

STATE OF CALIFORNIA
STANDARD AGREEMENT

STD 213 (Rev 02/20)

STATE CONTROLLER'S OFFICE IDENTIFIER
42651911102

AGREEMENT NUMBER
19-11102

REGISTRATION NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below:

STATE AGENCY'S NAME

California Department of Public Health, hereinafter referred to as "State"

CONTRACTOR'S NAME

University of California San Francisco, hereinafter referred to as "University"

2. The term of this Agreement is: 4/1/2020 through 4/29/2021

3. The maximum amount of this Agreement is: \$ 8,730,910.00

4. The Parties agree to comply with the terms and conditions of the following Exhibits, which by this reference are made a part of the Agreement.

Exhibit A – A7: A-Scope of Work; A1-Deliverables; A2-Key Personnel; A3-Authorized Representatives; A4-Use of Intellectual Property & Data; A5-Resumes/Biosketch; A6-Current & Pending Support; A7-Third Party Confidential Information (if applicable) 29 page(s)

Exhibit B – B-Budget; B1-Budget Justification; B2– Subawardee Budgets (if applicable); B3– Invoice Elements 33 page(s)

Exhibit C* – University Terms and Conditions UTC-220

Check mark additional Exhibits below, and attach applicable Exhibits or provide internet link:

- | | | |
|--|---------|---------|
| <input checked="" type="checkbox"/> Exhibit D – Additional Requirements Associated with Funding Sources | 6 | page(s) |
| <input type="checkbox"/> Exhibit E – Special Conditions for Security of Confidential Information | page(s) | |
| <input type="checkbox"/> Exhibit F – Access to State Facilities or Computing Resources | page(s) | |
| <input type="checkbox"/> Exhibit G – Negotiated Alternate UTC Terms | page(s) | |

Items shown with an Asterisk (*) are hereby incorporated by reference and made part of this agreement as if attached hereto. You can find these documents on the University of California, Office of the President and the California Department of General Services websites.

IN WITNESS WHEREOF, this Agreement has been executed by the Parties hereto.

CONTRACTOR

CONTRACTOR'S NAME (if other than an individual, state whether a corporation, partnership, etc.)

University of California, San Francisco

BY (Authorized Signature)

DATE SIGNED (Do not type)

04/01/2020

California Department of General Services Use Only

PRINTED NAME AND TITLE OF PERSON SIGNING

Jean Jones / Senior Associate Director

ADDRESS

3333 California St, Suite 315, San Francisco, CA 94143

STATE OF CALIFORNIA

AGENCY NAME

California Department of Public Health

BY (Authorized Signature)

DATE SIGNED (Do not type)

4/1/20

PRINTED NAME AND TITLE OF PERSON SIGNING

Tim Bow / Procurement Officer

ADDRESS

1615 Capitol Ave Sacramento, CA 95814

Exempt per: PCC 1102

Exhibit A – Scope of Work

Project Summary & Scope of Work

Contract Grant

Does this project include Research (as defined in the UTC)? Yes No

PI Name: George Rutherford

Project Title: Click or tap here to enter text.

Project Summary/Abstract

Briefly describe the long-term objectives for achieving the stated goals of the project.

If Third-Party Confidential Information is to be provided by the State:

- Performance of the Scope of Work is anticipated to involve use of third-party Confidential Information and is subject to the terms of this Agreement; **OR**
- A separate CNDA between the University and third-party is required by the third-party and is incorporated in this Agreement as Exhibit A7, Third Party Confidential Information.

Scope of Work

Describe the goals and specific objectives of the proposed project and summarize the expected outcomes. If applicable, describe the overall strategy, methodology, and analyses to be used. Include how the data will be collected, analyzed, and interpreted as well as any resource sharing plans as appropriate. Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the goals and objectives.

Click or tap here to enter text.

*See Attached Exhibit A1 - Services & Deliverables

Exhibit A1 - Services & Deliverables

BACKGROUND AND SIGNIFICANCE

The current novel coronavirus (COVID-19) outbreak has caused unprecedented economic and social damage across the world in general and particularly within the United States. Community containment (or shelter in place, mass quarantine, lockdown, etc.) is an extreme measure that is seldom employed in the United States and has not been employed to its current extent since the 1918-19 influenza A H1N1 pandemic.

As of April 25, 2020, there had been 41,137 cases of COVID-19 and 1,651 deaths from COVID-19 reported in California (Figure 1). Counties with the highest number of cases are largely in southern California; Los Angeles, Riverside, San Diego, Orange and San Bernardino Counties account for 62% of all cases in the state, while the six-county San Francisco Bay Area accounts for 20% (Figure 2). The San Francisco Bay Area was the first region in the country (on March 16) and California the first state in the country (on March 20) to invoke community containment, although it had at the time been employed in China and several western European countries. This measure was taken because of the confluence of four critical factors: 1) the global introduction of a novel virus; 2) no evidence of pre-existing human immunity; 3) evidence of severe and unpredictable morbidity and mortality; and 4) no currently known preventive or therapeutic intervention. Given these factors, the only effective mitigation has been the prevention of transmission by mimicking herd immunity by physical distancing measures designed to keep infected individuals from transmitting infection to vulnerable populations. This extreme measure has had a clear effect on decreasing transmission as manifest both in the number of new cases reported and the number of hospitalizations, although recent increases in testing has likely obscured its true benefit (Figure 1).

Figure 1. COVID-19 cases by date of report, California, March-April 2020

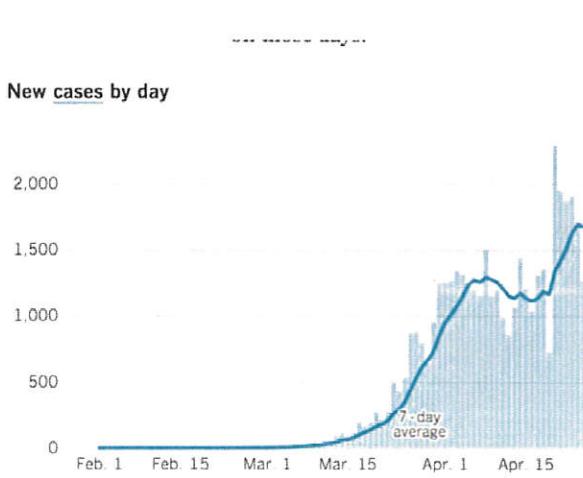
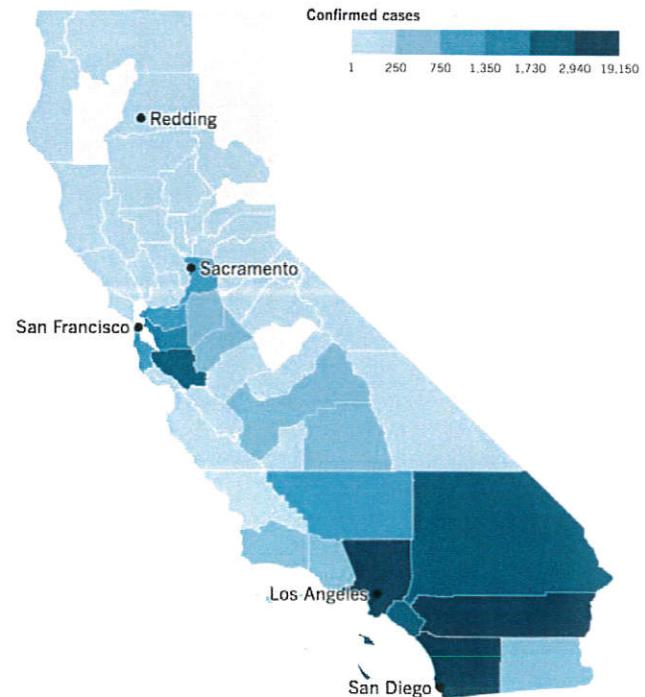


Figure 2. COVID-19 cases by county of residence, California, March-April 2020



As with any intervention, there exists a balance between benefit and harm. To minimize harm to society from COVID-19, we must first plan a comprehensive and staged approach to moving away from community containment as a primary strategy and then proceed to more narrowly-focused secondary strategies, which include: 1) the development of sentinel and syndromic surveillance; 2) an enhanced capacity for robust testing for infection; and 3) rapid and efficient contact tracing and case finding in conjunction with supervised isolation and quarantine.

Box. Criteria for discontinuing community containment and returning to work

1. Low¹ incidence and prevalence of SARS CoV-2 infection with the following components:
 - a. Low incidence of reported cases and hospitalizations
 - b. Low incidence of infection as measured in an ongoing broadly representative cohort study, employing both rapid, high-throughput and real time RNA PCR and serological testing
 - c. Low prevalence of infection as measured both through a cohort study as well as other cross-sectional serological surveys
 - d. Low incidence as suggested directly or indirectly by sentinel syndromic and virologic surveillance, e.g., visits of influenza-like illnesses, surveillance of remnant serum and nasopharyngeal swabs obtained for other indications than to rule out COVID-19
 - e. Clear evidence of defined minimum standards of societal adherence to community containment
2. A robust contact tracing, case finding, supervised isolation and supervised quarantine system
3. Widespread availability of testing to detect acute infection from nasal or nasopharyngeal swabs
4. Adequate capacity for inpatients and critical care patients, including ventilator capacity
5. A clear strategy for what elements of community containment to retain, e.g., shelter-in-place for older adults, restrictions on mass gatherings, wearing masks outdoors) along with other containment strategies such as staggered return to work and school.

This is an intermediate phase of our COVID-19 response, which will be necessary to anticipate and minimize a “second wave” of infection as containment is reduced in stages, can end when safe and effective therapeutics and vaccines are available and have been administered with sufficient coverage to concurrently provide some degree of treatment and herd immunity. To move away from community containment safely and mitigate a rebound in transmission, we believe that several criteria must be met (Box). The foundation of the response must be early detection and rapid response using a **test-investigate-trace** and repeat approach.



This proposal focuses on a robust case investigation, contact tracing, case finding, supportive isolation and supervised quarantine system. We propose to develop and train a workforce of currently furloughed civil servants, volunteers and eventually paid workforce throughout California in close conjunction with the California Department of Public Health, duplicating a system that has been rolled out across San Francisco County. Elements will include recruitment, training, standard operating

¹. What “low” is remains to be determined. As a working definition, we’d propose <10 newly reported cases and <10 new hospitalizations per day across California for two weeks, and an incidence of <2 case per 100 person years and a seroprevalence of <2%. Cessation would be defined as zero cases identified throughout the area over two consecutive 14-day incubation periods.

procedures, information technology (IT), deployment of full-time consulting teams to support local health departments to ten regions² and evaluation.

PROGRAM DESCRIPTION

We propose to provide a package of training and organizational consultation on case investigation, contact tracing, case finding, isolation, and quarantine to all local health departments in California, and to oversee its rollout and implementation. This is based on a model we have developed in partnership with the San Francisco Department of Public Health (SFDPH). Below, we provide an overview and then describe each element and a model of deploying volunteers and eventually a new workforce to conduct contact tracing. We have proposed a project period of 18 months, recognizing that the primary public health strategy for COVID-19 will move from one focused primarily on containment and mitigation to one based on vaccine coverage when vaccine becomes available. We plan for our project to be sufficiently flexible to be able to move to a strategy of vaccination and assuring high-level vaccination coverage as tools and strategies evolve.

To be a bulwark in stopping onward transmission of SARS CoV-2 and quickly identifying and limiting spread from reintroductions into California, case investigation and contact tracing must be sufficiently staffed, carefully managed and coordinated with other health department activities. It also needs to have the full authority of the local health officer behind it. This requires **five** essential functions described in Figure 3:

1. **Training and capacity building** responsible for training up identified cadres in case investigation and contact tracing;
2. **Strategic operations** responsible for the selection and mobilization of the workforce as well as forecasting and planning;
3. **Technical operations** responsible for understanding the local health department's current COVID response and data systems including case reporting, investigation, contact tracing, and social service referrals;
4. **Informatics lead** responsible for mapping current data systems to proposed improved systems, they will assess new technology solutions for fit and applicability in that jurisdiction;
5. **Data management and quality improvement** responsible for ensuring the data are of high quality and producing metrics that evaluate the impact of the programs.

