# GRANT SUMMARY FORM

**SAN BERNARDINO COUNTY**

| Department | Public Health | Contact Name | Alicia Flowers | Number | 909-387-6847 |
|---|---|---|---|---|---|
| Grantor | California Department of Public Health | Grant Name | COVID-19 ELC Enhancing Detection | Date Signature Needed | September 14, 2020 |

| Grant Action: | Request for Supplemental Information (RSI) | | Grant Type: | | Noncompetitive |
|---|---|---|---|---|---|

| Requested Funding Amount: | $16,202,583 | Funding Type: | Federal | Discretionary General Fund Required? | Yes ☐ No ☒ | Grant Funded Staffing Required? | Yes ☒ No ☐ |
|---|---|---|---|---|---|---|---|
| Matching Required? | Yes ☐ No ☒ | Legally Binding Submission? | Yes ☐ No ☒ | Budgeted in Current FY? | Yes ☐ No ☒ | New Grant Program? | Yes ☒ No ☐ |
| Grant Period: | From: May 18, 2020 To: November 17, 2022 | Expected Award Date: September 14, 2020 | Land acquisition and/or construction? | Yes ☐ No ☒ | ARRA? | Yes ☐ No ☒ |

| Statement of Purpose and Need: | The goal of ELC Enhancing Detection Funding is to rapidly establish and monitor key activities related to COVID-19 in the areas of epidemiology, laboratory and informatics. Monitoring the indicators associated with these strategies are intended to assist State, local and territorial governments in making data-driven policy decisions regarding testing and epidemiologic surveillance related activities, including but not limited to, the establishment of modernized public health surveillance systems. |
|---|---|
| Expected Grant Expenditures: | ELC Enhancing Detection funding consists of a one-time allocation of $16,202,583 over a 30 month period: $10,438,243 in personnel cost, $941,374 in supply costs, $300,000 in equipment costs, $2,910,362 in subcontracting costs, and $1,612,604 in indirect cost. Strategies will be performed by existing budgeted and extra help positions. Additional extra help staffing may be needed in the future to assist with implementing the activities related to the strategies outlined in the attached work plan. Any extra help staffing additions will be brought back to the Board for approval in a future quarterly budget report. |
| Collaborative Agencies and Roles, if any: | This funding opportunity requires collaboration with local, regional, or national organizations to enhance capacity for infection control and prevention. This requirement is being met by partnering with the Community Health Association Inland Southern Region (CHAISR) which will allow utilization of their network of health centers to improve population health management on a broader scale. |
| Performance Measurement: | CDC Epidemiology and Laboratory Capacity (ELC) developed performance measures as 6 strategies including (1) enhancing laboratory, surveillance, informatics and other workforce capacity (2) strengthening laboratory testing (3) advancing electronic data exchange at Public Health Labs (4) improving surveillance and reporting of Electronic Health Data (5) using laboratory data to enhance investigation, response and prevention, and (6) coordinating and engaging with partners. Progress reports on the 6 strategies will be due quarterly. |

| Reviewing County Counsel | Adam Ebright | Review Date: | 9-9-20 | Attach approval email ✓ |
|---|---|---|---|---|
| Reviewing CAO Analyst | Paul Garcia | Review Date: | 9-10-20 | Attach approval email ✓ |

| Reviewed for Submission to CEO: | Ginger Roosa *(signature)* CAO-Special Projects | 9/10/2020 Date |
|---|---|---|
| Approved for Submission By: | *(signature)* Chief Executive Officer (or designee) | 9/15/20 Date |

