

## DISPATCHES FROM INTERNATIONAL SOS DOCTORS INTHE USA AND CANADA

### Editor

- Dr Doug Quarry

### SEATTLE: Dr Jorge Garcia

After a particularly wet and dark winter, Seattle is flaunting a glorious spring, with cherry blossoms and magnolias in bloom and the daphne (thank goodness) scenting the rain scrubbed air. The parks and walks are filled with people running and biking, few wearing masks. The brief impulse to look away from another pedestrian least he be dirty and infected has given way to an almost exaggerated smile-wave greeting, while keeping that magical two meters distance if possible.

This strange normalcy is set against the nearly three week-long lock-down-lite that has shuttered business and schools. The Seattle area was host to the first US COVID infection, and the first tragic nursing home cluster, and responded with early and robust social distancing measures.

The region's many tech companies were quick to ask their employees to work from home, and the hospitals immediately started planning for a surge in demand, canceling elective surgeries and establishing COVID wards and procedures.

Three weeks ago, clinicians were being asked to enroll patients in clinical trials of chloroquine prophylaxis. Three weeks ago, our son received a letter asking if he'd volunteer for a COVID vaccine trial. Even at that time, all these efforts seemed both too early and too late.

Today the hospital beds are full; ICU beds are full. (They are always full in flu season.) Health care systems have radically altered their staffing and protocols to respond to the novel coronavirus, but systems are not yet overwhelmed.

Meanwhile, mourning those who are sick and who have died, we look to an indefinite future of social limitations and economic decline. Some of our many homeless people have found shelter in repurposed and empty hotels, but many remain in harm's way. The recent strike by Amazon and Instacart delivery people highlight the plight of many workers, for whom work from home is not possible.

Boeing is in trouble. Seattle has (had) a robust tourist industry. Both are unlikely to survive unscathed. Like many cities in the developed world, Seattle had a unique and treasured café culture, with thousands of restaurants, clubs, bars, theaters, art venues, all operating on no margin. Many have already declared bankruptcy. It feels like a tsunami has destroyed a unique social environment that will never be the same.

## View from Seattle



## NEW YORK CITY & USA: Dr Daniel Slaim

In the United States, as of 5 April t 8:00 am EDT, there are currently 312,245 confirmed cases, with most cases in the state of New York, at 114,174. The numbers of confirmed cases are increasing by hour, and public health experts are warning that the peak is far from being reached.

Hospitals and medical staff in many locations are approaching capacity. All elective procedures have been cancelled, including non-urgent imaging diagnostics. Across the nation, there is a severe shortage not only of PPE, but also ventilators. In certain “hot-spot” locations, the mounting pressure on hospitals has impacted the way emergency medical services (EMS) responds to cardiac arrest calls. For example, in NYC, there are reports that if the EMS cannot revive the patient on the scene, then, the patient will no longer be transported to the hospital.

The United States is in a somewhat unique position, as stay-at-home orders vary from state to state, without a consistent national approach. On March 19<sup>th</sup>, the Gov. of California became the first governor in the US to set mandatory stay-at-home restrictions to help combat the virus. All non-essential services have been shut down, while essential services, such as grocery stores, pharmacies, gas stations, delivery restaurants have remained open.

Residents who need to leave their homes to perform essential activities are advised to practice social distancing.

Meanwhile, while Californians were adjusting to the new norm, “spring breakers” were flocking the sunny and warm beaches of Florida, drawing heavy criticism. Since that time, the governor of Florida had just issued a “safer at home” order that went into effect April 3<sup>rd</sup> and that will be in effect until April 30<sup>th</sup>. The order limits movement outside homes to provide or carry out essential activities. Other states have implemented similar orders, while some have no such orders in place.

With the closure of non-essential businesses, unemployment is sadly on an upward trend, with reports that more people filed for unemployment in the last two (2) weeks than in the last ten (10) months, bringing the total number of claims to 9.95 million for the last two weeks.



