Berkeley Public Health

California Governmental Public Health Residency/Academic Health Department Program:
Connecting Diverse Public Health Changemakers and Scholars to Local Health Departments
DRAFT Concept Paper for The California Endowment
REVISED October 1, 2021

Summary. Berkeley Public Health (BPH) and the Public Health Institute (PHI), in collaboration with the County Health Executives Association of California (CHEAC) and a network of 33 Schools and Programs of Public Health in California (Cal-SPPH), is seeking a philanthropic investment from TCE to stand up the California *Governmental Public Health Residency Program* (GPHRP) and *Academic Health Department* (AHD) pilot project focused on advancing health equity. With support, the partners will undertake four sets of activities designed to build a pipeline of diverse changemakers in public health while simultaneously strengthening the decision-making capacity of Local Health Departments (LHD):

1. *Paid Summer Internships* to introduce 12 first-year MPH students to careers in GPH
2. *Full-time, year-long residencies* in LHD for 12 recent MPH and DrPH graduates from URM backgrounds (including HE projects, mentoring, and a pathway to employment in GPH)
3. *K-Awards in Public Health Practice* for early career, junior faculty from SPPH who want to apply their research to real-world challenges and embed in a LHD (50% joint appointments)
4. *One-year LHD sabbaticals* for mid-level and senior faculty, where full professors from SPPH can provide public health training to LHD staff, produce deliverables, and mentor residents.

Governmental Public Health Residency Program

The goal of the Residency Program is to create a pipeline of diverse, culturally-competent public health professionals committed to serving the underserved for employment in local health departments. During the first year of the program, we would recruit a pilot cohort of 12 recent MPH and DrPH graduates from the SPPH in California and place them in 12 local health departments (LHDs) selected to participate in a full-time, one-year residency. Preference would be given to students who apply from underserved communities, first-to-college and Under-Represented Minority (URM) backgrounds.

Residents would receive a competitive stipend of ~$65,000/year as well as health insurance. During the residency they would be exposed to various aspects of county government and community affairs, and have the opportunity to go deeper into their area of professional interest by working on health equity projects. GPH Residents would bring analytic skills and lived experiences to help LHDs solve problems using a health equity lens. In the process, participants will build the skills, experience, and relationships necessary to qualify for and secure public sector employment at the end of their residency.

The proposed model would include seven interrelated program components:

1. *Targeted Recruitment* from marginalized communities
2. *Summer Internships* in between first and second year of graduate program
3. *One-Year Residency* in local public health departments
4. *Robust Cohort Experiences* that build cohesion, peer learning and professional networking
5. *Mentorship* from host agency leaders, project supervisors, SPPH advisors, and outside coaches
6. *Employment Placement* in governmental public health, particularly in underserved regions
7. *Post-Program Support* to ensure long-term success and career advancement

In addition, we hope to leverage federal funding for loan repayment for those who stay on in GPH.

Academic Health Department Pilot Project

One of the recommendations of the California Future Health Workforce Commission is to "bring together schools and programs of public health and local health departments to train the next generation of public health professionals and advance health equity." The Commission's Final Report makes the case for a robust pipeline of diverse nonclinical public health students who are exposed to and prepared for jobs in governmental public health, and calls for the establishment of 15 AHDs throughout the state over a seven-year period that "build public health practice and research capacity."

BPH would like to use the proposed residency program as a mechanism for implementing this Commission recommendation by building a network of AHDs in five rural and urban regions in California. The five local jurisdictions selected for the pilot would not only benefit from the support of a diverse and well-trained GPH resident on site for one year or more, but also from a SPPH professor who will embed within the county or city health department for a full year to provide oversight to the resident and their evidence-based health equity projects, as well as well epidemiological expertise to the LHD leadership, training for staff on public health research methods and decision intelligence (i.e., predictive analytics, causal inference, data visualization and other biostatistics methods designed to pinpoint and address inequities within our communities and help leaders to make better public health decisions).

These Scholars-in-Residence (SIR) would be jointly appointed (50% of their time paid for by their University and 50% by the philanthropy and the LHD contribution), and be expected to produce concrete deliverables that support the LHD's efforts to reduce health inequities among low-income people and communities of color. In the process, these SIR will not only help California to retool its public health workforce (through the onsite trainings, mentoring and capacity-building support provided to their LHD), but also bring the cutting-edge science and analytic methods to the health department. In the process, the new AHD pilot will help to ensure that the faculty member's scholarly pursuits, as well as the SPPH and university that the SIR brings to the table, are more relevant and impactful.

There are two target audiences to recruit for this competitive SIR opportunity:

1) Early career, junior faculty members committed to reducing inequities through evidence-based scholarship seeking grants to help cover their university salaries, and

2) Mid- and senior-level tenured faculty (full professors) who want to spend a sabbatical year helping to advance health equity on the front-lines of public health practice.

Similar to an NIH Career Development (K) award, SIRs early in their career will receive the 'soft money' support they need to pursue their research agendas and establish themselves in the field. We anticipate awarding three of these 'K awards in public health practice' to junior faculty, and two sabbatical awards in governmental public health for mid-level and senior faculty. The two full professors selected will spend a 12-month sabbatical at a LHD. In exchange these Scholars-in-Residence will receive three months of summer salary, with the remaining nine months paid for by their university employee. Under both scenarios, their SPPH employers will also pay for their benefits, thereby minimizing the cost.

