MEMORANDUM

Date: March 5, 2021

To: The Honorable Chair and Members
   Pima County Board of Supervisors

From: C.H. Huckelberry
       County Administrator

Re: Application by the Health Department for State Funding Related to COVID-19 Testing

In the State’s offer of $14.3 million to Pima County for COVID-19 testing, they have required submission of a plan to do so.

Attached is the plan submitted by the Health Department. The plan requests cost reimbursement of providing testing for three separate time periods, December 21, 2020 through January 14, 2021; January 15, 2021 through March 3, 2021; and March 4, 2021 to June 30, 2021. A total funding request of $30,260,329 has been made.

These funds, if provided, would provide adequate testing as determined necessary by the County’s public health agency. Anything less would fall below our standards of providing maximum protection of the public from the spread of COVID-19.

Please note, my March 3, 2021 letter to Dr. Cara Christ is appended to this submission.

CHH/anc

Attachments

cc: Jan Lesher, Chief Deputy County Administrator
    Carmine DeBonis, Jr., Deputy County Administrator for Public Works
    Francisco García, MD, MPH, Deputy County Administrator & Chief Medical Officer, Health and Community Services
Background/Problem Statement

Since the onset of the COVID-19 pandemic in March 2020, all of Arizona has faced challenges to disease identification, surveillance and case management. Early testing modalities were inconsistently accurate, difficult to procure, and often required lengthy resulting times. As the pandemic has progressed, testing accuracy and availability has improved. Nationwide hundreds of new businesses entered the testing field, and several new instruments and protocols were developed, with varying degrees of success. Over the past twelve months, Pima County, like most every other jurisdiction, has learned to navigate the testing environment and worked to maximize the value of limited financial resources.

According to Arizona Department of Health Services data, Pima County residents have received over 600,000 tests, over 90% of them the diagnostic RT-PCR modality. For a county of approximately 1.1 million residents that is a significant proportion. Capitalizing on that testing, the Pima County Health Department, our contracted contact tracing and case investigation partner (Maximus Public Health), and other regional partners worked to rapidly transit positive cases into tracing and investigation. The value of testing is greatest when it leads to early identification and mitigation of the disease spread. Pima County has successfully developed and implemented rapid case investigation and contact tracing – meeting the 24 to 48 hour ideal timing to help ensure timely case investigation and contact tracing and resulting in decreased transmission of COVID-19 due to successful isolation and quarantine.

Pima County and some municipalities enacted other mitigation strategies (reduced capacities at indoor facilities, mask mandates, temperature checks, etc.) to complement active case management. Public awareness campaigns, remote learning due to school closures and greatly increased telecommuting have become regular components of everyday life. The initiation of COVID-19 vaccination at several sites throughout Pima County has been a welcome addition as well, and is the path to some version of normalcy.

Despite these efforts, Pima County COVID-19 case rates remain at unacceptably high levels. In February, there were approximately 200 new cases per day and a case rate of 10,500 per 100,000. The death rate is 2% of known cases, with over 2,200 fatalities. The Percent Positive rate for Pima County remains above 12%, well beyond the 5% guideline established by the World Health Organization indicating sufficient testing and surveillance. With the continued increase in vaccination numbers and growing pandemic fatigue, compliance with mitigation guidelines is expected to wane. The presence and impact of COVID-19 mutant variants is yet to be fully elucidated, and may reduce vaccine efficacy. The only way to successfully identify genetic variance is through genomic testing of positive PCR results. Testing is the only way to identify and acquire positive PCR tests that can be used for genomic evaluation. Closing the pandemic will require greater vigilance and continued aggressive testing, particularly in high-risk areas.

