



County of San Mateo

Inter-Departmental Correspondence

Department: COUNTY MANAGER

File #: TMP-4705

Board Meeting Date: 5/19/2020

Special Notice / Hearing: None
Vote Required: Majority

To: Honorable Board of Supervisors

From: Louise F. Rogers, Chief
Srija Srinivasan, Deputy Chief
Cassius Lockett, Public Health Director

Subject: COVID-19 Case Investigation and Contact Tracing Workforce Expansion

RECOMMENDATION:

Accept the report and offer feedback regarding the direction.

BACKGROUND:

The purpose of this memo is to outline Health's proposed plans and related requests that will be coming back to your Board to increase the contact investigation and tracing workforce of the Public Health Division's Communicable Disease Control Program as needed for the COVID-19 mitigation strategy. You will receive a separate report soon regarding the testing plan and related resources that are also essential to the COVID-19 mitigation strategy.

Contact investigation and tracing are core capabilities of the Public Health infrastructure needed to respond to and control the spread of COVID-19. In San Mateo County, contact investigation and tracing have always been one of the Public Health Communicable Disease Control Program's tools for responding to any one of the 87 communicable diseases they address each year. The COVID-19 pandemic requires scaling up that capability. Health has already supported Public Health to expand from a baseline workforce of 8.0 FTEs originally doing contact tracing and investigation work to 30 FTEs. Most of the redirected staff routinely perform contact tracing and investigation in other public health programs. Some of the staff have already been redirected and trained to carry out contact tracing and investigation work but are not fully dedicated to these roles at present given the modest pace of case growth in San Mateo County under constrained testing capacity and the Shelter in Place (SIP) order. Health has worked with the County Manager and Human Resources to develop this plan to increase the contact investigation and tracing workforce further as needed in anticipation of identification of greater numbers of positive cases as testing capacity grows. The contact investigation and tracing workforce is one of the capabilities required for continued loosening of the SIP and is the focus of State and local Health Officer monitoring.

The uncertainty characterizing this pandemic is greater than we have faced in any other crisis, and it is entirely possible that the assumptions driving our workforce planning will be dramatically altered by what is learned about the virus, scientific or technological innovation and the impact of the disease in the

coming months. Our proposal reflects our Public Health experience, standards promulgated by the Association of State and Territorial Health Officials (ASTHO) and Resolve to Save Lives, as well as the recently released State expectations for at least 15 contact tracers per 100,000 residents. For San Mateo's 2019 estimated population of 767,000 (U.S. Census), our existing 30 FTE equal 4 per 100,000 residents. Thus, we plan to identify capacity to scale up to a total of 115 FTE to meet the State standard.

Contact tracing and investigation, like other core public health activities, are designed with an equity lens to assure universal application of the approach, regardless of a resident's income, race/ethnicity, immigration status, residential situation or other demographic characteristics. Public Health applies its contact investigation and tracing approach in the same manner to every resident with a positive case and does not bill the resident or health insurance for this work. Given the necessity of obtaining sensitive information about recent contacts, types of contacts and duration of such contacts, the approach prioritizes establishing trust with any person who contracts a disease and working with that individual to reduce risks of harm to themselves, their loved ones and others with whom they have had recent contact.

The cost of expanding the contact investigation and tracing workforce is left to counties, for now, though there is significant advocacy at the State level for greater federal resources for State and local governments. The augmentation of the core public health team from 8.0 to 30.0 FTEs has been funded by redirecting staff from other County Health programs and accounting for the time to include in all COVID-19 reimbursement claims. We estimate this redirection may result in a loss of revenues from other sources of 30-50% of costs. If not reimbursed by FEMA or other sources there will be a shortfall in the Health budget. We will monitor this and report back as we learn more.

DISCUSSION:

The case and contact investigation team is an interdisciplinary group made up primarily of communicable disease investigators, community workers, public health nurses, epidemiologists and medical office specialists. There are SMC civil service classifications for each of these positions. While the team requires public health and medical expertise, there are tasks commonly completed by communicable disease investigators and community workers that could be performed by staff who perform other County jobs. They would have to be guided by more specialized and experienced public health staff. Core activities and skills include: excellent client/customer service; ability to establish trust with clients; language skills that match diversity of population; ability to manage confidential information and use electronic case management and text software; basic understanding of communicable diseases and public health interventions; and ability to accurately and thoroughly meet reporting requirements to allow for timely data analysis and presentation. The work is conducted primarily by phone and on-line. The work is carried out seven days a week including M-F during normal business hours and follow up as often necessary on weekends.