Similar to the GPH residents, the Scholars-in-Residence will work on tangible projects determined by the LHD that help to move the needle on health equity in their local jurisdiction, while simultaneously retooling the public health workforce through on-site and online staff trainings, expert advising, and leveraging the resources of their schools, programs, universities and university systems.
Content from the Earlier Version of the Proposal ***(Revised Sept 28, 2021)***

Challenge

The impact of COVID-19 on California's most vulnerable communities has shined a light on the need for greater investments in our governmental public health infrastructure, especially its labor force. According to the *California Future Health Workforce Commission*, the state's "public health workforce is chronically underfunded, and most local public health agencies lack personnel with expertise in key areas such as epidemiology and the essential skills to design, implement, and evaluate comprehensive approaches to community health improvement." Even though many local health directors would like to bring in cutting-edge perspectives and greater diversity to their workforce, it can sometimes be challenging to get someone hired. When they do succeed in recruiting high-quality candidates, many new hires leave to take better-paying jobs in the private sector. Relatively low salaries—particularly for rural counties—combined with difficulty breaking into the civil service system, keep many MPH graduates out of governmental public health. The proposed residency program seeks to solve this problem by helping newly-minted MPH students "get their foot in the door" of local public health agencies, providing the requisite experience and on-ramp to public sector careers, as well as financial incentives to work in underserved areas.

Opportunity

Under the new administrations in Washington and Sacramento, which are currently placing a laser-like focus on responding effectively to the Coronavirus pandemic and its disproportionate impact on low-income people and communities of color, we anticipate significant federal investments in rebuilding the nation's public health infrastructure. Indeed the state's 61 healthcare jurisdictions are experiencing an infusion of new funding for COVID response. In the foreseeable future (at least for the next two years) there will be many new entry-level job openings created for MPH and DrPH graduates as epidemiologists, health educators, program managers and health equity coordinators.

As part of the program development process, in March of 2021 we reached out to LHDs in urban and rural counties throughout the state to vet the idea with them and gage their interest in participating. We interviewed 15 health directors and deputy directors from Alameda, Riverside, Merced, San Francisco, San Bernardino, Fresno, and Marin Counties to solicit their input on the draft program model, pay levels, desired qualifications of GPH Residents, possible projects, and employment prospect (see Appendix B for complete list of key informant interviews). The response was overwhelmingly positive.

Overall the counties are excited about the program and the prospects of participating as host agencies. As one public health leader put it, they "wouldn't make time for this conversation given the pandemic and how busy they are unless they were very interested in it." The directors we spoke with would welcome the Public Health Resident's analytic skills, and their focus on health equity and DEI (an area that they would like to expand into but currently have limited bandwidth to do so). As a whole they are eager to increase diversity among their workforce and create an effective pipeline to permanent employment for the younger generation (and as one noted, a paid residency with a good salary is a more promising path than an internship, which is by nature temporary). They expressed a willingness to give the Public Health Residents wide-ranging exposure within the department, interesting projects to work on, as well as the supervision, mentorship, and support necessary to ensure the trainee's success.

Program Components and Activities

In developing this concept paper, we also reviewed a number of comparable program models including the CDC *Public Health Associate Program* (PHAP), ASPPH/CDC *Public Health Fellowship Program*, PHH/CDC *Global Public Health Fellowship Program*, CDC *Preventive Medicine Residency & Fellowship* (PMR/F), CDPH *California Epidemiologic Investigation Service Fellowship Program* (Cal EIS), *UC Berkeley-Kaiser Permanente Public Health Scholars Program*, *Sutter Health and Kaiser Permanente Administrative Fellows Programs*, and HSRA *National Health Service Corps* (NHSC) loan repayment assistance program. The following eight program components reflect best practices among similar health workforce pipeline efforts, as well as the UC Berkeley School of Public Health's experience in this arena.

1. Targeted Recruitment

We propose taking a regional approach to addressing the maldistribution of public health professionals in the state. Our overarching goal would be to reduce health disparities in places like the Central Valley (Merced, Fresno), the Inland Empire (Riverside-San Bernardino-Ontario region), far Northern Counties (Humboldt, Del Norte, Placer, Shasta) and low income communities of color in the Bay Area (East Oakland, Richmond, Pinole, etc.) and Los Angeles (South LA, Long Beach, etc.). Similar to the federal designation of Health Professional Shortage Areas (HPSA) used for recruitment of primary care, mental health, and dental service providers, the GPH Residency Program would identify *Public* Health Professional Shortage Areas (*P*-HPSAs) throughout California that lack diverse public health practitioners. In partnership with the newly-formed California Schools and Programs of Public Health (Cal-SPPH), the SPPH residency program coordinator would work with the 20+ accredited MPH and DrPH programs to recruit the best and the brightest applicants from the target P-HPSA communities.

Preference would be given to URM (Black, Latinx, Native American, Southeast Asian and Pacific Islander) candidates from health disparity backgrounds and with demonstrated financial need, including immigrants with language skills such as Spanish, Hmong, Mam, Vietnamese, and who express a commitment to applying their newly-acquired academic and professional skills in underserved regions of California upon program completion. One example of the target audience for this program is a child of farmworkers from Salinas who got her MPH at Berkeley so that she can return to her community and implement innovative strategies that advance health equity.

Cohort Size. With a $1.5 million budget for the first year of operations, we anticipate being able to recruit a pilot cohort of 12 GPH Residents (an optimum number for fellowship training program group dynamics and cohesion) and place them throughout the state in P-HPSAs with the greatest need. The 12 Residents could then be organized into three regional subgroups (four in Southern California, four in Northern California, and four in Central California). Funding permitting, during Year 2 we would expand the program to include 15 new GPH Residents bringing total cohort size to 27, 20 in Year 3, and so on.

