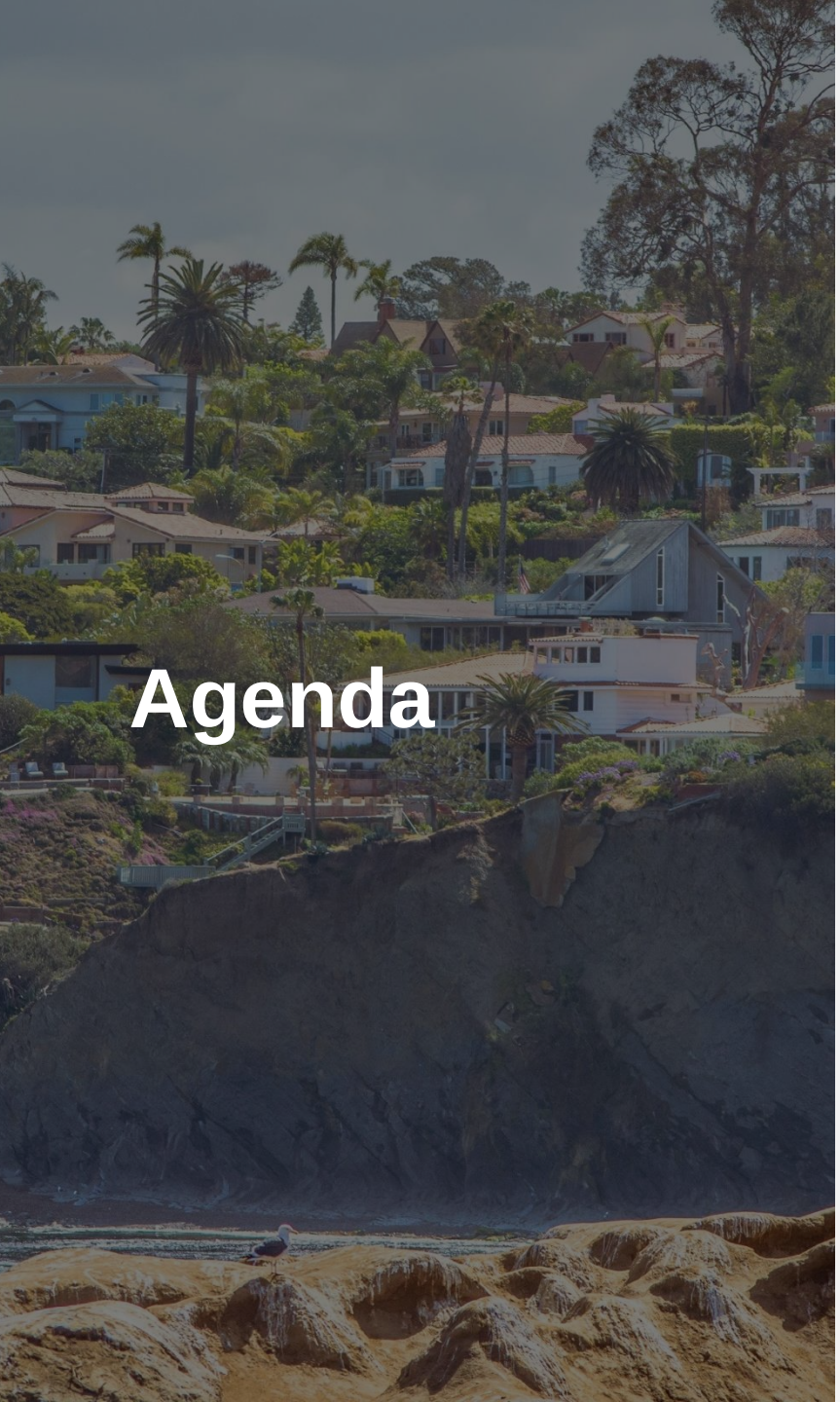
Department of Health Care Access and Information

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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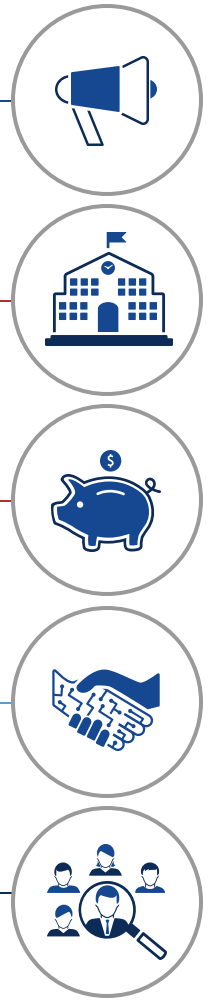
Non exhaustive