Currently San Mateo County is averaging 28 new positive cases of COVID19 each day. At this volume, each case investigator can process two new cases and guide their associated contacts to quarantine daily. The State has proposed that we plan for each case to require an average of 10 contacts per positive case per day. We estimate that our existing 30 can already handle up to close to 60 positive cases per day and if we add 85 contact tracing Disaster Service Worker positions to meet the State standard of 115 FTE the expanded workforce could handle up to 230 new positive cases per day. This is potentially a greater workforce than we may require, so we propose to identify and train existing County employees for the roles to meet the State standard of 115 FTE total but deploy the staff in phases as needed to respond to actual demand. We believe the first phase should target expanding the existing 30 FTE by 45 FTE to achieve 75 FTE for coverage of 150 new positive cases per day. We can then surge during phase two adding 40 positions as needed to reach 230 new cases per day expanding the COVID19 contact tracing and investigation workforce up to 115 FTE in SMC.

Given estimates of the time it will take for development of a vaccine, we must plan to maintain the

workforce for at least a year. Given usual turnover, we recommend identifying 150 FTE to meet the goal of 115 FTE available to surge as needed. We are working with Human Resources on the job descriptions for the specific roles and tasks involved in the investigation and contact tracing as well as a process for identifying County employees in other classifications who have the skills to perform these contact tracing roles as Disaster Service Workers.

Public Health has invested in two software platforms aimed at carrying out the work in an optimally effective and efficient manner which may result in lower required staffing levels. An electronic case management platform, REDCap, enables efficient distribution of workload, data entry and contact investigation and tracing and a texting platform, Qualtrics, enables efficient monitoring through texting using multiple methods without the wasted time of missed phone contact attempts.

The identified Disaster Service Worker staff will be oriented to the basics of COVID-19 and case and contact investigation by an experienced team member. This training has already been offered in a hybrid classroom and online (Teams) setting. The training is organized into modules that can be utilized during ongoing on-the-job mentoring and can be easily referenced when needed. The State is also offering training, and access to a new statewide tracing system. We have already implemented a local system and are learning more about the interoperability of the new State system with what we operate, as well as what aspects of the State's new training can strengthen or replace what we offer.

After the initial orientation, an experienced "buddy" investigator will be assigned to each new contract tracing Disaster Service Worker. The experienced investigator will offer shadowing opportunities and work through several investigations with the new contract tracing Disaster Service Worker. Investigations are complex and varied; the training method allows the team to maintain high quality investigations while still scaling up quickly. Each experienced investigator will mentor multiple new contract tracing Disaster Service Workers to allow for more rapid scaling of the response team.

The existing management structure will have to be expanded as there is currently one Clinical Services Manager who oversees Communicable Disease (CD), Tuberculosis Control (TB) and HIV/STD programs and an existing workforce of 31 all of whom have been redirected into the COVID-19 response including case investigation and contact tracing.

In order to manage the new workforce, we will also need to add 2 supervisors, 6 lead staff and 2 managers. This is necessary to keep span of control appropriate and to provide for back up. This support must be put in place before bringing on the additional front -line staff between now and July. We will bring a Salary Ordinance Amendment back to your Board for the supervisor and manager positions. We believe the lead staff can be created by creating work out of class opportunities for existing employees with knowledge and experience and filling behind them with reassigned employees.

Finally, we are proposing to add 2 FTE epidemiologists and a manager to expand the existing Public Health team, which currently has 8 epidemiologists. As a result of the crisis the existing specialized staff has had to devote a substantial amount of time to meet ongoing need for public information regarding the local experience of COVID-19. This has taken time from their primary role of monitoring the spread of the disease and using specialized techniques to produce information the Public Health leadership, including the Health Officer, requires to guide the public health response. The existing team has been unable to meet both demands even working seven days a week. These roles require use of multiple specialized information systems as well as advanced education and training in epidemiology. The State requires all counties to use an electronic reportable disease registry CalREDIE. Limitations of the system include the inability to interoperate with other contact investigation systems and electronic health records. The process of accessing, interpreting and using data is time-consuming.