4/10/2017

# COVID-19 ELC Enhancing Detection
## Spend Plan

**County Name:** San Bernardino

| Position Title* | Annual Salary | FTE % | Strategy 1 | Strategy 2 | Strategy 3 | Strategy 4 | Strategy 5 | Strategy 6 | COMBINED TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| Accountant III | $ 67,805.00 | 40% | $ 36,163.00 | | | | | | $ 36,163 |
| Contact Tracer Supervisors | $ 73,704.00 | 100% | | | | | $ 687,904.00 | | $ 687,904 |
| Business Systems Analyst II | $ 83,839.00 | 50% | $ 27,946.00 | | $ 27,946.00 | | | | $ 55,892 |
| Communicable Disease Investigator I | $ 34,567.00 | 100% | $ - | | | | $ 4,608,933.00 | | $ 4,608,933 |
| Communicable Disease Investigator II | $ 66,406.00 | 100% | $ 203,645.00 | | | | $ 150,520.00 | | $ 354,165 |
| Contract PH Laboratory Director | $ 210,326.00 | 50% | | $ 96,399.19 | $ 43,817.81 | | | | $ 140,217 |
| General Services Worker II | $ 33,155.00 | 100% | $ 176,827.00 | | | | | | $ 176,827 |
| Registered Nurse II | $ 85,812.00 | 100% | | | | | $ 57,208.00 | $ 57,208.00 | $ 114,416 |
| PH Program Manager - Comm. Disease | $ 99,191.00 | 75% | $ 99,191.00 | | | | | | $ 99,191 |
| Public Health Epidemiologist | $ 68,404.00 | 100% | | $ 125,407.56 | $ 57,003.44 | | | | $ 182,411 |
| Laboratory Assistant | $ 61,897.00 | 100% | | $ 123,794.25 | $ 41,264.75 | | | | $ 165,059 |
| Public Health Microbiologist | $ 100,031.00 | 100% | | $ 160,049.25 | $ 53,349.75 | | | | $ 213,399 |
| Public Health Program Coordinator | $ 88,671.00 | 75% | $ 88,671.00 | | | | | | $ 88,671 |
| Statistical Analyst | $ 65,878.00 | 75% | $ 43,919.00 | | $ 10,979.75 | | | | $ 54,899 |
| Supervising Communicable Disease | $ 60,494.00 | 75% | $ 60,494.00 | | | | | | $ 60,494 |
| Public Service Employee | $ 21,359.00 | 100% | $ 113,915.00 | | | | | | $ 113,915 |
| Cont Infection PreventionistRN | $ 102,690.00 | 100% | $ - | | | | $ 136,920.00 | $ 136,920.00 | $ 273,840 |
| Licensed Vocational Nurse | $ 45,794.00 | 100% | | | | | $ 30,529.50 | $ 30,529.50 | $ 61,059 |
| | | | | | | | | | $ - |
| Fringe | 52% | | $ 439,508 | $ 261,219 | $ 121,071 | $ - | $ 2,930,163 | $ 116,058 | $ 3,868,019 |
| **Total Personnel** | | | **$ 1,290,279** | **$ 766,869** | **$ 355,433** | **$ -** | **$ 8,602,177** | **$ 340,716** | **$ 11,355,474** |
| **Supplies** | | | | | | | | | |
| | | | $ 3,768.25 | $ 14,657.25 | $ 19,657.00 | $ 409,958.00 | $ 65,749.00 | $ 52,053.00 | $ 565,843 |
| **Total Supplies** | | | **$ 3,768** | **$ 14,657** | **$ 19,657** | **$ 409,958** | **$ 65,749** | **$ 52,053** | **$ 565,843** |
| **Travel** | | | | | | | | | |
| In-State | | | | | | | | | $ - |
| Out-of-State | | | | | | | | | $ - |
| **Total Travel** | | | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| **Equipment** | | | | | | | | | |
| | | | | $ 700,000.00 | $ 50,000.00 | | | | $ 750,000 |
| **Total Equipment** | | | **$ -** | **$ 700,000** | **$ 50,000** | **$ -** | **$ -** | **$ -** | **$ 750,000** |
| **Other** | | | | | | | | | $ 20,000 |
| Technological support | | | | $ 20,000.00 | | | | | |
| **Total Other** | | | **$ -** | **$ -** | **$ 20,000** | **$ -** | **$ -** | **$ -** | **$ 20,000** |
| **Subcontracts:** | | | | | | | | | |
| CHAISR (Community Health Association Inland Southern Region) | | | | | | | $ 1,300,000.00 | | $ 1,300,000 |
| El Sol Neighborhood Education Center | | | | | | | | $ 456,959.00 | $ 456,959 |
| | | | | | | | | | $ - |
| | | | | | | | | | $ - |
| | | | | | | | | | $ - |
| | | | | | | | | | $ - |
| | | | | | | | | | $ - |
| | | | | | | | | | $ - |
| | | | | | | | | | $ - |
| **Total Subcontracts** | | | **$ -** | **$ -** | **$ -** | **$ -** | **$ 1,300,000** | **$ 456,959** | **$ 1,756,959** |
| **Indirect Cost** | | | | | | | | | |
| | 15.449% | | $ 199,335.25 | $ 118,473.62 | $ 54,910.79 | $ - | $ 1,328,950.35 | $ 52,637.15 | $ 1,754,307 |
| **Total Indirect** | | | **$ 199,335** | **$ 118,474** | **$ 54,911** | **$ -** | **$ 1,328,950** | **$ 52,637** | **$ 1,754,307** |
| | | | | | | | | | |
| **TOTAL** | | | **$ 1,493,383** | **$ 1,600,000** | **$ 500,000** | **$ 409,958** | **$ 11,296,877** | **$ 902,365** | **$ 16,202,583** |
| | | | | | | | | | |
| **Allocation** | | | **$ 1,493,383** | **$ 1,600,000** | **$ 500,000** | **$ 409,958** | **$ 11,296,877** | **$ 902,365** | **$ 16,202,583** |
| **Balance** | | | $ 0 | $ (0) | $ (0) | $ - | $ 0 | $ 0 | $ 0 |

*Personnel supported with this funding should not duplicate efforts across other federal grants; exceed 1.0 FTE across all funding sources; and salary is kept below $197k as required by the funder.

**CDC - Epidemiology and Laboratory Capacity (ELC) Paycheck Protection Program and Health Care Enhancement Act of 2020**

| Local Health Jurisdiction Name: | San Bernardino County |
|---|---|
| Grant Number: | 6 NU50CK000539-01-10 |

## Strategy 1 - Enhance Laboratory, Surveillance, Informatics and other Workforce Capacity

**Strategy 1 Actions and Deliverables:**

A. Train and hire staff to improve laboratory workforce ability to address issues around laboratory safety, accessioning, testing and reporting results.