The pillars of Pima County’s response to the pandemic remains ongoing testing and rapid identification of positive cases, immediate transmission of case data to public health agencies, facilitating immediate entry into case investigation and contract tracing, and care coordination. The focus of this funding opportunity response is the expansion of testing, particularly in underserved populations and high-risk demographic regions.
Using an array of contracted resources, Pima County proposes to support RT-PCR testing, supplement rapid PCR testing at potential outbreak locations, and enhance antigen testing, such as BinaxNOW in appropriate situations, to leverage state and local resources to meet international testing guidelines, and enhance genomic evaluation of positive samples for virus variants.

**Goal/Project Aims**

The Pima County Health Department proposes four primary goals for the Enhanced Detection project, all hinging on reaching and maintaining a proper level of testing-based surveillance. The goals are:

1. **Achieve a testing rate of 1.5 tests per 1000 population**
   Dr. Thomas Frieden, past director of the Centers for Disease Control and Prevention and current CEO of Resolve to Save Lives, and his colleagues laid out a series of metrics that will be instrumental in reducing, containing and eventually stopping the spread of SARS-CoV-2 and COVID-19. One of the primary metrics is screening and diagnostic testing with a target rate of 1.5 tests per 1,000 people per day. Reaching this mark will increase the likelihood of case identification prior to that case triggering outbreaks, increase asymptomatic detection and provide for more variant screening and identification.

   Using the projected unvaccinated population of Pima County, this equates to an initial daily testing load of over 1,500, tapering over several months to approximately 750 tests per day. Thus, Pima County Health Department estimates put the initial need at 48,000 tests per month to achieve and maintain proper COVID-19 surveillance. Absent the support of the ELC Enhanced Detection funding, Pima County will not be able to achieve figures approaching that target.

2. **Rapid transmission of results**
   Accurate testing is only of value if the results are rapidly transmitted to the patient and the responsible public health agencies. Through experience, Pima County has incorporated terms and conditions into testing contracts that require 24 and 48-hour result windows, with fiscally punitive measures for result delays. This has assisted in reducing the times from sample collection to results receipt, but frequently results are reported by batch file, manual transfer and integration, or other non-automated process. It is imperative to move more of the labs to an automated, HL-7 compliant interface that will report positive cases to public health agencies virtually instantaneously.

   Leveraging other ELC funding, Pima County is advancing efforts to encourage all contracted and regional laboratories to employ HL-7 compliant interfaces to transmit results to Pima County and Arizona health officers. Additionally, the deployment of patient portals allowing tested individuals to receive the results without waiting for a phone call or mailed report is a requirement of Pima County contracts. These steps should increase the number of positive cases informed and entering contact tracing within 24-48 hours of testing. Pima County intends to reach the 80% mark for initial contact tracing within 48 hours of testing recommended by national agencies.

3. **Asymptomatic monitoring**
   In addition to testing symptomatic individuals, contacts of positive cases, and potential exposures, Pima County will continue to provide asymptomatic testing to identify cases and reduce the spread of COVID-
19. This is particularly important in younger residents, high risk workplaces or areas with vulnerable populations such as staff and residents at congregate care sites, and other groups likely to rapidly spread the virus or more likely to have severe outcomes as compared to the general population.

In addition to the protective impacts, asymptomatic testing provides valuable information on community spread, frequency of asymptomatic infection, and identification of potential points of outbreak. This data will contribute to the global and local understanding of COVID-19 disease dynamics and will provide Pima County with necessary information to target mitigation efforts such as education and safety compliance monitoring. It may also benefit in identification of genomic variants as it broadens the catchment for positive cases.

4. Sample collection to support genomic variant detection and identification

The identification of SARS-CoV-2 variants or mutants is a growing concern, particularly in the United States. Several variants have been identified that appear to pose a greater threat than the progenitor, either because of increased virulence or increased adverse outcomes. Pima County has already engaged with an Arizona laboratory to sequence specimens from residual testing samples in an effort to identify and track those variants that appear in this region. This work is more important now than it ever has been in the pandemic, and the need coincides with COVID fatigue and response funding ebbing. Funding under this initiative will allow Pima County to send material from up to 5% of the positive tests to our genomic sequencing partner each month, enhancing detection and identification of variants and tracking the spread of those variants through our State.