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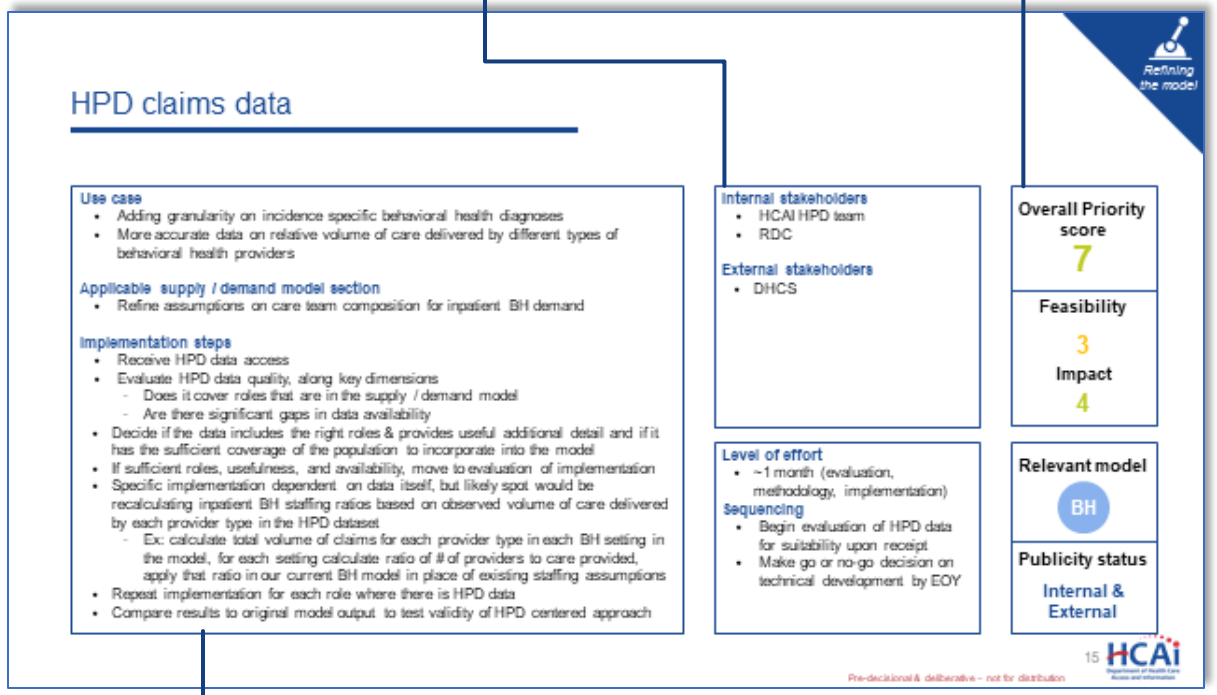
We are prioritizing and outlining key implementation steps for major elements of the data roadmap

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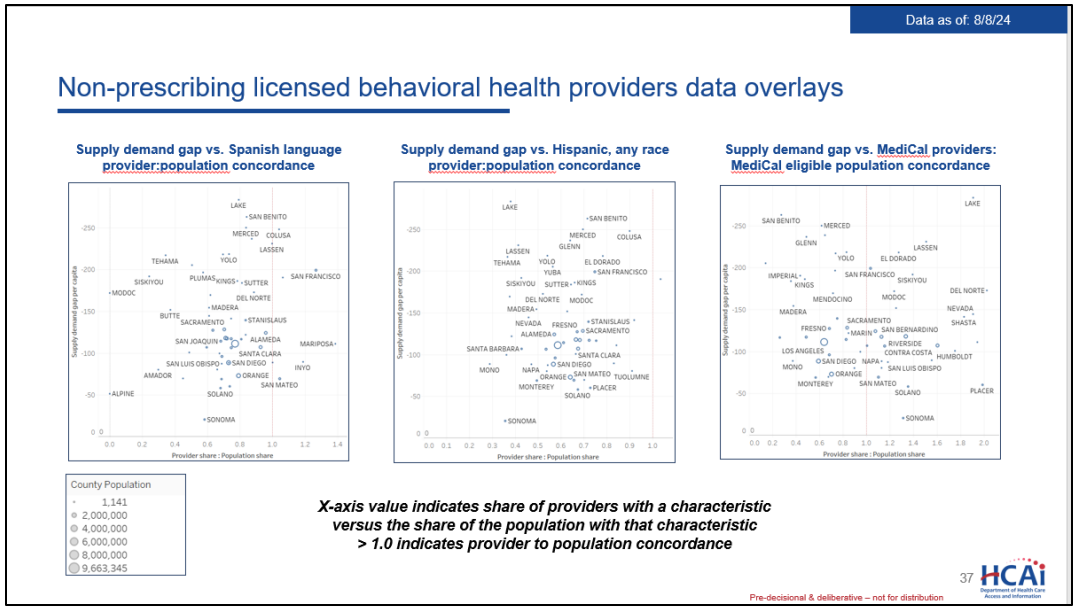
Our model includes overlays to enable comparison of supply / demand gap to language, Medi-Cal, and racial / ethnic representation of providers & population