Just like everywhere else in the world, these are unprecedented times that have completely turned lives upside down. In a busy, fast-paced culture, where every minute of the day was accounted for in our busy agendas, this is a major change. Schools across the country have closed their doors and adopted “distance” learning and some predict that they will not reopen their doors for students to physically return to school for the remainder of the school year, which is scheduled to come to an end during the month of May, 2020.

There are major travel disruptions to both international and domestic travel with restrictions for foreigner nationals who have visited certain countries, as well as port of entry restrictions.

We empathize with everyone and wish all our colleagues, their families and loved ones to stay well and safe.

A deserted, never-before-seen Times Square in the city that “never sleeps”



## LOS ANGELES: Dr Myles Druckman

The Los Angeles County Department of Public Health (Public Health) has identified 5,277 cases across all areas of LA County, including 117 deaths. Yesterday, they confirmed 28 new deaths and 711 new cases of COVID-19. Twenty-one of the people who died had underlying health conditions and 17 people were over the age of 65.

Over the last 48 hours, there have been 1,238 new cases. As of yesterday, 1,168 people who tested positive for COVID-19 (22% of positive cases) have been hospitalized at some point during their illness. Testing capacity continues to increase in LA county, with almost 29,000 individuals tested and 14% of people testing positive.

Los Angeles County rates per capita are still about 10% of the rates seen in New York City. A shelter-in-place order remains, with authorities arresting those who violate the order.

A surfer who was caught by the coast guard



### OTTAWA: Dr. Tarek M Sardana

Ottawa is Canada's National Capital and it has a population of just over one million. It is a similar city to Washington DC in that Ottawa is home to the Government of Canada. COVID-19 has been taken seriously in Ottawa. On 25 March the Mayor of Ottawa, Jim Watson, declared a "State of Emergency" for the Ottawa area; this coincided with the Province of Ontario's decision to declare an emergency.

All non-essential services were shut down and all level of government officials (municipal, provincial and federal) are working from home unless declared in an essential position. All public education facilities have been closed for about a month with schools likely remaining shut for the remainder of the school year. A massive campaign is underway to have residents follow social distancing protocols.

At present, the Province of Ontario has 4,038 confirmed cases of COVID-19 which has resulted in 139 deaths, coming from all ages. Unfortunately, 22 deaths occurred at the Pincrest Nursing Home in Bobcaygeon, Ontario.

This tragedy illustrates just how deadly this virus can be within a higher-risk community. It currently appears that the "flattening of the curve" activities have been successful in that local health care facilities have been able to keep up with current demands. In preparation for increased demands, many temporary hospital type facilities have been constructed in anticipation of the oncoming wave. Ventilators and masks are in high demand as they are globally.



## ALBERTA: Julie McCashin

Spring is late this year in Alberta. As I draft this, it is snowing and the deer in this picture is peering in my backdoor.