As vaccine adoption increases, this data may also provide valuable insight, identifying variants that overcome vaccine protections or maintain transmissibility in vaccinated hosts. This will be vital in the development of future iterations of the vaccine or boosters that may become required much like the development of the annual flu vaccine cocktail.

Capacity to perform proposed work

The Pima County Health Department has provided approximately 400,000 COVID-19 RT-PCR tests since the onset of the pandemic via county staff or contracted partners. Initial contracts were in place for diagnostic testing as early as April 2020, and we have employed six (Paradigm, AccuReference, TGen North, ARCPoint, El Rio, Rescue Me Wellness) contractors in various capacities throughout the pandemic. Additionally, PCHD partnered with UA, ASU, SonoraQuest, Centers for Disease Detection and others to facilitate testing at an array of locations and facilities. These sites have included general public access areas, long term care facilities, congregate living locations, assisted living properties, universities and schools, the Tucson International Airport (prior to ADHS assuming responsibility for that site), and others.

The County has contractors that provide static-site high throughput testing, comprehensive mobile pop-up testing services, and collaborative testing with LTC and ALF staffing. Our ELC – Mitigating COVID in Communities of Color (ELC-MC3) program has aggressively brought testing resources to underserved and high disease impact risk areas, operating 56 events providing 7,640 tests in this communities. Pima County Health staff has trained medical professionals at licensed care facilities on swabbing techniques
Pima County Health Department

and sample collection, allowing these facilities to make use of their contracted laboratories to surveil their residents. The Pima County Health Department also coordinates the distribution of 100,000 BINAX-Now test kits to long term care, congregate and school facilities, providing a CLIA-waived antigen testing option appropriate for administration to the medically frail, young or otherwise difficult to sample population.

A recent Request for Proposals has expanded the array of testing contractors available to the county, and we have added four additional agencies (Phamatech, Premier Medical, SJM Premier and Visit Healthcare) to provide additional static site, mobile site or laboratory processing capacity. This expansion further enhances Pima County’s ability to provide vital COVID-19 testing resources throughout the length and breadth of Pima County.

Having already managed approaching four times the volume of testing that could be provided by the stated maximum award under this initiative, Pima County is confident that it has the expertise, capacity and capability to make rapid, appropriate use of the available funding.

Pima County is already leveraging the ELC award “COVID-19 Containment” award to improve health data interoperability, particularly with an aim to expand HL7 messaging capacity, accelerating results transmission, and more rapidly getting positive test results into case investigation and contact tracing. That program will allow the County to focus Enhancing Detection funding on test expansion.

Projected outcomes

Ultimately, the projected outcome of Pima County’s COVID-19 mitigation measures and containment plan is the reduction of infection and transmission to a steady state as provided by herd immunity and without abnormal morbidity and mortality outcomes. More specifically, the Pima County Health Department anticipates the following results, directly as a result of ELC funding, or indirectly in concert with other local and regional initiatives:

1. The provision of 100,000 diagnostic COVID-19 RT-PCR tests
   Pima County anticipates at least 100,000 diagnostic RT-PCR tests performed as a direct result of this initiative. This will include testing at fixed sites, mobile pop-ups, regions or facilities with high proportion of at risk residents, and urban and rural locations. This testing will include symptomatic and asymptomatic residents, positive case contacts, newly arrived travelers and established residents.

   The single most important element in enhancing detection of COVID-19 and the SARS-CoV-2 virus is broad, accurate testing with rapid results transmission, and this will be achieved under this initiative.

2. A positivity rate at or below 5%
   The benchmark for adequate COVID-19 surveillance is a positivity rate at or below 5%. When Pima County is able to report this figure on a rolling 7-day period then contact tracing, case investigation, isolation and other mitigation measures can have the greatest positive impact, and spread of the disease can be limited. Effective, broadly adopted vaccinations coupled with sufficient effective testing will
Pima County Health Department

bring the pandemic under control and reduce the threat of this disease to a level manageable by traditional public and personal health measures.

