



DAYTON



Critical Correlation Potential

Governor Mask Order Mandate – Montgomery County

Montgomery County began seeing an increase in its daily reported COVID-19 cases starting in early June through the first week of July as restrictions on businesses and gatherings began to be relaxed. The average daily case growth rates reported by the Ohio Department of Health were as follows:

- Week of 6/8 3.55%
- Week of 6/15 3.53%
- Week of 6/22 3.74%
- Week of 6/29 2.97%
- Week of 7/6 2.73%

These daily case growth rates, were they to continue through the end of the year, would have had catastrophic consequences for the region as some of those rates would have approached 100% saturation of the population even with some degree of herd immunity being factored in.

On July 8th Governor Dewine ordered mandatory masks on all counties deemed Level 3 or higher on the State's Public Health Advisory System, of which Montgomery County was one of.

The week of 7/13 saw some minor decrease in the daily case growth rate, down to 2.50%.

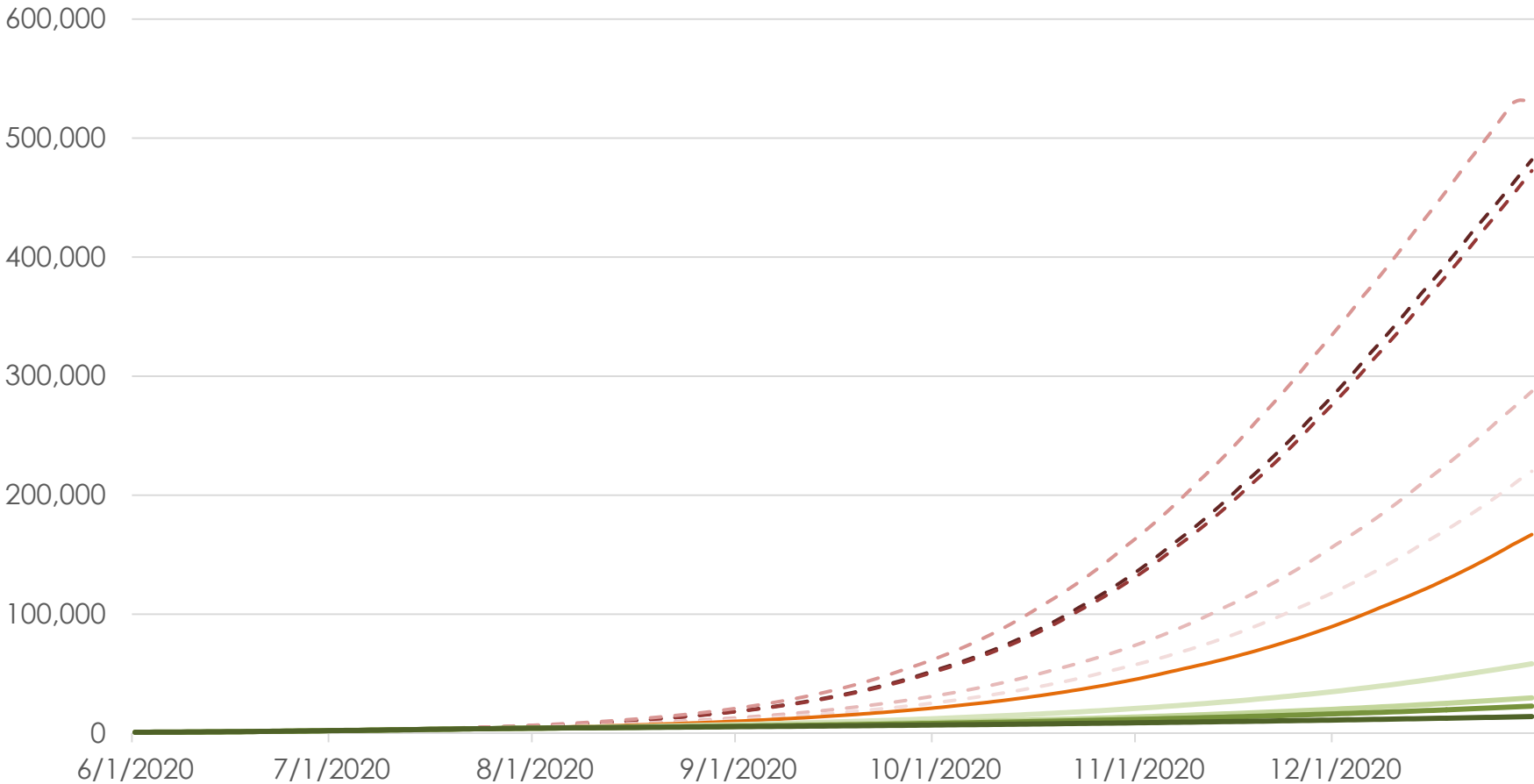
Starting with the week of 7/20, 12 days after the mask mandate, Montgomery County began seeing a noticeable decrease in the daily COVID-19 case growth rate as follows:

- Week of 7/20 1.74%
- Week of 7/27 1.30%
- Week of 8/3 1.12%
- Week of 8/10 0.78%

Growth projections can be seen on the next slide.



Case Growth Rate Projections



- Week of 6/8 Growth Rate (3.55%)
 --- Week of 6/15 Growth Rate (3.53%)
 --- Week of 6/22 Growth Rate (3.74%)
- Week of 6/29 Growth Rate (2.97%)
 --- Week of 7/6 Growth Rate (2.73%)
 --- Week of 7/13 Growth Rate (2.50%)
- Week of 7/20 Growth Rate (1.74%)
 --- Week of 7/27 Growth Rate (1.30%)
 --- Week of 8/3 Growth Rate (1.12%)
- Week of 8/10 Growth Rate (0.78%)



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Conclusion

During the date ranges covered in this report the restrictions on business and gathers have only decreased and as such, case growth potentials can be assumed.

The only factor that can be readily identified as contributing to the reported decreases in case growth, therefore, is the mask mandate.

A critical correlation can then be made that masks do in fact decrease the spread of COVID-19 as during a period of potential case rate growth, we have in turn seen a decrease.

Either by providing a physical barrier to the transmission or as a visual reminder of the pandemic and need for social distancing and precautions, masks due appear to directly correlate to a slowing of disease spread.