QUESTIONS TO MEDICAL PROFESSIONALS FROM THE SCHOOL BOARD OF BREVARD COUNT REGARDING COVID-19 CURRENT TRENDS/METRICS

October 13, 2020

1. Is there reputable new research since our last meeting that suggests we should be doing anything differently with regard to our mitigation strategies?

Health Department: No – Continue to follow CDC guidance: stay home when sick, wash hands, social distance, wear a face covering

Parrish (George Mikitarian): Mitigation strategies remain the same - hand hygiene, avoid touching face (mouth, eyes, nose), wear a mask, and social distancing.

USF Morsani College of Medicine (Jason Salemi, Associate Professor of Epidemiology): The CDC's "Plan, Prepare, and Respond" page was recently updated on October 16. Their table capturing "indicators and thresholds for risk of introduction and transmission of COVID-19 in schools" include as core indicators 5 key mitigation strategies we have discussed previously.

- ✓ Consistent and correct use of masks
- ✓ Social distancing to the largest extent possible
- ✓ Hand hygiene and respiratory etiquette
- ✓ Cleaning and disinfection
- ✓ Contact tracing in collaboration with local health department

The CDC also suggests that additional mitigation measures be adopted to the extent possible, practical and feasible. These include things like cohorting, staggered scheduling, ventilation, visitor limitations, etc. These can all be found at https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/indicators.html#thresholds

In my opinion, now is not the time to relax any mitigation strategies with our typical peak flu season around the corner.

2. Are we at a point in Brevard where you would suggest we ease up on our mitigation strategies on the following?

a. Restriction of Visitors
   - ✓**Parrish (George Mikitarian):** With proper precautions could be resumed

b. Restriction of Volunteers
   - ✓**Parrish (George Mikitarian):** With proper precautions could be resumed

c. Restriction of Student Travel for Athletics and/or Field trips
   - ✓**Parrish (George Mikitarian):** With proper precautions could be resumed

d. Requirement of Masks for Students
   - ✓**Parrish (George Mikitarian):** No

e. Requirement of Masks for Adults
   - ✓**Parrish (George Mikitarian):** No

f. Social Distancing
   - ✓ **Parrish (George Mikitarian):** No

g. Health Checks for Athletes
   - ✓ **Parrish (George Mikitarian):** No

h. Response to Symptomatic Students
   - ✓ **Parrish (George Mikitarian):** Unsure what the response currently is

i. Restriction from Playground Equipment
   - ✓ **Parrish (George Mikitarian):** No

Health Department: No. At this point our cases have maintained or increased since last meeting. Positivity rate in Brevard County has increased since the last meeting. Over the last two weeks our positivity rate is 6.5

USF Morsani College of Medicine (Jason Salemi, Associate Professor of Epidemiology): See my response above. Moreover, based on data through yesterday from the FL DoH, the age-specific 7-day rolling average trends in new cases are below **(AT END OF DOCUMENT)**. I included Brevard and the 5 counties that share its border. We are not seeing a consistent decrease in any of the school-based age groups. Moreover, last week's DoH case positivity update by county shows that 3 of the 6 counties in the Brevard area are above 5%. Hospitalizations are largely flat in those counties, but I'd like all of the indicators pointing in the right direction before "easing up".

The attached data and more to include visualizations on cases, maps, testing, etc. can be found at http://covid19florida.mystrikingly.com/

3. If we are not at a point where we should ease mitigation strategies right now, what indicators/metrics would suggest it is time to do so or at least revisit the conversation?

Health Department: When the number of cases is below 10/week for at least 4 weeks (two incubations). Brevard county's positivity rate has been greater than state average several weeks, and our overall positivity rate has increased to 9.01% after hovering in the 8% range for many weeks.

NOTE: 10/week is a made-up number but in the later portion of the 2019-20 school year when COVID broke, we averaged less than 10/week until mid-June when the spike began

Parrish (George Mikitarian): Recommend using data to drive these decisions. At this time, we are seeing an increase in cases nationally. Follow local data.

USF Morsani College of Medicine (Jason Salemi, Associate Professor of Epidemiology): Again, I must point to CDC recommendations. They monitor new cases per 100,000 people within the last 14 days. In the state, as of yesterday, we had 42,442 cases in previous 14 days, which is about 206 per 100,000 population (that's the highest risk of transmission according to CDC). For Brevard, it's 1084 cases in previous 14 days, or 188 per 100,000 (in the "higher risk" of transmission). They also use % positivity among RT-PCR tests as a metric. FL lumps RT-PCR and antigen testing results together and has different ways of calculating positivity, but most counties appears to be in the "lower risk" or "moderate risk" levels over the previous 14 days.