B. Build expertise for healthcare and community outbreak response and infection prevention and control (IPC) among local health departments.

C. Train and hire staff to improve the capacities of the epidemiology and informatics workforce to effectively conduct surveillance and response of COVID-19 (including contact tracing) and other conditions of public health significance.

D. Build expertise to support management of the COVID-19 related activities within the jurisdiction and the integrate into the broader ELC portfolio of activities (e.g., additional leadership, program and project managers, budget staff, etc.).

E. Increase capacity for timely data management, analysis, and reporting for COVID-19 and other conditions of public health significance.

| | **Strategy 1: Enhance Laboratory, Surveillance, Informatics and other Workforce Capacity** | |
|---|---|---|
| **Strategy 1 - Milestone 1** | Planned Activity *(Provide a title for this milestone)* | Improve laboratory workforce |
| | Implementation Plan *(Bulleted items or brief sentences)* | * Train staff on improvements made to Orchard (cloud-based laboratory information management system). <br> - Implementation of the Copia Mobile Module will allow laboratory staff to look up orders, view patient history, and review reports remotely. This upgrade will require additional staff training in order to maximize its impact. <br> * Train staff on newly purchased laboratory equipment. <br> - Lab staff will need to become familiar with equipment configurations, validate new tests, write procedures, verify that results are transferred securely (i.e. to CalREDIE), maintain competency, etc. as our infectious disease infrastructure continues to evolve. |
| | **Applicant capacity:** What is the current capacity to perform this milestone? | Our Lab Director has been actively involved in our COVID-19 response efforts, as well as the development of this work plan, and as such our Lab staff is ready and eager to improve their skillsets as new challenges continue to arise. |
| | **Expected Achieve By Date** *(select from drop down)* | September 2021 |

| | **Strategy 1: Enhance Laboratory, Surveillance, Informatics and other Workforce Capacity** | |
|---|---|---|
| **Strategy 1 - Milestone 2** | Planned Activity *(Provide a title for this milestone)* | Outbreak response and infection prevention |
| | Implementation Plan *(Bulleted items or brief sentences)* | * Assemble task forces to address outbreaks. <br> - Develop guidance and establish teams in preparation for response. <br> * Expand infection prevention and control efforts. <br> - Develop an infection prevention team, or teams, as needed. |
| | **Applicant capacity:** What is the current capacity to perform this milestone? | The County currently has a team in place to address outbreaks and is currently creating a task force in preparation for outbreaks at schools following reopening. The County is also developing an infection prevention team to assist with on-site assessments, trainings, and recommendations. The County is also exploring the possibility of bringing on an additional Contract Infection Preventionist to lead a second IP team. |
| | **Expected Achieve By Date** *(select from drop down)* | March 2021 |

| Strategy 1 - Milestone 3 | Strategy 1: Enhance Laboratory, Surveillance, Informatics and other Workforce Capacity | |
|---|---|---|
| | Planned Activity (Provide a title for this milestone) | Improve epidemiology and informatics workforce |
| | Implementation Plan (Bulleted items or brief sentences) | * Train epidemiologists to conduct surveillance of COVID-19<br>  - Epidemiologists will monitor case histories, statistics, and demographic data to identify epidemiologic trends, locations, and sources. Epidemiologists will work closely with the Contact Tracing unit to identify and mitigate outbreaks throughout the county.<br>* Train statistical analysts to present COVID-19 data.<br>  - Provide resources necessary to discover patterns and trends. During our response to this public health crisis it has become apparent that our current informatics structure is not sufficient to handle the large volumes of data being generated by this pandemic. Staff will continue to be trained, gain expertise, and grow their abilities as we continue to enhance processes and procedures related to our electronic health data. |
| | Applicant capacity: What is the current capacity to perform this milestone? | Sufficient staffing is in place to dedicate to this objective, however additional tools and resources need to be procured to achieve our goals of minimizing overall health disparities in order to improve the health equity of our community. |
| | Expected Achieve By Date (select from drop down) | March 2021 |

| Strategy 1 - Milestone 4 | Strategy 1: Enhance Laboratory, Surveillance, Informatics and other Workforce Capacity | |
|---|---|---|
| | Planned Activity (Provide a title for this milestone) | Build expertise to build management of activities |
| | Implementation Plan (Bulleted items or brief sentences) | * Integrate information technology staff<br>  - Utilize organizational infrastructure knowledge and business aptitude of our professional IT staff to implement various systems and upgrades.<br>* Integrate fiscal oversight staff<br>  - Utilize internal expertise in the fields of accounting, budgeting, and project management to ensure compliance with regulations and adherence to planned objectives.<br>* Recruit a well-qualified Health Officer<br>  - The County recently completed its recruitment of our new Health Officer. The County Health Officer position assesses and protects the County's health status, assumes a leadership role during countywide emergencies, and enforces health laws. |
| | Applicant capacity: What is the current capacity to perform this milestone? | Sufficient staffing is in place to dedicate to this objective, however allocation of their time between COVID-19 activities and normal program activities needs to be worked out. |
| | Expected Achieve By Date (select from drop down) | March 2021 |