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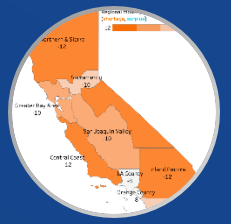
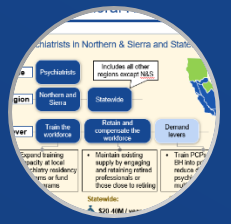
BH: Findings and preliminary supply / demand modeling results by role

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

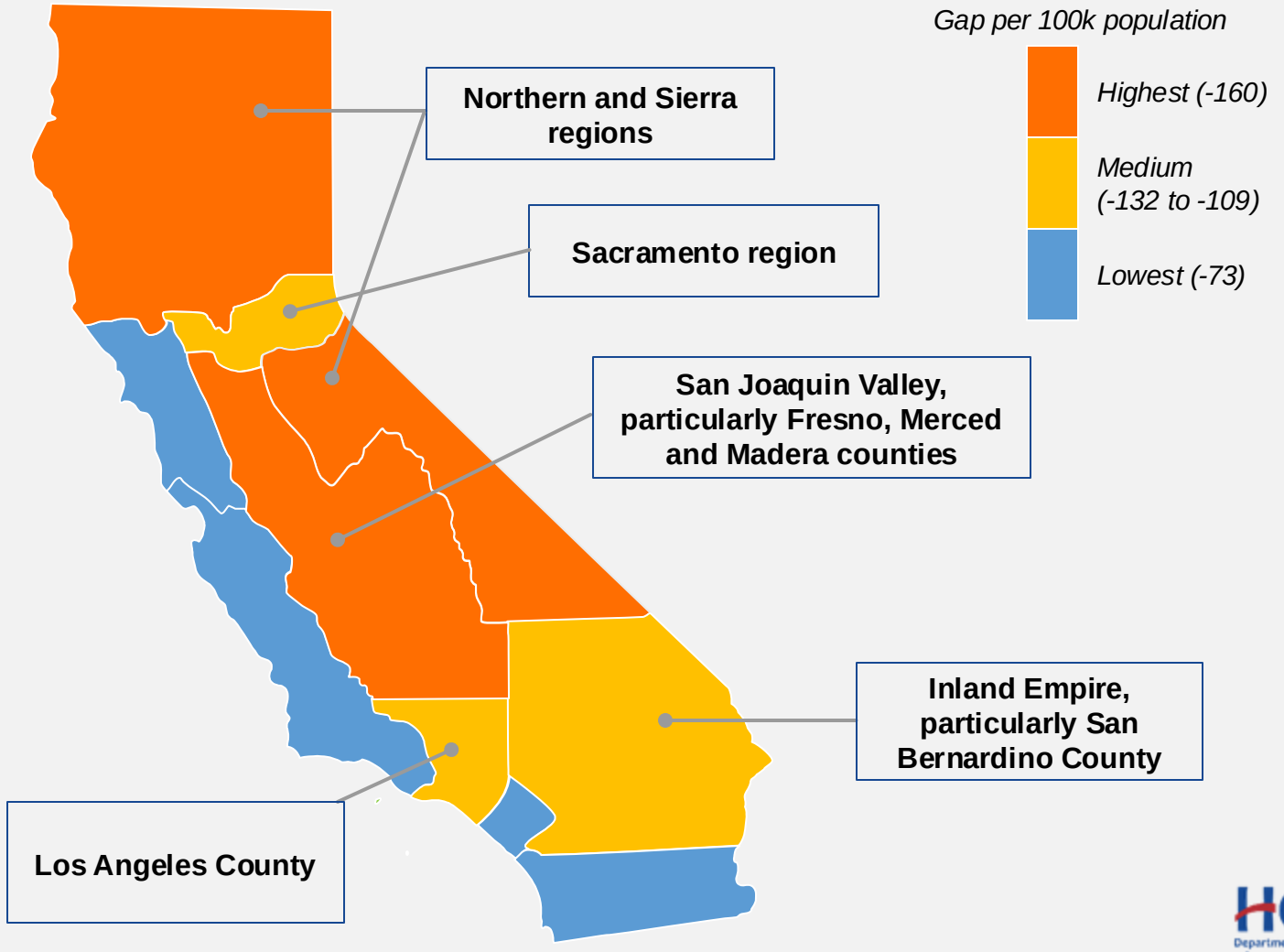
- ~18% statewide supply/demand gap[1] (~2,800 in absolute terms), especially seen in Los Angeles County, Bay Area and San Diego County, driven by challenges such as unpaid internships, maintaining personal sobriety, low pay and no direct reimbursement mechanism, and overwork / burnout
  - Many SUD Counselors 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