3. At least 80% of positive cases entering case investigation/contact tracing within 48 hours of testing
Accurate testing is only as useful as the actions taken once the results are known. Pima County projects that at least 80% of all positive cases will enter case investigation, contact tracing and transmission mitigation within 48 hours of specimen collection. The Pima County Health Department, along with a contracted agency and regional partners has demonstrated effective investigation and tracing protocols, and shortening the time it takes for these agencies to receive positive result notification will further increase the number of cases engaged before those cases become outbreaks.

4. Detection and identification of COVID-19 variant strains
The propagation of mutant strains of SARS-CoV-2 and COVID-19 across the globe has rightfully worried public health professionals. New mutations may increase transmissibility, pathogenicity, vaccine or treatment resistance, and mortality. Identifying the strains appearing or predominant in a region is the initial step to understanding the role and impact of those mutations, and linking them to case outcomes will provide vital information in the development of future vaccines and treatments. Pima County projects that at least 5% of positive cases in the region during this initiative will be sequenced and identified. Tying that information to disease outcomes will be a growing priority.

5. Continued reduction in the rate of spread to RE below 0.7
The net goal is the reduction of effective transmission rates to well below 1.0. Reduction of the RE is reduction of the disease and protection of the public health. Testing, casework, mitigation and treatment, along with vaccination, will combine to slow the spread of COVID-19 to an eventual trickle and reduce the pandemic to another controlled viral infection.

6. Project Timing
While the course of this initiative may run through May 1, 2023, Pima County expects to rapidly deploy ELC resources such that these goals will be achieved within six months of the award. The need is greatest now, and delaying these actions will only extend the suffering caused by this pandemic. While much of the work will need to continue beyond the bounds of this specific funding opportunity, ELC Enhanced Detection will be the vital next steps in Pima County’s pandemic response.
Statement of benefit concerning the health and wellness of Arizonans

Pima County is a jurisdiction of over one million residents and includes five municipalities, two tribal communities, a large border with Mexico, and rural, semi-rural and urban populations. The demographics skew towards those categories at greatest risk for COVID-19 infection and adverse outcomes with higher than Arizona averages in population of color, elderly residents, and Medicaid-enrolled residents.

Pima County continues to have case rates in excess of 10,500 per 100,000 and a mortality rate of 2%, and over 2,200 deaths. The Percent Positive rate for testing in Pima County exceeds 12%, well above the 5% guideline established by the World Health Organization for adequate surveillance. The expansion of testing will work to limit the spread of the disease and leverage the epidemiological response and infrastructure enhanced within our county. It will also accelerate our pandemic response over the next 6+ months, increasing containment of the virus and disease and preserving the health of our residents.

Accelerating our test and trace infrastructure will improve our epidemiological response and take advantage of our efforts to improve data capabilities in clinical and laboratory arenas and beyond. Connecting Enhanced Detection with our other ELC programs (MC3 and Containment) will make use of our work to develop trust in historically underserved communities at high risk, and expedite transmission of positive case results from testing facilities to the public health agencies that provide case investigation, contact tracing and disease mitigation. Combined, these initiatives will help identify cases more rapidly resulting in decreased viral transmission within communities and better coordination of resources.

Without the resources to expand testing, communities will continue to suffer from the spread of the virus. Beyond the health impact this carries with it significant economic burdens and lasting mental health concerns. Pandemic fatigue is a growing threat, and despite acceleration in vaccine availability, the cost of this fatigue may remain high. Enhanced contact tracing will assist in appropriate isolation as well as helping curb viral transmission. Improved case identification, improved demographic data collection at time of testing, integrating contact tracing needs with care management needs, and implementation of advanced threat analytics will improve virus containment while ensuring that our community members are aware of pertinent resources available to them to help meet their needs. Standardization and secure transmission of appropriate data will allow local information to be integrated with the ADHS data systems, enabling the state to benefit from our work and appropriately track population based data. The identification of prominent variants will likewise inform state and national decision making and help reduce the threat from unchecked strain mutation.