| Strategy 1 - Milestone 5 | Strategy 1: Enhance Laboratory, Surveillance, Informatics and other Workforce Capacity | |
|---|---|---|
| | Planned Activity (Provide a title for this milestone) | Increase capacity for data management, analysis, and reporting |
| | Implementation Plan (Bulleted items or brief sentences) | * Expand on prior planned activities to improve deliverables.<br>  - Task our data management staff with improving the scale and efficiency by which they compile our data.<br>  - Task our epidemiologist staff with improving the breadth of their data analysis.<br>  - Encourage both data management and epidemiologist staff to work in unison to improve the readability of reports to better inform decision makers within our organization.<br>  - Our contact tracing efforts will be a rich data source that will require staff to transform data into information. We will improve our reporting and analytic outputs by investing in appropriate training and workforce development opportunities. |
| | Applicant capacity: What is the current capacity to perform this milestone? | Sufficient staff is in place to dedicate to this objective, however we need to increase the "buy-in" factor and assure all involved that they have department-wide support, as well as the necessary tools and continuing education, to carry-out these objectives and stay current in their profession. |
| | Expected Achieve By Date (select from drop down) | March 2021 |

**CDC - Epidemiology and Laboratory Capacity (ELC) Paycheck Protection Program and Health Care Enhancement Act of 2020**

| Local Health Jurisdiction Name: | San Bernardino County |
|---|---|
| Grant Number: | 6 NU50CK000539-01-10 |

## Strategy 2 - Strengthen Laboratory Testing

**Strategy 2 Actions and Deliverables:**

A. Establish or expand capacity to quickly, accurately and safely test for SARS-CoV-2/COVID-19 (which may build capacity to test for other pathogens with potential for broad community spread) among all symptomatic individuals, and secondarily expand capacity to achieve community-based surveillance, including testing of asymptomatic individuals.

B. Enhance laboratory testing capacity for SARS-CoV-2/COVID-19 outside of public health laboratories

C. Enhance data management and analytic capacity in public health laboratories to help improve efficiencies in operations, management, testing, and data sharing.

| | Strategy 2 - Strengthen Laboratory Testing | |
|---|---|---|
| **Strategy 2 - Milestone 1** | Planned Strategy (Provide a title for this milestone) | Expand laboratory testing and continue to develop high throughput capacity. |
| | Implementation Plan (Bulleted items or brief sentences) | * Optimize existing testing platform<br>  - Purchase of testing machine currently being leased in order to upgrade COVID-19 testing ability.<br>* Purchase new testing equipment<br>  - Additional machines will allow our Public Health Lab to scale-up and meet testing demands in a timely manner.<br>  - Tests in our Lab can return results for high-risk environments in a more timely manner than sending out to a private lab.<br>  - Planned purchases include:<br>    o Illumina MiSeq instrument for Whole Genome Sequencing to perform epidemiological analysis of pathogenic organisms.<br>    o BioRad Evolis for high throughput COVID serology testing.<br>    o PerkinElmer Victor Nivo to perform serology and bioterrorism testing.<br>    o Biosafety cabinets for safe handling of aerosol-transmissbale pathogens.<br>    o Steam sterilizer (autoclave) to destroy pathogens in biohazardous waste.<br>    o PAPRs (reusable personal protective equipment) for high-risk settings.<br>    o CO2 incubator and gas manifold<br>    o Associated electrical circuit modifications, communication data drops, etc.<br>* Procure supply agreements<br>  - Improve access to reagents and supplies necessary to collect and process specimens using our testing devices/platforms. |
| | Applicant capacity: What is the current capacity to perform this milestone? | Our Lab currently utilizes 1 Hologic Panther machine to process COVID-19 tests and is in discussions with Hologic regarding a supply purchasing agreement. |
| | Expected Achieve By Date (select from drop down) | June 2021 |

| | Strategy 2 - Strengthen Laboratory Testing | |
|---|---|---|
| **Strategy 2 - Milestone 2** | Planned Strategy (Provide a title for this milestone) | Enhance testing capabilities outside of our Public Health Lab |
| | Implementation Plan (Bulleted items or brief sentences) | * Expand capacity of testing with private laboratory testing providers as necessary to handle public health-led testing events as well as surge capacity.<br>  - The County currently has a purchase order agreement with Fulgent Laboratories to provide testing kits as well as to provide processing and results reporting.<br>  - The County currently operates 10 POC testing sites throughout our county.<br>  - The County is currently exploring possible non-traditional testing options in order to expand our capacity and increase turnout, which includes the possibility of, providing at-home test kits to individuals who cannot leave their home or cannot access a community test site.<br>  - Depending on logistics and costs, the County would also consider utilizing the CDPH Branch Laboratory in Valencia once it is up and running. |