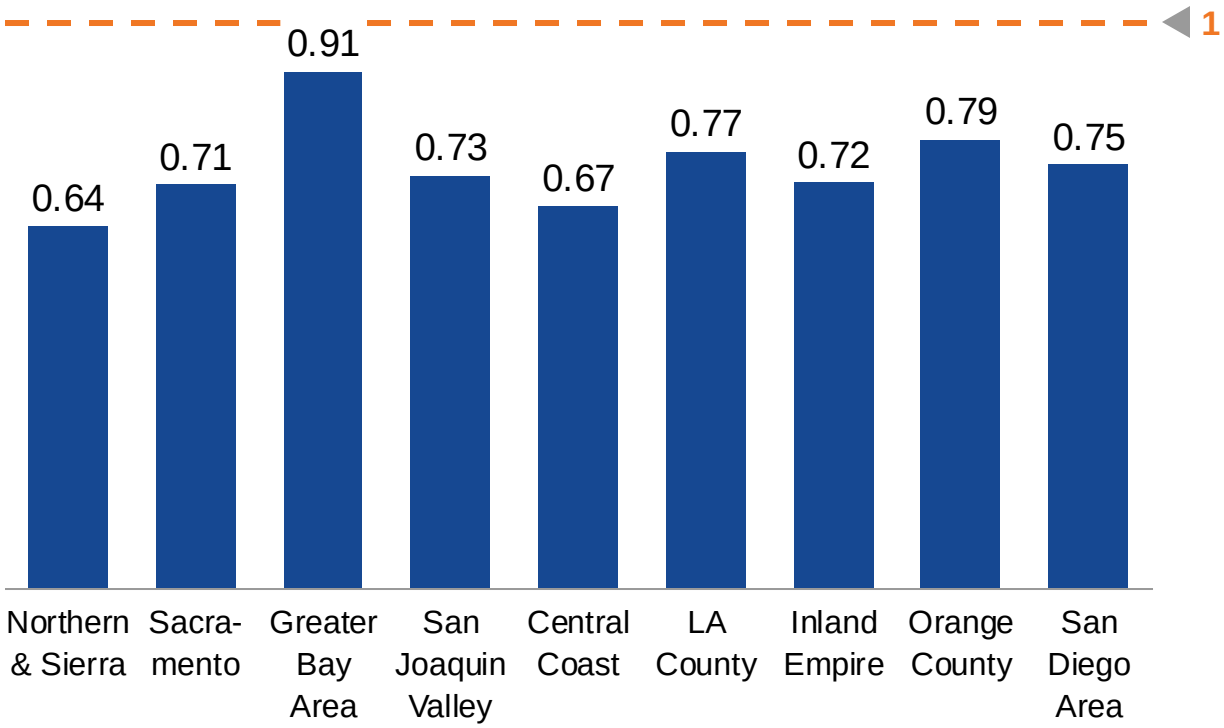
- Asian and Latine communities face the largest professional-to-population disparities
- Black professionals are underrepresented in advanced roles like psychologists and psychiatrists

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

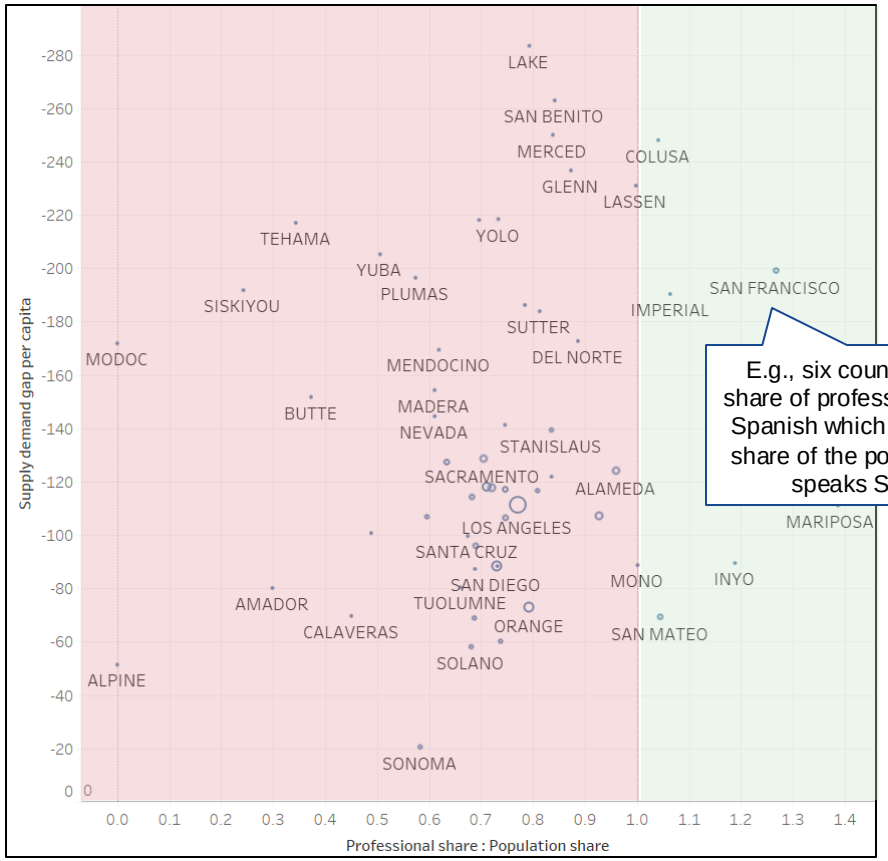
Example: Regional underrepresentation for Spanish-speaking professionals

