Despite a low prevalence of Covid-19 cases in the state, over 3,000 Hawai`i Pacific Health employees obtained an antibody test, citing “curiosity” as the reason. We speculate that the survey and antibody testing provided employees a chance to make sense of an uncertain situation, offering a step towards acceptance and meaning.

The changes brought by the Covid-19 pandemic are big and small. Some changes are temporary (or at least feel that way) while others are painfully permanent. Some changes touch us only within the sphere of our immediate lives of home, work, and community while others are so great that even the wildlife, oceans, and skies are reacting. Some changes are causing vast amounts of devastation while others hold the possibility for a “redo” towards a better world. The only consistent theme in this changing world is an overwhelming sense of flux and uncertainty. This is especially true for patients, staff, and health care workers (HCWs) across the world who are now functioning in an environment completely transformed by the necessity of personal protective equipment (PPE) use and conservation, social distancing, and infection control measures. While some of these changes may be welcome (e.g. fewer people coming in and out of patient rooms early in the morning), others leave us with a vague sense of uneasiness or a constant buzz of background “static”, the effect of which is disruptive and unsettling at a time when health care workers need to function with increased vigilance and presence.

Health care system leaders all over the world are grappling with how best to handle these changes and stresses, which are coming relentlessly from all sides. These leaders understand that how they handle the current pandemic environment with their employees is crucial – now and for many years to come. And this is not just related to finances and job security but something much more enduring: trust, engagement, and commitment.

As the largest private employer in the state of Hawai`i, which has a population of 1.4 million, Hawai`i Pacific Health (HPH) employs 7,200 people in 4 hospitals and 70 outpatient locations
statewide. Our state, a popular destination spot for vacationers, is located in the middle of the Pacific Ocean, and brings us travelers from all directions. In 2019, we welcomed approximately 856,000 visitors per month. We have strong historical and sociocultural connections with Asia and Southeast Asia, and while the Covid-19 pandemic in that region drew our attention, it was without any specific initial actions on our part. The Covid-19 experience in Washington State felt closer to home somehow, and that, combined with our own first cases propelled us into swift action as a health system, in partnership and coordination with public, private, and government entities, to contain the potential threat of overwhelming our resources. The actions taken have been very successful. To date, we have had a total of 740 cases out of 73,078 people tested, a 1.0% infection rate.

This low level of measured infection in Hawai‘i has been met with skepticism by some of our HPH providers and staff, as well as other clinicians in the community. There is fear that there are pockets of missed asymptomatic infection smoldering in the community that will suddenly erupt into a major outbreak for which we will be unprepared. Additionally, there was doubt that our infection control and PPE conservation strategies were actually protecting everybody adequately. We tried to address these sentiments swiftly and effectively.

When our lab partners announced in late April 2020 that they would have Covid-19 antibody testing capacity using one of the most reliable testing platforms available, we decided we would offer testing to our employees. We hoped that the collective population information this voluntary testing program would bring would allay the fears about insidious infection in the community as well as exposure risk in the hospital. We also wanted to show organizational support for and commitment to resources to protect staff and promote psychological well-being among HCWs during the crisis.1,2

We assured all employees that regardless of whether they chose to be tested, and regardless of the test results, there would be no change in how we worked with them. Nor would it change any infection control measures, such as PPE requirements. We made it clear that these results are of little value to any individual owing to lack of data on whether antibodies against Covid-19 confer immunity.

Employees interested in testing were asked to complete a two-question survey about their reasons for wanting the test and their role in our healthcare system. We had 4,860 survey responses, with the most frequent overall reason for testing being “I am just curious.” Among survey responders who tested positive, the most frequent associated reason for wanting the test was travel outside of Hawai‘i or close contact with someone who had traveled outside of Hawai‘i. Respondents, when describing their roles, most often said they were a “health care worker unsure if they had taken care of Covid-19 patients.” The two employees who had tested positive on RT-PCR who then completed the survey and had serology done: they each tested positive for antibodies. Importantly, they each had multiple exposures beyond working in patient care settings (Table 1). The total antibody positive rate was 0.52%, with no significant difference between those who provided care to patients and those who did not.
We also offered antibody testing to several non-healthcare community partners. Of the 837 people who tested, only one was positive. The most common reason for testing in this group was curiosity, with close contact with someone who traveled outside Hawai`i as the second reason. The most frequent response to the role question was interaction with >20 people in a day.