| | | |
|---|---|---|
| | **Applicant capacity:** What is the current capacity to perform this milestone? | Currently utilizing LabCorp and Fulgent to process specimens outside of our laboratory. |
| | **Expected Achieve By Date** *(select from drop down)* | March 2021 |

| | Strategy 2 - Strengthen Laboratory Testing | |
|---|---|---|
| **Strategy 2 - Milestone 3** | Planned Strategy (Provide a title for this milestone) | Enhance data management and analytic capacity |
| | **Implementation Plan** (Bulleted items or brief sentences) | * Analyze current laboratory operations<br>  - Improve the efficiency of inventory tracking for testing kits, reagents, etc. by utilizing Apptricity's asset management system.<br>  - Optimize data analytics within Orchard Copia, our LIMS, that will allow management to have sufficient information to make informed decisions at a faster pace. System enhancements will allow the ability to efficiently process and report information to meet COVID-19 reporting needs and requirements.<br>  - Implement a Patient Portal system within our LIMS that would provide web access of laboratory reports, making both laboratory operations and data sharing more efficient. |
| | **Applicant capacity:** What is the current capacity to perform this milestone? | Currently assessing our operations for improvement, which would include, improvements and upgrades to our current Laboratory Information Management System. |
| | **Expected Achieve By Date** (select from drop down) | February 2021 |

**CDC - Epidemiology and Laboratory Capacity (ELC) Paycheck Protection Program and Health Care Enhancement Act of 2020**

| Local Health Jurisdiction Name: | San Bernardino County |
|---|---|
| Grant Number: | 6 NU50CK000539-01-10 |

## Strategy 3 - Advance Electronic Data Exchange at Public Health Labs

**Strategy 3 Actions and Deliverables**
A.  Enhance and expand laboratory information infrastructure, to improve jurisdictional visibility on laboratory data (tests performed) from all testing sites and enable faster and more complete data exchange and reporting.

| | Strategy 3 - Advance Electronic Data Exchange at Public Health Labs | |
|---|---|---|
| **Strategy 3 - Milestone 1** | Planned Strategy (Provide a title for this milestone) | Enhance laboratory information infrastructure |
| | **Implementation Plan** (Bulleted items or brief sentences) | * Work with Orchard, our Laboratory Information Management System, to improve data processing, data flow, and the overall user experience.<br>  - Develop interfaces to improve reporting efficiencies.<br>  - Explore the possibility of a web-based portal.<br>* Improve operability by analyzing current setup and addressing weaknesses.<br>  - Utilize a Business Systems Analyst and a Statistical Analyst to work with Laboratory staff in order to assess our infrastructure, document our needs, and develop a business plan with our LIMS provider in order to maximize our use of all laboratory data from supply orders all the way through testing result outputs. |
| | **Applicant capacity:** What is the current capacity to perform this milestone? | Currently addressing LIMS upgrades in order to eliminate bottlenecks. |
| | **Expected Achieve By Date** *(select from drop down)* | March 2021 |

| | Strategy 4 - Improve Surveillance and Reporting of Electronic Health Data | |
|---|---|---|
| **Strategy 4 - Milestone 3** | Planned Strategy (Provide a title for this milestone) | Improve electronic reporting with healthcare facilities. |
| | Implementation Plan (Bulleted items or brief sentences) | * Work with other entities to streamline our surveillance processes.<br>  - Obtain access to medical records at Arrowhead Regional Medical Center (ARMC), our County hospital, via EPIC CareConnect.<br>  - Planned activities include working with ARMC to support electronic reporting workflows by obtaining access to EHR systems including access to telehealth and care coordination. This improvement will allow for better workflows for staff who are providing care coordination services across County organizations. |
| | Applicant capacity: What is the current capacity to perform this milestone? | No capacity at this time. Need to development a data-sharing agreement with ARMC. |
| | Expected Achieve By Date (select from drop down) | March 2021 |

| | Strategy 4 - Improve Surveillance and Reporting of Electronic Health Data | |
|---|---|---|
| **Strategy 4 - Milestone 4** | Planned Strategy (Provide a title for this milestone) | Enhance data analysis and visualization |
| | Implementation Plan (Bulleted items or brief sentences) | * The department will be pursuing a collaboration between our analytics team, our Information Technology team, and an outside partner to stand up an AWS server environment to house a SQL database system, a Tableau Server environment, and an Esri ArcGIS Enterprise Portal. The HIPAA compliant database system that will be stood up will be used to hold large scale infectious disease, mortality and morbidity, and other associated health data for surveillance and monitoring activities. The Tableau Server environment will allow the department to develop automated data cleaning and transformation processes for large data sets that will be used to power dashboards to support constantly updated monitoring activities. The Tableau Server and Esri Portal environments will support a secure, HIPAA compliant environment where these monitoring dashboards can be accessed by department leadership, infectious disease staff, and other's involved in response activities with up-to-date information on disease time, location, and demographic patterns of relevance, including occupational trends, demographic disparities, outbreaks in specific locations or facilities, etc. |
| | Applicant capacity: What is the current capacity to perform this milestone? | Currently utilize Qualtrics and Tableau but on a limited-basis. |
| | Expected Achieve By Date (select from drop down) | June 2021 |

CDC - Epidemiology and Laboratory Capacity (ELC) Paycheck Protection Program and Health Care Enhancement Act of 2020

| Local Health Jurisdiction Name: | San Bernardino County |
|---|---|
| Grant Number: | 6 NU50CK000539-01-10 |

## Strategy 4 - Improve Surveillance and Reporting of Electronic Health Data

**Strategy 4 Actions and Deliverables:**

A.  Establish complete, up-to-date, automated reporting of morbidity and mortality to CDC and others due to COVID-19 and other conditions of public health significance, with required associated data fields in a machine readable format.