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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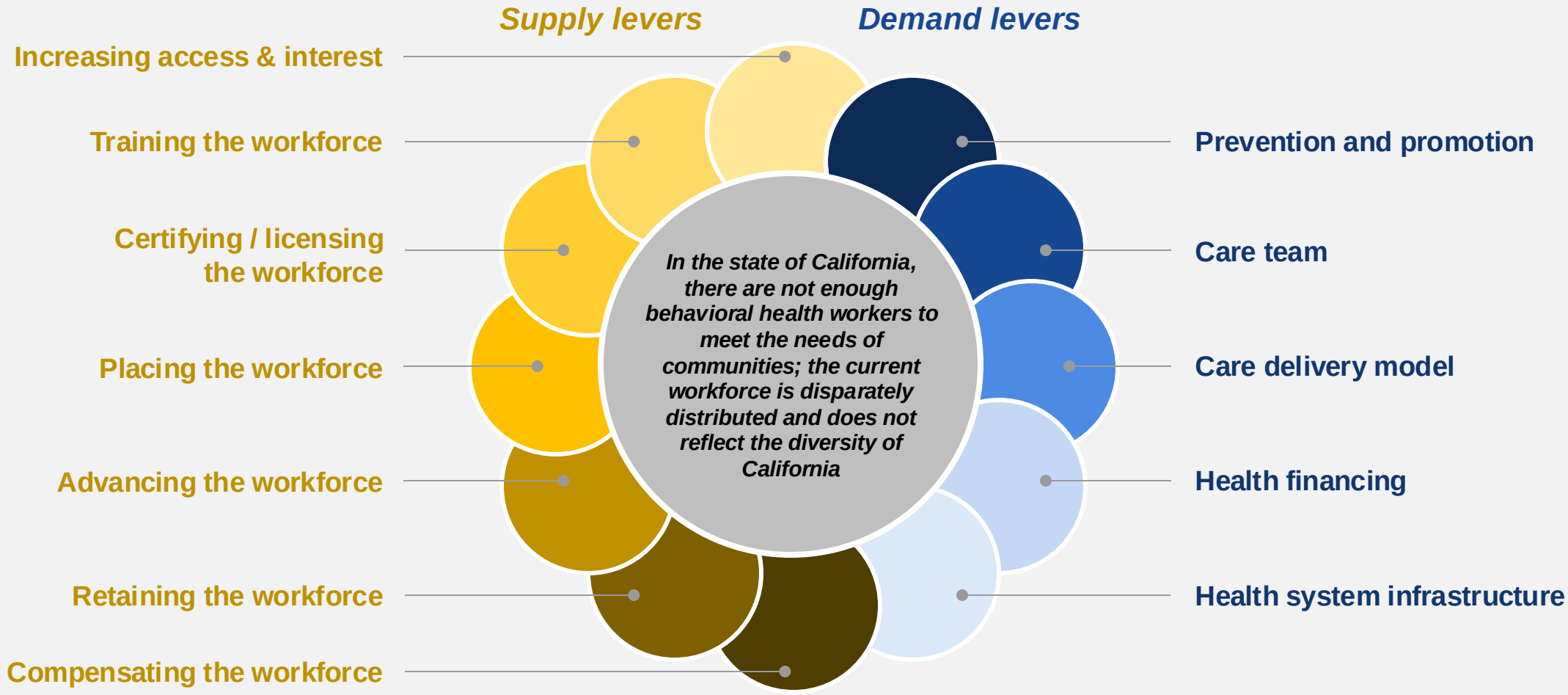
4

