



COVID-19 Executive Summary

August 11, 2020

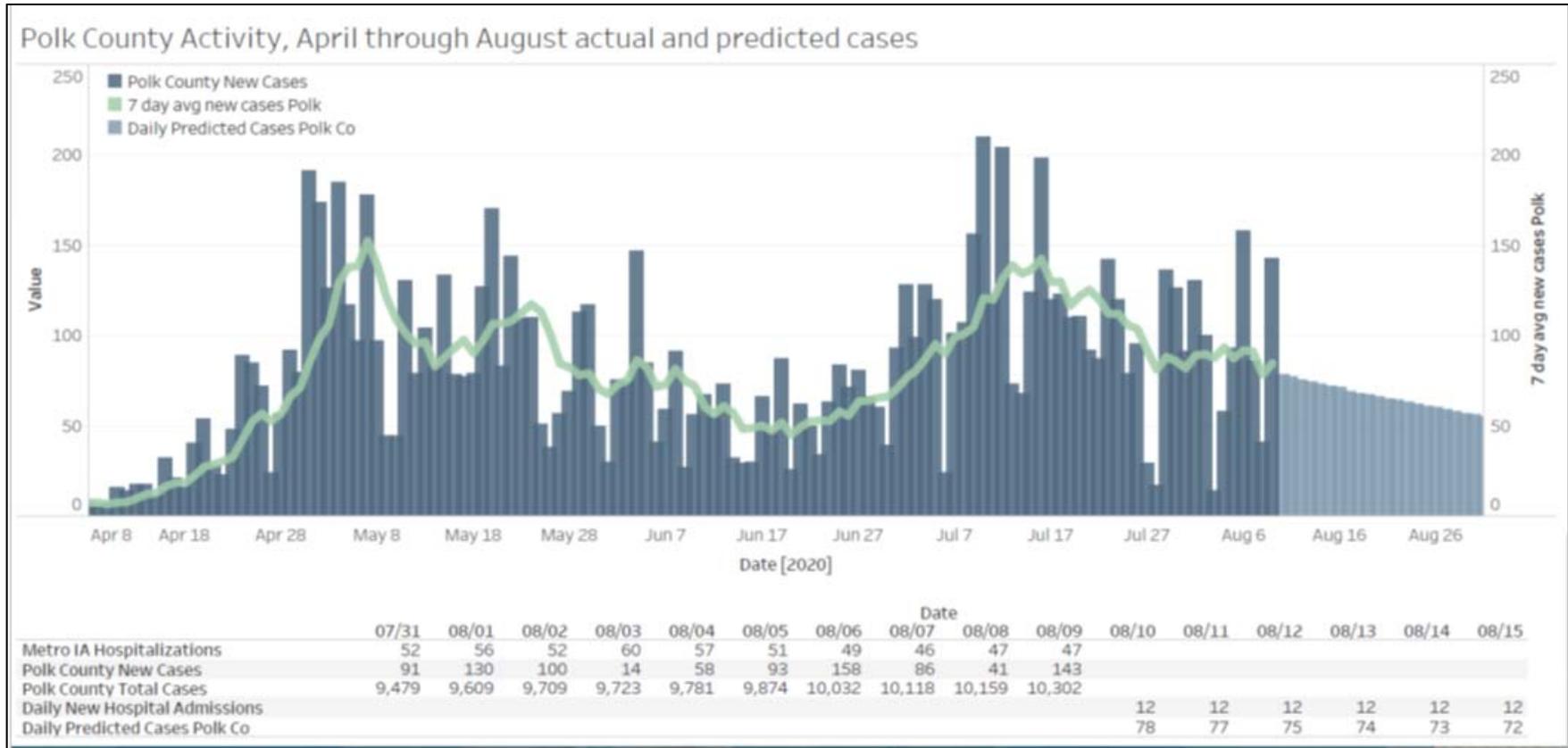
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Introduction



- The information included in this slide deck is developed with information gathered from multiple national, state and local data sources.
- The predictive data is provided by Aperio Statistical Consulting, who is on contract with PCHD. The data is based on the data sources available and is developed using trend analysis, research review, comparative studies and epidemiologic theories.
- Predictions are just that – predictions. We are confident in the information and are using the predictions to inform our planning assumptions, but realize that the predictions are only as good as the reliable data available to make them.