B. Establish complete, up-to-date, timely, automated reporting of individual-level data through electronic case reporting to CDC and others in a machine-readable format (ensuring LHD have access to data that is reported).

C.  Improve understanding of capacity, resources, and patient impact at healthcare facilities through electronic reporting.

D.  Enhance systems for flexible data collection, reporting , analysis, and visualization.

E. Establish or improve systems to ensure complete, accurate and immediate (within 24 hrs) data transmission to a system and open website available to local health officials and the public by county and zipcode, that allows for automated transmission of data to the CDC in a machine readable format.

| | **Strategy 4 - Improve Surveillance and Reporting of Electronic Health Data** | |
|---|---|---|
| **Strategy 4 - Milestone 1** | Planned Strategy (Provide a title for this milestone) | Establish automated reporting of morbidity and mortality |
| | Implementation Plan (Bulleted items or brief sentences) | * Onboarding onto the BioSense platform (formerly ESSENCE) will be a collaborative process with facilities, the CDC, and vendors for electronic health records (EHR), or health information exchange (HIE) to transmit syndromic surveillance data from internal medical record systems to the NSSP BioSense Platform. The result will be a live data feed to the BioSense Platform. |
| | Applicant capacity:  What is the current capacity to perform this milestone? | Interfaces exist but require upgrading and implementation to achieve this milestone. |
| | Expected Achieve By Date (select from drop down) | June 2021 |

| | **Strategy 4 - Improve Surveillance and Reporting of Electronic Health Data** | |
|---|---|---|
| **Strategy 4 - Milestone 2** | Planned Strategy (Provide a title for this milestone) | Establish automated reporting of individual-level data |
| | Implementation Plan (Bulleted items or brief sentences) | * Improve infectious disease reporting via electronic Case Reporting (eCR).  - Upgrade access to electronic medical records for Communicable Disease staff to facilitate intervention and treatment completion.  - Develop bi-directional data flows between EHRs and CAIRs database.  - Mine data in EHRs to identify trends in infectious diseases and movement of diseases among populations.  - Additional messaging and stakeholder engagement to onboard into the eCR feature in CalREDIE is planned to improve electronic health reporting with healthcare facilities.  - Planned activities include engaging internal and external partners to encourage information exchange, which will allow for better coordination and expansion, as well as identifying a lead liaison for stakeholder engagement. |
| | Applicant capacity:  What is the current capacity to perform this milestone? | Currently access exists however eCR expansion/coordination is needed. |
| | Expected Achieve By Date (select from drop down) | March 2021 |

| | Strategy 4 - Improve Surveillance and Reporting of Electronic Health Data | |
|---|---|---|
| **Strategy 4 - Milestone 3** | Planned Strategy (Provide a title for this milestone) | Improve electronic reporting with healthcare facilities. |
| | **Implementation Plan** (Bulleted items or brief sentences) | * Work with other entities to streamline our surveillance processes.<br>  - Obtain access to medical records at Arrowhead Regional Medical Center (ARMC), our County hospital, via EPIC CareConnect.<br>  - Planned activities include working with ARMC to support electronic reporting workflows by obtaining access to EHR systems including access to telehealth and care coordination. This improvement will allow for better workflows for staff who are providing care coordination services across County organizations. |
| | **Applicant capacity:** What is the current capacity to perform this milestone? | No capacity at this time. Need to development a data-sharing agreement with ARMC. |
| | **Expected Achieve By Date** *(select from drop down)* | March 2021 |

| | Strategy 4 - Improve Surveillance and Reporting of Electronic Health Data | |
|---|---|---|
| **Strategy 4 - Milestone 4** | Planned Strategy (Provide a title for this milestone) | Enhance data analysis and visualization |
| | **Implementation Plan** (Bulleted items or brief sentences) | * The department will be pursuing a collaboration between our analytics team, our Information Technology team, and an outside partner to stand up an AWS server environment to house a SQL database system, a Tableau Server environment, and an Esri ArcGIS Enterprise Portal. The HIPAA compliant database system that will be stood up will be used to hold large scale infectious disease, mortality and morbidity, and other associated health data for surveillance and monitoring activities. The Tableau Server environment will allow the department to develop automated data cleaning and transformation processes for large data sets that will be used to power dashboards to support constantly updated monitoring activities. The Tableau Server and Esri Portal environments will support a secure, HIPAA compliant environment where these monitoring dashboards can be accessed by department leadership, infectious disease staff, and other's involved in response activities with up-to-date information on disease time, location, and demographic patterns of relevance, including occupational trends, demographic disparities, outbreaks in specific locations or facilities, etc. |
| | **Applicant capacity:** What is the current capacity to perform this milestone? | Currently utilize Qualtrics and Tableau but on a limited-basis. |
| | **Expected Achieve By Date** *(select from drop down)* | June 2021 |