Then they use secondary indicators like percent change in new cases per 100,000 in the last 7 days compare with the previous 7 days. For FL, we are up 6% relative to one week ago and 10% relative to two weeks ago. These things can change quickly, but clearly that's not the direction we like.

They use % of inpatient beds occupied, % of ICU beds occupied, % of inpatient beds occupied by patients with COVID-19…here we're doing well based on the data. We're also doing well in terms of trends in the sheer volume of COVID-19 hospitalizations – staying relatively flat.

4. If and when we begin to lift the mitigation strategies, in what order would you suggest we lift them?

Health Department: Too many variables to make a suggestion at this point (currently no vaccine, currently no evidence public are universally following recommendations). CDC guidance should be followed.

Parrish (George Mikitarian): Follow CDC recommendations.

5. Does being moved to Phase 3 by our Governor mean we can just ignore COVID?

Health Department: No – health messaging centers around mitigation of a highly infectious respiratory disease

Parrish (George Mikitarian): No, the order still has many recommendations listed. For example, while restaurants, bars and nightclubs are reopened, plastic menus should be cleaned after each use, other businesses that can reopen with limited social distancing (movie theaters, concert halls, auditoriums, bowling alleys, arcades, playhouses and casinos). Additionally, business should continue to encourage employees to work remotely and begin planning for return to work, large sporting events can resume with limited capacity, social distancing recommended for theme parks. Businesses can still require customers to wear masks. Last, the order still calls for older residents and vulnerable populations with underlying medical conditions to heed caution and avoid large crowds while practicing social distancing.

USF Morsani College of Medicine (Jason Salemi, Associate Professor of Epidemiology): Absolutely not, and you see this reflected in many local/county ordinances keeping those stringent mitigation efforts in place. We won't be able to "just ignore COVID" for quite a while.

6. Do we have enough data at this point to suggest children are not spreading COVID? And if so, does that mean our teachers and staff are safe without precautions?

Health Department: Not enough evidence and precautions are universal especially for indoor group activities (school). In addition, children are more at risk for flu and the measures may help reduce spread since they are both droplet diseases. CDC guidelines should continue be adhered to.

Parrish (George Mikitarian): While fewer children have been sick with COVID-19 compared to adults, children can be infected with the virus that causes COVID-19, can get sick from COVID-19, and can spread the virus that causes COVID-19 to others. Children, like adults, who have COVID-19 but have no symptoms ("asymptomatic") can still spread the virus to others.
Therefore, teachers and staff are not safe without precautions.
Reference: https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/children/symptoms.html

USF Morsani College of Medicine (Jason Salemi, Associate Professor of Epidemiology): The jury is still out. I think the fact that it APPEARS that there hasn't been pronounced increases in community spread and indicators of severe illness (hospitalizations) after some children returned to school in person is a success story for the stringent mitigation efforts put in place by schools (and the actions taken by children, teachers, staff, parents), and not necessarily indicative that transmission cannot occur. There was an article in the Atlantic recently where a physician was compiling info across the US and concluding that schools are not SUPER-spreader locales. But she had compiled data on less than 1% of the schools in Florida. Today, I saw that Sicily is planning to close schools for 3 weeks after increasing cases and clusters in school – apparently a whole primary school class tested positive.

7. It has been stated by some that people do not get enough oxygen while wearing a mask. Will you please share your thoughts and/or data around this statement?

Health Department: We have not seen any medical studies that indicate face coverings negatively impact oxygen levels for individuals who do not have certain health conditions. But we have seen clinical and laboratory studies that show masks help prevent the spread of COVID by reducing the spray of droplets when worn over the nose and mouth.

Parrish (George Mikitarian): There is no evidence that supports this. If someone is having difficulty wearing a mask, they may have other underlining health issues.

USF Morsani College of Medicine (Jason Salemi, Associate Professor of Epidemiology): A recent study published in the Annals of the American Thoracic Society found that compared to walking without a mask, wearing surgical masks while walking around did not result in significant changes in carbon dioxide in a person's breath nor oxygen in their blood. The conclusion is that masks are safe and do not impair breathing for most people – even when we don't recommend masks for children less than 2 years, it has nothing to do with oxygen deprivation – it's more about their inability to utilize the mask appropriately.