In the first instance we propose to implement a comprehensive set of training resources rapidly that can be leveraged to mobilize a large workforce of case investigators and contact tracers. However, training this workforce must occur in tandem with jurisdiction-specific support to ensure that the workforce is maximally effective. Thus we propose to not only offer the highest quality online learning, including experiential components, but to provide a full package of support to local health departments with our

2. The seven regions are: Los Angeles, Greater Los Angeles (Long Beach, Pasadena and Ventura), San Diego (San Diego and Imperial), Orange, Inland Empire (Riverside, San Bernardino), San Joaquin Valley (Alpine, Amador, Calaveras, El Dorado, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Modoc, Mono, San Joaquin, San Luis Obispo, Stanislaus, Tulare, Tuolumne), Central Coast (Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz), San Francisco Bay Area (Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, Solano), Sacramento Valley (Butte, Colusa, Glenn, Lassen, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskyou, Sutter, Tehama, Trinity, Yolo, Yuba) and North Coast (Del Norte, Humboldt, Lake, Mendocino, Napa, Sonoma). Final refinements will be made based on numbers of reported cases and numbers of health departments involved.

epidemic response teams. These teams would work with the local health authorities to help them coalesce around a comprehensive epidemic control strategy.

Figure 3. Five essential functions



APPROACH

UCSF proposes to create a Pandemic Workforce Training Academy for California. Through its experience in rapidly mobilizing resources to develop a robust epidemiological surveillance effort that includes case investigations, contact tracing, isolation, quarantine and related activities, the UCSF team has the unique opportunity to create a scalable and replicable training system to support public health systems throughout California.

Led by the clinical epidemiology and surveillance team from UCSF's Institute for Global Health Sciences, UCSF will design and create a 'pop-up online academy' that will offer a comprehensive set of training modules to develop a pandemic epidemiology/surveillance workforce. Elements of this academy would include:

- Certificate-based, short, online courses leveraging an existing infrastructure to rapidly produce, support and distribute online courses
- Course content to target multiple levels of personnel across all functions including, but not limited to:
 - Case investigation
 - Contact tracing
 - Management of isolation and quarantine
 - Containment strategies for vulnerable populations
 - Disease outbreak response

- Pandemic workforce management
- Post-pandemic public health recovery programs
- Certification to ensure the quality and consistency of workforce knowledge so that jurisdictions across California would be confident that newly onboard staff have received sufficient and relevant high-quality training.

Once developed and piloted, the Pandemic Workforce Training Academy can help counties in California redeploy their workforces to pandemic containment efforts. The system will be able to quickly train and certify thousands of new contact tracers, hundreds of case investigators and dozens of disease outbreak responders to address COVID-19 as well as future pandemics.

STRATEGIC OBJECTIVE 1 – TRAINING & CAPACITY BUILDING

OVERVIEW

Training will consist of modules to train case investigators, contact tracers and managers/administrators. Materials will be developed or adapted based on current pedagogy for synchronous and asynchronous adult learning and made available on a web platform for easy accessibility and updating. Training can be completed virtually (necessary during community containment) or in person. Throughout the training, we also offer guidance and capacity building on the use of data entry platforms used in local health jurisdictions.

GOALS AND OBJECTIVES

The goals and objectives of the pandemic training academy are to introduce learners to the basic principles of public health and epidemiology as they relate to COVID-19, convey to learners the importance of case investigation, contact tracing, isolation and quarantine, and instill the basic principles of good public health practice, which include respect for persons, cultural sensitivity, autonomy and confidentiality.

EDUCATIONAL STRATEGIES

Requirements for Learners

Selecting the appropriate civil servants who are able to pivot into a new role is essential to the success of the training. A background in public health or medicine is not required, but the ideal candidate for *contact tracing* should possess the following qualities:

- Ability to conduct sensitive conversations professionally, protect confidentiality, and be willing to learn and employ techniques of motivational interviewingAbility to make quick and sound judgments on when to elevate issues of importance to clinical staff
- Comfortable working with online platforms in a fast-paced, challenging environmentAccess to computer with high-quality audio and internet
- Preferred: Bi/multi-lingual fluency, especially Spanish

The ideal candidate for *case investigators* should possess the following qualities:

- Existing Disease Investigation Specialists (DIS)
- Medical/nursing or public health background and familiarity with COVID-19

- Ability to conduct sensitive conversations professionally, protect confidentiality and be willing to learn and employ techniques of motivational interviewing.
- Ability to make quick and sound judgements on when to elevate issues of importance to clinical lead
- Ability to show empathy to distressed individuals
- Ability to multi-task and comfortable working on multiple online platforms and as part of a fast-paced, dynamic environment
- Access to computer with high-quality audio and internet
- Availability: Minimum of four 4.5-hr shifts per week and one 4-hr shift per weekend (must be available to do two 4-hour weekend shifts per month)
- Preferred:
 - Bi/multi-lingual fluency, especially Spanish
 - Experience working with vulnerable populations

MATERIALS

Materials have been developed for training COVID-19 response personnel in San Francisco and are specific to the situation in that setting (for example, referrals to local testing and support services) and the digital solution implemented in that setting. These materials will first be generalized for a broader California response audience and available on the web platform. They can then be adapted to each specific jurisdiction or setting. The materials consist of:

- Training agendas
- Standard operating procedures (SOP) for each response activity
- Frequently asked questions (FAQ)
- Scripts for interviews and calls
- Slide sets
- Role play scenarios
- Discussion scenarios
- Pre- and post-training assessment and evaluation
- Mid-training quizzes and opinion polls
- Webinar recordings
- Quality assurance checklists

METHODS

Methods of teaching and engaging trainees have been developed based on adult learning theory, which posits that adults learn best when they can build on their own experiences, have a reason and internal motivation to learn, and when the learning is immediately applicable to their work. The most successful response team members will be motivated to help their communities stay safe and will have life experiences from which they can draw (for example, in conducting interviews and eliciting contacts of cases).

We will incorporate active learning strategies in the educational curriculum using the six steps of creating an active learning environment. This is an iterative process whereby a learning strategy is developed and implemented, then evaluated to improve the learning environment. The steps are:

1. Assessing the need for specific active learning strategies using evidence and identifying pedagogical challenges

2. Identifying topics and questions to apply to active learning strategies and identifying overarching questions
3. Defining learning objectives and outcomes for each strategy
4. Planning and designing activities to meet the defined learning objectives
5. Sequencing learning events to support learners and achieve objectives
6. Evaluating the effectiveness of the active learning activities to assess whether it aided trainees' understanding and met the associated learning objectives

Teaching methods include:

- Didactic lectures, with questions and answers and discussion breaks throughout (via Zoom if using distance-learning)
- Video demonstrations of interviews and calls
- Flipped classrooms, with online reading and interactive assessments
- Role plays with other trainees
- Small group discussions facilitated by experienced response personnel (via breakout groups or online chat fora)
- Short quizzes and opinion polls to keep trainees engaged
- Shadowing experienced personnel complemented with out-brief discussions to identify challenges as well as successful approaches
- Quality assurance checks

MODULES

Several modules have been developed to train various response team members. These modules continue to be developed and improved upon based on feedback from past trainees. The table below describes the proposed modules. Modules in blue are specific to contact tracers, modules in orange are specific to case investigators and modules in grey are specific to administrators. Several of the modules can be paired with different course tracks, for instance building rapport, interviewing skills and confidentiality would apply to all tracks.

Table 1. Overview of Modules

Modules	Goals and Objectives	Method of Instruction	Method of Evaluation	Time
Introduction to Public Health and Epidemiology	- Introduction to public health - Basic epidemiological principles related to COVID-19	Didactic learning with interactive polls. Discussion through chat features.	Online poll and question and answer to assess trainees' comprehension of the session and give opportunity to discuss anything that is unclear.	2 hours
Overview of Contact Tracing	- Introduce the goals and general approach of contact tracing - Summarize current guidance and policies on testing,	Didactic learning with interactive polls. Discussion through chat features.	Online poll and question and answer to assess trainees' comprehension of	2 hours

	isolation/quarantine, and social support services - Describe contact tracing teams and workflows		the session and give opportunity to discuss anything that is unclear.	
Overview of Case Investigation	- Introduce the goals and general approach of case investigation - Summarize current approach to case investigation and eliciting contacts	Didactic learning with interactive polls. Discussion through chat features.	Online poll and question and answer to assess trainees' comprehension of the session and give opportunity to discuss anything that is unclear.	2 hours
Interviewing skills	- Rapport and role - Tenets of contact tracing interview work	Didactic learning. Participants watch a video of interview. Practice interviewing skills with role play.	Observing role play.	3 hours
Confidentiality	- Describe HIPAA requirement and other issues around confidentiality and protection of protected health information	Didactic learning	Online poll and question and answer to assess trainees' comprehension of the session	1 hour
Health coaching	-Equip learners with skills to provide compassionate and effective health coaching as and when indicated (recommending quarantining, or testing)	Flipped classroom and brief video lectures	Observe small group discussions	2 hours
Building rapport	- Respecting context and building rapport - Cultural humility - Skills for enhancing the interview	Small group discussions about approaches to building rapport.	Observe small group discussions.	1 hour
Comprehensive containment packages: Public health actions	- Learn how clients are referred for testing, quarantine support and other social services and what a comprehensive containment package should in	Didactic learning with interactive polls. Discussion through chat features.	Online poll and question and answer to assess trainees' comprehension of the session and give opportunity to discuss anything that is unclear.	2 hours
Understanding and Communicating Isolation and Quarantine	-Learn why isolation and quarantine is important -Learn how to calculate the appropriate time frame	Didactic learning with interactive polls. Discussion through chat features.	Online poll and question and answer to assess trainees' comprehension of	1 hour

	-Learn how to communicate the need and if necessary the legal implications (health orders)		the session and give opportunity to discuss anything that is unclear.	
Workforce mobilization	<ul style="list-style-type: none"> - How to mobilize the workforce - What to look for in team leads, contact tracers, and case investigators - Technologies for scheduling and managing the workforce 	Didactic learning with interactive polls. Discussion through chat features.	Online poll and question and answer to assess trainees' comprehension of the session and give opportunity to discuss anything that is unclear.	3 hours
Orientation to digital solutions for case investigation and contact tracing	<ul style="list-style-type: none"> - Become competent using digital solutions for undertaking case investigation and contact tracing and recognize the importance of online data capture tools for rapidly achieving epidemiologic control 	Video demos and then interaction in the demo environment	Completion of training platform orientation	3 hours
Data management and quality improvement	<ul style="list-style-type: none"> - Data quality standards - Metrics for evaluating the program 	Didactic learning with interactive polls. Discussion through chat features.	Online poll and question and answer to assess trainees' comprehension of the session and give opportunity to discuss anything that is unclear.	2 hours

We propose 20 hours of training for contact tracers and investigators. For contact tracers we have proposed modules that cover 12 hours of course content the remaining 8 hours would be mentored and supervised on the job learning. For 4 hours they would shadow a tracer and for 4 hours they would make calls with an experienced tracer listening in and giving feedback after the call. For case investigators we have proposed 10 hours of content with the remaining 10 being a mix of shadowing an existing investigator and being shadowed while they start working.

The modules described in Table 1 can be combined in various permutations to meet the specific needs of each group of trainees. We have currently packaged the modules for contact tracers, administrators, and case investigators, as follows.