| | Strategy 4 - Improve Surveillance and Reporting of Electronic Health Data | |
|---|---|---|
| **Strategy 4 - Milestone 5** | Planned Strategy<br>(Provide a title for this milestone) | Improve data transmission |
| | **Implementation Plan**<br>(Bulleted items or brief sentences) | * Development of the aforementioned Database, Tableau Server, and Esri Enterprise Portal integration and automation processes will allow for ongoing data cleaning and preparation processes that can be implemented for critical data sets. These processes will ensure clean, machine readable data will be available for transmission at any time, and additional data sets that have been processed through standardized de-identification processes can be readily available for partner organizations and others who have specific data needs but must be provided a version of data with identifiers removed or aggregated.<br>  - Working with a third-party contractor, we would build automation processes so that CalREDIE and CalCONNET persons will be automatically notified about the survey, and can complete an electronic survey to provide essential information to enhance community-based surveillance and ensure complete, accurate, and immediate information is transmitted to local health officials.  This automation will be extended so survey data will be pushed back to CalREDIE/CalCONNECT to update case records and improve speed and quality of surveillance. |
| | **Applicant capacity:**  What is the current capacity to perform this milestone? | Currently assessing portal environment development and implementation needs. |
| | **Expected Achieve By Date**<br>(select from drop down) | March 2021 |

**CDC - Epidemiology and Laboratory Capacity (ELC) Paycheck Protection Program and Health Care Enhancement Act of 2020**

| Local Health Jurisdiction Name: | San Bernardino County |
| --- | --- |
| Grant Number: | 6 NU50CK000539-01-10 |

## Strategy 5 - Use Laboratory Data to Enhance Investigation, Response and Prevention

**Strategy 5 Actions and Deliverables:**

A. Use laboratory data to initiate case investigations, conduct contact tracing and follow up, and implement containment measures.

B. Identify cases and exposure to COVID-19 in high-risk settings or within vulnerable populations to target mitigation strategies.

C. Implement prevention strategies in high-risk settings or within vulnerable populations (including tribal nations) including proactive monitoring for asymptomatic case detection.

| | Strategy 5 - Use Laboratory Data to Enhance Investigation, Response and Prevention | |
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| **Strategy 5 - Milestone 1** | Planned Strategy (Provide a title for this milestone) | Use lab data to investigate and achieve containment |
| | Implementation Plan (Bulleted items or brief sentences) | * Obtain positive case data from lab results in order to perform contact tracing. <br>  - Distribute case load to Communicable Disease Investigators (CDIs). <br>  - Contact individuals to elicit information about their interactions and whereabouts prior to testing positive. <br>  - Each contact tracer attempts to contact at least 10 cases a day via call, text and/or e-mail depending on availability of conact information. <br>  - Each case will be contacted within 24-48 of receiving a positive Lab report. <br>  - All household contacts, and as many outside contacts as possible, will be elicited. <br>  - Investigations of all contacts provided will occurr. All outside (non-San Bernardino County) contacts will be referred to State contact tracers. <br>  - Guidelines and education on proper self-isolation and care will be provided. <br>  - Implement containment measures via ArcGIS to map/plot laboratory data by geographic region/area. |
| | **Applicant capacity:** What is the current capacity to perform this milestone? | The County has on-boarded more than 200 CDIs to perform contact tracing. DPH's ongoing goal has been to hire contact-tracing staff that represents the ethnic, cultural and linguistic diversity of San Bernardino County. DPH is working on increasing efforts to ensure race/ethnicity data is collected on all active cases and contacts. We are working to stay in line with our state metrics to mitigate the spread of COVID-19. Data is currently summarized and reported out in PDF documents. GIS capabilities will assist us in identifying and pinpointing areas needing containment. |
| | **Expected Achieve By Date** (select from drop down) | June 2021 |

| | Strategy 5 - Use Laboratory Data to Enhance Investigation, Response and Prevention | |
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| **Strategy 5 - Milestone 2** | Planned Strategy (Provide a title for this milestone) | Identify cases and exposure in high-risk settings |
| | Implementation Plan (Bulleted items or brief sentences) | * Extract contact tracing case data from CalREDIE. <br>  - Process data points to identify cases with similar characteristics. <br>  - Interpret results for the purpose of developing mitigation strategies. <br>  - Plot results on a "heat map" to illustrate high-risk areas. <br>  - Rapidly provide outreach to high-risk areas. <br>* Mitigate spikes in positivity by contracting with CHAISR (Community Health Association Inland Southern Region) to reach underserved populations, particularly those in the County's high-priority testing areas who are disproportionately impacted by the pandemic (higher case rates, higher mortality, lower testing rates). |