The study -- https://www.atsjournals.org/doi/10.1513/AnnalsATS.202007-812RL

8. The governor is sending school districts some of the 15 minute COVID tests that he is receiving from the federal government. Are these the kind of tests you would recommend for us to use to determine if students/staff should be quarantined? If these result in a negative, should we asked for further testing? What is the reliability of this type?

Health Department: Rapid tests were designed to quickly identify cases so isolation could occur. Currently if these rapid tests are negative, a more specific test (PCR) should be done. These tests should only be administered to symptomatic individuals during the first 7 days of symptoms. Positive is reliable as a presumptive case. A negative result is not accurate, and we would recommend that symptomatic individuals who get a negative result follow up with a PCR test. The PCR test remains the gold standard. Currently PCR tests are being resulted in 1-3 days.

Parrish (George Mikitarian): A viral test checks samples to find out if you are currently infected with COVID-19. Without further information, it is hard to determine which test you are referring to.

USF Morsani College of Medicine (Jason Salemi, Associate Professor of Epidemiology): Absolutely should be used and are being used increasingly in other states – this is a key component of the strategy to keeping students and staff as safe as possible. Although not as sensitive as PCR, it comes back quickly and would allow better response time to potential clusters of cases in school settings.

9. Do you have any recommendations for bringing limited volunteers back onto campuses? What procedures should we have in place?

Health Department: If needed – same guidelines as teachers

Parrish (George Mikitarian): Screening all volunteers is recommended. There is a screening tool available through the CDC. Additionally, volunteers should wear a facemask at all times without an exhalation valve.

10. Parents across the district are pushing back against the continued mask mandate. What can we safely do to give our students a reprieve throughout the day?

Health Department: Take the kids outside at some determined interval and have social distancing in place

Parrish (George Mikitarian): No recommendation. Follow CDC guidelines.

11. What are your recommendations to safely move back to using outdoor playground equipment? Are there any outdoor activities that you would still encourage us to limit at this time?

Health Department: Key is ability to social distance. Playground equipment should be cleaned between use and children need to wash their hands after playing on the playground. Hand sanitizing stations near the playground with use when entering/exiting could be implemented.

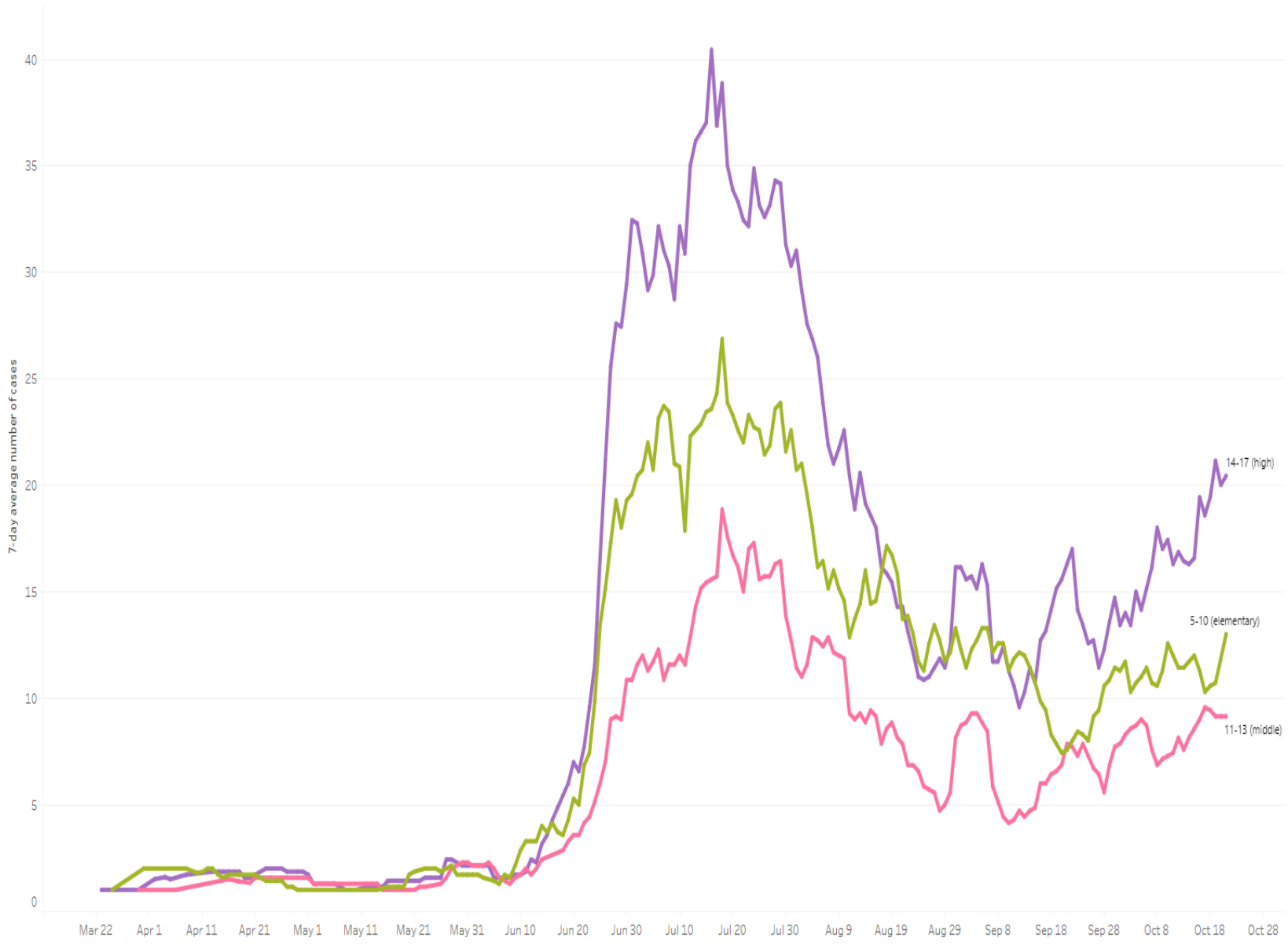
Parrish (George Mikitarian, President/CEO): Follow CDC guidelines. If resumed, masks should be worn at all times and hands must be sanitized before playing. Surfaces must be wiped down between children. This may be difficult at this time.