Selection Criteria. During the initial planning period, the program management team would design a competitive application process with clear criteria for selection. For example, to qualify for the residency, there could be points for speaking a needed language, points for being from an underserved P-HPSA, and for the applicant's demonstrated commitment to advancing health equity and working in the governmental public health sector. We would continue to engage county employers in defining the desired competencies and qualities that GPH Residents would bring to their host agencies, such as:

- Strong data analytics and critical thinking skills
- High Emotional Intelligence (EQ)
- Excellent interpersonal communication skills (including the ability to communicate data to a laymen audience and interact effectively with both community residents and politicians)

- Knowledge of collective impact models, upstream determinants and health equity programs
- Passion, interests, and an idea of what they want to accomplish during their residency

In addition, during the planning phase the program team will determine the process for selection of public health residency placement sites. 12 different host agencies would be identified for the pilot (one for each Resident), with a preference for underserved counties in *P*-HPSAs and those with a health equity focus or who wish to do more in this space. A willingness to provide the GPH Residents with exposure, meaningful projects, quality supervision, mentorship, a portion of the stipend (e.g. one third of the cost), and potential pathways to employment, could be requirements for host participation.

2. Summer Internships

An important step in the public health workforce development pipeline, the program would include paid summer internships at the local health departments. This additional step would require the SPPH program staff to reach out to first-year MPH students from under-resourced backgrounds and attempt to recruit them into the program early on in their training. The summer internships would serve as a recruitment tool for the program, building a larger pool of potential candidates that could then apply for the 12 residency placement slots. This longer-term approach would deepen relationships between the Resident and the local public health department. During their 12-week internship, graduate students would get a taste of the LHD, its programs, and communities served. The experience would provide useful information to guide the student in selecting their elective coursework, capstone or thesis project, and other skills-building pursued during their second year, based on what would be most helpful when they returned to the LHD for their residency. Since most health departments pay for summer interns already, the net cost for this add-on would be minimal—just staff time for recruiting and placing interns.

3. One-Year Residency

Placement. At the heart of this program model is placement in local health departments for a year-long residency. Similar to a preventive medicine residency program for physicians interested in pursuing leadership positions in population health, GPH Residents will spend 12-months gaining hands-on experience and on-the-job training in governmental public health. Residents would be placed in the health department Director's Office as their home base, giving them a 30,000 foot view of the entire organization and its programs, as well as access to high level networks, decision-making processes, etc.

Stipends. In order to attract high quality applicants, ensure equity, and align with pay scales for county employees, GPH Residents would receive a stipend for their full-time work at a competitive rate of between $55,000-$75,000 (average of $65,000), depending on the cost of living in the region (i.e., less for rural areas and more for urban). Ideally, Residents would be hired by the intermediary organization or fiscal sponsor as employees with benefits including health insurance, sick pay and vacation leave.

Rotations. Similar to the Kaiser Permanente Administrative Fellowship in Health Care, GPH Residents could spend the first few months of their placement rotating through different parts of the organization, giving them wide exposure to units such as finance, administration, compliance, HR Epi, chronic disease, communications, etc. During these short stints, Residents would shadow their supervisor and assist with existing projects and program improvement efforts as a member of the team. Smaller counties would give participants a particularly well-rounded perspective, as they tend to lack silos. As one rural public health director put it, "*We don't have the luxury of becoming specialists. Everyone's a generalists*. "

Projects. After their rotations, GPH Residents would spend the next nine months working on an in-depth project or set of projects that align with their academic and professional interests. Individual projects would be health equity-focused and include community engagement, data analysis, and presentation components. These long-term engagements will give them the opportunity to go deeper, and take the lead on a change effort with real impact. CHEAC and BPH would work with the LHDs, SPPH faculty members and the GPH Residents to develop team projects that all 12 fellows could work on together, bringing their local experience to bear on a statewide program or policy challenge. Teams would present their findings and recommendations to CHEAC during their membership meeting.

Examples of possible individual or team projects include:

- Conducting community needs assessments, focus groups, and observational studies
- Launching new programs (e.g. overdose prevention in areas impacted by substance abuse)
- Helping with strategic planning (e.g. *what should the department's targets look like?*)
- Addressing the post-pandemic recovery needs of communities of color hardest hit by COVID
- Analyzing clinic flow (e.g. TB patient registration time), identifying administrative barriers to care
- Working with community-based organizations on power-building and health policy advocacy
- Catalyzing new initiatives (e.g. a required training for all staff on social determinants of health)
- Improve their community health promotion/*promotores* program and patient navigation system
- Enacting health equity policies and developing equity measures throughout the department (e.g. a Racial Equity Impact Assessment tool designed specifically for health outcomes)

Skills-building. In the process of designing and implementing their projects, GPH Residents will develop the skills and experience necessary to qualify for employment at the end of the year. During the pilot, the residency program coordinators would develop a set of desired learning outcomes, similar to the PHAP Curriculum Domains and Competencies and the de Beaumont Foundation's recently updated *10 Essential Public Health Services*. During their residency, participants will most likely learn how to:

- Develop assessment tools (survey design)
- Analyze data to evaluate and solve a problem
- Design, plan, implement, and evaluate programs
- Work in teams and across multiple departments to get things done
- Build collaboration and relationships with community-based partners
- Communicate effectively with elected officials (even those that don't support your agenda)
- Negotiate government bureaucracy and political systems to advance your agenda
- Finance your project and deliver on your program

4. Robust Cohort Experiences

The proposed program would utilize a proven cohort model that gives the trainees a rich opportunity to connect with one another, share best practices, learn from their peers as well as more experienced leaders of color in the field, and build a network that can last their careers. As the governmental public health residency program grows over time, so too will the learning community and professional network, each year adding new members to the cohort. It is our hope that the older program graduates will serve as informal mentors to the younger trainees coming in, and support them on their journeys.