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| | **Applicant capacity:** What is the current capacity to perform this milestone? | Current reports are static and high-risk/vulnerable populations are self-reported. The County did coordinate a large response effort among our Long-Term Care Facilities during a prior outbreak however there is a need to transition efforts towards proactive mitigation. Our agreement with CHAISR will allow us to improve our mitigation efforts in vulnerable populations as they work with a network of community health centers (clinics) that serve populations with limited access to health care. Their ability to perform outreach and provide education to community members will help the County reduce infections casued by community spread. |
| | **Expected Achieve By Date** *(select from drop down)* | March 2021 |

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| **Strategy 5 - Milestone 3** | **Strategy 5 - Use Laboratory Data to Enhance Investigation, Response and Prevention** | |
| | Planned Strategy (Provide a title for this milestone) | Implement prevention strategies |
| | **Implementation Plan** (Bulleted items or brief sentences) | * Expand contact tracing into infection prevention. <br>  - Results of investigations will be forwarded to infection prevention staff for purposes of health education within identified high-risk and vulnerable populations. <br>  - Utilize SalesForce to expand our data collection capabilities as well as a platform to exchange information with community members to mitigate community spread (to include asymptomatic individuals). <br>  - Utilize infection prevention team(s) to provide monthly call support to administrators, director of nurses, local infection preventionists, as well as, visits as needed to facilities for trainings. |
| | **Applicant capacity:** What is the current capacity to perform this milestone? | The County has hired a Contract Infection Preventionist to build the foundation for our prevention and mitigation efforts and is exploring the possibility of bringing on an additional Contract Infection Preventionist to expand our capacity to coordinate actions while utilizing available guidance and training provided by CDPH. |
| | **Expected Achieve By Date** *(select from drop down)* | March 2021 |

CDC - Epidemiology and Laboratory Capacity (ELC) Paycheck Protection Program and Health Care
Enhancement Act of 2020

| Local Health Jurisdiction Name: | San Bernardino County |
|---|---|
| Grant Number: | 6 NU50CK000539-01-10 |

## Strategy 6 - Coordinate and Engage with Partners

| Strategy 6 Actions and Deliverables |
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| A. Partner with LHDs to establish or enhance testing for COVID-19/SARS-CoV-2.<br>B. Partner with local, regional, or national organizations or academic institutions to enhance capacity for infection control and prevention of COVID-19/SARS-CoV-2. |

| | Strategy 6 - Coordinate and Engage with Partners | |
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| **Strategy 6 - Milestone 1** | Planned Strategy<br>(Provide a title for this milestone) | Support LHDs testing efforts |
| | Implementation Plan<br>(Bulleted items or brief sentences) | * Provide outreach and resources to allow testing to be conducted outside of our department.<br> - Utilize staff to communicate with, and involve, other entities in order to improve the overall health equity of our community.<br> * Leverage partnership with El Sol to enhance testing.<br> - El Sol will develop community-specific COVID-19 messaging and contact residents in identified "hot spot" areas throughout the county.<br> - One of their goals is to reduce stigma associated with testing. |
| | Applicant capacity: What is the current capacity to perform this milestone? | Currently staff works with other entities when necessary (external request, identification of an outbreak, etc.) however we would like to be more proactive in addressing potential areas of concern. |
| | Expected Achieve By Date<br>(select from drop down) | June 2021 |

| | Strategy 6 - Coordinate and Engage with Partners | |
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| **Strategy 6 - Milestone 2** | Planned Strategy<br>(Provide a title for this milestone) | Enhance infection control and prevention |
| | Implementation Plan<br>(Bulleted items or brief sentences) | * Task an Infection Preventionist to act as the LHD liaison.<br> - Reach out to LHDs, academic medical centers, etc. and develop partnerships.<br> - Provide consultation and support services.<br> - Visit facilities as needed for trainings.<br> - Improve population health management efforts.<br> * Utilize El Sol's established Community Health Worker/Promotores de Salud model to enhance infection control and prevention.<br> - Information about COVID-19 will be disseminated to increase awareness in vulnerable and at-risk communities and social support will be provided to those who are isolated in quarantine to promote help-seeking bahaviors. |
| | Applicant capacity: What is the current capacity to perform this milestone? | Currently developing internal proposals to provide options for infection prevention team composition. The IP team(s) will receive all of the necessary training made available by CDPH, including but not limited to, materials made available online in the "Resources for Public Health Partners" section of the HAI Prorgam webpage.<br><br>In addition, collaborative efforts with El Sol Neighborhood Education Center will allow access to Community Health Workers (CHW) for purposes of reaching disproportionately impacted communities. The main focus of their efforts will be in communities that fall in the lowest 25% quartile of the Healthy Places Index (HPI). As of 10/15/2020, the date our San Bernardino County COVID-19 Health Equity Plan was revised, the lowest quartile HPI census tracts are home to 24% of county residents and account for 27% of COVID-19 cases. |
| | Expected Achieve By Date<br>(select from drop down) | March 2021 |