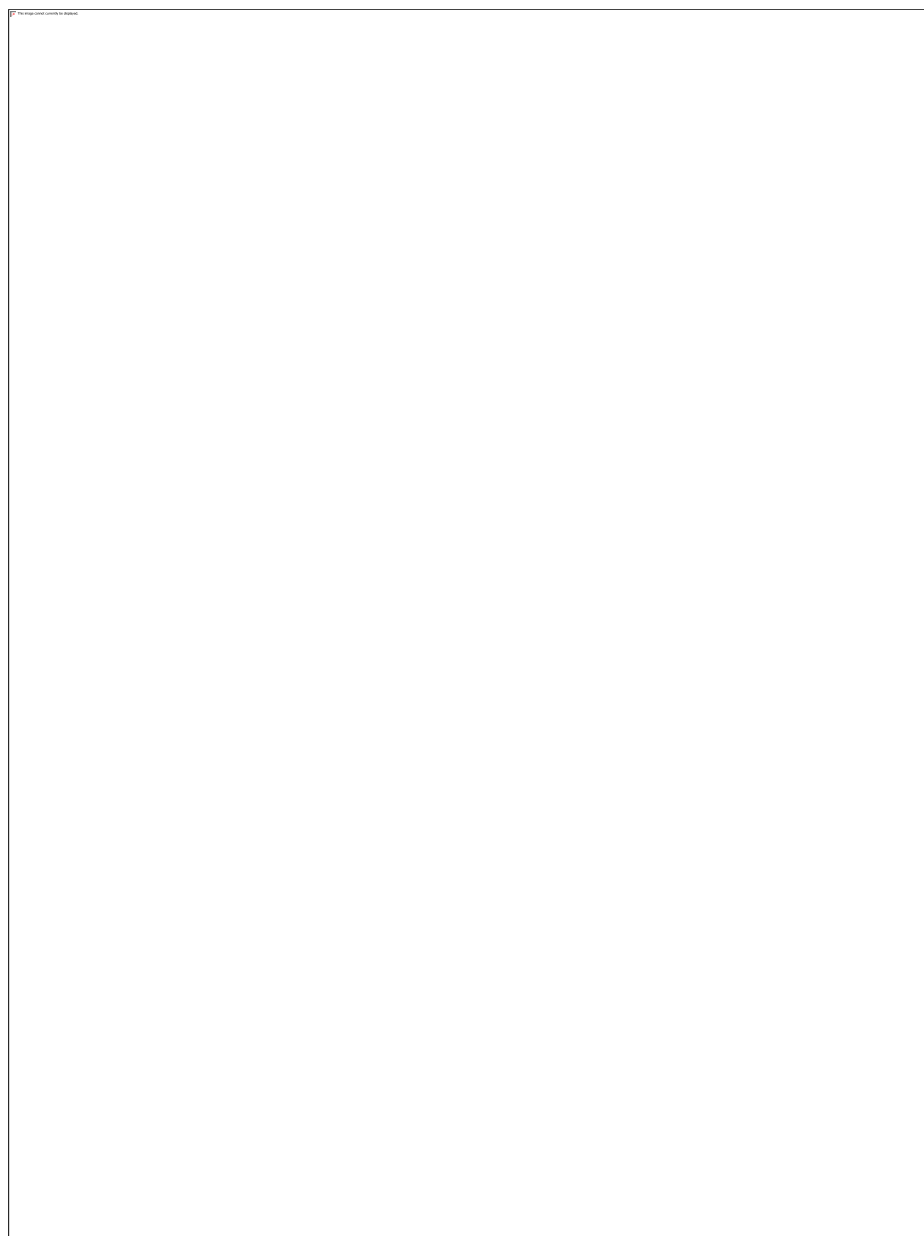
Alberta is a province that lives on oil and gas and tourism, and it has been hit hard economically. The government is taking steps to provide support to those who have lost their jobs. Yesterday we crossed 1,000 cases and 20 deaths.

Calgary has struggled with COVID-19 outbreaks at nursing homes and many of the deaths have been associated with one home that has been particularly hard hit. Canadians tend to be compliant and generally are respecting the social distancing norms and regulations.

People are out biking and walking but staying 2 meters apart. The national parks are closed as are the parking lots for the very popular hikes/snowshoe routes. Restaurants are mostly closed with only a handful selling takeout since there are no tourists.

We expect the epidemic peak here in early May, still a month away. Canada has worked very hard to flatten the curve and there doesn't appear to be a sense of panic but rather one of pitching in and doing what is needed. We meet for coffee in the parking lot most days keeping enough distance and the grocery store shelves are stocked. We are all ready for the snow to melt, spring to come and for life to return to normal.





## **BOSTON: Dr Soni Mathew**

### **Figures as of April 4, 2020:**

- Total number of tested individuals: 68,800
- Total number of positive cases: 11,736
- Total number of new cases: 5,838
- Total number of deaths: 216
- Total number of new deaths: 24

### **Timeline Summary:**

On 2 March the Massachusetts Department of Public Health announced its first presumptive positive case of COVID-19 since testing started Friday, February 28, at the State Public Health Laboratory.

On 9 March there were 13 new presumptive positive cases of COVID-19, bringing the total number of confirmed or presumptive positive cases in Massachusetts to 41. Of the 13 new presumptive positive cases of COVID-19, nine

are associated with the Biogen employee meeting held in late February: the cases are either employees or close contacts of employees.