TRAINING

Contact tracer training. To be maximally impactful we think training will take between 18-20 hours to complete (See Appendix 2 for Illustrative 5 day schedule). The objective is to prepare staff and volunteers to conduct contact tracing within the local COVID-19 response. The content includes:

- Overview and epidemiology of COVID-19

- How contact tracing fits in greater containment response
- Conducting a contact tracing interview using scripts and SOPs
- Interviewing skills (motivational and culturally appropriate interviewing)
- Confidentiality issues
- Referring contacts to testing and other social services
- Use of technologies that support data capture and call center

By the time trainees have completed the course, they should be ready to begin contact tracing on a shift with more experienced contact tracers. This typically involves partnering with a more experienced contact tracer for a first shift. The trainee will shadow a more experienced contact tracer for 1-2 contact-tracing interviews; be shadowed on 1-2 calls by the more experienced contact tracer, and then beginning to conduct interview independently.

Case investigator training. We can start with retraining all existing Disease Investigation Specialists in California to work on COVID-19. They can serve as additional trainers and mentors to newly recruited Case Investigators. Case investigators follow up on all reported cases of COVID-19 within a jurisdiction. The role of case investigation is to stop disease transmission by isolating the case and to identify new cases and contacts. The interview consists of providing accurate guidance on isolation and cleaning, identifying contacts and collecting accurate contact information, and completing data collection for surveillance purposes.

Case investigator training is one four-hour module specific to this audience. The objective of the training is to orient case investigators to roles, workflows, and referrals when working on COVID-19 case investigations. The content includes:

- The role of case investigation in the broader containment efforts
- Case investigation roles and workflow
- Conducting the case investigation interview
- Social support and medical services
- Case investigation skills (interviewing and eliciting contacts)
- Use of technologies that support data capture

Work force mobilization. Bringing together a non-traditional workforce rapidly requires immense logistics. Even experienced administrators need additional training and support in this feat. This module is specific to administrators and includes:

- How to select your workforce
- Onboarding requirements for your workforce
- How to develop schedules for your workforce
- Technology for scheduling and communicating
- Timesheet management
- Quality assurance

Quality assurance checklists and assessments. When onboarding staff and volunteers begin field work, it is important to ensure that they are adhering to best practices, collecting required information, correctly advising cases and contacts, and following up appropriately. A quality assurance checklist will be developed and adapted for this purpose. More experienced staff will

oversee and shadow the onboarding personnel and use the checklist to provide feedback to trainees and monitor performance. The checklist is relatively simple and easy to use, with Yes/No answers to specific items to be accomplished and space for comments and suggestions. UCSF will conduct ongoing quality assessments of trainees after they are deployed into local health department positions. In addition to quality assurance during the mentoring phase UCSF will develop a continuous quality improvement (CQI) toolkit including a checklist, root cause analysis and remediation plan for local health departments to use. Routinely throughout the implementation a supervisor will listen in on a randomly selected call every day. After the call the supervisor will discuss areas for improvement with the individual. At the end of each week the supervisor in charge of CQI will aggregate observations identify common areas of improvement and provide feedback to the whole team. Areas that demonstrated weaknesses during the simulation will be identified for remediation using a CQI approach of plan, do, study, act (PDSA). The training will be continually evaluated to ensure it is preparing the workforce for rapid mobilization and capacitating with the skills necessary.

Data Quality SOPs and Assessments UCSF will develop SOPs for data quality assessments which will guide implementers in how to conduct periodic Data Quality Assessments to ensure that data collected by case investigators and contact tracers is reliable and accurate. High levels of data quality are achieved when information is valid for the use to which it is applied and when decision makers have confidence in and rely upon the data. Maintaining data quality requires going through the data periodically and scrubbing it. Typically this involves updating it, standardizing it, and de-duplicating records to create a single view of the data. Data Quality Assessments involve checking data against Validity, Integrity, Reliability, Timeliness, Precision and Confidentiality. Assessments help us determine areas of poor data quality and potential solutions. Data quality improvement is done through the following- Training Implementers, Mentorship, Supportive Supervision, Spot Check, Data Review in data collections tools and preparation of standard operations procedure in every level.

Mentoring and coaching. UCSF trainers will be available for ongoing mentoring and coaching sessions after contact tracers and case investigators are deployed. We will also identify “leaders” in early training cohorts who can serve to mentor new contact tracers and case investigators as they are deployed. Current DIS can certainly serve in this role.

Refresher training. Based on results from quality assessments/observations, and changing state and national guidelines, UCSF can develop and provide refresher trainings

TIMELINE FOR TRAINING AND CAPACITY BUILDING

- **May 1:** Identity and hire first cohort of contact tracers and case investigators (first cohort of case investigators to include existing DIS) (CDPH)
- **May 1:** Finalize curriculum for contact tracers and case investigators (UCSF)
- **May 4:** Train 1st cohort of 500 contact tracers and 100 case investigators (UCSF)
- **May 11:** Train 2nd cohort of 2000 contact tracers and 500 case investigators
- **May 18:** Train 3rd cohort of 2000 contact tracers and 500 case investigators
- **May 25:** Train 4th cohort of 2000 contact tracers and 500 case investigators
- **June 1:** Train 5th cohort of 2000 and 500 case investigators

- **June 8:** Train 6th cohort of 2000 contact tracers and 500 case investigators
- **June 15:** Train 7th cohort
- **June 22:** Train 8th cohort
- **June 2:** Train 9th cohort

Note: Timelines subject to change based on recruitment/ availability of trainees and ability of local health departments to absorb trainees into local COVID-19 containment teams.

TIMELINE FOR EVALUATION, MENTORING, MONITORING, REPORTING

- May 15 -Develop monitoring and evaluation plan
- Ongoing- Continued mentorship of trained workforce (UCSF)
- Ongoing – Quality assessments of trained workforce (UCSF)
- May 30 – Develop Data Quality SOPs
- Ongoing –Conduct Data Quality Assessments
- Ongoing – Refresher training offered based on new guidelines and outcomes of quality assessments (UCSF)
- December 2021 - Final evaluation and report

MONITORING AND EVALUATION

UCSF will develop a robust monitoring and evaluation plan based on WHO frameworks for evaluation from inputs through to impact. In our case the principal impact indicators will be numbers of new cases of COVID-19 and number of new deaths from COVID-19 in California, however in order to achieve success in that metric there must be a well trained workforce and a system for them to operate within. Therefore our evaluation metrics will focus on the process indicators. Ongoing metrics/indicators may include:

- Number and percent of trainees who have improved scores from the pre-test to the post-test.
- Number and percent of people who complete the training who later go to complete at least one month of service in their assigned role.
- Number and percent of trainees who self-report at the end of the training that they feel ready to do the task they were trained for.
- Number of trainees who are able to rise to other positions such as team leads and train/mentor other staff.
- Time from point of identifying individuals to having them fully self-sufficient in their role.
- Quality of interactions with clients by trainees. (measured through CQI process)

LEADERSHIP and ORGANIZATION The Principal Investigator will be George W. Rutherford, M.D., Professor of Epidemiology and Preventive Medicine, the Chief Medical Officer will be Michael Reid, M.D., Assistant Professor of Medicine. Senior managers will be Karen White, M.P.H., M.B.A., and Jessica Celentano, M.P.H. All have been intimately involved with the design and implementation of the San Francisco County project. Other UCSF partners with extensive Contact Tracing, Case Investigation and training experience include The California Prevention Training Center (Alice Gandelman), The Center for Excellence in Primary Care (Rachel Willard-Grace) and The Curry Center (Lisa Chen). Dr. Rutherford has extensive statewide experience, having served as State Epidemiologist, Chief, Infectious Disease Branch, and State Health Officer. Dr. Nevarez has been the Health Officer for the City of Berkeley and has directed the Center for Health Leadership and Practice with the Public Health Leadership Institute.

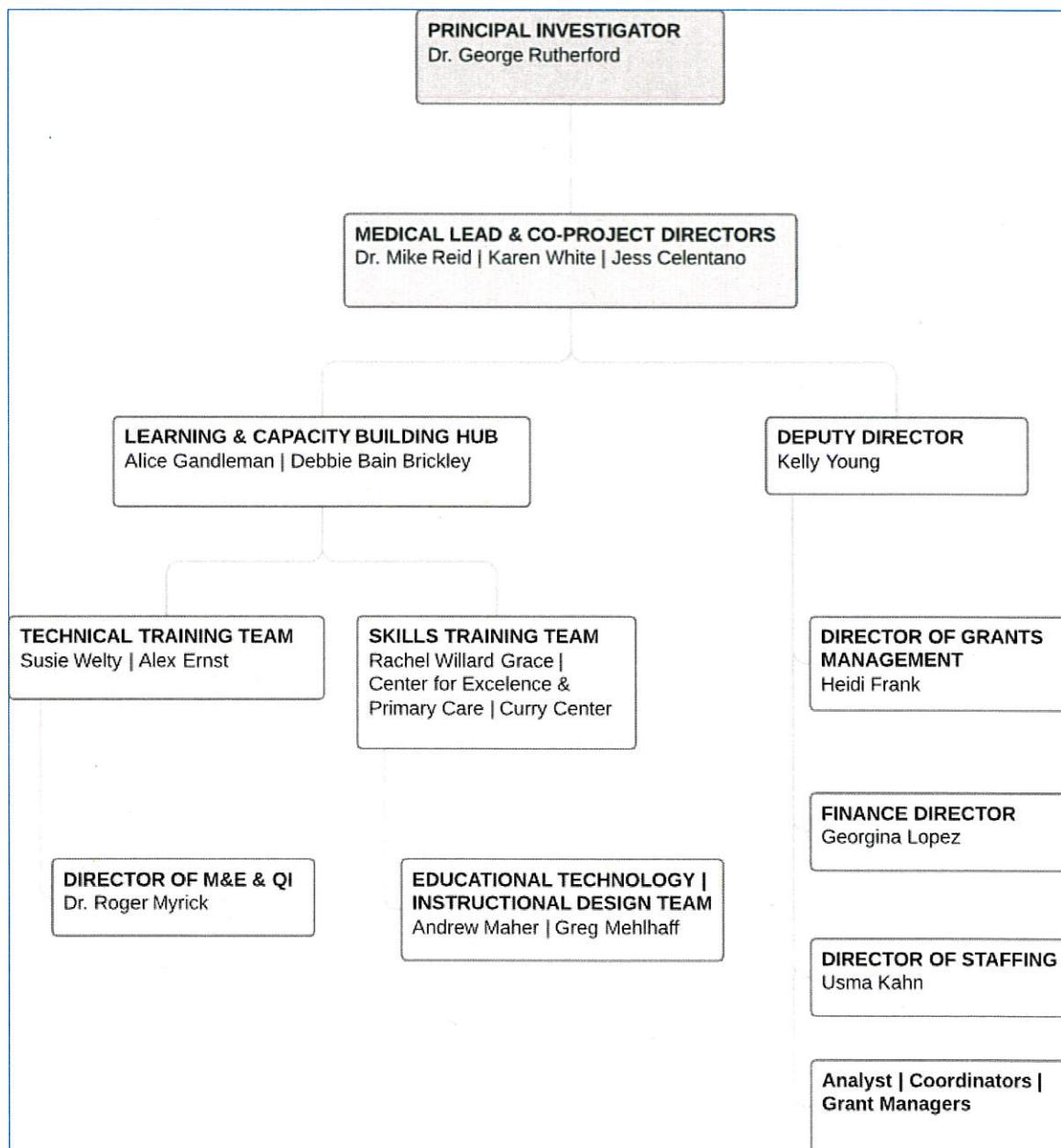


Exhibit A2 – Key Personnel

KEY PERSONNEL

List Key Personnel as defined in the Agreement starting with the PI, by last name, first name followed by Co-PIs. Then list all other Key Personnel in alphabetical order by last name. For each individual listed include his/her name, institutional affiliation, and role on the proposed project. Use additional consecutively numbered pages as necessary.

