Ohio Coronavirus Summary for Policymakers

This document was created to summarize guiding principles and key facts and data about the current COVID-19 pandemic as policymakers work to create a plan to contain the outbreak while returning the state to normal to the extent that we can. Please feel free to share with all interested parties.

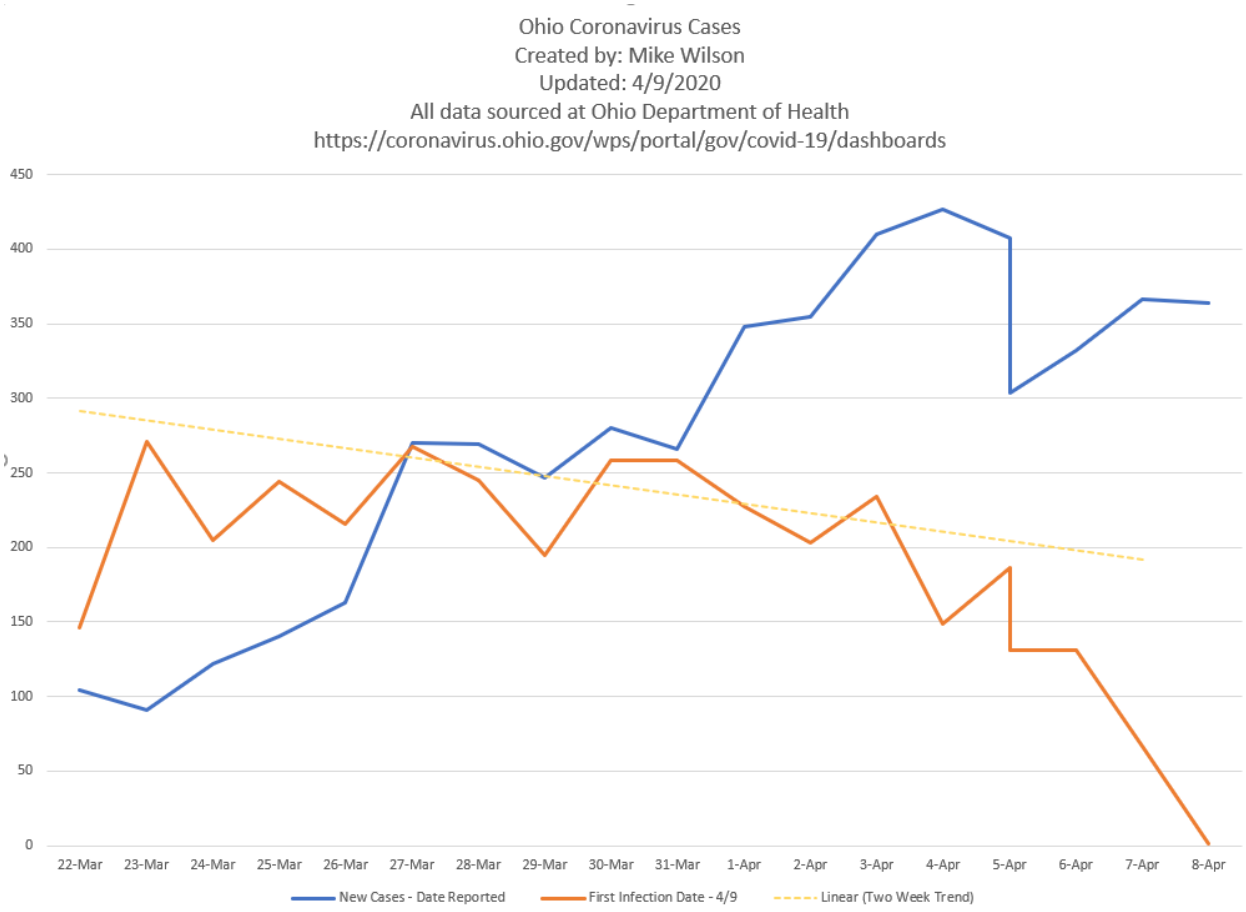
Guiding Principles:

- The near-term prospects for discovering a vaccine or cure are low and experts agree we are past the point where full containment and eradication could occur. It is likely that Ohio and other states will need to prepare for ongoing management of the outbreak.
- While much remains to be learned about the coronavirus that causes COVID-19, current data shows that the initial wave of infection is over in Ohio. Ohio should be cautious in approaching the relaxation/removal of social distancing restrictions, but we must weigh the benefits of continuing strong measures to suppress the currently low infection totals versus other considerations.
- Job losses and reduced income from the partial economic shutdown are creating hardship for many in the short term and will have longer term economic impacts for families, businesses, and the budgets of government entities.
- The human impact of the stay-at-home orders is significant and important. People are separated from family members, friends, and loved ones. Students are missing important learning and social time. Athletes and fans are separated from the sports they love.
- Ohio citizens deserve a clear explanation of what metrics the Governor and his team are monitoring to determine when relaxation of social distancing measures can begin. This includes current and projected documented infections, resolved cases, death rates, hospitalization and discharge rates, regular and ICU hospital bed utilization rates, current availability of testing, test processing capacity and utilization rates, availability of personal protective gear in hospitals, availability of masks to the general public, and more. Transparency is particularly important as we ask our people to maintain extraordinary disruption to daily life.

Key Facts about COVID-19 Cases in Ohio on April 9th

- The current trend of cases in Ohio based on date of first infection is negative over a 2-week period.
- The date of peak rate of growth in new infections occurred on March 20th**.**
- Since then, the rate of growth has been declining and is increasingly negative over the last several days.
- While testing is becoming slowly more available, Ohio is only testing a subset of the actual infected population. This means the actual number of cases is higher than currently reported, however, it shouldn't affect the direction of the trend unless we change the testing and reporting methodology.
- The mitigation phase in Ohio has been successful in that the growth rate curve has been flattened and has gone negative, which has prevented an overwhelming of our health care system. A transition from Ohio's current mitigation strategy to a containment strategy with a staged return to work has now been made possible.

Prepared by Mike Wilson and Dr. Robert Bulas – 4/9/2020



Statistical Modeling for COVID-19 and Uncertainty

- Statistical models that include periods of exponential growth such as epidemiological models can produce vastly different results based on small changes in initial assumptions.
- The various models touted by Dr. Acton and in the media (IHME, Ohio State, Imperial College) have produced different results as they have updated assumptions and various data points. As policymakers, it is important to understand the assumptions of a given model (i.e. with various levels of social distancing) run in order to interpret its output. The lack of transparency in sharing assumptions and their ongoing history of overestimating the infection undermines their usefulness.
- It is clear the virus is easily transmissible and riskier as a patient gets older. Social distancing measures affect the transmissibility, but these parameters are reasonably well known by medical experts.
- The universe of potential cases is much more uncertain and subject to much dispute. Most experts assume that humans have little to no built-in immunity to this virus as it is “novel” or new to our population. If the virus began circulating in the USA in February as reported, this may be true, however some experts suspect the virus has been circulating longer which would reduce the universe of cases and allow for achieving herd immunity effects sooner.
- The potentially large population of cases that show few symptoms also complicates modeling.

General Ideas and Policy Suggestions for Executing a Reopening of Ohio:

1. Ohioans are becoming more aware that hospitals are not busy and that they know few people that have been infected. Asking them to wait until May 1 to begin to relax restrictions is not viable.
2. A gradual reopening must be pursued with close monitoring of infection rates to ensure that hospitals are not overwhelmed with patients.
3. Much broader outpatient lab testing for current cases and antibody testing for resolved cases are very important in determining our overall trajectory and can help to track and isolate the infected. Expanding testing access is important, as is maximizing test processing capacity
4. However, we don't need perfect testing to reduce transmission rates. Checking temperatures before entering workplaces and other public areas is far better than no restrictions at all.
5. Masks have proven to be somewhat helpful to protecting the wearer, but very helpful in preventing asymptomatic spreaders from passing the virus to others. Asian countries with strong mask wearing cultures (Japan, South Korea, Singapore) have significantly lower infection curves than others. Consider requiring masks to be worn in certain public areas. It may take time to accumulate and distribute masks to the public.
6. Current stocks of personal protective equipment at hospitals are reported to be adequate, but we may need additional time under restrictions to build supplies.
7. Consider restrictions on travel to hotspots in other parts of the country.
8. Encourage employees and students who can work and learn effectively while remote to stay home.

About the Authors

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