Similar to the *UC Berkeley-Kaiser Permanente Public Health Scholars Program*, the project managers would provide participants with a set of robust cohort experiences including:

- Team-building events that promote peer relationships and cohesion
- Professional networking with governmental public health leaders
- Leadership development workshops on topics such as advocacy, strategic communication, negotiations, and other workplace competencies needed to become effective changemakers
- Site visits to nonprofits doing interesting health equity work, private companies, etc.
- Field trips (e.g. to Sacramento to interact with health policy advocates, elected officials), etc.
- Statewide meeting of all the GPH Residents at the beginning of the year
- Regional meetings for Southern, Northern, Central California subgroups (bi-annually)
- Year-end graduation celebration with all residents, supervisors, mentors, staff, and families

5. Mentorship

Another best practice that the program would adopt is a multi-tiered mentoring system that includes a:

1. *Preceptor* at the host agency responsible for supervising the Resident's projects
2. *Mentor* at the governmental public health executive level that provides one-on-one guidance
3. *Advisor* from their SPPH to provide academic and research support on their HE projects
4. *Buddy* (paired with another GPH Resident with similar career interests)

Each of these play a key role in the participant's success. The *Preceptor* provides quality supervision on the work itself. The *Mentor* guides the GPH Residents through the politics and complexities of governmental public health. She or he would be recruited from the cadre of former LHD Directors who have left their posts and moved on to the next chapter in their careers and housed at CHEAC, providing support to the LHDs to ensure quality supervision and utilization of the resident. Both the Preceptor and Mentor would share their insights on how to break into civil service jobs and move up through ranks. To maintain a continuity with the SPPH during residency, the *Advisor* would be the Resident's academic advisor from graduate school. The SPPH *Advisor* would bring an outside perspective as well as data and analytic methods expertise to the Resident's health equity project. Residents would also be encouraged to utilize educational opportunities such as the semiannual meetings of the *Health Officers Association of California*, gaining exposure to the broader community and growing their professional networks.

6. Post-Residency Employment

After proving themselves and building relationships across the department, GPH Residents could potentially transition into full-time employment with the county. Program graduates hired by their host agency could continue to work on the health equity project(s) that they started, or seek employment in a different county. Typical entry-level LHD jobs for applicants with an MPH and one year of experience are Project or Program Coordinators, Health Educators, and Epidemiology Analysts.

Average salaries start at around $55K-$65K/year, and slightly higher (~ $70K) in urban counties like San Francisco. These public jobs pay less than the nonprofit sector, but offer generous benefits including pension plans. Some counties like Fresno are trying to develop higher-level Program Manager positions, and Alameda has created two new classifications (Management Associate and Associate Program Specialist) to provide a glide path for master's level graduates with one year of experience. With three

years of work experience under their belts and an MPH degree, graduates of the residency and loan repayment program would qualify for entry level management positions within the counties (e.g. Program Specialists, Senior Development Analyst 2, etc.), thereby accelerating their leadership growth.

7. Loan Repayment

To off-set the relatively low entry-level salaries offered by the public sector for recent MPH and DrPH graduates, the proposed program would provide financial incentives in the form of loan repayment. This important program component would be similar to the HSRA National Health Service Corps loan repayment program for primary care physicians, nurses, dentists, pharmacists, social workers and behavioral health care providers who choose to practice in rural communities and other federally-designated HPSAs, but for *public* health professionals. Loan repayment would kick in during the first year of regular employment at a local health department in a designated *P*-HPSA. Participants would be eligible to earn up to $45,000 in student loan debt repayment—$20,000 in Year One and $25,000 in Year 2 (comparable to HRSA loan repayment amounts and the average debt burden of MPH graduates). *P*-HPSAs could be weighted to give preference to rural and remote areas with the greatest need.

8. Post-Program Support

An important element of the proposed GPHR program is alumni tracking and engagement. Program coordinators will keep in touch with graduates once they are employed, providing on-going coaching, skills-building, peer learning and professional networking opportunities so that they can be successful in their jobs and advance in their careers. Through online and in-person gatherings of program graduates and current participants, GPH alumni will be able to serve as informal mentors to the younger cohort, paying it forward to the next generation of changemakers in governmental public health.

Implementation

The proposed program and endowment fund would be run by the Public Health Institute (PHI), which has extensive experience managing complex programs and budgets. As the lead Secretariat, PHI would hire a full-time Program Director to provide oversight, liaising with partners/sites, and overall program management, as well as a part-time Administrative Assistant to help with program logistics and finances. As a true partnership, PHI would work closely with Berkeley Public Health to coordinate the research projects, SPPH faculty and residency recruitment and selection, and on-going mentorships. In addition to the half-time SPPH Coordinator/Mentor, CHEAC will also hire an LHD Coordinator/Mentor at the same level to support LHDs as supervisors, mentor residents, give them advice about navigating the politics and civil service system, etc. Together, this program management team will represent the collective interests and resources of academic public health, governmental public health practitioners, and nonprofit organizations working to advance health equity on the ground.