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

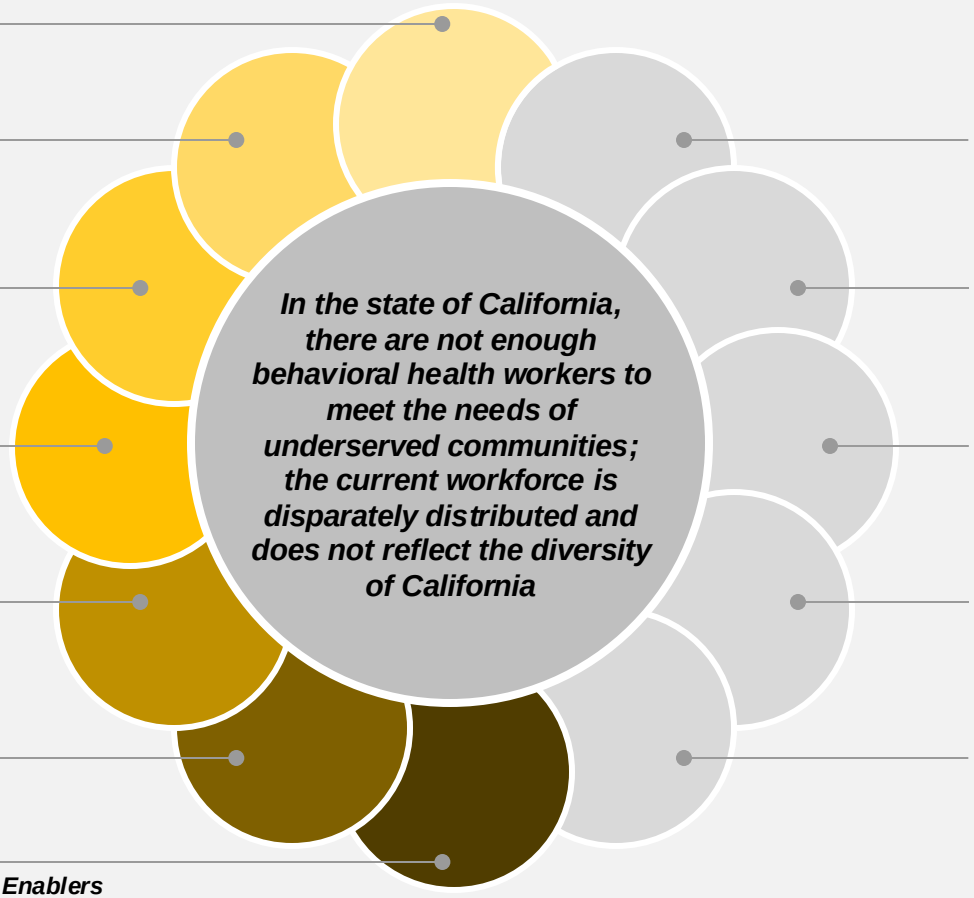
Certifying / licensing the workforce
Support workforce in becoming certified / licensed, particularly in target populations
Outcome: Larger, diverse pipeline, economic mobility

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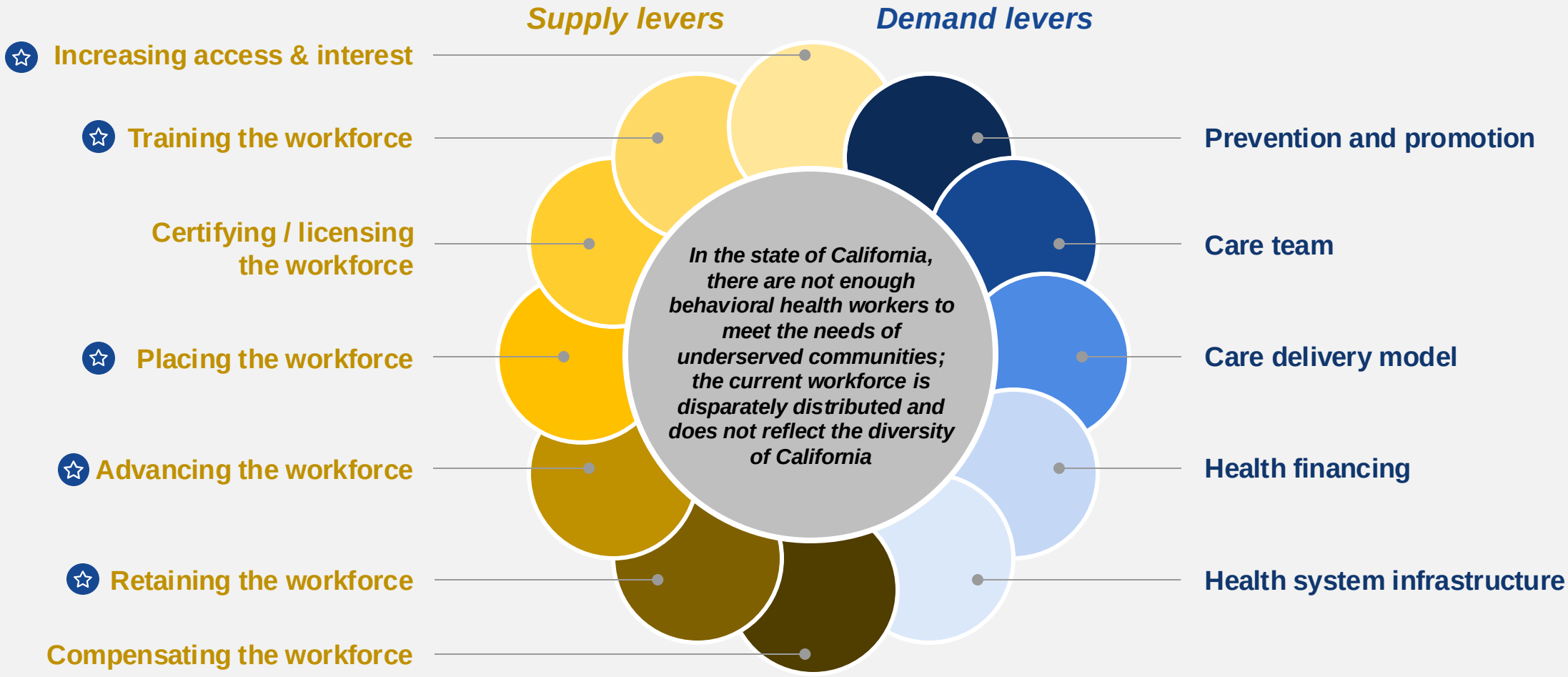
We see HCAI's primary role on the supply side of the equation, though we hope our data will support decision making across these levers