Expanded testing, particularly in communities least able to proactively isolate because of potential infection (the working poor, essential workers and young families) will preserve income streams for families and limit the disproportionate economic burden they face. Integration of laboratory, demographic, public health and health care data offers coordinated data for decision making, in turn resulting in enhanced local health care coordination and improved community health outcome,
particularly for residents lacking robust health care options. This will also help PCHD become more nimble and able to react to limit community spread through hotspots or developing outbreaks.

By achieving a rate of 1.5 tests per 1,000 unvaccinated residents, Pima County will have adequate surveillance and will rapidly identify the majority of positive cases before they develop into outbreaks. Sending 5% of the positive samples for genetic sequencing will identify genomic variants present in the region and allow for greater understanding of the potential impact of those variants. Rapid transition of positive tests to case investigation and contact tracing limits the chance for transmission, reducing the RE value to a controllable level. These are the keys to slowing and eventually halting the COVID-19 Pandemic.

This coordinated work should result in improved data to help identify areas of spread, as well as the rate of exposure in the population. Enhancing our ability to aggregate and analyze data in real time is an essential component of strengthening our local public health response. Increasing our footprint with high risk communities and historically underserved groups will improve resiliency and willingness to engage with the Pima County Health Department in the future, whether it be a public health emergency or providing the array of health services that is our mission. Ensuring Pima County public health decisions are informed by the most complete and up to date information available and intensifying our local efforts to holistically address the COVID-19 epidemic will allow us to break the epidemic spread of the virus. This funding will allow us expand the testing infrastructure needed to provide more effective surveillance, containment, and case management for the future.

NOTE: Attached also please find correspondence from Pima County Administrator C.H. Huckelberry to ADHS Director Dr. Cara Crist. This letter provides additional information on testing benefits to Pima County and the issues faced in this jurisdiction.
March 3, 2021

Dr. Cara Christ, M.D., M.S.
Arizona Department of Health Services
150 N. 18th Avenue
Phoenix, Arizona 85007

Re: Pima County Allocated Funding for COVID-19 Testing

Dear Dr. Christ:

The Pima County Board of Supervisors at their public session on March 2, 2021 requested that I ask you to reconsider or clarify funding to be provided for the continuation of COVID-19 testing.

We appreciate the initial allocation of $14.3 million. It is inadequate to meet our financial obligations associated with COVID-19 testing. Pima County exhausted our initial allocation of the Coronavirus Relief Funds on or before December 21, 2020. The pandemic did not end on this date and we continued, on a daily basis, to incur testing costs. These costs are now being charged to our General Fund, something that is not sustainable. We felt this was necessary to meet our public health responsibility in responding to the pandemic.

As you know, the Coronavirus pandemic accelerated through December 2020 and into January 2021. Below is a graph demonstrating the daily recorded COVID-19 infections in Pima County based on the State’s website. The data clearly reflects the extent of the pandemic infection in Pima County during this time. The peak infection day was January 4, 2021 with 1,727 infections. During this period of December 21 through February 19 there were 43,777 COVID-19 cases in Pima County and Pima County performed 85,955 tests costing $12.9 million. As you can see the $14.3 million allocation will not go beyond March 16 or earlier.
Clearly, the peak period of infection for the entire pandemic period occurred in December 2020 and January 2021. We felt it was absolutely necessary to continue ongoing COVID-19 testing.

As you know, Pima County has been the most proactive County in Arizona in response to the Coronavirus testing during the pandemic. Our County testing investment has surpassed that of any other county. You will not find any other county providing more funding in support of COVID-19 testing. Over time Pima County government has provided at least half or more of the total amount of testing in Pima County, this simply means our local public health agency has borne this expense, again, more than any other county.