Last Name, First Name	Institutional Affiliation	Role on Project
PI:		
<i>Rutherford, George</i>	Head of Division of Infectious Disease Epidemiology, UCSF	<i>Contract Manager</i>
Co-PI(s) – if applicable:		
<i>Last name, First name</i>	<i>Institutional affiliation</i>	<i>Role on the project</i>
<i>Last name, First name</i>	<i>Institutional affiliation</i>	<i>Role on the project</i>
Other Key Personnel (if applicable):		
<i>Last name, First name</i>	<i>Institutional affiliation</i>	<i>Role on the project</i>
<i>Last name, First name</i>	<i>Institutional affiliation</i>	<i>Role on the project</i>

Exhibit A3 – Authorized Representatives

AUTHORIZED REPRESENTATIVES AND NOTICES

The following individuals are the authorized representatives for the State and the University under this Agreement. Any official Notices issued under the terms of this Agreement shall be addressed to the Authorized Official identified below, unless otherwise identified in the Agreement.

State Agency Contacts	University Contacts
<p>Agency Name: California Department of Public Health</p> <p>Contract Project Manager (Technical)</p> <p>Name: Susan Fanelli or designee Chief Deputy Director</p> <p>Address: California Department of Public Health 1615 Capitol Ave Sacramento, CA 95184</p> <p>Telephone: 916-558-1736</p> <p>Fax: <Fax#, if available></p> <p>Email: susan.fanelli@cdph.ca.gov</p>	<p>University Name: University of California San Francisco</p> <p>Principal Investigator</p> <p>Name: George Rutherford, MD Address: Epidemiology & Biostatistics 550 16th Street, suite 3503 San Francisco, CA 94158</p> <p>Telephone: (415) 476-5576 Fax: <Fax#, if available> Email: George.Rutherford@ucsf.edu</p> <p>Designees to certify invoices under Section 14 of Exhibit C on behalf of PI:</p> <ol style="list-style-type: none">1. Georgina Lopez, Director of Finance and Admin Georgina.Lopez@ucsf.edu
<p>Authorized Official (contract officer)</p> <p>Name: Susan Fanelli or designee Chief Deputy Director</p> <p>Address: California Department of Public Health 1615 Capitol Ave Sacramento, CA 95184</p> <p>Telephone: 916-558-1736</p> <p>Fax: <Fax#, if available></p> <p>Email: susan.fanelli@cdph.ca.gov</p>	<p>Authorized Official</p> <p>Name: Jean Jones Senior Associate Director</p> <p>Address: UCSF Government & Business Contracts 3333 California St, Suite 315 San Francisco, CA 94143</p> <p>Telephone: 415-502-4029 Fax: <Fax#, if available> Email: Jean.Jones@ucsf.edu, copy to: cgawardteam@ucsf.edu</p>
<p>Send notices to (if different):</p> <p>Name: <Name> <Title></p> <p>Address: <Department> <Address> <City,State,Zip></p> <p>Telephone: <Telephone#></p> <p>Email: <EmailAddress></p>	<p>Send notices to (if different):</p> <p>Name: <Name> <Title></p> <p>Address: <Department> <Address> <City,State,Zip></p> <p>Telephone: <Telephone#></p> <p>Email: <EmailAddress></p>

<p>Administrative Contact</p> <p>Name: Susan Fanelli or designee Chief Deputy Director</p> <p>Address: California Department of Public Health 1615 Capitol Ave Sacramento, CA 95184</p> <p>Telephone: 916-558-1736</p> <p>Fax: <Fax#, if available></p> <p>Email: susan.fanelli@cdph.ca.gov</p>	<p>Administrative Contact</p> <p>Name: Georgina Lopez Director of Finance and Admin.</p> <p>Address: UCSF Epidemiology & Biostatistics 550 16th Street, suite 3503 San Francisco, CA 94158</p> <p>Telephone: (415) 476-5576</p> <p>Fax: <Fax#, if available></p> <p>Email: Georgina.Lopez@ucsf.edu</p>
<p>Financial Contact/Accounting</p> <p>Name: Susan Fanelli or designee Chief Deputy Director</p> <p>Address: California Department of Public Health 1615 Capitol Ave Sacramento, CA 95184</p> <p>Telephone: 916-558-1736</p> <p>Fax: <Fax#, if available></p> <p>Email: susan.fanelli@cdph.ca.gov</p>	<p>Authorized Financial Contact/Invoicing/Remittance</p> <p>Name: Ellyn McCaffrey</p> <p>Address:</p> <p>Telephone: (415) 476-0829</p> <p>Fax: <Fax#, if available></p> <p>Email: CGAsvcdesk@ucsf.edu</p> <p>Designees for invoice certification in accordance with Section 14 of Exhibit C on behalf of the Financial Contact:</p> <ol style="list-style-type: none"> 1. <Name>, <Title>, <EmailAddress> 2. <Name>, <Title>, <EmailAddress> 3. <Name>, <Title>, <EmailAddress>

Exhibit A4 – Use of Intellectual Property & Data

USE OF INTELLECTUAL PROPERTY & DATA

If either Party will be using any third-party or pre-existing intellectual property (including, but not limited to copyrighted works, known patents, trademarks, service marks and trade secrets) "IP" and/or Data with restrictions on use, then list all such IP/Data and the nature of the restriction below. If no third-party or pre-existing IP/Data will be used, check "none" in this section.

- A. State: Preexisting IP/Data to be provided to the University from the State or a third party for use in the performance in the Scope of Work.

None or List:

Owner (Name of State Agency or 3 rd Party)	Description	Nature of restriction:

- B. University: Restrictions in Preexisting IP/Data included in Deliverables identified in Exhibit A1, Deliverables.

None or List:

Owner (Name of University or 3 rd Party)	Description	Nature of restriction:

- C. Anticipated restrictions on use of Project Data.

If the University PI anticipates that any of the Project Data generated during the performance of the Scope of Work will have a restriction on use (such as subject identifying information in a data set) then list all such anticipated restrictions below. If there are no restrictions anticipated in the Project Data, then check "None" in this section.

None or List:

Owner (University or 3 rd Party)	Description	Nature of Restriction:

Exhibit A5 - RÉSUMÉ/BIOSKETCH

RÉSUMÉ/BIOSKETCH

*Bios found in Budget Justification section; Exhibit B.

Exhibit A6 – Current & Pending Support

CURRENT & PENDING SUPPORT

University will provide current & pending support information for Key Personnel identified in Exhibit A2 at time of proposal and upon request from State agency. The "Proposed Project" is this application that is submitted to the State. Add pages as needed.

PI: NAME OF INDIVIDUAL					
Status (currently active or pending approval)	Award # (if available)	Source (name of the sponsor)	Project Title	Start Date	End Date
Proposed Project					
CURRENT					
CURRENT					
PENDING					

NAME OF INDIVIDUAL					
Status	Award #	Source	Project Title	Start Date	End Date
Proposed Project					
CURRENT					
CURRENT					
PENDING					

NAME OF INDIVIDUAL					
Status	Award #	Source	Project Title	Start Date	End Date
Proposed Project					
CURRENT					
CURRENT					
PENDING					

NAME OF INDIVIDUAL					
Status	Award #	Source	Project Title	Start Date	End Date
Proposed Project					
CURRENT					
CURRENT					
PENDING					

Exhibit A7

Third Party Confidential Information

Confidential Nondisclosure Agreement

(Identified in Exhibit A, Scope of Work – will be incorporated, if applicable)

If the Scope of Work requires the provision of third party confidential information to either the State or the Universities, then any requirement of the third party in the use and disposition of the confidential information will be listed below. The third party may require a separate Confidential Nondisclosure Agreement (CNDA) as a requirement to use the confidential information. Any CNDA will be identified in this Exhibit A7.

Exhibit B - Budget

Budget for Project Period

Budget Name: California Department of Public Health (CDPH) COVID-19 Budget
 Budget Period: 5/1/2020-4/30/2021

A. Salaries and Wages

<u>Position Title</u>	<u>Name</u>	<u>Adjusted Annual Salary</u>	<u>Time</u>	<u>Months</u>	<u>Total</u> <u>Amount Requested</u>
Leadership					<u>\$5,404,800</u>
Principal Investigator	Rutherford, George W	\$358,196	25%	12	\$89,549
Medical Lead	Reid, Michael John Alistair	\$173,223	50%	12	\$86,612
Deputy Director	Young, Kelly H	\$195,476	25%	12	\$48,869
Co-Project Director	Horn, Karen White	\$201,741	50%	12	\$100,870
Co-Project Director	Celentano, Jessica Terese	\$134,333	50%	12	\$67,167
Director of M&E	Myrick, Roger K	\$197,161	25%	12	\$49,290
Educational Design Specialist	Dandu, Machavi	\$263,543	15%	12	\$39,531
Educational Design Specialist	Sears, David	\$213,092	10%	12	\$21,309
UCLA Technical Lead	Rimoin, Anne	\$196,755	50%	12	\$98,377
Learning and Capacity Building Hub/ Skills Training Team/ Learning Platform					
Training/Capacity Team Lead	Gandelman, Alice	\$165,333	50%	12	\$82,667
Co-Training and Capacity Team Lead	Brickley, Deborah Bain	\$137,288	100%	12	\$137,288
Training/Capacity Building Team	Mehlhoff, Greg	\$129,167	100%	12	\$129,167
Training/Capacity Building Team	Vincent, Tim	\$124,000	100%	12	\$124,000
Training/Capacity Building Team	DeSantis, Linda	\$103,385	50%	12	\$51,693
Training/Capacity Building Team	Tafoya, Denise	\$103,448	50%	12	\$51,724
Training/Capacity Building Team	Perez, Alberto	\$84,253	50%	12	\$42,126
Training/Capacity Building Team	Jackson, Wanda	\$85,413	50%	12	\$42,706
Training and Capacity Building Team	E/CT Evaluator (TBH)	\$106,433	100%	12	\$106,433
Training/Capacity Building Team	Online curricula developer (TBH)	\$98,167	100%	12	\$98,167
Training/Capacity Building Team	Post-course learning collaborative manager (TBH)	\$87,833	100%	12	\$87,833
Education technology -LMS Team	Macdonald, Catalina	\$82,208	100%	12	\$82,208
Education technology -LMS Manager	Griffin, Mari	\$102,270	50%	12	\$51,135
Education technology -LMS Team	Learning collaborative website developer (TBH)	\$98,167	100%	12	\$98,167
Program Operational Support	Training & Capacity Admin (TBD)	\$77,500	100%	12	\$77,500
Instructional Designer	Instructional Designer (TBH A)	\$98,167	100%	12	\$98,167
Instructional Designer	Instructional Designer (TBH B)	\$98,167	100%	12	\$98,167
Instructional Developer	Instructional Developer (TBH A)	\$98,167	100%	12	\$98,167
Instructional Developer	Instructional Developer (TBH B)	\$98,167	100%	12	\$98,167
Learning Platform Technical Support	Learning Platform Technical Support (TBH)	\$91,967	100%	12	\$91,967
Director (Center for Excellence and Primary Care)	Willard-Grace, Rachel	\$145,801	39%	12	\$56,862
Program Manager for Practice Coaching and Training (Center for Excellence and Primary Care)	Mejia, Patricia	\$96,424	43%	12	\$40,980
Medical Director (Curry Center)	Chen, Lisa	\$196,755	50%	12	\$98,377
Deputy Director (Curry Center)	Musoke, Kelly	\$115,127	50%	12	\$57,563
Associate Medical Director, Nurse Consultant (Curry Center)	Raftery, Ann	\$198,693	50%	12	\$99,347
Learning Platform	Maher, Andrew D	\$102,292	100%	12	\$102,292
Technical Advisor	Madriz, Solange	\$95,375	100%	12	\$95,375
Financial &HR Manager	Lekus, Samantha	\$121,933	50%	12	\$60,967
Program Operational Support	de la Roca, Mary	\$155,000	10%	12	\$15,500
Finance Manager (Center for Excellence and Primary Care)	Lew, Tiffany	\$84,733	20%	12	\$16,947
Technical Training Team					
Guidelines & Materials Technical Lead	Welty, Suzanne C	\$133,726	50%	12	\$66,863
Analyst	Meral, Rikita A	\$90,828	50%	12	\$45,414
Technical Advisor	Buback, Laura	\$97,244	50%	12	\$48,622
Technical Advisor	Grasso, Mike	\$109,610	50%	12	\$54,805
Informatics Program Manager	Moghaddassi, Michelle	\$120,487	80%	12	\$96,389
Technical Advisor for Services	Butrick, Elizabeth	\$156,355	50%	12	\$78,177
Technical Advisor for Testing	Ernst, Alexandra M	\$95,167	50%	12	\$47,583
Communications Manager	Amin, Kemi	\$136,607	50%	12	\$68,303
Technical Advisor	Martin, Shayanne	\$94,726	50%	12	\$47,363
Graphic Designer	Svendsen, Kerstin	\$98,842	75%	12	\$74,132
Project Analyst	Rogers, Celeste A	\$98,535	50%	12	\$48,268
M&E, CQI and Data Analytics Team					
M&E and CQI Senior Technical Lead	Smith, Nathan M	\$148,206	100%	12	\$148,206
Technical Advisor	Azman, Hana	\$126,789	100%	12	\$126,789
CQI/DQA Officer	CQI/DQA Officer (TBH A)	\$98,167	100%	12	\$98,167
CQI/DQA Officer	CQI/DQA Officer (TBH B)	\$98,167	100%	12	\$98,167
CQI/DQA Officer	CQI/DQA Officer (TBH C)	\$98,167	100%	12	\$98,167
Technical Advisor	Spindler, Hilary H	\$145,947	50%	12	\$72,973
UCLA TBD 1	UCLA TBD 1	\$92,587	100%	12	\$92,587
UCLA TBD 2	UCLA TBD 2	\$95,978	100%	12	\$95,978
UCLA TBD 3	UCLA TBD 3	\$69,906	100%	12	\$69,906
UCLA TBD 4	UCLA TBD 4	\$122,699	100%	12	\$122,699
UCLA TBD 5	UCLA TBD 5	\$122,113	100%	12	\$122,113
UCLA TBD 6	UCLA TBD 6	\$115,608	100%	12	\$115,608
Administration					
Sr. Finance Director	Lopez, Georgina Y	\$259,130	15%	12	\$38,870