Reference: https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/visitors.html

USF Morsani College of Medicine (Jason Salemi, Associate Professor of Epidemiology): I honestly don't know what the best TIMING is, but ensuring only one class at a time uses the equipment, staggering use of the equipment, students washing hands before and after equipment use, encouraging social distancing or continuing to wear masks if social distancing cannot be maintained…these are all steps to decrease the likelihood of transmission while multiple kids are utilizing the equipment at the same time.

Epidemic curve by age (7-day rolling average)

Residents selected: All
Counties selected: Brevard, Indian River, Orange and 3 more
Age groups selected: 5-10 (elementary), 11-13 (middle), 14-17 (high)



Case Date
3/2/2020 10/31/2020

Resident status
- [x] (All)
- [x] FL resident
- [x] Non-FL resident

Gender
- [x] (All)
- [x] Female
- [x] Male
- [x] Unknown

School-focused age grps
- [ ] (All)
- [ ] 0-4 (daycare)
- [x] 5-10 (elementary)
- [x] 11-13 (middle)
- [x] 14-17 (high)
- [ ] 18-24 (college)
- [ ] 25-49
- [ ] 50-64
- [ ] 65-79
- [ ] 80+
- [ ] Unknown age

School-focused age grps
- 5-10 (elementary)
- 11-13 (middle)
- 14-17 (high)

County
- [ ] Glades
- [ ] Gulf
- [ ] Hamilton
- [ ] Hardee
- [ ] Hendry
- [ ] Hernando
- [ ] Highlands
- [ ] Hillsborough
- [ ] Holmes
- [x] Indian River
- [ ] Jackson
- [ ] Jefferson
- [ ] Lafayette
- [ ] Lake
- [ ] Lee
- [ ] Leon
- [ ] Levy
- [ ] Liberty
- [ ] Madison
- [ ] Manatee
- [ ] Marion
- [ ] Martin
- [ ] Monroe
- [ ] Nassau
- [ ] Okaloosa
- [ ] Okeechobee
- [x] Orange
- [x] Osceola
- [ ] Palm Beach
- [ ] Pasco
- [ ] Pinellas
- [ ] Polk
- [ ] Putnam
- [ ] Santa Rosa
- [ ] Sarasota
- [x] Seminole
- [ ] St. Johns
- [ ] St. Lucie
- [ ] Sumter
- [ ] Suwannee
- [ ] Taylor
- [ ] Union
- [ ] Unknown
- [x] Volusia
- [ ] Wakulla
- [ ] Walton
- [ ] Washington