As described above, BPH would design the application process and recruitment plan to draw a pool of competitive applicants from accredited MPH and DrPH degree programs. BPH would be available to offer any advice and support that would be helpful during the planning and implementation phase. It would also connect CHEAC to a network of over 30 schools and programs of public health in California (CA-SPPH) to build mutually-beneficial relationships with universities in terms of training a diverse public health workforce, partnering with community and government to solve tough public health challenges together, and advancing a coordinated health equity research, policy and action agenda statewide.

Budget Narrative

As outlined in the line-item budget below, the total cost of the program in Year One is ~ $1.8 million, most of which would go directly into the pockets of the participants in the form of stipends of between $55K-$75K for the year-long residency ($780K total) and an allowance for health insurance, as well as to the Scholars-in-Residence for summer salaries and joint faculty appointments. About 21% would go to staffing (program management and coordination), and 15% for administrative overhead.

To ensure that counties have 'skin in the game,' host agencies would be asked to contribute $25,000 towards the Resident's stipend (an amount that does not seem to be cost prohibitive for program participation). Those who apply to host a Scholar-in-Residence would also be asked to contribute towards the cost as well (see below). They would also continue to pay their MPH students directly for summer internships. With the LHD contribution the balance to be raised in Year 1 goes down to ~ $1.4 million. During Year 2 the total cost would increase when the loan repayment kicks in, and for increased numbers of SIR. Our hope is that at least 67% of residency program graduates would choose to stay on in governmental public health (assuming they were offered a good job), but that could end up being significantly lower (Riverside estimates that only 40% would choose to stay on with the County).

In terms of the financial model for the endowment, we are assuming a conservative payout rate of 5% (although ten-year averages are at around 8.5%). At 5%, a $28 million endowment fund would spin out around $1.4 million a year in operating expenses for the new residency program once it has been capitalized, and continue to grow in perpetuity (the fund, for example, could experience a 7.5% growth rate in market value, and after paying out the 5% and reinvesting the rest, would still grow the principal balance significantly year after year depending on investment policies and performance in the market). Private companies and additional funders might also be willing to help build the endowment size given the value of investing in the state's public health infrastructure, diverse workforce, and health equity.

This budget is modular and could be expanded depending on the growth of the endowment and availability of outside fundraising. Ideally we would increase the cohort size from 12 in Year One to 15 in Year Two, from 15 in Year Two to an incoming class of 20 GPH Residents recruited in Year 3, and so on. Similarly, we would grow the number of SIR from 5 in Year one to 15 by year three or four.

Sustainability

In addition to leveraging TCE seed funding to secure additional philanthropic support from foundations and corporations committed to advancing health equity and population health in California, PHI would develop a sustainability plan complete with a policy advocacy component aimed at securing public dollars for training the state's public health workforce. This long-range strategy would involve legislation and new criteria to expand federal loan forgiveness programs to include *public* health professionals (a logical extension of the HRSA *National Health Service Corps* model that currently supports nurses and social workers who pursue employment in underserved rural areas), California Department of Health Care Access and Information (HCAI, formerly known as OSPHD) loan repayment programs and scholarships for California graduates who provide direct patient care in areas of unmet need, and other future state and federal investments in our under-resourced public health infrastructure.

We invite you to join us on this exciting journey.

Appendix A: DRAFT Line Item Budget

California Governmental Public Health (GPH) Residency Program/Academic Health Department Initial Start-Up (Pilot) Operating Budget, 12 GPH Residents, 5 SPPH Faculty (12 months, Spring 2022-Fall 2023)	
Item	**Amount**
Personnel	
Program Director (1 FTE @ $138K annual salary, housed at PHI, for program design, development, oversight, liaising with partners/sites, and overall program management)	$138,000
Administrative Assistant (50% FTE, $60K salary, at PHI, to assist with logistics, finances)	$30,000
Fringe Benefits & Taxes (@ 35% for PHI)	$58,800
SPPH Coordinator/Mentor (50% FTE @ $200K faculty level salary, housed at BPH, to recruit residents & faculty mentors, pair them up with local jurisdictions, oversee HE research projects)	$100,000
LHD Coordinator/Mentor (50% FTE, $200K salary, at CHEAC, to support LHDs as supervisors, mentor residents, give them advice about navigating the politics and civil service system, etc.)	$100,000
University/County Fringe Benefits @ 48%	$96,000
Total, Personnel	$522,800
Other than Personnel Services (OTPS)	
Stipends ($55K-$75K each depending on COLI x 12 Governmental Public Health Residents)	$780,000
5 Scholars-in-Residence (2 full professors on 12-month sabbatical, 3 months summer salary, at an average of $42K each depending on university system/pay scales, 3 junior faculty members at 50% time at an average of $53K each, depending on their UC, CSU and private U. salaries)	$243,000
Paid summer internships at Local Health Departments ($7,000 each, x12 Residents = $84,000), to be paid directly to the MPH students by the counties	In-Kind
Health Insurance ($3,800 each x 12 PH Residents)	$45,600
Travel/transportation, events, office supplies, communications, miscellaneous	$22,000
Total, Contract and OTPS	$1,090,600
Subtotal, Direct Program Costs	$1,613,400
Administrative Overhead (at Indirect Rate of 15%)	$242,010
Total Project Expenses	**$1,855,410**
Local Health Department Contribution for their GPH Resident (at $25,000 per Resident)	$300,000
LHD Contribution for their SPPH Scholar-in-Residence (@ $21,000 per SIR on Sabbatical x2 and $26,500 per Junior Faculty SIR x3 at a contribution rate of half of 50% salary joint appointment)	$121,500
Balance to be Raised (annual operating budget Year One)	**$1,433,910**