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

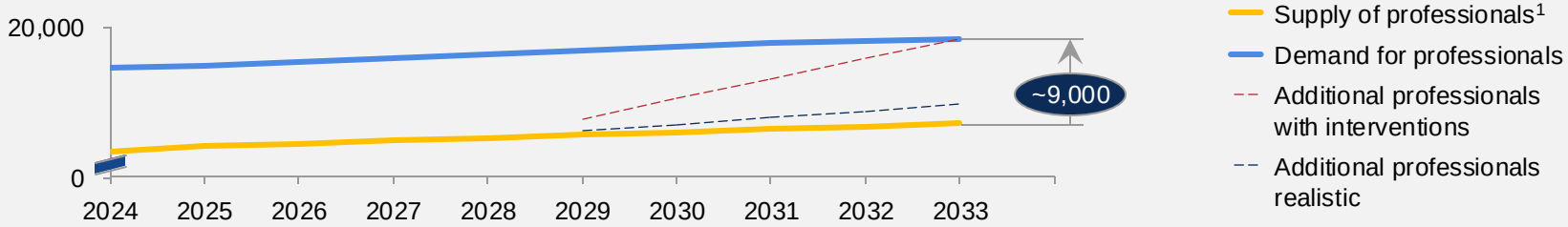
HCAI has, or had, an existing program for intervention

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

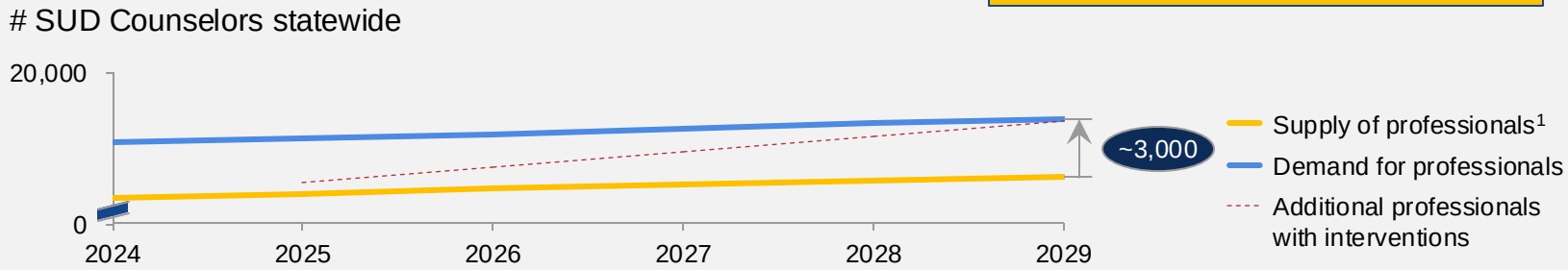
Potential investment required: TBD

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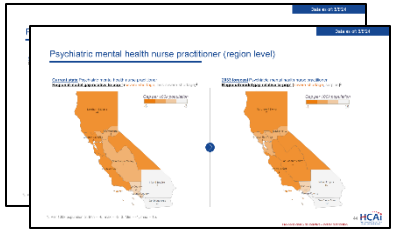
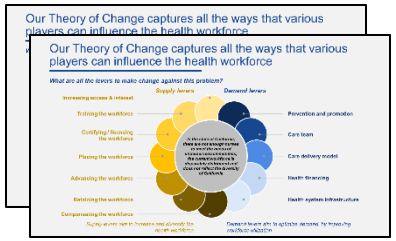
The deep-dives and local strategies are supported by a comprehensive range of supporting analyses and materials