Sr. Contract Manager	Woo, Ellyn	\$160,213	50%	12	\$80,107
Grant Manager	Malko, Atour	\$144,667	100%	12	\$144,667
Grant Management Support	Tom, Ryan	\$65,979	100%	12	\$65,979
UCLA Management Support	UCLA TB Finance Manager	\$144,667	100%	12	\$144,667

B. Fringe Benefits

Faculty Tenured Ladder Rank, In Residence and Clinical	\$248,767	26.3%	\$65,307
Faculty Non-tenured Ladder Rank and Adjunct	\$241,852	36.7%	\$88,768
Academic and Staff General	\$4,156,393	46.3%	\$1,924,678

C. Consultant Costs

Name of Consultant: Role Play Actors	Total	\$2,360,308
Organization Affiliation: Individual		\$65,307
Nature of Services: Training role play		
Relevance of Service to the Project:		
Number of Days of Consultation: 200	200	
Compensation rate per day: 240	\$240	
Total:	\$48,000	

D. Travel

Regional Ground Transportation	Total	\$3,000
		\$3,000

E. Equipment

	Total	\$0
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F. Supplies

(Gift cards for patient partners, video role play, refreshments for meetings, patient advisory board Individual (\$25/hr) and group meetings, for volunteer trainers to help coach people in breakouts)	Total	\$87,000
Project related supplies		\$42,000
Computers (15 computers @ \$2500 per computer)		\$37,500
Software		\$7,500

G. Contractual Costs

	Total	\$0
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H. Other

Desktop Support/Network Recharge (\$142/fully supported user x effort x 12 mos)	Total	\$412,044
Mail services/Express/Courier (\$100/mo x 12 mos)		\$48,788
Communications		\$1,200
Photocopies and printing (\$0.11/copy x 3000 copies x 12 mos)		\$12,600
General Automobile and Employee Liability (GAEL)		\$3,960
Learning Platform		\$44,319
Short Promotional Video: UCSF Documents and Media		\$200,000
Video Vendor Contract		\$15,000
		\$86,178

I. Total Direct Costs

Salaries and Wages	Total	\$8,315,152
Fringe Benefits		\$5,404,800
Consultant Costs		\$2,360,308
Equipment		\$48,000
Supplies		\$0
Travel		\$87,000
Other		\$3,000
Contractual Costs		\$412,044
		\$0

J. Indirect Costs

IDC rate is 0% of modified direct costs:	Total	\$0
		\$8,315,152

K. Unanticipated Task (5%)

Unanticipated task shall be approved through a work order authorization and shall be based on a mutual agreement and approved by both parties	Total	\$415,758
		\$415,758

* The term of this agreement is for 12 months with option to extend for an additional 6 months at the same negotiated rates as identified in the budget.

Total Project Costs \$8,730,910

**Supporting Containment of COVID-19 in California through a robust case investigation,
contact tracing, case finding, and supervised isolation and quarantine**

**California Department of Public Health
Learning Platform**

BUDGET JUSTIFICATION

A. Salaries and Wages: **Total: \$5,404,800**

The PI has determined that this is a major project, as defined by OMB Circular A-21, and it meets A-21 requirements for direct charging of administrative expenses. All effort and expenses charged to this project will be for services specific to the project, and not for general support of the academic activities of the faculty or Department. In addition, effort charged to this project can be specifically identified to the project. This is a major project that requires high-level technical assistance from UCSF, involves extensive coordination and communication across California with various institutions and partners.

Leadership

George W Rutherford, MD, AM, Principal Investigator, is the Salvatore Pablo Lucia Professor of Preventive Medicine, Epidemiology, Pediatrics and History at UCSF; Head of the Division of Infectious Disease Epidemiology, Vice-Chair of the Department of Epidemiology and Biostatistics; Director of the Center for AIDS Prevention Studies' (CAPS) Global Response Core; Coordinating Editor of the Cochrane Review Group on HIV/AIDS; and Director of the Prevention and Public Health Group in UCSF Global Health Sciences, which includes Global Strategic Information (GSI). Dr. Rutherford has expertise in behavioral science and epidemiology, and extensive surveillance experience in California, sub-Saharan Africa and Asia. Dr. Rutherford will provide overall oversight of this project. We request 25% (\$89,549) salary support for this position.

Michael Reid, MD, Medical Lead, is Assistant Professor working in the Institute for Global Health Diplomacy and Delivery. He is board certified Infectious Disease physician and holds Masters Degrees in Political Science and Public Health. He has been the clinical lead for

Contact Tracing for COVID-19 in San Francisco with the San Francisco Department of Public Health, and also has served as a Case Investigation team lead with SFDPH. Dr. Reid will oversee program implementation and provide medical technical assistance related to establishing training programs, curricula development and tools for Contact Tracing. Dr. Reid will oversee all aspects of the work plan. We request 50% (\$86,612) salary support for this position.

Kelly Young, Deputy Director, will lead decision-making and strategic planning for program activities. She will have overall responsibility for the management of technical directors and advisers. She will be the liaison with the funding agency for all program planning. We request 25% (\$48,869) salary support for this position.

Karen L. White, MPH, MBA, Co-Project Director, will have overall responsibility for project management and will ensure implementation of all activities and deliverables. Karen has been co-Project Director for the implementation of Contact Tracing activities in San Francisco. In this position she will oversee the management and administrative portions of this grant and will provide technical expertise with the development of training materials. We request 50% (\$100,870) salary support for this position.

Jess Celentano, MPH, Co-Project Director, will provide management oversight of this work. Jess has been co-Project Director for the implementation of all contact tracing activities in San Francisco. She will establish partnerships with health departments and other partners, hire new staff and coordinate training activities. We request 50% (\$67,167) salary support for this position.

Roger K. Myrick, PhD, Director of Monitoring & Evaluation, will participate in project planning and provide high level technical assistance in Monitoring and Evaluation (M&E). He will develop an overall M&E Plan for these activities and will oversee DQI and CQI analytics, determine indicators and develop of quality improvement checklists. We request 25% (\$49,290) salary support for this position.

Madhavi Dandu, MD, MPH, Educational Design Specialist, Associate Professor of Medicine, will provide high-level expertise and oversight of education materials. Her main nonclinical areas of focus are in global health education, curriculum development, and mentorship. She is

Director of the Master of Science in Global Health, a one-year program designed for students or practitioners in a health science profession or related field who wish to achieve mastery and leadership skills in the field of global health. Additionally, she directs the Global Health Pathway/Area of Distinction for the Internal Medicine Residency. We request 15% (\$39,531) salary support for this position.

David Sears, MD, Educational Design Specialist, will provide expertise and oversight of the development and delivery of education materials. Dr. Sears has directed a number of medical education initiatives at the 360 Positive Care Center where he precepts trainees and cares for HIV-positive patients. Dr. Sears also serves as the faculty sponsor of the UCSF medical students' HIV Interest Group and as a committee member of the HIV Medicine Association (HIVMA) Medical Students Program. In addition to providing HIV primary care, Dr. Sears attends on the infectious diseases consult services at the Parnassus campus and the hospital medicine service at Zuckerberg San Francisco General Hospital. We request 10% (\$21,309) salary support for this position.

Dr. Anne W. Rimoin, UCLA Technical Lead is a Professor of Epidemiology at the UCLA Fielding School of Public Health and Infectious Disease Division of the Geffen School of Medicine. She is the Director of the Center for Global and Immigrant Health and is an internationally recognized expert on emerging infections, global health, surveillance systems, and vaccination. We are requesting 50% (\$98,377) salary support for this positon.

Other team members on the UCLA team will support this effort and include:

Learning and Capacity Building Hub/Skills Training Team/ Learning Platform

Alice Gandelman, MPH, Learning and Capacity Building Hub Co- Lead, is Director, California Prevention Training Center (CAPTC). Ms. Gandelman will be responsible for oversight and coordination of all "skills" related training materials (e.g. interview skills, confidentiality, and building rapport) deliverables. She will lead the coordination between IGHS, Center of Excellence in Primary Care and the Curry Center and CHCF team leads. She will also contribute to the evaluation approach. We are requesting 50% (\$82,667) salary support for this positon.

Deborah Bain Brickley, DrPH, MPH, Learning and Capacity Building Hub Co-Lead, Dr. Brickley is the Deputy Director of Training and Education at IHGS. Dr. Brickley led the development of the existing SFDPH Contact Tracing curriculum. In this position she will work closely with Ms. Gandelman in the development of training materials and will be responsible for determining optimal training modalities and pre and post-test assessments. We request 100% (\$137,288) salary support for this position.

Greg Mehlhaff, Educational Technology/Instructional Design co-Lead, will be responsible for the Educational Technology and Instructional Design aspects of this project including supervision of staff. Mr. Mehlhaff will work very closely with Huge Media to develop and administer the Learning Management Platform. We request 100% (129,167) salary support for this positon.