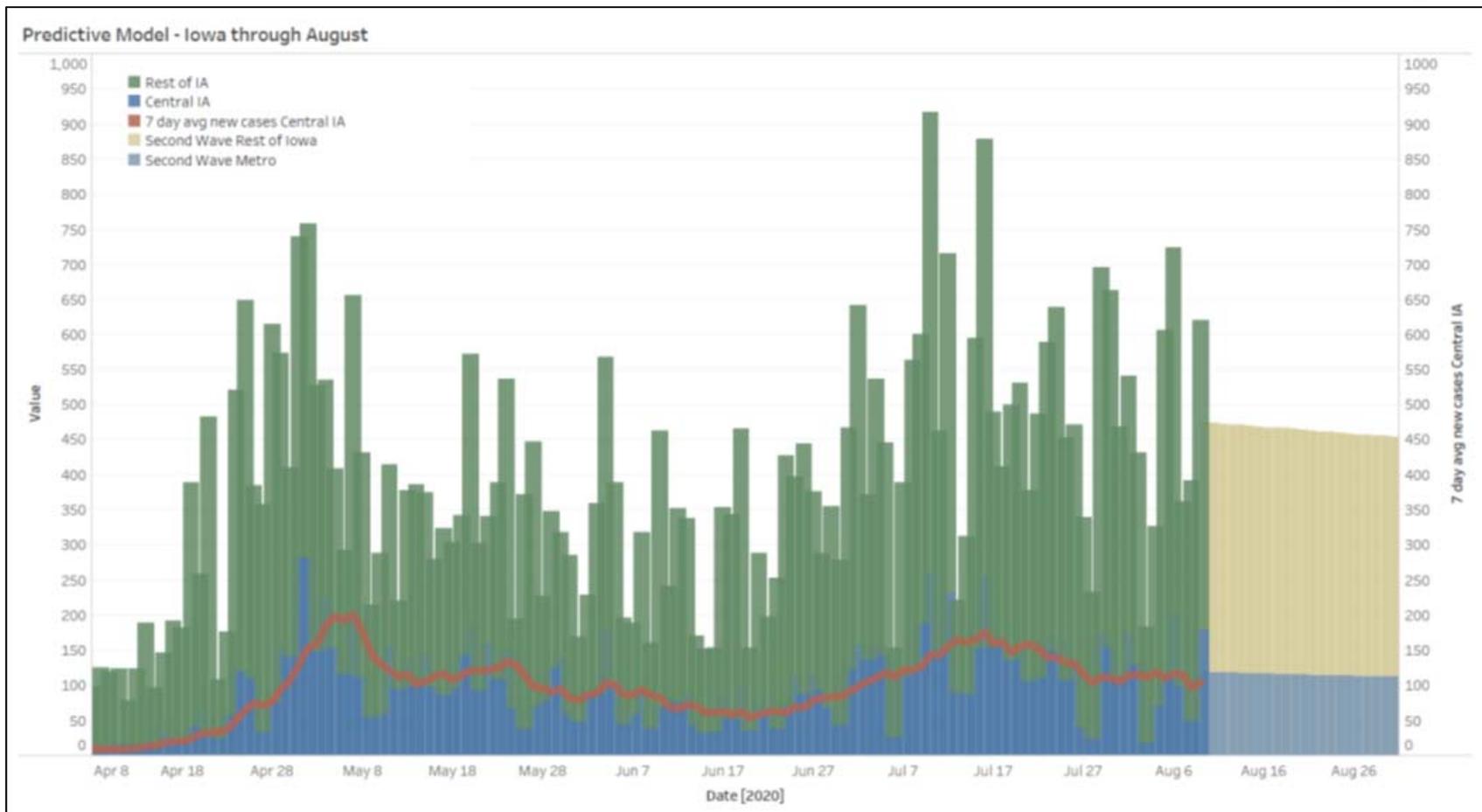
Polk County Predictive Model Through August

