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A Message from Chancellor Roth

Dear Colleagues:

As we all adjust to the new reality of living in a world with an ongoing pandemic, wellness takes on a greater priority. I encourage you to take advantage of the wellness classes being offered to all HSC health care workers via Zoom this week. You can learn more here.

I see my daily updates as part of an ongoing conversation. To that end, a reader posed this question: "I would like to ask if you could provide an explanation of how the COVID-19 peak forecasting is done. What data is being used to project the peak, what are the sources of this data, and what is the validity of this data?"

Here's my best understanding and attempt to answer this question. These models are based on something called predictive modeling, a method used by institutions – in this case health care institutions and governments – to forecast the number of certain events in the future. It uses huge databases from multiple sources looking at historical information, makes assumptions about the future, and then, through the use of sophisticated computer systems, develops a range of possible outcomes over a relatively short term.

By looking at these forecasts, we all can do a better job of preparing New Mexico for what might lie ahead in this pandemic.

In our current situation, we have been following several different models that have been somewhat sketchy, but at least give us a general idea of what certain trends might be during the course of the pandemic.

One of the first models has come out of the Institute for Health Metrics and Evaluation at the University of Washington, which utilized the talents of hundreds of statisticians, computer scientists and epidemiologists. There is another system for the National Institutes of Health that was built after the H1N1 pandemic – and now many others have emerged.

The predictive model that I look at the most these days is the one developed at Los Alamos National Laboratory by 19 of their brightest computer, mathematics and statistics experts, drawing on data collected from the Johns Hopkins Coronavirus Resource Center. This model tries to forecast six weeks into the future, with possible outcomes ranging from best case to most likely and worst case. At the moment, the number of confirmed cases and deaths estimated for New Mexico lie between the best case and most likely range.

Unfortunately, all of these models are based on guesses and certain assumptions, which may turn out to be right or partially right, and historical information that might also be inaccurate. Therefore, these models are only moderately reliable.

Here are a couple of takeaways from my very good friend Dr. Chaouki Abdallah, UNM's past president and now professor of Electrical and Computer Engineering and Executive Vice President for Research at the Georgia Institute of Technology: "All models are wrong, but some are useful," and, "Prediction is difficult, especially of the future." With this wisdom in mind, we continue trying to find the best models to help us plan out our response and recovery from this pandemic.

Warm regards,

Paul B. Roth, MD, MS
Chancellor for Health Sciences
CEO, UNM Health System
Dean, UNM School of Medicine

Please visit the New Mexico Department of Health website for the latest COVID-19 updates.