Appendix B: List of Key Informant Interviews

- Kimi Watkins-Tartt & George Ayala, Alameda County
- Wendy Hetherington, Kimberly Saruwatari, and Michael Osur, Riverside County
- Rebecca (Becky) Nanyonjo, Yadira Vazquez and Jessica Juarez, County of Merced
- Naveena Bobba and Ayanna Bennett, San Francisco DPH
- Joshua Dugas, San Bernardino County
- David Luchini and Melanie Ruvalcaba, Fresno County
- Charis Baz, Marin County
- Tony Iton, former Director of Alameda County Public Health
- Jeff Oxendine, Health Career Connection, former CPHPL Director
- Grace Turkis, Berkeley Public Health CPHPL, KP Scholars Program Director
- Kirsten Beverly, CDC, PHAP Program Coordinator
- Michelle Gibbons, County Health Executives Association of California (CHEAC)

Appendix C: Notes from County Government Interviews

Public Health Director Kimi Watkins Tartt and George Ayala, Alameda County

- Been working on health disparities work since Arnold Perkins 1994 to put the public back into public health, which means partnering deeply with CBOs and with Alameda county residents (partnership with UC Berkeley and Pueblo on Community Public Health); in a way that is respectful and can benefit the learning for all etc. (pipeline).
- Striving to be an "Academic public health department"
- Always supervised interns but goal is to further relations; would like to share resources more, where university comes back with students and faculty to provide professional training/development for their staff around different areas
- Don't see our people at Berkeley Public Health; need to see black and brown people from here (most of their interns of color/URM come from SF State, SJ State, not Berkeley--more affordable MPH programs)
- The money issue is huge
- Number of people who are trained in public health is small (use as part of 'the challenge; this; Tony's feedback on # of MPHs; hard to break in];
- Help with conducting community assessments; launching new initiatives/catalyze new projects like Public Health 101 / Social Determinants required training for all staff; Best Babies Zone Food to Families Initiative and Urban Male Health work were launched CDC PHAP fellows; program evaluation; a lot of interface with community directly (so that the fellows get that experience); some administration
- Will have a lot of work to address the recovery needs post-pandemic for those communities of color most impacted by it.
- How do we create systems for more rapidly addressing community needs?
- Could help with our strategic planning process--what should the PH department's targets look like in a post-pandemic world? Targets that we can meet from a public health and community/resource perspective? What should resource allocation methodologies look like?
- Have talked about doing rotations (one year) and would like to try it out; more shadowing learning versus helping us to do some work (if only there for short stints); need to separate the two things; learning things more broadly different territory of governmental public health versus working on a particular project deeply and learn a lot about that topic; both could lead into potential employment opportunities (and have a good job of hiring our interns)
- Shorter stints getting exposure and helping out with existing projects then the next 6-8 months are spent working on a project that they lead and go deeper; or come in and spending a year on a particular project like their new community health needs assessment (would want interns that can help with that for the whole year)
- Could have two models--the one where they do six months of rotations and then go deep in a particular project for six months would be more helpful for a person with less work experience. For someone with more work experience particularly in public health they will want the one year of focused project work [or maybe it's three months of rotations/exposure/job shadowing and nine months of project

- Would want them to come in with baseline of skills in Emotional Intelligence /EQ, communication skills, interpersonal skills, critical thinking and analysis, analytical skills/reconnaissance (need to figure out what they want from PH); need to figure that out quickly to prepare for public health department's participation
- Need to have an understanding of the role that government plays in people's lives (and not the top-down "we're here to save you").
- Think outside of the box; train them to work within the confines of government but still think creatively and strategically
- Will acquire skills in multitasking, will learn how to stay organized, communication with a very diverse workforce, address a broad range of issues, will learn political acumen; understanding policy-makers, will learn political savvy (not a science but an art), and inter-play between policy-makers and constituents/residents and role of public health as intermediary in that relationship); will learn assessment tool development, survey design, data analysis, communicating data to lay audiences, program planning, program design and implementation, budgeting, and the budgeting process (how do we finance our work)
- Could this year of experience catapult them into a tier two managerial position?
- Have two new county classifications (entry level management position is "Program Specialist", but it requires three years of experience, so we created "Management Associate" or Associate Program Specialist which provides a glide path for recent graduates with limited experience (maybe one year of FT work experience); the year with us in residency could count but won't bring up to 3 year mark (division directors want someone who can come in and hit the ground running).
- Will learn during the year how to break in to County government, which isn't always transparent; need to explain that to the residents
- We have had mentors assigned to people alongside Preceptor (supervisor for project) and has worked well for CDC fellows; could go to their mentor to help them understand the politics/off-the-record conversations and the coaching/advising in their careers; like the idea
- Governmental public health is governed by the civil service system and by labor; cannot pay a recent graduate more than an existing county employee who has more experience (even with a graduate degree?)
- CDC PHAP fellows work for the CDC (that's easier); they hire the interns (and pay them directly; they work for them); participate in the HCC and it's a matching program; we pay $6500 towards that).
- In some ways education can replace experience year for year (e.g. two years of MPH or DrPH = two years of work experience)