Summary of Workforce Capacity for SMC Contract Tracing and Associated Functions

Position	Existing and Reassigned	Estimate of New Needed	Total within this worker type
CD Investigator/ Contact Tracing Disaster Service Worker (including PH Nurses)	30	45 reassign phase 1; 40 reassign phase 2	115 Recruit 150 to reach 115
Notification of test results staff	10	0	10
Public Health Nurses - Discharge planning from hospitals	7		7
Lead CD Investigator	2	6 Lead CD Investigator work out of class	8
Supervisor CD I	4	2 Comm Pgm Sup new positions	6
Clinical Services Mgr	1 CSM	1 CSM II- Nursing new position	2
Program Services Manager	0	1 Pgm Svcs Mgr new	1
Data entry	4	0	4
Admin support	6	0	6
Epidemiology Manager	0	1 new HSM I position	1
Epidemiologist	8	2 new Epi II positions	10
Total	72	_85_ reassigned _13_ new	170

We expect to learn deeply about our assumptions and expansion approach in the 4-8 weeks as local cases increase with expanded testing, full implementation of the two new software platforms/tools, as well as adjustments to the Shelter in Place order. This will give us time to see case growth and workforce onboarding and support as we ramp up.

PERFORMANCE MEASURE:

Measure	FY 19-20 Estimated	FY 20-21 Projected
At least 15 contact tracers per 100,000 residents=115 FTE for SMC	40 -75 FTE	75-115 FTE

FISCAL IMPACT:

We estimate the annual costs of the existing 72 Health staff already assigned to carry out the contact investigation, tracing and associated functions to be \$8M and \$9.9M. We estimate the potential loss of revenues at 30-50% if their services are not reimbursed by FEMA or other sources related to the COVID-19. We estimate the cost of expansion of the program by 85¹ newly reassigned County staff at between \$8.2M to \$10.3M. This reassignment may also cause a loss of revenues if not reimbursed by FEMA or other COVID-19 sources. ²The 13 new employees will cost between \$1M and \$1.3M that will have to be added to the Public Health FY 20-21 budget, which includes \$73,000 for computers and phones. We have assumed reassigned employees would bring their computers and phones. Thus, the total cost of the

contact investigation, tracing and associated functions response to the COVID-19 will be between \$17.9M and \$22.2M in FY 2020-21. Approximately 1/12th of this, between \$1.5M and \$1.9M, will be incurred this FY 2019-20 in the month of June.

Detail:

¹The majority of these costs are related to the reassigned County employees for the contact investigation and tracing Disaster Service Worker roles. We estimated the cost of the reassigned County employees based on the range for a Communicable Disease Investigator, which ranges from \$69,159 at A step to \$86,422 at E step. In the scenario the State has proposed in which 115 FTE perform this function, the annual costs could be between \$10.7M and \$13.4M fully loaded. Note that avoiding impacting other revenues will need to be considered in reassigning County employees to these roles.

²The remaining costs would be new costs related to the oversight and management of the program. The cost of the two Community Program Supervisors each will be \$96,780 at A step up to \$120,991 at E step and one Clinical Services Manager-Nursing will be \$150,193 at A step up to \$187,758 at E step. The Program Services Manager will be \$112,070 at A step up to \$140,088 at E step. We estimate the annual costs of this oversight and management to be between \$638,152 and \$797,759 fully loaded.

Finally, our estimate contains new Epidemiology costs comprised of the Epidemiology Health Services Manager at \$106,723 at A step up to \$133,450 at E step and two Epidemiologist II each \$86,859 A step up to \$108,573 E step. We estimate the annual costs of this to be between \$392,617 and \$490,834 fully loaded.

There are no existing funding streams available to fund this effort and we expect to coordinate FEMA claiming with the County Emergency Operations Center process. Employees who are assigned to participate in the response will continue to code their timecards to support tracking of the costs associated with the COVID-19. We will continue to monitor additional funding that flows to local health departments from the California Department of Public Health (CDPH) and work with your office on the applicability of CARES, FEMA or other federal or state funding allocated to Health to support our increased costs for COVID-19 mitigation. In the event the costs are not covered by FEMA or other emergency claiming, they will be covered by County General Fund.