Interview with Dr. Tomás Aragón, Director of the California Department of Public Health and State Public Health Officer

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Dr. Aragón has served as California's leading health officer since January 4, 2021. Prior to his current role, he led San Francisco as the city's public health officer. Dr. Aragón graduated from University of California, Berkeley for his B.A. and Dr.P.H., Harvard Medical School for his M.D., Harvard School of Public Health for his M.P.H., and Stanford University for his certification in Strategic Decision and Risk Management in Healthcare.

What inspired you to pursue a career in the field of public health, which is ultimately has led you to becoming the public health director for the largest state in the United States?

I became exposed to public health when I was an undergraduate. At that time, I majored in molecular biology and I took a course in cancer epidemiology. So, I was just very intrigued by epidemiology in general. When I decided to attend medical school in the back of my mind, I always knew that I wanted to continue studying epidemiology. I graduated in 1987, when the HIV pandemic was really taking off. At that time, antiretrovirals were just beginning to be introduced. I decided to do my residency at San Francisco General Hospital as part of the UCSF program, focusing on knowing that I wanted to study infectious diseases, but really being there in San Francisco. At the time, a lot of people did not want to go to the UCSF residency because "they did not want to take care of AIDS patients." But it did attract people like myself who were interested in working in HIV infectious diseases. It was a very intensive training and great opportunity to really learn about HIV, which was really the number one public health problem that we had around the world at that time. That's how I got started. I continued my training and formally in infectious diseases, and then getting a doctorate in epidemiology and bringing those together. This was the background I had when I entered public health.

You were a longtime public health director of the city of San Francisco, which is also my hometown. Tell us about your experiences leading S.F. and also California through the COVID-19 pandemic, and mpox epidemic. What were some

of the initial challenges that you faced and how did you overcome them?

In San Francisco, I was the health officer from 2011 to 2020. The health department of San Francisco is what's called an *agency* model. It has all the different components that go into certain services for the population. It had healthcare and public health, mental health, substance use, emergency medical, and environmental services. All of those buckets were under one agency. I was in charge of the public health services. I was also the health officer of the county. Ultimately, we have to do what the state wants, but the locals do have quite a bit of authority. And so that's the role that I was in when COVID started back in January of 2020. Because of my background in infectious diseases, I used to direct a public health preparedness training and research center at UC Berkeley School of Public Health. So I spent a lot of time working in this space, preparing for pandemics. But, in spite of all my preparation, none of us were prepared for what happened in January 2020 with SARS-CoV-2.

I used to say that the worst thing would be something with a high mortality rate. Well, it turns out that when something has a really high mortality rate, it's much easier to detect and control because a lot of people are dying — and you can you know exactly where to where to implement your interventions. With SARS, which started in late 2002 and lasted for about four months, I used to think that was very frightening. SARS had an overall mortality rate of 11% and 50% for those who were 50 and older. In terms of just morbidity, the variance of it, it much higher than SARS-CoV-2. The reason why that was able to control is that people were not infectious until they were very sick, so people who primarily got infected were people in the household or in hospitals. It was much easier to control, because early on in the disease, people were not transmitting.

Fast forward to 2020, you have SARS-CoV-2. The epidemiology is very different, much lower overall mortality rate, less than 1%. Most of the transmission happens when people are asymptomatic, before symptoms or not developing any symptoms. This means that it is spread much more likely to spread rapidly. The other major difference is that it was airborne, and the virus is constantly evolving and figuring out how to become more transmissible and evade immunity. It is also virulent and kills more people because it transmits itself before symptoms. SARS-CoV-2 sort of presents in a sense the worst, the worst of everything.

Are there any current or future upcoming initiatives that your department is working on that you'd like to share with the public?

The pandemic has not ended, but we are in a different phase where we're managing the pandemic. Individuals, communities, schools are managing the risk. It's important for everybody to really to learn as much as they can and to take advantage of the tools that are available to them. Right now, we're

going into we're going into another COVID surge. It's winter time, this is going to be the first winter where there are no real restrictions. People can attend indoor restaurants, go to basketball games — they can do they can pretty much do anything they want. During winter, we always experienced transmission of respiratory viruses. We now have a surge of not just COVID but RSV, in affecting primarily the youngest children. Influenza is going up. Hospitals right now are incredibly stressed out because they have a rise of all these respiratory tract infections that end up impacting the people who are most vulnerable. The most important message right now is for people to be up to date on their vaccines, because immunity wanes, whether you were infected for infected with COVID or had the COVID vaccine. Take advantage of the tools the tools that we have, which is ventilation, masking and tests. Especially now because we know there's a lot of transmission happening. That's the big message that we're getting out to folks during this winter. We hope that over time where transmission and morbidity is lower. So, to an extent anybody can do their part, it makes a big difference.

Every successful leader has a team of supporters behind them to rally and you know, support and cheer. So who is your personal or professional supporters that motivates you to continue your relentless work in public health and community health?

That's a really good question. I am inspired by people who are really doing the hard work of taking care of the most vulnerable. Oftentimes, they are the unsung heroes. You don't you don't hear about them. They're working long hours taking care of folks. Healthcare staff do really hard work because they're on the front lines of getting exposed to people who have infectious diseases. They work long hours. I'm inspired by both the health care workers and our public health workforce.

I also want to do a shout out to teachers. My wife is a teacher. She's been teaching for almost 30 years. Teachers is another incredibly important group of people who are so dedicated, work really long hours to figure out how we take care of our kids. When they take care of our kids, they are taking care of the physical, the emotional, the intellectual aspects. They're doing everything. Those are the people that really inspire me and keep me going because they remind me of how of the incredible work that they do and that we have to continue to support them.

This interview has been edited for clarity and conciseness.