Governor Baker issued a State of Emergency on 10 March in addition to issuing an emergency order prohibiting gathering of over 250 people in an effort to limit the spread of the coronavirus. This was altered on 17 March to prohibit gatherings of 25 persons or more. On 23 March this was reduced to 10 persons.

The Boston Marathon was rescheduled from 20 April to 14 Sept.

Governor Baker issued an emergency order for closure of all Massachusetts public and private schools from 17 March until 4 May.

On 19 March Governor Baker ordered activation of up to 2,000 National Guard members across the state, who will be tasked with supporting requests from state agencies for equipment, logistics, warehousing, and related duties.

On 20 March a man in his 80's was the first person to have died from COVID-19 related illness in Massachusetts.

On 24 March, an emergency order was issued requiring all businesses and organizations that do not provide "COVID-19 Essential Services" to close their physical workplaces and facilities to workers, customers, and the public. Residents were advised to stay at home and advised to avoid non-essential travel. This order has been extended to 4 May.

Businesses and organizations not on the list of essential services were encouraged to continue operations through remote means that do not require workers, customers, or the public to enter or appear at the brick-and-mortar premises closed by the order. Restaurants, bars, and other establishments that sell food and beverage products to the public are encouraged to continue to offer food for take-out and by delivery, if they follow the social distancing protocols outlined in the Department of Public Health guidance. On-premises consumption of food or drink is prohibited.

Beginning on 27 March, all travelers arriving in Massachusetts are instructed to self-quarantine for 14 days. Visitors are instructed not to travel to Massachusetts if they are displaying symptoms. Health care workers, public health workers, public safety workers, transportation workers and designated essential workers are exempt from this requirement.

### **Health Care in Massachusetts**

All assisted living residences are to ban visitors to protect the health of residents and staff. This is in addition to the federal guidance issued that bans visitors to nursing homes and rest homes.

All hospitals operated or licensed by the Department of Public Health or the Department of Mental Health are to screen all visitors and restrict visitation if individuals show any indication of illness.

On 27 March, the Board of Registration in Medicine provided medical school graduates who have matched as an intern, resident or fellow with a Board-approved Massachusetts health care facility or training program with Emergency 90-Day Limited Licenses to practice medicine to ensure that the health care workforce is prepared during the COVID-19 public health emergency.

On 30 March, the state announced new actions that will support efforts to expand the health care workforce by expediting licensing for certain health care workers and onboarding for health care volunteers who have signed up through the new online volunteer portal. The state also outlined a Department of Public Health order that will support continuing steps being taken to expand care capacity for older adults infected with COVID-19, in addition to other actions designed to support providers and businesses during the COVID-19 outbreak.

The COVID-19 Advisory Board, which first met on Wednesday 19 March will advise the COVID-19 Response Command Center on key decision points in the state's response, including expanding access to testing and planning for medical surge and will formally meet weekly for updates.

The COVID-19 Response Command Center has been working with its Advisory Board of medical experts and epidemiologists from Harvard University, University of Guelph and Northeastern to refine models related to the expected surge of COVID-19 cases. These efforts include modeling the surge's timing, number of cases, necessary bed capacity, and work to find facilities that will meet overflow capacity.

The model's projections are based on the experience of Wuhan, China, but Massachusetts' trajectory could differ due to lower population density, lower smoking rates, and earlier social distancing measures. The Command Center has also been comparing to experience in other states and around the world.

The model's latest projections estimate that the number of confirmed cases of COVID-19 in Massachusetts could range from 47,000 to 172,000 (or 0.7% to 2.5% of the total population of Massachusetts). The models show hospitalizations would potentially peak between April 10-20. The current fatality rate in Massachusetts is lower than in other areas – it is approximately 1.5% of those infected. The Command Center is monitoring this statistic closely.

