



The Senate

STATE CAPITOL
HONOLULU, HAWAII 96813

September 8, 2021

Honorable Ronald D. Kouchi
President of the Senate
Thirty-First State Legislature
State of Hawaii

Dear Sir:

Re: Senate Special Investigating Committee on COVID-19

Meeting on September 3, 2021
10:00 a.m.
Hawaii State Capitol

Your Senate Special Investigating Committee on COVID-19, established pursuant to S.R. No. 198, S.D. 1 (Regular Session of 2020), begs leave to report as follows:

The purpose and intent of the Committee is to:

- (1) Assess and advise the Senate regarding the State of Hawaii's COVID-19 plans and procedures;
- (2) Confirm the development of state and county departmental plans and procedures;
- (3) Review and assess current state and county departmental plans and procedures;
- (4) Review and assess whether state and county departmental plans and procedures are properly and timely implemented to safeguard public health and safety;

- (5) Review, assess, and monitor the State's expenditure of federal and state COVID-19 relief funds;
- (6) Communicate and disseminate information obtained therefrom; and
- (7) Issue subpoenas.

On September 3, 2021, your Committee met with the following:

- (1) Members of the Hawaii Pandemic Applied Modeling Work Group (HiPAM);
- (2) Claire Connors, Attorney General;
- (3) Dr. Libby Char, Director of Health, and
- (4) Hilton Raethel, President and CEO of Healthcare Association of Hawaii (HAH).

FINDINGS OF THE COMMITTEE

I. Opening Statements

Senator Donovan Dela Cruz called the meeting to order.

II. Presentation on COVID-19 Trends and Projections from HiPAM

Members of HiPAM, Dr. Victoria Fan, Monique Chyba, and Thomas Blamey, presented data on the current COVID-19 trends and projections in the State. Dr. Fan noted that the information being presented was on behalf of the group as individuals and not as representatives of the University of Hawaii. Dr. Fan explained that HiPAM is a voluntary working group consisting of epidemiologists, data scientists, and health professionals. They update their models based on the best available data and science, but the evolving data and science create high levels of uncertainty. Since April 2020, HiPAM has monitored COVID-19 data and maintained a two-week COVID-19 forecast. HiPAM also provides their information to the public, and more recently has provided decision support to policymakers. HiPAM does not advocate for or against any particular intervention strategy but rather presents data to decision makers.

HiPAM's presentation included the following information:

- In the City and County of Honolulu (Honolulu), test positivity is increasing, but test encounters were decreasing, which indicates an underreporting of

COVID-19 cases. The number of cases on the neighbor islands are also trending upwards, although less steeply. The need for total hospitalizations will likely surpass five hundred in Honolulu by September 13.

- Modeling data indicate that the prior tier system and Safe Travels Program were likely supportive in controlling the spread of COVID-19. Negative incentives of going from one tier to more restrictive tiers may have influenced residents to act more safely.
- Each island has been modeled individually, but Kauai is not included because a model cannot be constructed on such small numbers.
- In Honolulu, data show that the positive rate is increasing while the testing is decreasing. This indicates that a surge in positive cases is upcoming.
- In recording data, there can be up to a forty percent difference in daily case numbers. One reason for this could be that case numbers are released at different times. It is clear that there is an overall upwards trend that does not show signs of slowing down.
- HiPAM's forecast predicts that if the daily vaccination daily average rate decreases by twenty percent and the transmission rate increases by 5.8%, Honolulu will reach approximately one thousand daily cases by September 13. If there is no daily change in vaccination and transmission rates, then Honolulu will reach eight hundred sixty-nine cases by September 13. Finally, if the vaccination daily average rate increases by twenty percent and transmission is down by 5.8% Honolulu will have seven hundred and sixty-eight cases by September 13.
- Forecasts beyond two weeks are highly uncertain due to exponential growth in infection rates, policy changes, and data lags or errors. However, the long projection for reduced vaccinations and increased transmission could see upwards of 1,566 cases per day. In modeling infection scenarios, the cone of uncertainty is very large, and even small changes to mitigate COVID-19 transmissions can have large impacts because of exponential nature of the transmission rates.
- Hospitalizations are hard to predict because the age of the infected persons matters. Hospitalization numbers lag ten days behind daily cases. Because the trend is up, hospitalizations are likely to follow. Honolulu will likely surpass five hundred hospitalizations by September 13. This forecast projects the need for hospitalization regardless of actual hospital capacity.