Elicitation and Contact Tracing (E/CT) Training/Capacity Team:

- Tim Vincent 100% (\$124,000)
- Linda DeSantis 50% (\$51,693)
- Denise Tafoya 50% (\$51,724)
- Alberto Perez 50% (\$42,126)
- Wanda Jackson 50% (\$42,706)

This team will be responsible for developing/refining curricula in collaboration with IGHS CHCF team, including: role of E/CT tracing in disease control and COVID-19, ensuring confidentiality/HIPPA laws, using motivational interviewing techniques to ensure success, identifying case/contact barriers-providing referrals to supportive services, conducting phone interviews to elicit exposed contacts and with exposed contacts (E/CT). Using apps to enter required data, observation of trainees to ensure skills and capacity to successfully conduct interviews with exposed persons and contacts, evaluation and quality assurance

during and after training. They will also be responsible for delivering direct training content to participants.

E/CT Evaluator (TBH), will be responsible for development and collection of evaluation metrics for all training activities, ensuring training objectives are met and staff skills maintained through program. Responsible for developing pre and post course evaluations to be administered online for initial E/CT training as well as evaluating post-course learning and maintenance of skills via learning collaborative. We request 100% (106,433) salary support for this position.

Education Technology-Virtual/E-learning Team:

Online curricula developer (TBH)

In coordination with the IGH CHCF team, this position will be responsible for the design, development and uploading of online curriculum in areas described above for pre or post-course content throughout the training program, using approved software to ensure access for persons with disabilities and to meet state (AB 434) and national (ADA-508-compliant) requirements.

We are requesting 100% (\$98,167) salary support for this position.

Post-course Learning Collaborative Manager (TBH)

Will manage the development and implementation of a post-course learning collaborative with T/C activities to support and maintain E/CT staff capacity throughout the program. Responsible for assigning a mentor/coach for a team of 8-10 E/CT staff to ensure continuous quality improvement and problem solve issues that arise. This position will schedule follow-up booster sessions, virtual case conferences to provide emerging information and coaching sessions. We are requesting 100% (\$87,833) salary support for this position.

Catalina Macdonald, Education Technology Manager, Responsible for oversight and development of all online products developed and uploaded by the team. Use of platforms to be used for virtual and online learning, management of the learning management system to register and track learners, development and/or review of E/CT training and capacity website for new and continuing CA E/CT staff, and supervision of

LMS manager and learning collaborative website developer. We are requesting 100% (\$82,208) salary support for this position.

Mari Griffin, LMS Manager, working in coordination and collaboration with the T/C CAPTC team and the IGH CHCF team, design and develop data to be included in the LMS to register and monitor EC/T learners. This included demographic and professional backgrounds, monitoring of learning completed pre-and post-learning modules, and e-distribution of evaluation and CME/CEU certificates as applicable. We are requesting 50% (\$51,135) salary support for this positon.

Learning Collaborative Website Developer (TBH)

Responsible for building post-course learning collaborative website for E/CT staff who have completed initial training. Will ensure platforms are available for coaching sessions, monitoring of post-course learner-mentor interactions, uploading of materials and recorded sessions as well as learning resources to promote CQI throughout the program. We are requesting 100% (\$98,167) salary support for this position.

Training & Capacity Admin (TBD)

This position supports the programmatic needs such as meeting coordination, disseminates meeting agendas, minutes, and resources for review and coordinates registration, other administrative needs. This position also supports vendor relations, processing reimbursements, developing purchase orders and other vendor agreements, and handling other fiscal and administrative activities as necessary. We are requesting 100% (\$77,500) salary support for this positon.

Instructional Designer (TBH A), will create engaging learning activities and compelling course content work with subject matter experts and identify target audience training needs, provide exercises and activities that enhance the learning process, inform supporting material/media such as audio, video, simulations and role plays, decide on criteria to judge learners performance, and apply tested instructional design

theories, practice and methods to create on-line curriculum for contact tracing and case investigation. We are requesting 100% (\$98,167) salary support for his position.

Instructional Designer (TBH B), will create engaging learning activities and compelling course content work with subject matter experts and identify target audience training needs, provide exercises and activities that enhance the learning process, and apply tested instructional design theories, practice and methods to create on-line curriculum for contact tracing and case investigation. We are requesting 100% (\$98,167) salary support for his position.

Instructional Developer (TBH A), will inform supporting material/media such as audio, video, simulations and role plays, and decide on criteria to judge learner's performance. We are requesting 100% (\$98,167) salary support for his position.

Instructional Developer (TBH B), will inform supporting material/media such as audio, video, simulations and role plays, and decide on criteria to judge learner's performance. We are requesting 100% (\$98,167) salary support for his position.

Learning Platform Technical Support (TBH), will support the users basic needs as a help desk for on-line technical support. We are requesting 100% (\$91,967) salary support for his position.

The **Center for Excellence in Primary Care** provides skills-based training and mentorship to over 1,000 front line staff across the country each year in collaborative communication skills (also known as health coaching) through in-person or distance learning. Its health coaching curriculum is one of the most widely used across the U.S., and it has been adapted to address a spectrum of conditions for team members ranging from unlicensed community health workers to physicians. CEPC's model of health coaching has been shown effective in randomized clinical trials at improving clinical outcomes, adherence to treatment, and patient experience.

Additionally, CEPC is a leader in integrating patient voices into materials development and training.

Rachel Willard-Grace, Director, will be directly involved with planning, curriculum development, and trainings with a focus on building skills in health coaching. She will also deliver about 3-4 hours of direct content each week for about a year, and mentor master trainers and field teams. We are requesting 39% (\$56,862) salary support for his position.

Pat Mejia, Program Manager, will do rapid development and redevelopment of materials, and mentorship of the field teams and additional trainers. She will also deliver about 3-4 hours of direct content each week for about a year, and mentor master trainers and field teams. We are requesting 43% (\$40,980) salary support for his position.

The Curry International Tuberculosis Center (CITC) creates, enhances and disseminates state-of-the-art resources and models of excellence and performs research to control and eliminate tuberculosis in the United States and internationally. They develop and deliver highly versatile, culturally appropriate trainings and educational products, and provide technical assistance. They will lead the development of training materials for COVID Case Investigation.

Lisa Chen, MD, Medical Director (Curry Center), Will oversee development of Case Investigation training materials. We are requesting 50% (\$98,377) salary support for his position.

Kelly Musoke, MPH, Deputy Director (Curry Center), will coordinate development of CI training materials and will research National and State Guidelines for COVID Case Investigation. We are requesting 50% (\$57,563) salary support for his position.

Ann Raftery, RN, PHN, MS, Associate Medical Director, Nurse Consultant (Curry Center), will assist with the develop and delivery of Case Investigation training materials. We are requesting 50% (\$99,347) salary support for his position.

UCLA Center for Global and Immigrant Health

Dr. Anne W. Rimoin, UCLA Technical Lead is a Professor of Epidemiology at the UCLA Fielding School of Public Health and Infectious Disease Division of the Geffen School of Medicine. She is the Director of the Center for Global and Immigrant Health and is an internationally recognized expert on emerging infections, global health, surveillance systems, and vaccination.

In this award Dr. Rimon and her team and UCLA will assist with content development and delivery for training in Case Investigation. They will also manage relationships with the Departments of Public Health in Southern California to ensure the right trainees are identified, trained and then effectively absorbed back into their local health jurisdictions for COVID containment activities. We are requesting 50% (\$98,377) salary support for this positon.

Other team members on the UCLA team will support this effort and include:

- UCLA TBD 1 100% (\$92,587)

- UCLA TBD 2 100% (\$95,978)

- UCLA TBD 3 100% (\$69,906)

- UCLA TBD 4 100% (\$122,699)

- UCLA TBD 5 100% (\$122,113)

- UCLA TBD 6 100% (\$115,608)

Andrew Maher, MPH, Educational Technology/Instructional Design co-Lead, Mr. Maher was part of the UCSF training team that developed Contact tracing training materials for SFDPH. He will work to define requirements and develop and administer the Learning Management Platform. Mr. Maher will also responsible for managing and overseeing Instructional Design team. We request 100% (\$102,292) salary support for this position.

Solange Madriz, MPH, Technical Advisor, will assist with administration of the Learning Management Platform and she will lead the development to role play and interactive materials and will also serve as a mentoring of Contact Tracers. We request 100% (\$95,375) salary support for this position.

Samantha Lekus, Finance & HR Manager, oversees all accounting, fiscal management, and human resources activities for the personnel affiliated with the Bixby Center for Reproductive Health. This includes budget development and contracts management, development and negotiation of contractual agreements, monitoring of grant expenditure reports, as required to meet program objectives and activities and other aspects necessary to maintain infrastructure and efficient programmatic operations of the CA CPTC. We are requesting 50% (\$60,967) salary support for this positon.

Mary de la Roca, Grants and Post Award Manager, the UCSF contract manager position oversees and manages institutional coordination of the grant in terms of programmatic goals and outcomes. She is responsible for analyzing operational costs, and providing overall strategic planning related to institutional coordination. Support of this contract manager's salary and benefits is a requirement of the UCSF Ob/Gyn. We are requesting 10% (\$15,500) salary support for this position.

Tiffany Lew, Finance Manager for the Center for Excellence in Primary Care, will provide financial monitoring and expense projections, payroll, procurement, and financial reporting. The effort required for this project is above and beyond normal routine administration because this project involves extensive coordination and communication for large and international projects.. We are requesting 20% (\$16,947) salary support for his position.

Technical Training Team

Suzanne Welty, MPH, Technical Training Team Lead, Ms. Welty will be responsible for oversight and coordination of all “technical” training materials for Contact Tracing (e.g. Intro to Public Health, Overview of Contact Tracing, Containment Services, Isolation and quarantine and Digital Solutions) and will manage the Technical Training Team. We request 50% (\$66,863) salary support for this position.

Rikita Merai, MPH, Technical Advisor, is currently on a Special Operations Team at the San Francisco Department of Public Health to investigate and trace contacts, She will assist with developing and delivering the Overview of Contact Tracing training materials. She will work with local county Public Health Departments and regional Program Managers to continually update the materials based on the latest guidance. We request 50% (\$45,414) salary support for this position.

Laura Buback, MPH, Technical Advisor, is currently on a Special Operations Team at the San Francisco Department of Public Health to investigate and trace contacts and link with community hubs at SFDPH, She will assist with developing and delivering the Containment Services training Materials. She will work with local county Public Health Departments and regional Program Managers to continually update the materials based on the latest guidance. We request 50% (\$48,622) salary support for this position.

Michael Grasso, MPH, Technical Advisor, is currently at Contact Tracing Team Lead working with the San Francisco Department of Public Health, He will assist with developing and delivering Isolation and Quarantine training materials. He will work with local Public Health Departments and regional Program Managers to continually update the materials based on the latest guidance. We request 50% (\$54,805) salary support for this position.

Michelle Moghadassi, MPH, Informatics Program Manager, has specialty in development and implementation of public health-focused applications. Ms. Moghadassi worked closely with the CommCare/DiMagí team to modify and implement this application for Case Investigation and Contact Tracing. Ms. Moghadassi will develop and deliver training materials related to digital solutions for Case Investigation and Contact Tracing. We request 80% (\$96,389) salary support for this position.

Elizabeth Butrick, MPH, Technical Advisor is currently at Team Lead for Contact tracing work at SFDPH. She will mentor trainees and will provide feedback in role plays and call simulations. She will coordinate the content for training videos. We request 50% (\$78,177) salary support for this position.

Alex Ernst, MPH, Technical Advisor is currently at Team Lead for Contact tracing work at SFDPH. She will mentor trainees and will provide feedback in role plays and call simulations. She will coordinate the content for training videos. We request 50% (\$47,583) salary support for this position.

Kemi Amin, Communications Manager, has more than 15 years of experience in graphic design, marketing and communications, and strategic planning. She will work to standardize and edit all training materials. This is a team effort and could be other communication team members included in the dollar amount allocation. We request 50% (\$68,303) salary support for this position.