The COVID-19 Response Command Center is working with hospitals to provide them with the flexibility to expand ICU capacity. The Commonwealth is asking academic medical centers and teaching hospitals to work to significantly expand their ICU capacity. But after hospitals execute on their surge plans, the model estimates there could be a remaining gap in ICU capacity of more than 500 beds.

### **Response Efforts:**

In response, the aim is to find or build an additional 750-1,000 beds in field medical hospitals and other alternate care sites to reduce the strain on hospitals as much as possible.

Additional possible sites are identified for Field Medical Stations including the Boston Convention & Exhibition Center, Joint Base Cape Cod, Springfield's Mass Mutual Building and other smaller locations.

The Command Center is also securing 1,000 beds in capacity for step-down care options in nursing facilities for stabilized COVID-19 positive patients who can be transferred out of the hospital to make room for those with a higher medical need.

On 3 April, the creation of the COVID-19 Community Tracing Collaborative (CTC) to mitigate the spread of COVID-19 in Massachusetts was announced. This initiative is a collaboration between the administration and Partners In Health and is the first of its kind in the nation. The initiative will focus on tracing the contacts of confirmed positive COVID-19 patients, and supporting individuals in quarantine, and builds on the efforts already underway from the Command Center to leverage public health college students to augment the contact tracing being done by local boards of health.

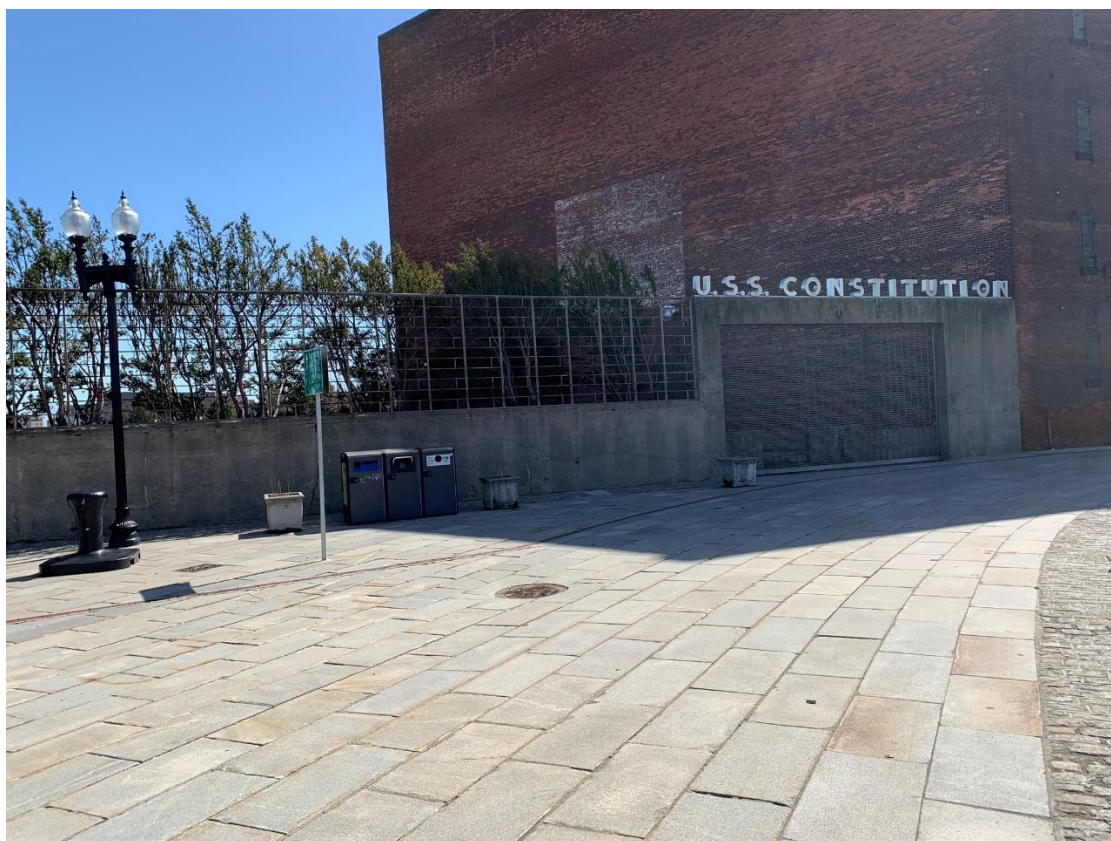
The Collaborative will deploy nearly 1,000 contact tracers throughout the state to connect with COVID-19 patients and their contacts to support Massachusetts' efforts to track and contain the virus. Contact tracing through the CTC will support the ongoing efforts to expand bed capacity, increase personal protective equipment (PPE) supplies and provide resources for health care providers and patients.