- In Hawaii and Maui County, there is a two-week lag in daily case numbers.
- In Hawaii County the positivity rates of infection numbers are stable, but the positivity rate is the highest.
- The positivity rate was increasing but it began to plateau after the ban on large gatherings. The ban on large gatherings seems to have a bigger effect on neighbor islands because of the smaller number of cases.
- Currently, the cases are trending up, but not as steeply as in Honolulu or Maui County.
- The number of hospitalizations is increasing as well.
- In Maui County, the numbers are lagging, but the county is experiencing the same upward trend as Honolulu and Hawaii County. Because Maui County is lagging in its upward trend, the predictive volatility is higher, and the cone of uncertainty is even broader.
- Like Honolulu and Hawaii County, the number of hospitalizations are going up and are projected to continue upwards.
- Some caveats on modeling: High uncertainty and broad ranges of forecast arise from the exponential growth of COVID-19 and Delta variant infections, the uncertainty of human behavior and the impact of policy interventions, and inaccurate or lagged data.
- Future modeling considerations include the increased risk of death in the absence of available hospital capacity, the increased burden for non-COVID-19 conditions due to lack of hospital capacity, and differences in hospitalization risk by age.
- Key emerging issues include the risk of flu and COVID-19 co-occurring this fall, the waning vaccine efficacy and increased susceptible population increasing transmission, impacts on pregnant women and children, and the risk of ongoing variants that are not preventable by vaccine.

In response to follow up questions from your Committee, the following information was provided:

- The graph presented by HiPAM is a normalized curve and does not represent the actual value of either data set. The graph was presented to show the relationship between two sets of data.

- An increase in positivity rates but a decrease in testing indicates a likely surge because the lack of testing would likely push the positivity rates higher than what is being reported. It shows that testing is critical because the actual picture is unknown.
- The model's best-case scenario contemplates some mitigation strategy that will bring down the transmission rate by six percent. This does not assume what the specific mitigation strategy actually is. It could be that there is a mitigation strategy that would reduce the transmission rate by greater than six percent, in which case the daily case rates would not be as severe as predicted by the model. The model does not take into account the recent vaccine mandate, but it is unclear how this will affect the model because of the lack of data regarding the number of unvaccinated individuals causing community spread.
- This data is produced each week and distributed to the media, the Department of Health, and other government agencies.

III. Presentation on the State's strategy to prevent a Labor Day surge in COVID-19 infections from the Attorney General

Attorney General Claire Connors began with a presentation that included the following information:

- The Department of the Attorney General's (DAG) current efforts are focused on the Safe Travels Program, particularly investigating and prosecuting fraud in attempting to use the State's vaccine exception and pre-travel test exception to the Safe Travels Program.
- Seven individuals have been arrested for presenting falsified vaccine cards, and sixty people have been arrested for quarantine violations. DAG has performed over four thousand compliance checks with assistance from hotels, which utilize a one key system and report to the enforcement agencies those guests who break quarantine. DAG also meet with communities and returning residents to insure they do not break quarantine.
- With the passage of Act 185, Regular Session of 2021 (Act 185), law enforcement can now impose non-criminal infractions that carry lesser penalties such as fines. These infractions are more like parking tickets than misdemeanors and can be contested and appealed like traffic infractions.

- So far, only Hawaii County has implemented the infractions authorized by Act 185.
- The Honolulu Police Department expects to see more enforcement over the Labor Day weekend
- Daily travel numbers are down. There are about ten thousand fewer visitors to the State than one week ago.

In response to follow up questions from your Committee, the following information was provided:

- It is unknown how many infractions have been given out under Act 185 authorization.
- In July, DAG met with the counties and Judiciary to explain Act 185, but it is unknown when Honolulu, Maui County, or Kauai County will implement the infractions.
- DAG has between forty and fifty investigators who investigate vaccine and negative test fraud and travel quarantine. The investigators have other statutory duties that they must complete in addition to these investigations.
- DAG augments what Honolulu Police Department (HPD) investigates on Oahu, but is unaware of the extent to which HPD devotes resources to investigating and enforcement quarantine rules. The sheriff's department is also involved in investigating and enforcing the rules.
- DAG anticipates that the Governor and Mayors will soon announce certain enforcement measures and triggers to address the future rise in COVID-19 cases and the lack of oxygen in hospitals.
- The pre- and post-testing requirements imposed on travelers to the State are legal because the requirements do not restrict a person's ability to come to the State and the requirements are narrowly tailored for the situation. The quarantine period was originally fourteen days and now is ten days based on the available science. DAG and the administration have successfully defended against lawsuits alleging that the requirements are unconstitutional.
- DAG must be careful to not infringe on the constitutional right to travel.
- Travelers and returning residents, even if vaccinated, should act as if they are infected for best practices.