Shayanne Martin, MPH, Technical Advisor, will assist with administration of the Learning Management Platform and will coordinate with actors, video vendors and other creating interactive training and mentoring materials. We request 50% (\$47,363) salary support for this position.

Kerstin Svendsen, Graphic Designer, will professionally design any types of COVID-19 Contact Tracing communications and training materials. We request 75% (\$74,132) salary support for this position.

Celeste A. Rogers, BA, Project Analyst, will provide project specific support to the PI, including travel and visa coordination, scheduling of project meetings and training sessions, and preparation of training materials and reports. We request 50% (\$48,268) salary support for this position.

M&E, CQI and Data Analytics Team

Nathan M. Smith, MPH, M&E and CQI Senior Technical Lead, will lead the development of CQI checklists and DQA toolkits and will manage the M&E, CQI team in conducting assessments.

He will analyze CQI data for gaps and recommend topics for refresher trainings. We request 100% (\$148,206) salary support for this position.

Hana Azman, MPH, Technical Advisor, will assist in developing and implementing a quality assurance checklist. She will oversee and shadow the onboarding personnel and use the checklist to provide feedback to trainees and monitor performance. We request 100% (\$122,699) salary support for this position.

CQI/DQA Officer, TBH A, will assist in developing and implementing a quality assurance checklist. She will oversee and shadow the onboarding personnel and use the checklist to provide feedback to trainees and monitor performance. We request 100% (\$98,167) salary support for this position.

CQI/DQA Officer, TBH B, will assist in developing and implementing a quality assurance checklist. She will oversee and shadow the onboarding personnel and use the checklist to provide feedback to trainees and monitor performance. We request 100% (\$98,167) salary support for this position.

CQI/DQA Officer, TBH C, will develop SOPs for data quality assessments which will guide implementers in how to conduct periodic Data Quality Assessments to ensure that data collected by case investigators and contact tracers is reliable and accurate. We request 100% (\$98,167) salary support for this position.

Hilary Spindler, MPH, Data Analytics Lead. Ms. Spindler will conduct data analytics on training, CQI and DQA data for use in reporting and program improvement. We request 50% (\$72,973) salary support for this position.

Administration

Georgina Lopez, Director of Finance and Administration, Institute for Global Health Sciences (IGHS) and the Department of Epidemiology and Biostatistics (DEB). Ms. Lopez oversees and manages all financial and administrative matters for IGHS and DEB. She manages all pre- and post-award functions which includes awards from a wide range of funding agencies, including private, federal, state, local, and international governmental and international private organizations for all research projects of faculty and academic staff at IGHS/DEB. She oversees operations at multiple off-campus locations including several local and international sites. She manages human resources issues for the Institute and develops internal policies, processes and guidelines for IGHS operations and human resources. This is a team effort and could be other finance staff members included in the dollar amount allocation. We request 15% (\$38,870) salary support for this position.

Ellyn Hyun-Ok Woo, BA, Director of Finance, is integral to this project and will provide specialized fiscal monitoring, financial, reporting, compliance for these activities. She will handle compliance management of the award including general ledger reconciliation, a high volume of accounts payable, accounts receivable, vendor agreement submission and monitoring, and coordinating with appropriate campus offices for procurement and

accounting services. This is a team effort and could be other finance staff members included in the dollar amount allocation. The effort required for this project is above and beyond normal routine administration because this project involves extensive coordination and communication with central offices. We request 50% (\$80,107) salary support for this position.

Atour Malko, MBA, Grant Manager, is integral to the project and will provide essential financial management support specific to this project including budget review and development, financial monitoring and expense projections, payroll, procurement, invoice reconciliation and financial reporting. This is a team effort and could be other grant management staff members included in the dollar amount allocation. Mr. Malko will serve as a liaison with counterpart administrators at other institutions participating in this project. He is responsible for resolving unusual and unexpected operational problems with the project and advising other project staff of procedures and guidelines pertinent to the operational management of the grant. The effort required for this project is above and beyond normal routine administration because this project involves extensive coordination and communication with UCSF program managers and direct involvement with the preparation and submission of the financial components of the required reports. We request 100% (\$144,667) salary support for this position.

Ryan Tom, Grants Manager Support, is essential to this project. Mr. Tom will provide project-specific financial and administrative support, including expense projections and invoice tracking and reconciliation. He ensures payment compliance and timely processing by the campus accounting and purchasing departments. This is a team effort and could be other grant management support staff members included in the dollar amount allocation. The effort required for this project is above and beyond normal routine administration because this project involves extensive coordination and communication with UCSF program managers and direct involvement with the preparation and submission of the financial components of the required reports. We request 100% (\$65,979) salary support for this position

UCLA Finance and Grants Manager, TBD is integral to the project and will provide essential financial management support specific to this project including budget review and development, financial monitoring and expense projections, payroll, procurement, invoice reconciliation and financial reporting. This is a team effort and could be other grant management staff members included in the dollar amount allocation. This position will serve as a liaison with counterpart administrators at other institutions participating in this project. S/he is responsible for resolving unusual and unexpected operational problems with the project and advising other project staff of procedures and guidelines pertinent to the operational management of the grant. The effort required for this project is above and beyond normal routine administration because this project involves extensive coordination and communication with UCSF program managers and direct involvement with the preparation and submission of the financial components of the required reports. We request 100% (\$144,667) salary support for this position.

B. Fringe Benefits:

Projections for fringe benefits increases have been prorated to conform to the grant-year cycle of this project. The rates below reflect: UCRP; Health plan contribution; FICA; Medicare; Dental; Vision; Workers' Comp; Employee support program; Unemployment; Disability; Life Insurance; Other Post-Employment Benefits; Employee incentive program; Benefits Admin Rate; Staff Recognition/Development program. Benefits are charged according to federal guidelines and based on the percentage worked on assigned projects.

With the implementation of UCPATH on June 1, 2020, UCSF will transition to a new method of charging for the employer contributions to employee benefits. Instead of charging departments and funds based on the actual individual benefits costs of each employee, UCSF will begin charging a fixed percentage of an employee's salary. Percentages will be determined by employee groups (i.e. faculty versus staff versus postdoctoral scholars). These percentages by employee group are commonly referred

to as Composite Benefit Rates (CBRs). UCSF's Office of Research announced on 10/15/19 the following rates:

Employee Groups*	FY 2019-2020	FY 2020 until amended
Faculty: Tenured Ladder Rank, In-Residence, Clinical	24.5%	25.1%
Faculty: Not Tenured Ladder Rank and Adjunct	34.7%	35.6%
Non-faculty Academic and Staff General	45.3%	46.5%
Management and Professional	36.4%	37.3%
Postdoctoral Fellows/Scholar/Employee	20.4%	21.0%
Partial Benefits and Students	5.2%	5.3%

More information can be found here: <https://brm.ucsf.edu/cbr/rates>. In addition, effective July 1, 2019, UCSF began providing 12 weeks of paid leave for both childbearing (CB) and childrearing (CR) leave to Health Sciences Compensation Plan (HSCP) faculty. To provide funding to support leaves, the campus began an assessment on faculty salaries of 1.25% beginning July 2019. Information found here:

<https://controller.ucsf.edu/news/201909/payroll/childbearing- childrearing-leave-mechanics-hscp-faculty>. Fringe Benefits are calculated as follows:

Employee Groups*	Salary Requested	% Benefit Rate	Total Fringe Benefits
Faculty: Tenured Ladder Rank, In-Residence, Clinical	\$248,767	26.3%	\$65,307
Faculty: Not Tenured Ladder Rank and Adjunct	\$143,474	36.7%	\$88,768
Non-faculty Academic and Staff General	\$3,515,534	46.3%	\$1,924,678
Management and Professional	\$631,000	37.2%	\$281,555

C. Consultant Costs:

1. Name of Consultant: Role Play Actors TBD

2. *Organizational Affiliation: Individual*
3. *Nature of Services to Be Rendered; Training role plays*
4. *Relevance of Service to the Project: Role playing with trainees on conducting COVID-19 contact tracing and case investigation.*
5. *The Number of Days of Consultation (basis for fee); 200 days*
6. *The Expected Rate of Compensation: \$240/day, total requested \$48,000*

D. Travel:

A total of \$3000 to support regional transportation for project-related travel is requested to use as needed.

E. Equipment: N/A

F. Supplies:

Project-specific Supplies: We are requesting \$42,000 funds to provide sufficient project specific supplies such as the following: \$100 gift cards for volunteer trainers. Community partners or people on other projects who are experienced in our coaching curriculum to provide feedback to training participants are used if there are too many people in a training for master trainers to reach. In addition, printing costs for materials; refreshments if future cohorts may train in person or for video filming days; gift cards or payment for patient partners who take part as actors in videos (estimated at \$200/day); consulting costs for patient advisory board to vet/improve on training materials (\$25/hour for individual consultations and/or \$60-80 per 2 hour meeting for groups of advisors). Patient partners have been invaluable in giving us a reality check on what kinds of additional scenarios we might wish to prepare for and/or if we could approach a situation in a more patient-centered or culturally humble way. Also, funding would be for a gift card raffle for training evaluation for a 3 or 6 month survey about the impact of training. In addition, we request the purchase of 15 laptops and project specific software such as Ring Central and Project Management Software. The cost for each laptop is estimated at \$2,500 and \$500 for essential software for each laptop. These purchases will be made through UCSF to obtain discounted academic rates.

G. Contractual Costs: N/A

H. Other:

Computing and communication device support services (CCDSS): Computer support services are \$98.00 per month per fully supported user. CCDSS provides integral support to campus voice and data technology functions. CCDSS includes software installation/updates, internet security, hardware setup/configuration, and centrally managed patching, storage and backup. The university charges these expenses to all funding sources based on a monthly recharge rate per FTE, consistent with the university's current methodology used for data network services. The recharge rates are provided for under our approved DS-2, will be computed in accordance with applicable OMB requirements (2 CFR Part 200), and will be reviewed and adjusted annually.

Data Network Recharge: Data Network Recharge costs are required by UCSF on all grant proposals. Effective November 1, 2009 the Chancellor's Executive Committee approved a new UCSF data network services recharge rate. The recharge will provide funding for critical equipment in support of the campus network. The new funding model for data network services includes a UCSF-wide per capita recharge of \$44/month/FTE as of July 1, 2016. As permissible by Uniform Administrative Requirements (2 CFR Part 200, Subpart E—Cost Principles), data network costs are an allowable direct expense and, therefore, should be included in all sponsored project contracts and grants as of November 1, 2009. We request a total of \$36,008 for CCDSS and Data Network Recharge costs.

Project-specific mail/courier services: We have requested funds for mailing and courier at \$100/month for 12 months.

Project-specific communication costs: Funds are requested for conference calls, and fax expenses. Because of the scope of the project and the need for interaction

between team members at various institutes and international locations, these funds will be of vital importance to the success of the project. Based on past experience, we are requesting funds at \$12,600.

Photocopies, printing costs: Funds are requested for photocopy and printing costs for training materials and promotional communications materials. Based on past experience, we are requesting \$3,960.

General Automobile and Employee Liability (GAEL): Funds are requested to cover the cost of "GAEL" which funds the UC self-insurance programs through annual assessments to each campus based on the anticipated payouts for current and future claims. The rates are set by Office of the President based on an actuarial assessment of claims activity on a campus-by- campus basis. The Budget Office breaks down the annual campus assessment, local operations, and unfunded claims costs into a payroll assessment rate which is charged back to departments on a per \$100 of salary paid rate. Thus, UCSF's GAEL rate is a reflection of the anticipated cost of claims each year. We request \$44,319 for this service

Learning Platform: We request an estimated \$200,000 to contract with Huge Media Inc. to contract develop and host an online Learning Management Solution. These costs include application development, project management, QA, graphic design and a support agreement. This will also cover monthly uptime monitoring, load testing for 15,000 concurrent users, Domain name, Dedicated CPU and all other monthly services to keep the Learning Management Solution functional.