A statue of a lone local hero in an urban Boston community



USS Constitution: Historic Freedom Trail sites closed to address Global Coronavirus Pandemic





Major highway Interstate 90 that traverses across the state and into the city of Boston and Logan international airport deserted



USS Constitution: Historic Freedom Trail sites closed to address Global Coronavirus Pandemic



Empty streets and sidewalks in a residential area with a backdrop of the Bunker Memorial Bridge. The city of Boston and its surroundings have a population of nearly 5 million people.



## Texas and the United States: Dr. Chris Amos

In the United States, criteria for controlling the COVID-19 virus are highly heterogeneous and have been unfurled at different times and within states different localities have also varied in the way that they have responded, particularly when no controls have been placed at the state level.

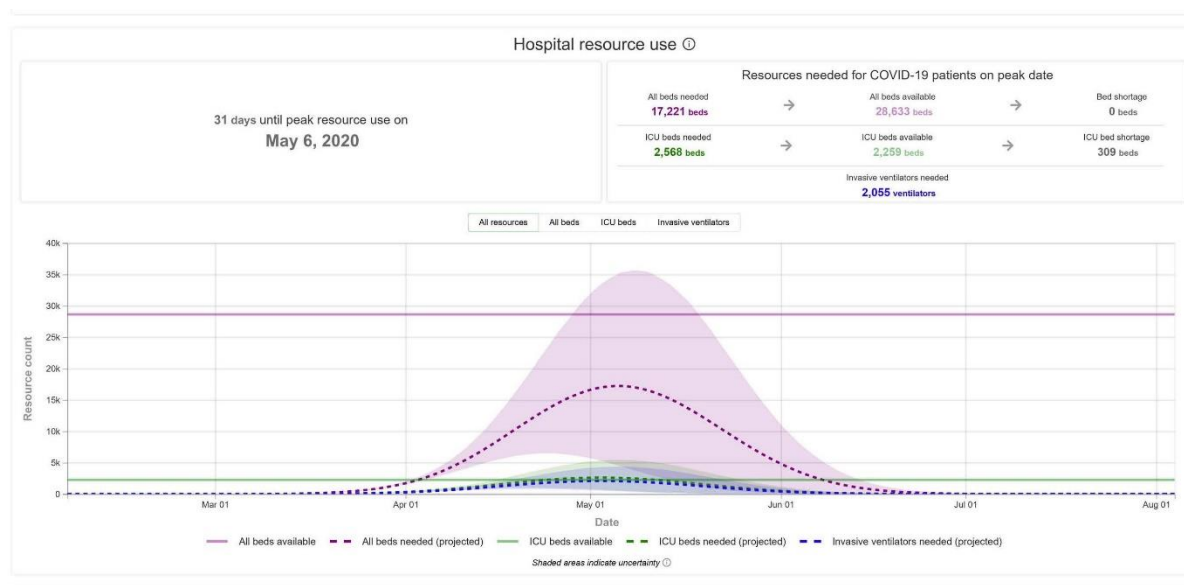
The overall period of peak infection and hospital use is projected to occur in mid-April and will exceed hospital capacities in several regions. In Texas, a stay at home order was declared by the Governor on 2 April and it currently expires on 30 April. Educational facilities were closed around 19 March. Nonessential services and activities are canceled. Across the state cell phone data have been used to track distances traveled in Texas and shows about a 35% decrease in travel. There have been 6,556 COVID-19 cases reported in the state.