- Vaccination requirements for employees in the State involve a different legal analysis, but are also valid.
- Residents should contact the police if they see large gatherings. DAG will check with the police departments and encourage them to respond to calls regarding large gatherings.
- Currently, there is no justification to remove the vaccine exemption for travelers. The concern for community spread involves returning residents who do not use the vaccine exemption but the ten-day quarantine exception. Those travelers may or may not have a vaccine and do not take a COVID-19 test. However, if there is future justification for more stringent restrictions or testing for travelers, DAG is willing to put them into place.
- DAG has not hired investigators specifically designated for COVID-19 related work.
- There should be no jurisdictional concerns with respect to enforcing emergency orders over the Labor Day weekend. Both state and county enforcement officers can enforce the orders and work together on site.

IV. Presentation on current status of hospital capacity and resources from the Director of Health and the Healthcare Association of Hawaii

Dr. Libby Char and Hilton Raethel began with a presentation that included the following information:

- The Department of Health (DOH) and HAH are working closely with Hawaii Emergency Management Agency and the Department of Defense to ensure there is enough oxygen for patients in the State. The amount of oxygen being produced in the State, the amount the State is bringing in, and how much will be needed is constantly changing, making management difficult.
- As of the end of August 28, Hawaii is the state with the lowest infection rate and the lowest death rate in the nation for the duration of the pandemic.
- In the worst week of the pandemic last year, the State had an infection rate of 124.2 infections per one hundred thousand people. Now, even though the State has a sixty three percent vaccination rate, we have an infection rate of 356.8 infections per one hundred thousand people. Given that ninety percent of the current infections are amongst unvaccinated people, that means Hawaii

has an active infection rate of six to seven times more than what it did at the peak of the pandemic last year.

- In August of last year, two hundred ninety-one COVID-19 patients were admitted to Hawaii hospitals. Now, there are approximately four hundred forty six COVID-19 patients in the hospital.
- Similarly, at the peak last year, there were sixty-four COVID-19 patients in Intensive Care Units (ICU). Now, there are over one hundred COVID-19 patients in ICUs.
- In the State, there are now between forty and fifty COVID-19 hospital admissions per day compared to the peak last year of thirty-six admissions in one day.
- Hospitals have received Federal Emergency Management Agency (FEMA) staffing support. Forty-six hospital personnel started on August 16. Two hundred one started on August 23. One hundred ninety-one started on August 30, and two hundred are scheduled to start September 6. The final deployment of workers will be on September 13. Each wave of workers will be deployed for approximately eight weeks.
- Hospitals still have capacity, including beds, supplies, and equipment, but the biggest problem is the shortage of staff. HAH has put together a proposal for the State to hire more health care workers. However, labor costs have increased since the original proposal.
- FEMA is also providing support for subcutaneous monoclonal antibody treatments (MOAB). MOAB treatments are approved for those patients who have tested positive for COVID-19 but do not require hospitalization. A number of hospitals across the State are already providing this treatment, but because of the shortage of personnel, the State cannot expand and run more clinics. FEMA staffing will help to open more MOAB treatment clinics.
- HAH originally estimated that the State would run short of liquid oxygen by September 6. The HAH, DOH, HiEMA, and others came together to procure more liquid oxygen, mitigating the immediate crisis. The State will not be short of liquid oxygen by September 6.
- HAH is strategizing with the Chief Medical Officers of the hospitals and the University of Hawaii School of Engineering on methods to conserve oxygen. While there is currently enough oxygen, they aim to ensure that usage is not exceeding what is needed.

- HAH is also attempting to get more ISOs, which are containers to ship oxygen. There is a global shortage of ISOs because of the high demand for oxygen. Oxygen producers are converting ISOs previously used to hold other gases to hold oxygen. The oxygen producers in the State, who typically produce various types of gases and grades of oxygen, have dedicated one hundred percent of their resources to producing medical grade oxygen. HAH has also brought in oxygen generators into the State. Given all these efforts, the State's oxygen crisis has been pushed off by at least two weeks.
- All the models predict that COVID-19 hospitalizations will continue to climb through September. Every COVID-19 patient requires more resources than non-COVID-19 patients.
- Currently, Hawaii hospitals have more adult COVID-19 patients in the ICU than there are licensed ICU beds in the State. The ICU patients are not uniformly distributed across the State, so some hospitals are not at ICU capacity, but multiple hospitals are above licensed ICU bed capacity.
- There are sufficient hospital beds and oxygen in the hospitals and sufficient FEMA staff. Were it not for the FEMA funded staff, some of the hospitals may be operating at crisis standards of care.
- The ICU capacity is currently the most critical breakpoint. The State's hospitals are getting close to not being able to provide ICU care for all patients needing it.