Wendy Hetherington Chief of Epidemiology Kimberly Saruwatari, Diane and Michael Osur, Riverside PH

- Vaccine math is driving her and her staff crazy; data systems used for vaccine roll-out are antiquated;
- Big team (six Masters or higher level epidemiologists and team of research specialists behind them) and getting more staff, because of extra COVID funding
- Local county health departments who may not have staff having staff devoted to health equity
- Used to have a California state program for PH fellowship for Epi (Cal EIS run by CDPH; Paid part of their salaries)
- Could continue to work on the project after the residency

- Short-term there's money (for two years), during the pandemic
- Salary seems a little high for residency program; during Cal EIS base starting salary for Epi person was $70K; we would pay the salary for the fellowship ($45K), so it was a good deal; but that's not equitable (getting paid less than the going rate, unless they have no experience
- Can't hire them/replace permanent employee, would be an intern without benefits; better for an intermediary (e.g. PHI) to hire them and give them benefits;
- For the privilege of having a person you would pay PHI and sign a contract with them
- [seems like the counties can even pay more, e.g. $45K]
- Can't handle three at their county, especially cost--could do one (place one at Public Health Alliance of SoCal funded by PHI]
- Do it by region--3 in SoCal, three in NorCal, 3 in Central Cal (each at a different county public health department but forming sub-groups)
- Government doesn't grow/create new jobs very quickly; difficult to get into the door, so this program will help them get experience and break in; right now getting new staff because of COVID, but they still need to have experience to meet county guidelines
- Projects: work with CBOs on power-building and focusing on housing and formerly incarcerated individuals, Riverside Resilience work (Adverse Childhood Experiences and Adverse Community Experiences resilience building), overdose prevention program working with communities heavily impacted by substance abuse, Health Riverside County Initiative built environment/healthy cities projects, COVID and Racial HE and racial justice making more progress on that to create policy changes to make our institutions more anti-racist, HIV/STD, Black Infant Health, Maternal & Child Health; have tons of programs; pick any of them and there's a project; after we start ramping down from COVID there will be a lot of recovery to do--when we start putting staff back there will a lot of data analysis, addressing those gaps, addressing those barriers to care, reaching out to those communities that are severely underserved, etc.
- Desired qualities: have to come with an interest, passion and drive; have initiative, know what they want; be a partner in designing their projects together with the leadership
- Goal: develop necessary skills on the job so that they are qualified for employment at end of the year;
- Given would be exposed to so many different aspects of the department so that when it's time to transition to employment they will have relationships across the organization (from EPI to MCH)
- Like with staff, residents would be given real responsibilities--would be put in charge of a committee, set up meetings, send out agendas, get teams to work together--would be fully functioning; get people interested, write policy briefs, interact with the CBOs, etc.
- In Coachella Valley, have migrant issues, Latinx issues, etc.
- Will come in as project coordinators and health educators in beginning
- In our strategic plan to bring along the future generation (as is DEI)
- With COVID funding just hired a Health Equity Program Coordinator to work with CBOs, COVID response, vaccination and testing, etc.; and will hire a DEI Deputy Director (got funding approved);
- Wouldn't make time for this conversation given the pandemic and how busy we are unless we are very interested in
- Paid residency with a good salary they will likely stay with you permanently, versus an intern that comes and goes (temporarily)

Public Health Director Naveena Bobba & Ayana Bennett, Director, Office of Health Equity, San Francisco

- Chief Health Equity Officer positions more on the medical side than PH
- HE is baked in to biostats; disaggregate your data, trying to close gaps as well as get a good average; Creating HE competencies for all staff: know what the class standards are, how federal definitions of race should be cross walked with local definitions; need a clarity around what those things are.
- Looking at data in a different way and how it impacts communities (by zip code, place-based); not just communicable diseases (which has been the main focus of PH), but chronic diseases are the overarching need of the future; need to understand social determinants of health; looking for people who come from those communities and bring the lived experience; work with residents who are living this. Would serve as part of the team; work on multiple projects (e.g. Black Infant Health)
- Knowing what collective impact is (by definition); knowing what the role of organizers and advocates; nuances that you learn by doing; prepare them for their role; enter the community looking for the advocates, knowing history of segregation and neighborhood characteristics; would like to see health equity as a field with a defined skill set and knowledge base that could be learned professionally (foundational skills where they are immersed in HE); missing some rigor in terms of the anti-racism and HE work; could work on developing Racial Equity Impact Assessments for Health
- knowledge of Design thinking, collective impact models would be helpful to them
- Challenging to get someone hired (miracle if can get someone hired within a year; unique to SF); pushing to have more diversity in the workforce, but high bar to get hired with civil service exams
- Would love to see world of nonprofit healthcare get folded in to this pipeline (and they have access to philanthropic dollars)
- Trying to build our pipelines especially that build diversity
- Would love to see this program start as soon as possible (love their current graduate student intern)

Public Health Director Rebecca Nanyonjo, Yadira Vasquez, Jessica Montoya, County of Merced

- Thinks that it's not fair that MDs get their loans repaid but not PH folks
- Very excited about this project; very novel
- From HR perspective it's becoming harder and harder to recruit people into PH, especially in the Valley, and when you do they often quit and take a job in the private sector because they pay more
- Lots of HE visits, e.g., MCH home visits (how do we engage them)
- Have a lot of CDC PHAPs ("Fap" Fellows) that come in; treat them as if they are going to take their jobs/replace us; find out what excites them, what they are passionate about; spark their interest.
- Our role is to make the aspirational operational.
- Go to the jails, take notes, present report to sheriff and be prepared for him to say to go XYZ
- Challenge them with a problem, not just a program; tell us what we as decision-makers should do differently
- Many projects in administration haven't been able to start because don't have time--within the contracting unit, compliance unit, the electronic system for fiscal, etc.
- In smaller counties residents will get a well-rounded perspective; don't have luxury of becoming specialists; everyone is a generalist--budget/finance, hiring/recruiting, program specialist, chronic disease; no silos;
- Looking at clinic flow and TB and administrative component--how long does it take to register a patient, it's a barrier for care; how do we recoup costs?