In Houston, all the counties in the region issued stay at home orders around 25 March. Major events including the Houston Livestock and Rodeo Show starting on 3 March was canceled after a law enforcement officer attending a pre-event barbecue tested positive for COVID-19. Average travel in Harris county has shown decreases in the 30-45% range with current decrease being 35%. There have been 1,284 deaths.

Despite relatively poor application of social distancing at a state level, the timing of the peak of pandemic cases and hospital requirements is predicted to occur on 9 May, later than in most other U.S. cities and states, perhaps reflecting the decision to close large events relatively early during the pandemic and also less crowding in cities. Statewide projections suggest that the peak demand for ICU beds and ventilators can be met, but local regions such



as Harris County and Dallas County could exceed capacity. Figure 1 shows the projected demands on hospital services in the state of Texas.



**Clinical Studies:** The Texas Medical Center is a leading academic environment that houses 54 medicine-related institutions, with 21 hospitals, four medical schools, seven nursing schools, three public health organizations, two pharmacy schools and a dental school. All of these institutions have closed all nonessential services and all lab-based non-COVID-19 research to reduce the likelihood of COVID-19 infection among faculty and to reduce the demand on PPE that would otherwise be required for managing animal facilities and core laboratories. Numerous novel protocols and research functions related to studying the SARS-CoV-2 virus. At the Baylor College of Medicine there are 22 approved and 7 pending protocols devoted to studying novel treatments for COVID-19, prevalence of infection in hospital workers, high risk populations and in communities, and social effects of COVID-19 on families and communities. Among the treatments being studied are protocols for evaluating the efficacy of remdesivir, convalescent plasma for prophylaxis, early and late treatment. There are additional studies of tocilizumab (an IL-6 receptor inhibitor) and developing studies that target suppression of TMPRSS2, a gene used by SARS-CoV-2 to process the S-protein needed for its viral code.

At the Baylor College of Medicine, we have been very involved in evaluating the impact of the COVID-19 infection on Harris County demand for hospital services and in studying characteristics of outbreaks in more defined environments. A forward time simulation of the effects of different approaches to managing small populations who either quarantine before or during a period of isolation was developed and applied to for a client interested in understanding the dynamics of an outbreak if it occurred during transit on a shipping rig. These software applications can be applied for various sized populations.





## IOWA CITY: Dr. Peter Matos

The US federal government has allowed states to mandate their own regulations in response to COVID-19, while only providing suggested guidelines per the CDC and national health officials. This has in turn given rise to a fragmented response to mitigating the virus.

The president extended social distancing guidelines until 30 April. However, in some cities, citizens have been slow to practice proper social distancing. In the state of Iowa, as of 4 April, Governor Kim Reynolds has chosen to not follow the lead of other states in issuing a shelter-in-place order.

The first case of COVID-19 landed in Iowa City in early March and has grown to a current total of 786 confirmed cases and 15 deaths in the state of Iowa.

Iowa is one of only five states within the US that did not mandate a shelter-in-place order as of 4 April. In comparison, residents within the state of Iowa are still able to gather in groups of ten, access some public parks as well as walk into some restaurants for take-away.

Within the state of Illinois, a neighboring state, gatherings of any size are forbidden, all parks and playgrounds are closed and residents are not allowed inside any food establishment, except for supermarkets.

Pressures have been mounting for states to take more drastic efforts in fighting the spread. However, Iowa Governor Kim Reynolds, argues the current response has been keeping residents safe. The Iowa Board of Medicine unanimously recommended on 3 April that the state immediately issue a shelter-in-place order.

Supermarkets and businesses have taken it upon themselves to assist patrons in practicing social distancing and good hand hygiene. Some have been quicker to adhere to social distancing guidelines than others, leaving residents at risk. An Iowa supermarket chain has recently taken stricter action to help shoppers maintain adequate social distancing. In Davenport, Iowa, the store made sanitizing wipes available to shoppers were still expected to wipe down their own cart but were guided through the store by blue arrows and markers on the ground with the reminder to stay six feet away from other shoppers.