In response to follow up questions from your Committee, the following information was provided:

- Currently, of the two hundred twenty-three ICU beds in the State, COVID-19 patients are occupying ninety-nine of them. Of those COVID-19 patients, eighty-five percent of them are not vaccinated.
- The need for additional staff and resources was communicated with the Department of Health and the Governor in early August. The projections indicated that hospitals would need more staff so HAH addressed the problem swiftly and aggressively. The modeling produced at the beginning of August has been uncannily accurate.
- The Department of Health has been advocating further restrictions since early August.

- MOAB treatments bolster a patient's immune system so that hospitalization is not necessary. It was originally administered intravenously, but now is administered subcutaneously, or just below the skin. The reason MOAB is not used on everyone with COVID-19 is because the treatment is tailored to each patient. There is also a small window to use MOAB, which is shortly after infection and before hospitalization. Once a patient is hospitalized, it is too late for MOAB treatments. It cannot be used prophylactically. Additionally, MOAB treatments are not as effective as vaccines, since they only protect a patient for a single exposure and does not last for a month. The MOAB treatment requires four shots and patients can have adverse reactions to the treatment. Thus, treatment is done under a doctor's order.
- DOH is attempting to increase the usage of MOAB. The only limiting factor so far is the lack of personnel to run more MOAB sites. FEMA has brought in more people to run these clinics.
- Regarding supplies in the counties, there are plenty of vaccine doses available in the State. Testing is more limited and is currently tied to vaccines. DOH is attempting to ramp up their testing efforts, but the State is in competition with other states for resources. Again, the limiting factor is staff and not resources.
- DOH has a publicity arm to notify the public about the severity of the COVID-19 and hospital situation. The publicity team is being augmented.
- The only segmented vaccination data available is for age, zip code, but not profession, education, or otherwise. Over ninety percent of the State's kupuna is vaccinated.
- The DOH has recommended to the administration measures to decrease social contact. In particular, the DOH advocates for disallowing activities that are known to be high risk from cluster reports, such as group gatherings with no mask wearing involving singing or conversation. Many clusters have come from churches where group singing without wearing masks occurred.
- Children under twelve are most likely to get infected with COVID-19 when at home with their families. Mitigation strategies are in place in schools, such as eating and having class outdoors where possible, mask wearing, and contact tracing.
- Having good airflow in classrooms is still important. HEPA filters and air purifiers do catch viruses and having outdoor classes also help to mitigate spread.

- Persons who have had COVID-19 do develop antibodies, but it is unknown whether those antibodies are as effective those antibodies produced in response to the COVID-19 vaccines or whether they are as effective against the Delta variant or other variants as the COVID-19 vaccines are. Those issues are currently being researched.
- With respect to breakthrough cases, 0.3% of vaccinated individuals in the State experienced a breakthrough case of COVID-19. Over ninety percent of COVID-19 hospitalized patients are unvaccinated. Individuals who are vaccinated but have a breakthrough case and must be hospitalized have a stay of three days on average. Unvaccinated individuals who are hospitalized with COVID-19 stay three weeks, on average, and require a much higher level of care than those who are vaccinated.
- Health care professionals in schools do receive training about the data of COVID-19 so that they can inform students and their parents about risks of COVID-19. More health care professionals are being hired to work in schools.
- DOH and HAH have had discussions about field or tent hospitals; however, the issue is not capacity or resources, but staffing. Even if field or tent hospitals were set up, it would be difficult to staff them. Additionally, ICU beds are so resource intensive, other units would be likely moved to the field or tent hospitals, and COVID-19 patients would stay in the hospital. There are also plans in the works to put COVID-19 patients with persistent symptoms and infections into long-term care facilities because of the long-term nature of the infections.
- There are many unvaccinated individuals who contract COVID-19 and, while in the hospital, request treatments that have emergency use authorizations such as Remdesivir. Other unvaccinated patients who are hospitalized for COVID-19 request the vaccine while in the hospital, but by then it is too late for the vaccine to be effective.
- Hospitals do not consider a patient's vaccinated or unvaccinated status into the calculation for patient treatment. The hospitals treat all patients the same way. If there is a shortage, there is a hierarchy of decision-making for allocating resources, but vaccination status is not considered.

Your Committee also requested the Director of Health to discuss with the Department of the Attorney General and research DOH and the director's powers under sections 321-1, 325-6, and 325-32, Hawaii Revised Statutes, in order to

determine whether DOH or the director can take more forceful action to mitigate the spread of COVID-19.

V. Closing Remarks

Your Committee expressed their appreciation for the information provided by the presenters. Your Committee adjourned the meeting at 12:47 p.m.

Respectfully submitted,

Senate Special Investigating Committee
on COVID-19

Sen. Donovan M. Dela Cruz

Sen. Jarrett Keohokalole

Sen. Michelle N. Kidani

Sen. Donna Mercado Kim

Sen. Sharon Y. Moriwaki

Sen. Kurt Fevella

cc: All Senators