2020 Overarching Jurisdictional SARS-COV-2 Testing Strategy

Jurisdiction:	Guam
Population Size:	168,322

1. Describe the overarching testing strategy in your state or jurisdiction.

[Add text here] Enhancing detection will require both the assessment of how widespread COVID-19 infections are in the community (prevalence) through serologic testing, as well as on-going PCR testing to determine active infectious cases (incidence). (A) The DPHSS will maximize the use of testing platforms by increased laboratory staff at the GPHL, new equipment and supplies, as well as expanded contact tracing and investigative staff to address any increased need for testing at the GPHL during anticipated surges of COVID-19 infections, especially as opening up of the economy and possibly tourism in the summer of 2020, occurs. Currently testing is available not only at the GPHL but also through the DLS (Diagnostic Laboratory Services), and at GMHA (the local public hospital) via point of care testing. Refer to the current SitRep (attached) which summarizes the tests conducted by venue as well as the results. (B). DPHSS leadership decided to hold community-based mass screenings at non-traditional sites beginning April 25, 2020 and more are planned through June 12, 2020 (refer to the attached summary of mass screenings conducted in April-May 2020, and schedule for June 2020). (C) Resources are requested in this supplemental grant application to conduct an islandwide baseline Community Level Seroprevalence Survey to determine the extent of COVID-19 infection in the Guam community. The methodology and scope of the Community Level Seroprevalence Survey will consist of a randomly selected, representative islandwide population-based household sample. This will entail developing a sampling frame, along with hiring of temporary survey workers and an RN to take samples, to conduct door-to-door household assessments. Later follow-up can be done as needed with existing contact tracers and data analysis can be done within the Office of Epidemiology and Research. For the Community Level Seroprevalence Survey, the additional requested funds in this supplemental grant will include monies for acquiring enough serologic tests and widespread testing for those participating in the Community Level Seroprevalence Survey. In order to test 2% of Guam's population (n=3,366), estimated to be 168,322 in 2020 (Guam Statistical Yearbook, 2016: 438), and using the Cellex serologic test (\$58.00 per test), the cost for testing alone will be \$195,254. The estimated number of temporary survey workers and others required to conduct this survey is twelve people: eight survey workers, one data entry clerk, one logistics coordinator and one administrative assistant and one RN to do blood draws using the Cellex serologic test. (D). Note that the testing capacity described in Tables 1a and 1b reflects a M-F, 8am to 5pm workday. During surges, this capacity could increase as needed. Continued communication, collaboration and coordination with our testing community partners, Diagnostic Laboratory Services (DLS), Guam Memorial Hospital government of Guam hospital laboratory, Guam Regional Medical City private hospital laboratory, U.S. Naval Hospital Laboratory for military and dependents, and Guam Army National Guard (GUNG) Mobile laboratory. Please see attached table of SARS-COV-2 Testing Facilities, as of 5/29/2020, total available supplies = 8,309 tests capacity for Guam collection and testing community for regular outreach and jurisdictional goal. Guam Public Health Laboratory (GPHL) continues to submit orders to CDC International Reagent Resource (IRR). Emergency funds are used for the procurement of consumable supplies and PPEs needed that is not supplied by CDC IRR and or WHO Regional Supply Source. From 3/12/2020 to 5/28/2020, GPHL has tested 3,393;

DLS has tested 881; GMHA has tested 770; GRMC has tested 119; USNH has tested 1,091, and GUNG has tested 17, which all testing performed grand total for community is 6,271 tests, with total laboratory confirmed case tested 165. Staffing levels for each testing facilities are sufficient with at least 2-4 Microbiologists trained for SARS-COV-2 testing. GPHL and GMH Laboratory MOA with staff lateral assistance daily to assist with accessioning, processing manual RNA extractions, and testing. Guam DLS has given assurance of uninterrupted testing capacity due to their BD Max test kits availability with efficient and sufficient supply from Hawaii DLS.

Table #1a: Number of individuals planned to be tested, by month

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Diagnostics*	1,500	2,000	2,500	3,000	3,000	3,000	3,000	3,000	21,000
Serology	0	1,000	1,500	2,000	2,000	2,000	2,000	2,000	12,500
TOTAL	1,500	3,000	4,000	5,000	5,000	5,000	5,000	5,000	

Table #1b: Planned expansion of testing jurisdiction-wide

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through- put	Daily serologic through- put	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
Guam Public Health Lab	Public health lab		150	100		Symptomatic and high risk populations as needed; serology for presence of antibodies not diagnostics. The average number of tests runs was 40 per day from 3/12/2020 to 5/27/2020. The estimate here is based on the GPHL's increased capacity for testing.
Diagnostic Laboratory Services (DLS)	Commercial or private lab		75	100		Same as above

Name of testing entity	Testing venue (select from drop down)	Performing Lab (if different from testing entity)	Daily diagnostic through- put	Daily serologic through- put	Platforms or devices used (list all)	Specific at-risk populations targeted (list all)
GMHA (public hospital)	Hospitals or clinical facility		10	0		Same as above for point of care testing using ABBOT ID Now.
GRMC (private hospital)	Hospitals or clinical facility					Same as above but unknown capacity for testing.

2020 Direct Expansion of SARS-COV-2 Testing by Health Departments

2. Describe your public health department's direct impact on testing expansion in your jurisdiction.

Expanded testing capacity/testing projections for PCR tests. Refer to most recent SitRep for current testing capacity and testing conducted by the GPHL and partners from March 12-May 27, 2020 (attached). Resources are requested for supplies and reagents for PCR testing to continue to be done on COVID=19 symptomatic individuals. It is unknown at this time the projected numbers of tests needed since this will depend upon decisions made by the Governor of Guam, her Physician's Advisory Group and the Director of DPHSS on opening up Guam to increased air traffic, opening of businesses and schools and so on. It is expected that these kinds of decisions could result in new waves of COVID-19 infections on Guam. It will be extremely important to conduct on-going PCR testing for active infections in the community as well as ensure that testing is available at all hospitals for priority testing of high risk patients as needed during surges or waves of COVID-19 infections (elderly people, people with underlying conditions at any age, healthcare workers and others such as pregnant women). Refer to tabular data on mass screening in villages (attached).

Table #2: Planned expansion of testing driven by public health departments

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Number of additional* staff to meet planned testing levels	0	0	1	4	0	0	0	0	5
FOR DIAGNOSTIC TESTING									
How many additional* testing equipment/devices are needed to meet planned testing levels? (provide an estimated number, and include platform details in narrative above)	0	0	2	0	0	0	0	0	2
Volume of additional swabs needed to meet planned testing levels ⁺⁺	1,500	2,100	2,500	3,000	3,000	3,000	3,000	3,000	21,100
Volume of additional media (VTM, MTM, saline, etc.) needed to meet planned testing levels**	1,500	2,100	2,500	3,000	3,000	3,000	3,000	3,000	21,100
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)	50/day- Xpert and ABI	70/day- Xpert and ABI	85/day- Xpert and ABI	100/day- Xpert and ABI	21,100				
FOR SEROLOGIC TESTING									

BY MONTH:	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	TOTAL
Number of additional* equipment and devices to meet planned testing levels	0	0	0	0	0	0	0	0	0
Volume of additional reagents needed to meet planned testing levels, by testing unit and platform (i.e. 100K/day - Hologic panther; 100k/day - Thermofisher)	0	1,000	1,500	2,000	2,000	2,000	2,000	2,000	12,500

^{*} Report new monthly additions only, not cumulative levels

⁺⁺ For May and June, only include needs beyond the supplies provided by FEMA. Report new monthly additions only, not cumulative levels.