Short Promotional Video: A short promotional video will be made by UCSF Documents and Media in order to promote contact tracing and case investigation learning platform. We request an estimated \$15,000 funds to make this video.

Training Videos: We request \$86,178 to develop professionally shot and edited trainings including role plays, Contact Tracing and Case Investigation calls, use of digital technology and other topics.

I. Total Direct Costs	Total: \$8,315,152
Salaries and Wages	\$5,404,800

Fringe Benefits	\$2,360,308
Consultant Costs	\$48,000
Supplies	\$87,000
Travel	\$3,000
Other	\$392,163
Contractual Costs	\$0

***The term of this agreement is for 12 months with option to extend for an additional 6 months at the same negotiated rates as identified in the budget.**

Exhibit B3 – Invoice Elements

Invoice and Detailed Transaction Ledger Elements

In accordance with Section 14 of Exhibit C – Payment and Invoicing, the invoice, summary report and/or transaction/payroll ledger shall be certified by the University's Financial Contact and the PI (or their respective designees).

Invoicing frequency

Quarterly Monthly

Invoicing signature format

Ink Facsimile/Electronic Approval

Summary Invoice – includes either on the invoice or in a separate summary document – by approved budget category (Exhibit B) – expenditures for the invoice period, approved budget, cumulative expenditures and budget balance available¹

- Personnel
- Equipment
- Travel
- Subawardee – Consultants
- Subawardee – Subcontract/Subrecipients
- Materials & Supplies
- Other Direct Costs
 - TOTAL DIRECT COSTS (if available from system)
- Indirect Costs
 - TOTAL

Detailed transaction ledger and/or payroll ledger for the invoice period ²

- University Fund OR Agency Award # (to connect to invoice summary)
- Invoice/Report Period (matching invoice summary)
- GL Account/Object Code
- Doc Type (or subledger reference)
- Transaction Reference#
- Transaction Description, Vendor and/or Employee Name
- Transaction Posting Date
- Time Worked
- Transaction Amount

¹ If this information is not on the invoice or summary attachment, it may be included in a detailed transaction ledger.

² For salaries and wages, these elements are anticipated to be included in the detailed transaction ledger. If all elements are not contained in the transaction ledger, then a separate payroll ledger may be provided with the required elements.

Exhibit C – University Terms and Conditions

CMA (AB20) State/University Model Agreement Terms & Conditions UTC-220

FEMA PROVISIONS

1. EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this contract, the contractor agrees as follows:

- A. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

- B. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- C. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- D. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

- E. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- F. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto; and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- G. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- H. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the

compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon

2. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Compliance with the Contract Work Hours and Safety Standards Act.

- A. **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- B. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
- C. **Withholding for unpaid wages and liquidated damages.** The State of California shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed

by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

- D. **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

3. CLEAN AIR ACT

- A. The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. Section 7401 et seq.
- B. The contractor agrees to report each violation to the California Air Resources Board and understands and agrees that the California Air Resources Board will, in turn, report each violation as required to assure notification to the Department of Resources Recycling and Recovery, the California Governor's Office of Emergency Services, Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office.
- C. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

4. THE FEDERAL WATER POLLUTION CONTROL ACT

- A. The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. Sections 1251 et seq.
- B. The contractor agrees to report each violation to the State Water Resources Control Board and understands and agrees that the State Water Resources Control Board will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office.

- C. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

5. DEBARMENT AND SUSPENSION CLAUSE

- A. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
- B. The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
- C. This certification is a material representation of fact relied upon by the State of California. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State of California, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- D. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

6. BYRD ANTI-LOBBYING CLAUSE

Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended). Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

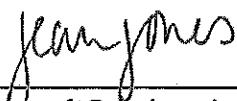
APPENDIX A, 44 C.F.R. PART 18- CERTIFICATION REGARDING LOBBYING

The undersigned [Contractor] certifies, to the best of his or her knowledge, that:

- A. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- A. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- B. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.



Signature of Contractor's Authorized Official

Senior Associate Director, OSR

Name and Title of Contractor's Authorized Official

Date: 4/1/2020

7. PROCUREMENT OF RECOVERED MATERIALS

- A. In the performance of this contract the Contractor shall make maximum use of products containing recovered materials that are EPA- designated items unless the product cannot be acquired
 - i. Competitively within a timeframe providing for compliance with the contract performance schedule;
 - ii. Meeting contract performance requirements; or
 - iii. At a reasonable price.
- B. Information about this requirement is available at EPA's Comprehensive Procurement Guidelines web site, <http://www.epa.gov/cpg/>. The list of EPA-designate items is available at <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.
- C. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

8. ACCESS TO RECORDS

The following access to records requirements apply to this contract:

- A. The Contractor agrees to provide the State of California, the FEMA Administrator, the Controller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.
- B. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever of to copy excerpts and transcriptions as reasonably needed.
- C. The contractor agrees to provide the FEMA Administrator or his authorized representative access to construction or other work sites pertaining to the work being completed under the contract.
- D. In compliance with the Disaster Recovery Act of 2018, the State of California and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

9. DHS SEAL, LOGO, AND FLAGS

The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.

10. COMPLIANCE WITH FEDERAL LAW, REGULATIONS, AND EXECUTIVE ORDERS

This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract only. The contractor will comply with all federal law, regulations, executive orders, FEMA policies, procedures, and directives.

11. NO OBLIGATION BY FEDERAL GOVERNMENT

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

12. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS

The contractor acknowledges the 31 U.S.C. Chapter 38 (Administrative Remedies for False Claims and Statements) applies to the contractor's action pertaining to this contract.

Exhibit E – Special Conditions for Security of Confidential Information

(if applicable)

If the Scope of Work or project results in additional legal and regulatory requirements regarding security of Confidential Information, those requirements regarding the use and disposition of the information, will be provided by the funding State agency in Exhibit E. (Please see section 8.E of Exhibit C.)

1. Pursuant to Exhibit C, Section 8. Confidential Information, paragraph A, the Parties shall comply with California Civil Code Sections 1798, et seq., regulations identified in Exhibit E1, when applicable and other relevant State or Federal statutes and regulations in safeguarding restricted or protected information or data which comes into their possession under this Agreement in perpetuity, and shall not use, release or publish any such information or data except as allowed in this Agreement or as permitted by law.
2. Pursuant to Exhibit C, Section 17. Right to Publish, paragraph B, the University will provide publications, presentations and other public releases resulting from work performed under this Agreement to the State for review at least thirty (30) calendar days prior to publication and will identify the proposed recipient(s). Within the review period, the State may provide feedback to the University. If the State's review of publications, presentations and other public releases resulting from work performed under this Agreement identifies Confidential Information, as defined in any Exhibit in this Agreement or by any other relevant State or Federal statutes and regulations, the University will remove any such material prior to publication.
3. The University shall not publish restricted data that is identified as such on Exhibit A4 of this Agreement, except as otherwise required by law. The obligations of this Exhibit E shall remain in perpetuity until or unless the statutes (Exhibit E1) are altered or changed.

EXHIBIT E1 - CDPH CONFIDENTIALITY STATUTES (rev. 3-2019)

Type of information	Statutes that make it confidential:
"Personal information" meaning any information that is maintained by an agency that identifies or describes an individual, including, but not limited to, his or her name, social security number, physical description, home address, home telephone number, education, financial matters, and medical or employment history. It includes statements made by, or attributed to, the individual.	California Information Practices Act (Civil Code §1798 et. seq.); Federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), 42 USC §1320d-2(a)(2), and federal regulations in Title 45 Code of Federal Regulations §160.100 et. seq.
Medical Information	Confidentiality of Medical Information Act (CMIA), Civil Code §56.10, et seq.
Immunization information	Health and Safety Code (H&SC) §120440(d)-(h)
Information related to "special investigations" of morbidity and mortality	H&SC §100330
HIV/AIDS <ul style="list-style-type: none"> • Mandated Testing • Co-morbidity with other STD's • ADAP Program • PrEP Program 	H&SC §§121025-121035 (AIDS Public Health Records Confidentiality Act), and see also H&SC §§ 120820, 120975, 120980, 121015, 121022, 121023, 121075-121125 (AIDS Research Confidentiality Act), 121362 (confidentiality of HIV test results in connection with reports on tuberculosis patients) and 123148. H&SC §120970(i) ADAP and H&SC §120972 PrEP Other statutes apply in criminal cases and in first responder situations.
Hereditary Disorder information	H&SC §124980 (j)
Umbilical Cord Blood	H&SC §124991 (b)(1) and (g),
Prenatal rhesus(Rh)and Hepatitis B results	H&SC §125105
Genetic disease surveillance/reporting	H&SC §124975 et seq
Electronically collected personal information	Gov. Code §11015.5
Interviews, written reports, and statements procured in connection with special morbidity and mortality studies	H&SC §100330
California Cancer Registry (CCR) data	H&SC §§103875, 103885, and 100330

California Supplemental Nutrition Program for Women, Infants, and Children (WIC) Program participation	Federal Regulations at 7 CFR §246.26(d)
Vital Records, including Birth, Death and Marriage	H&SC §§102230(a)(2), 102425(b), 102425.2, 102426(b), 102430, 102455, 102460, 102465, and 103025
Childhood Lead Poisoning Prevention	H&SC §124130
Occupational Lead	H&SC §124130
California Environmental Contaminant Biomonitoring Program	H&SC §§105440-105459
Sexually Transmitted Diseases	H&SC §120705 (prenatal blood tests)
Tuberculosis	H&SC §121362 Confidentiality of HIV test results in connection with reports on tuberculosis patients.
Birth Defects Monitoring Program information	H&SC §103850
Parkinson's Disease Registry information	H&SC §103865
Medical Marijuana ID Program patient information	H&SC §11362.713 (patients' and their primary caregivers' identifying information are deemed "medical information" within the meaning of the Medical Information Act)
Cannabis-California Track-and-Trace (CCTT)	B&PC §26067 (information for purposes of the CCTT are confidential and shall not be disclosed for purposes of the Public Records Act except as necessary for city, county, or State employees to perform official duties)
Food and Drug Trade Secrets	H&SC §§110165, 110370, 111792
Food and Drug STAKE (Tobacco distributor, dealers cigarette vending locations lists)	B&PC §22954
LFS - Laboratory and Medical Records	B&PC §1265(j)(2)(D)
LFS - Human Whole Blood and Human Blood Derivatives	H&SC §1603.1(b)(2)(b)-(e), HSC §1603.1(k)

*This is not a comprehensive list.

Exhibit F – Access to State Facilities or Computing Resources

(if applicable)

If the Scope of Work or project requires that the Universities have access to State agency facilities or computing systems and a separate agreement between the individual accessing the facility or system and the State agency is necessary, then the requirement for the agreement and the agreement itself will be listed in Exhibit F. (Please see section 21 of Exhibit C.)

Exhibit G – Negotiated Alternate UTC Terms (if applicable)

An alternate provision in Exhibit G must clearly identify whether it is replacing, deleting or modifying a provision of Exhibit C. The Order of Precedence incorporated in Exhibit C clearly identifies that the provisions on Exhibit G take precedence over those in Exhibit C.

While every effort has been made to keep the UTC as universal in its application as possible, there may be unique projects where a given term in the UTC may be inappropriate or inadequate, or additional terms may be necessary. California Education Code §87327(b) allows for terms to be changed or added, but only through the mutual agreement and negotiation of the State agency and the University campus. If a given term in the UTC is to be changed, the change should not be noted in Exhibit C, but rather noted separately in Exhibit G.