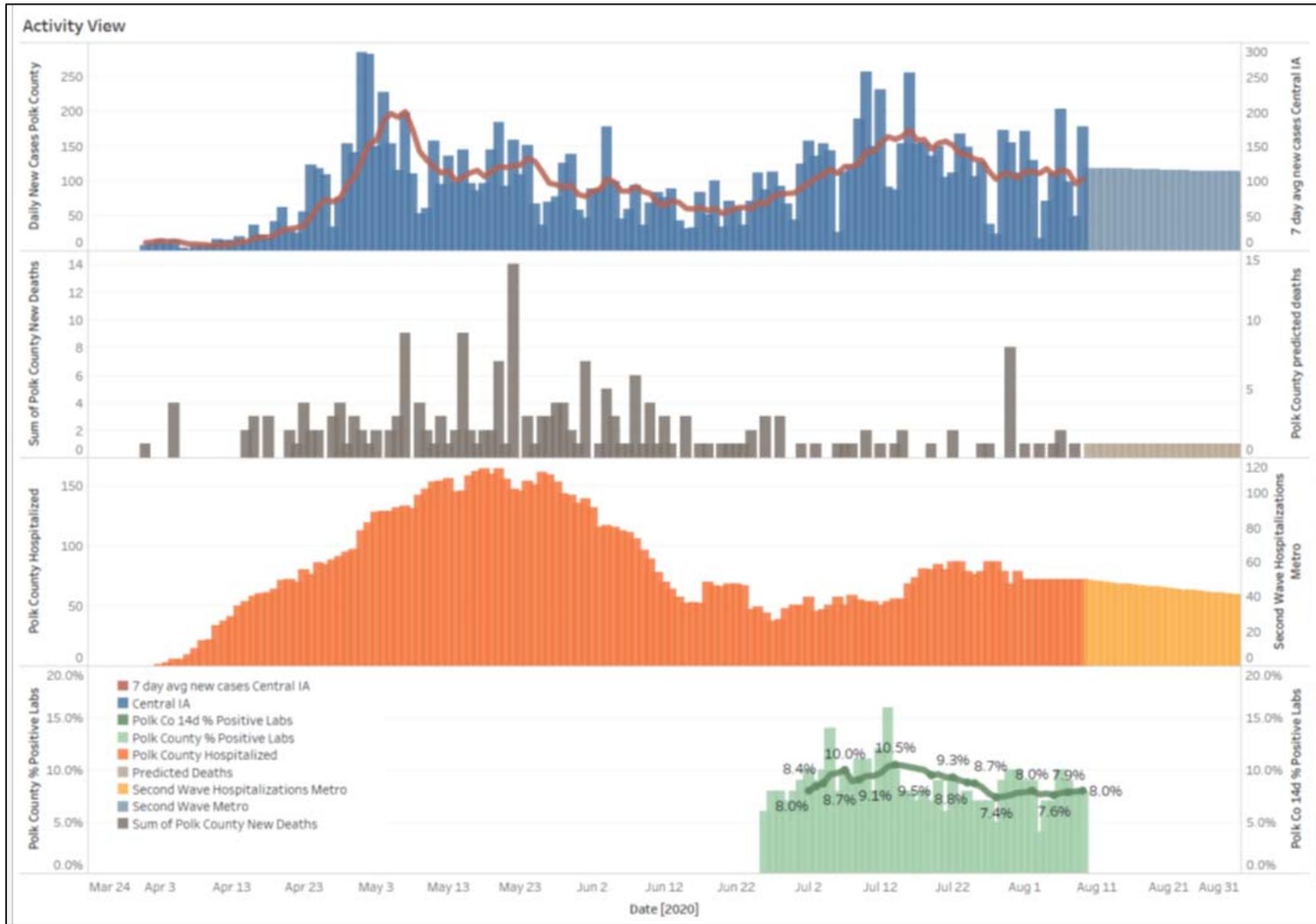


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Iowa/Central Iowa Predictive Model Through August





Summary of Information



- Polk County reached 10,000 cases on Thursday last week.
- Percent positivity in Polk County is averaging 8-9%.
- Cases nationally appear to have stabilized, but at a high rate of new infections. Deceleration may have stagnated.
- States with severe, recent outbreaks which also implemented significant mitigation efforts are still decelerating.

Summary of Information



- A modeling study was released by the UK outlining the importance and impact of contact tracing in combination with aggressive testing in reducing potential outbreaks in schools.
- [https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(20\)30250-9/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(20)30250-9/fulltext)



Return to Learn Data

Assumptions



- Model includes children ages 0-17 in a single cohort
- Of all cases, children ages 0-17 comprise 5.83% of total cases in Polk County
- Children have not been actively engaged in group settings at any time in the pandemic to date, leaving most susceptible
- There are 121,070 children in Polk County ages 0-17. The model does not include school-age children from neighboring counties.
- Only half of school-age children will attend school in-person starting 8/26 (~60,535).

Assumptions (cont.)