Josh Dugas from San Bernardino County

- Have over 900 employees (what % are MPH +?)
- County financial contribution of 1/3 of stipend ($25K) is doable. Would need budget authorization and a signed MOU;
- In Riverside, could only handle one
- Give them wide exposure (a mile wide and an inch deep)
- Can work on existing projects and program improvement
- If we like them and they like us we can keep them on (we hire many of our interns and fellows); we always try to figure out how to hire them; one of the easiest things we can do; we have a lot of positions, and a lot of turnover (so a lot of opportunity to hire people); if we found someone who wanted to stick around and was working out we would fight to keep him.
- Entry-level jobs for them include Project and program coordinators that oversee programs/projects, epidemiologists statistical analysts, communicable disease section (from contact tracers to management); jobs start at a little less than $75K but have an opportunity to request additional salary; If job starts at $55K but they have some experience, skills, need less training we could request that they start higher; residency salary seems a little high for them (one of the lowest paying counties around); so counties with greatest need have lower salaries

Charis Baz, Marin County

- Marin county has a big and robust Epi team
- Could address upstream determinants of health by working with other departments outside of PH (like housing, social services), doing data analysis with an equity lens, approach with a health equity frame (e.g. working with jail re-entry team, social workers care coordination and chronic care, community health improvement plan); social determinants of health - income, education, housing, mental health, substance abuse; address the needs of most vulnerable marginalized populations (Marin doesn't have its own health clinics like bigger counties like Santa Clara, Alameda, SF that provide direct service so focus on social determinants).
- Need to interact directly with clients and community; could run focus groups, do observational studies, time studies of clients, partner with CBO to do a ride along
- Have program planning and coordination entry level jobs for recent MPH or MPA grads
- Program evaluation and community health
- Planning and prevention
- Emergency response
- Could jump up /leap frog up to middle-level manager positions, especially if help meet goals of diversity (if you're URM/from underserved backgrounds); eg. Senior Dev. Analyst 2.
- Great idea to go to a smaller rural county; will be exposed to more silos and get to do more things; under-served rural areas such as Placer, Shasta, del Norte; great idea to recruit from there
- Example of a child of farmworkers from Salinas who was getting her MPH at Berkeley and planned to return to her community to work; that would be the target audience for this
- Loan repayment to work in these underserved areas
- Sliding scale stipend based on the cost of living?
- Connect to an outside mentor who if from the same background (racially) as the fellow/resident

Assistant Director David Luchini and Public Health Program Manager Melanie Ruvalcaba, Fresno County

- Valley has some of the highest concentration of poverty in both urban and rural neighborhoods; works with local community partners to address the needs
- Lose our own youth brightest minds in Valley
- Get Fresno State MPH interns
- Find the right Preceptor/supervisor (which will take time because they are all super busy now)
- How to communicate data at laymen level (can't speak Epi, have to speak 'community')—key skill; have to build trust in the neighborhoods impacted, and communicate/explain it well;
- Would like some help with enacting health equity policies (not tobacco policy); help us to solve problems using a health equity lens; someone to focus on health apply HE lens to various programs in the department, particularly ones that don't have measures (a health equity person) to develop health equity measures throughout the department
- Help to improve their health promotion program with the community health workers/promotores de salud; clients get lost in the patient navigation system and need better guidance to navigate it
- Will be interfacing with residents, going to evening community meetings/town halls, listen to residents; build their capacity as partners; train community partners to be their own health advocates
- Will learn government timelines, how government functions, and the layers; there's paperwork, board of supervisors, analysts, CAO, etc. learn how to go through these processes and understand how the system works to make change; if you want to get a policy adopted by the board need 9 weeks in advance to get it ready and before that do all the legwork to line up community support.
- Community-based partners – how to collaborate with community and assess their needs (and how the county can or cannot provide assistance to them)
- Learn about grants – how to apply for grants, report on grants, and invoice for grants; and how to manage subcontractors
- Building collaborations with relationships with community-based partners (which helps them get things done; since the nonprofits are more nimble than government)
- Public speaking
- How to work with elected officials (still need to talk to mayor about tobacco policy even if you know they don't support)
- Fresno public health salaries start at $55K-$65K for those with a master's degree
- Health Educator level is their master's level
- Trying to develop some higher level Program Manager positions
- Often hire their interns
- Estimate that 40% would want to stay on if we had decent salary with benefits available
- It's a good job; low turnover rate among their new hires in Fresno
- difficult for upward mobility; get stuck in same position longer than like; older folks are not retiring
- Need a full-time grant writer to bring in more money so that we can grow as a department
- Not a failure if they pick a local CBO and don't stay with the county; they have great salaries at CBOs for MPH graduates (but counties offer better benefits like pension plans)