During the height of the pandemic infection period, the County continued to provide COVID-19 testing as a reasonable and necessary response by our public health agency even though we had exhausted our Coronavirus Relief Funds.
Listed below are the COVID-19 tests that were completed by Pima County during these peak infection months, and their cost. Since we have heard confusion about the time period we could be paid for our continuing testing costs, below are three periods for critical County testing volumes and related costs.

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<tr>
<th>Period</th>
<th>County COVID-19 Tests</th>
<th>County’s Cost</th>
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<tbody>
<tr>
<td>December 21 to December 31, 2020</td>
<td>23,678</td>
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<td>January 1 to January 15, 2021</td>
<td>27,496</td>
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<td>January 15 to February 19, 2021</td>
<td>34,781</td>
<td>$5.2 million</td>
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Even today as the infection rate decreases, continuation of COVID-19 testing is critical to our public health response. In fact, it is even more critical now than ever as we are in the downward curve of infections and we need to quickly identify and isolate both symptomatic and asymptomatic carriers.

We believe the funding provided to the State by the federal government through the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 clearly covers all of our test expenses. It would seem reasonable that federal funds provided to the State should be spent for this purpose since controlling the pandemic and appropriately managing it depends fundamentally on testing, contact tracing and isolation.

Our Board would appreciate an expeditious response to our request since they will consider discontinuing COVID-19 testing on March 16, 2021. Without the federal funding provided for this purpose, we alone do not have the financial capability to continue testing after that date. We need the assistance of the State in this matter and I look forward to your response.

Sincerely,

C.H. Huckelberry
County Administrator

c:  The Honorable Douglas Ducey, Governor, State of Arizona
    The Honorable Chair and Members, Pima County Board of Supervisors
    Jan Lesher, Chief Deputy County Administrator
    Francisco Garcia, MD, MPH, Deputy County Administrator & Chief Medical Officer, Health and Community Services
    Terry Cullen, MD, MS, Public Health Director, Pima County Health Department
Arizona Department of Health Services
Budget Narrative Form

ELC COVID-19 Projects

Revised: 2/22/2021

Please use this form to complete the budget narrative.

Instructions:

* Please do not change shaded cells.

* The sheet protection is on, but not password protected, to reduce unintended deletions of formulas. If you need to change a locked cell you can go to format on the home tab, then click unprotect sheet.

* Please do not make any changes to formulas without making note of the changes in the notes section below.

* Review the information in all cells with red text before turning in the application. Once you have edited the text in these cells to be accurate for your grant, please change the color of the text to black, so we know that those fields have been completed

* Be sure to edit the Fringe Benefit rate as appropriate for your employees. By default, Fringe will be applied at the same rate for all employees on the budget, but different rates can be applied by overwriting the value in column E.

* Note the distinction between P&O Costs and Assistance to Others under Section F. For contractors paid out of the 6200 line, use the P&O section. For those paid out of the 6800 line (pass through funding), use the Assistance to Others section.

* Be sure to provide the grant information (grant name, CFDA, etc.) at the top of the worksheet, if applicable.

* Please do not include detailed subcontractor budgets in this workbook. If detail is required, submit those budgets in a separate document.

Notes:

* Full budget is allocated to COVID-19 testing contracts. As we have an array of contractors performing related tasks the amounts are not budgeted to the individual contractors. A list of contracted agency names and addresses is available upon request.

Please note that the budget is compartmentalized by time period and incorporates expenses as identified in County Administrator Huckelberry's letter to Dr. Cara Christ dated March 3, 2021. Depending on funding availability and expense allowability, those previously incurred expenses may be charged against this project.
### Detailed Line Item Budget and Justification

**ELC COVID-19 Projects**  
January 15, 2021 to May 1, 2023  
**AZ Detailed Line Item Budget and Justification**  
**CDC RFA:** N/A  
**CFDA Number:** NA/A

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