- The R_o^* is assumed to be 1.2 in children for this model with the use of mitigation strategies; though the pandemic range is 1.4-2.4.
- The impact of child cases on other age groups is not accounted for in this model. The average daily new case count of 60 was used.
- For every positive child case, five negative cases will be tested. Currently, 16 negative cases are tested for every positive in Polk County.
- Daily lab testing capacity is 1200.

* R_o = number of people each case could infect

Assumptions (cont.)



- Asymptomatic cases are accounted for in the model.
- Average number of days from exposure to infectious period is three days.
- Case activity will be slow to start given a short first week and Labor Day holiday.
- Online learning will be initiated after 15% positivity is reached reducing the R_0 to 0.8.

Other Considerations



- Hospitalizations among children is very low ranging from 8-20 per 100,000. Hospitalizations will increase with a community outbreak, but may not compromise health care surge capacity with this first wave.
- The number of susceptible children is extremely high given low numbers of cases to date. The number of susceptible is unlikely to impact transmission at any point this first or subsequent waves if mitigation measures are used to contain outbreaks.

Scenario 1: Limited Testing



Scenario 1: Testing limited to

1200 maximum per day

Daily Positivity Reached 15%:

9/24

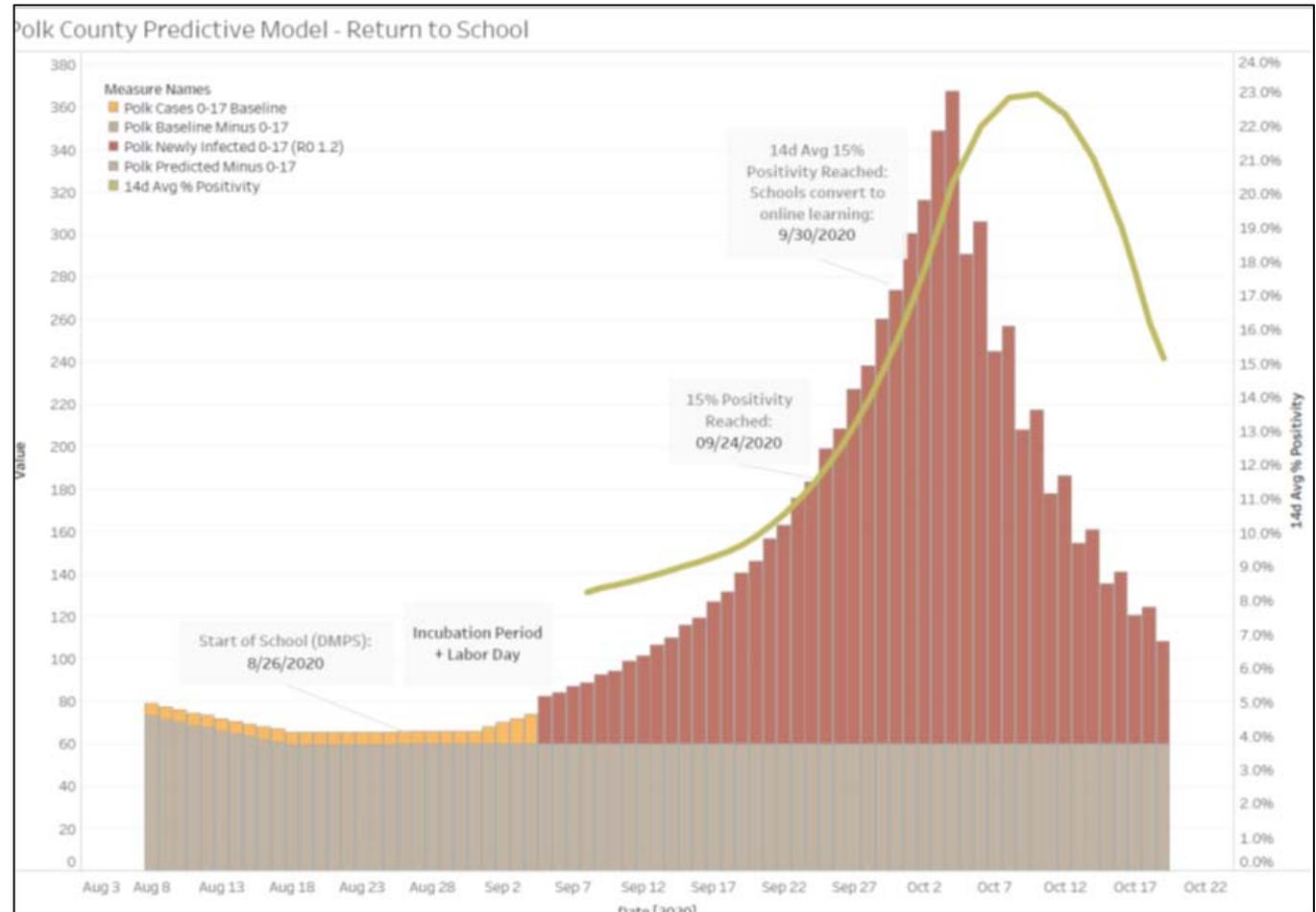
14d Avg Positivity Reached:

9/30

Peak: 10/6

Total Cases Children 0-17:

5,277



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Scenario 2: Unlimited Testing



Scenario 2: Unlimited Testing

Daily Positivity Reached 15%:

10/9

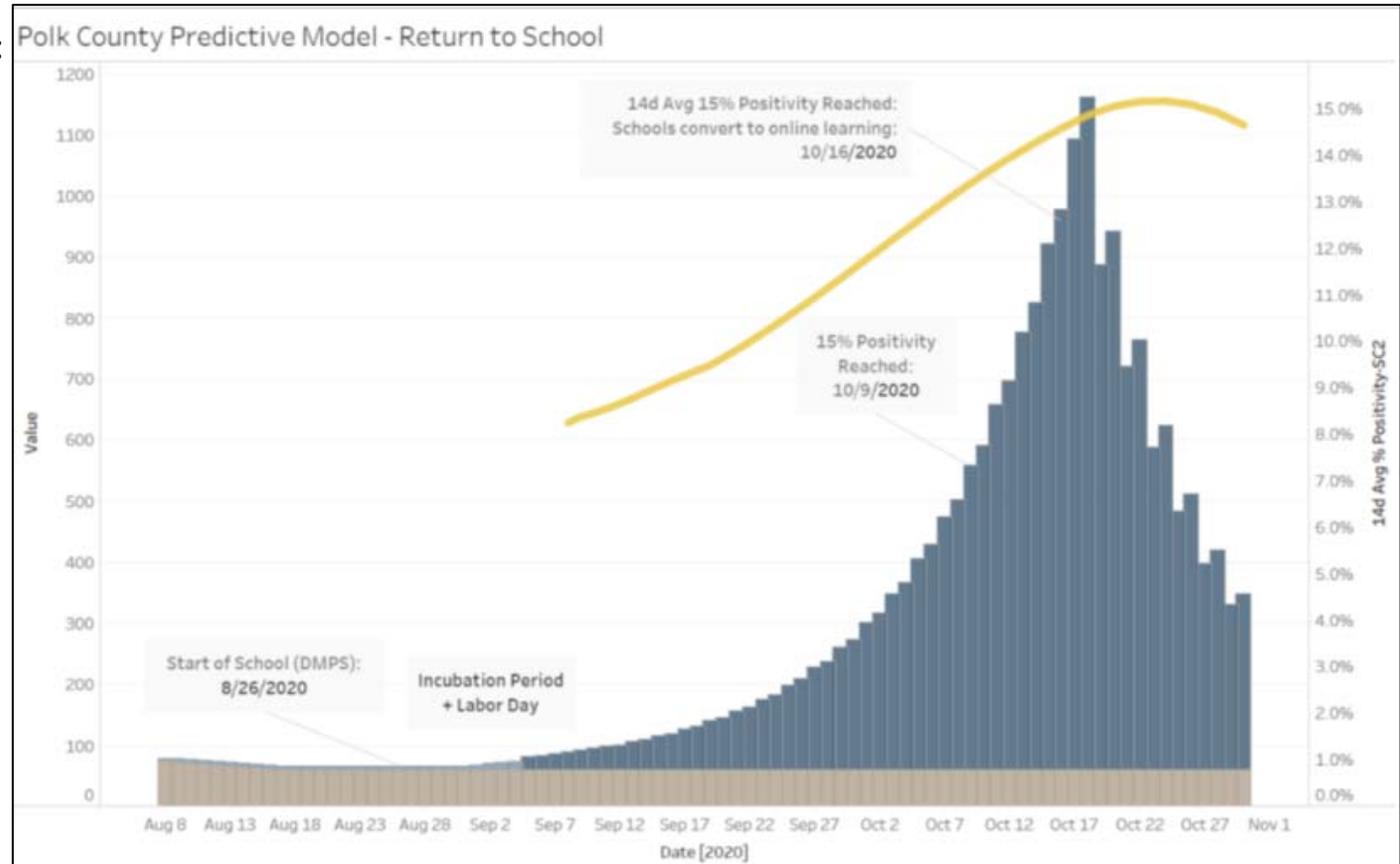
14d Avg Positivity Reached:

10/16

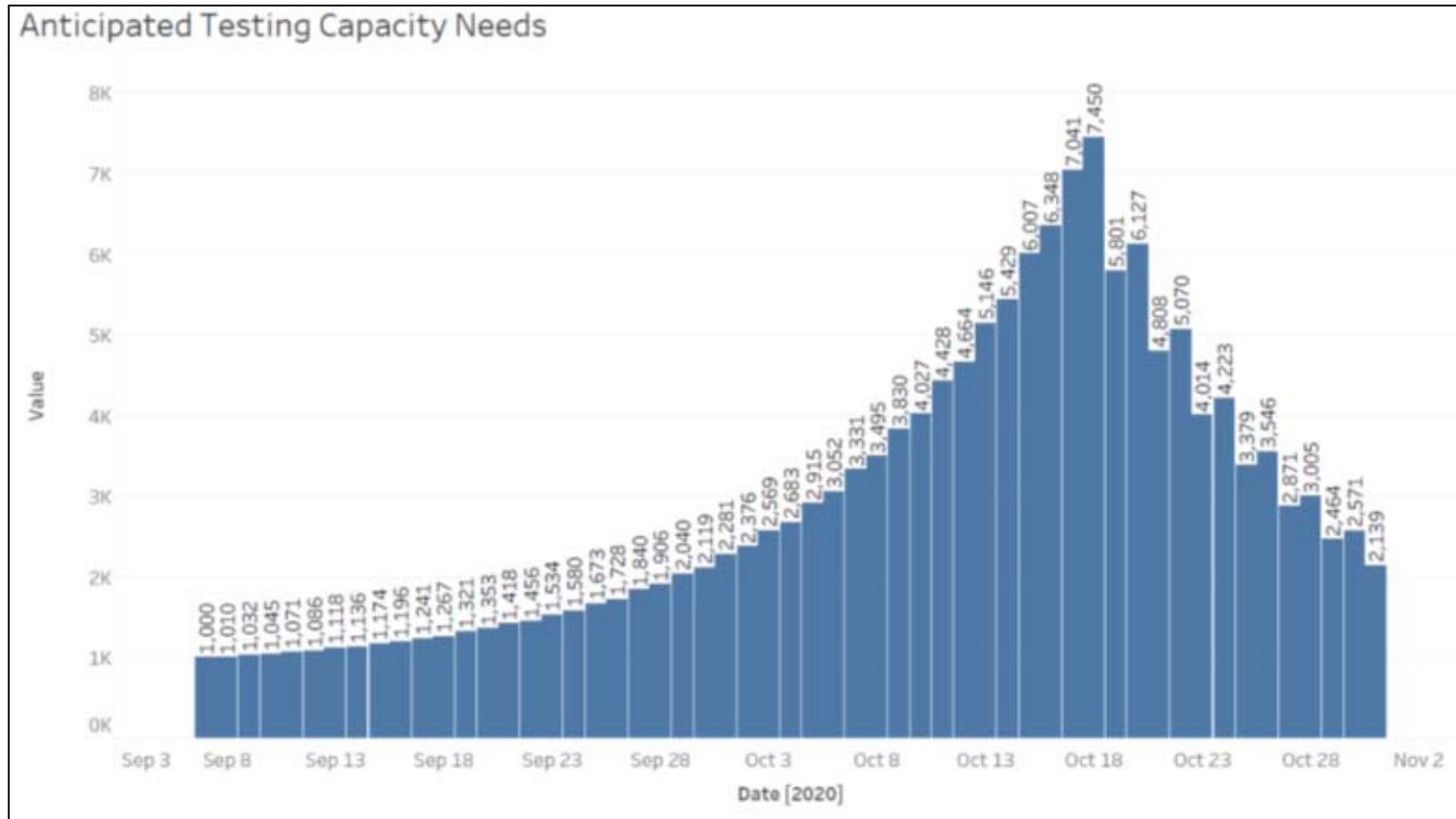
Peak: 10/18

Total Cases Children 0-17:

20,298



Testing Capacity Needs



*Current state testing capacity is 1,200/day



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