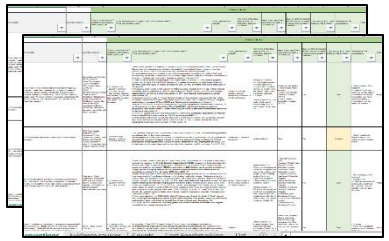
What we've completed



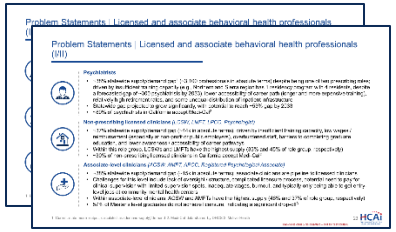
Model results at region, county, SPA level for all sets of roles



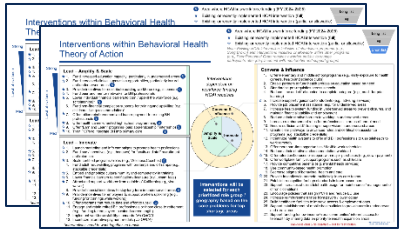
Theory of Change framework



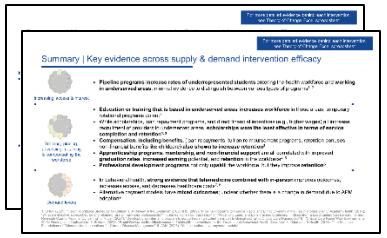
Theory of Change Excel detailing 90+ interventions, including evidence, requirements to implement, owners, metrics, and more



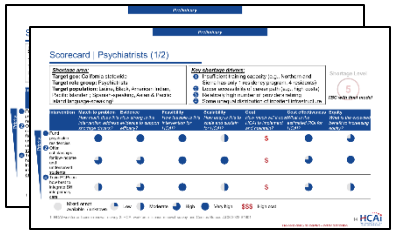
Problem statement for each role, with quantified gap and shortage drivers



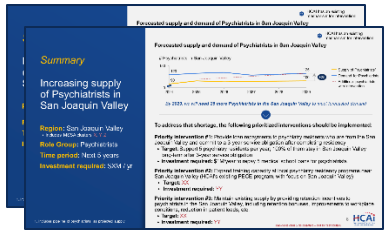
Theory of Action has menu of 40+ options for interventions



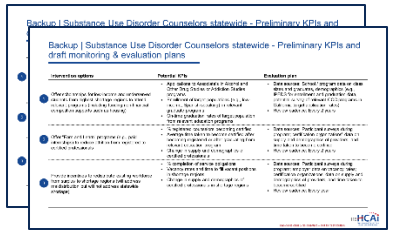
More detailed evidence review for 40+ interventions within Theory of Action



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

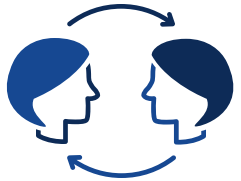


12 deep-dives on role/geo combinations with greatest shortages



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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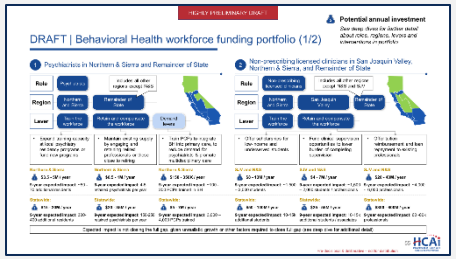
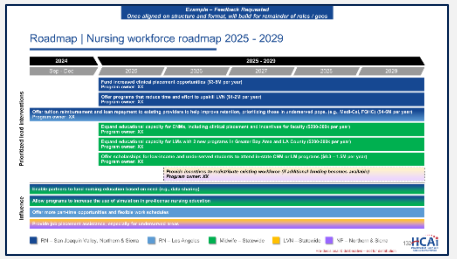
Additional analyses underway

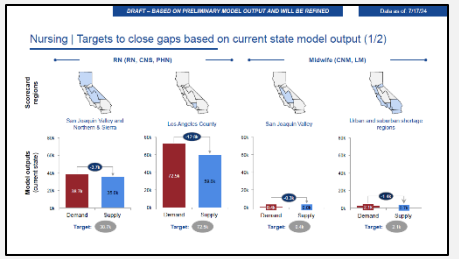
In progress



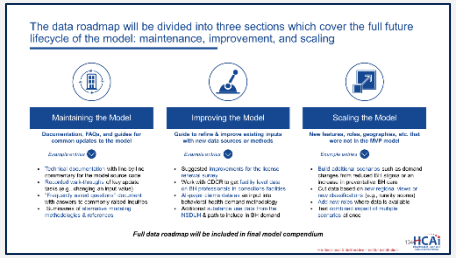
Funding scenarios and program implications



Roadmaps for interventions

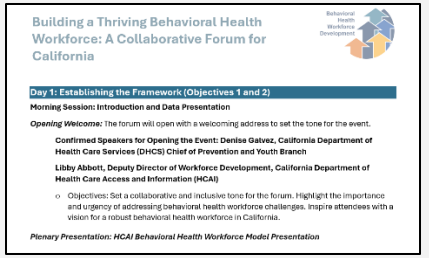


Targets by role to close workforce gaps



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**