While we are still accumulating results, we have clear evidence that Covid-19 exposure is very unusual among our employees as well as in the community at large. We also have assurance that our employees have been safe due to effective infection control measures, and that the Hawai`i’s reported experience is likely accurate. Given this information, it fascinated us to know that 4,860 employees took the time to answer a survey with the intention to get tested for antibodies. And that 3,607 of these employees took the time to go to a lab to have their blood drawn, even if it was just out of curiosity with no known real exposure possibility. What motivated them?

The human brain reacts to major changes or multiple layered smaller changes as threats. The protective neurophysiological effects of the human “flight or fight” response to threat is well described but the effect of this response in a complex workplace, such as a health care system, is worth acknowledging, especially during this particular pandemic, when uncertainty abounds. In order to keep us safe, our brains are programmed to constantly predict stimuli in our environment as being either a threat or a reward, with the goal to avoid threats and seek out rewards. The current uncertainty surrounding us sensitizes us to threats by disrupting our subconscious predictions and interpretations of our workplace environments. This process of constantly organizing our surroundings and the events occurring around us was termed “sensemaking” by Karl E. Weick in
the 1970s. Sensemaking is something we all do naturally, spontaneously, and subconsciously, especially when faced with a novel or drastic change in the status quo. It is how we give meaning to the world around us and it is how we either find the hope to keep moving forward or lose that motivation and concede. Since it is human nature to presume a negative outcome than to deal with uncertainty, the added layers of ambiguity conferred by our current state of affairs during this pandemic makes us feel all the more threatened. Certainty allows us to get to meaning – to develop a narrative with which to work in order to move past simply trying to make sense of a constantly changing environment with numerous shifting scenarios and interpretations.

Functioning in an uncertain environment and the accompanying heightened fear response is exhausting because we move away from the comfort that living and working in a familiar environment confers, leaving us feeling fearful, anxious, and just plain bad. Certainty is physiologically rewarding to our brains through the release of dopamine, which makes us feel good and positively impacts our ability to focus and perform. Uncertainty can distort our views of threat, making them seem worse than they are. And perhaps most importantly for us to understand in this current pandemic setting, when we all need to be functioning and thinking our best, is that the effects of uncertainty impair our performance.

Combine uncertainty with loss of what we know to be normal and we are left feeling a sense of grief. We must move through the various types and stages of grief about the current environment of change, loss, and uncertainty that we are individually and collectively experiencing. Visionary health care leaders aim to bring us not just to a place of acceptance but rather, to a place of meaning.

Most paths to acceptance and meaning recognize that the fear and anxiety that occur in an environment of change is mitigated first by acknowledging the fears and losses. Next steps focus on shifting doubt to reality by gathering valid and accurate information, which serves to paint a clear picture of reality. This then permits a sense of control which allows our brains to predict and plan, thereby reinforcing other positive behaviors to eventually bring us out of paralysis and into creativity, productivity and generosity.

The early actions we took at HPH to protect patients and HCWs and to decrease the level of anxiety that was rising amongst providers and staff included the following: securing or manufacturing and providing adequate PPE with extended use conservation protocols backed by science; providing training and education around infection prevention and infectious diseases in varied settings; enforcing infection prevention procedures; providing transparency regarding status of supplies, ICU beds, and surge plans; communicating regularly and frequently by usual (e.g. email, huddles) and new (e.g. app-based notices and alerts) methods; and providing early and repeated communication about job security. These actions demonstrate the organizational supports that are described in the literature to be protective against adverse psychological outcomes in healthcare workers during emerging virus outbreaks.

However, despite these early measures as well as the communication about no work-related transmission among HCWs after the start of infection control/PPE measures and the decrease in disease transmission in the state, it wasn’t enough. The skepticism that persisted from HPH physicians and staff was a normal response to the uncertain environment conferred by the
pandemic. The antibody testing offered a moment of reflection while responding to the survey, an opportunity to take action while having blood drawn, and a nugget of clarity when receiving results. As a source of hope and progress, however small and potentially unclear, it offered one step further along the path to acceptance and meaning.

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