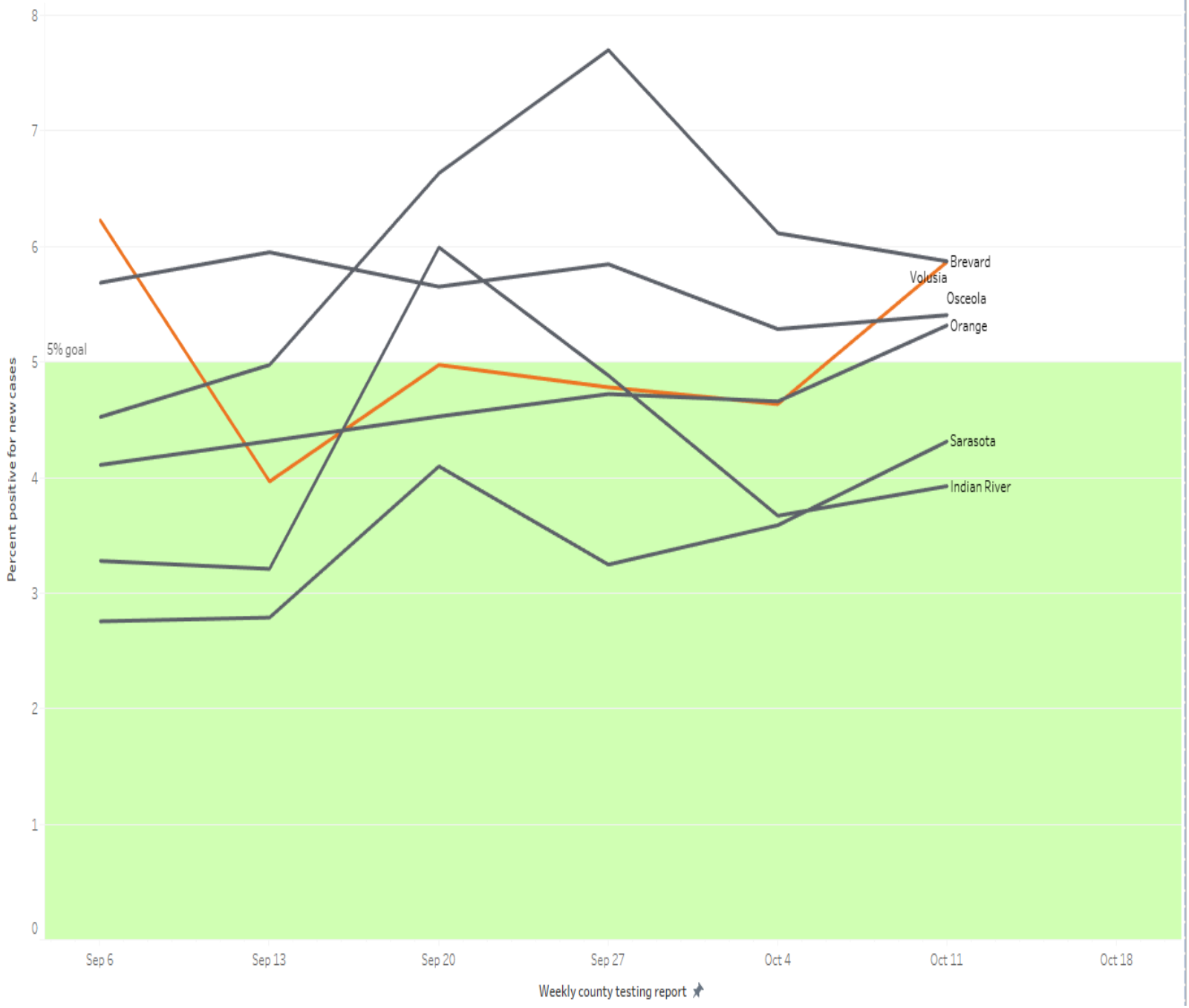
Percent positivity for new cases, trends over time

As calculated by the Florida Department of Health (FL-residents only)

Numerator: number of people who test PCR- or antigen-positive for the first time (excludes people previously testing +)

Denominator: all the people tested that week (excludes people previously testing +)

Color of line reflects change in positivity during the most recent week



Change since last week

County

- Volusia
- Sarasota
- Orange
- Indian River
- Osceola
- Brevard

End Date

9/6/2020 5:0C 10/31/2020 5

County Pop Size

8,365 2,715,516

Change in last week

- less than 1% change
- 1-2% increase

County

- [ ] Jefferson
- [ ] Lafayette
- [ ] Lake
- [ ] Lee
- [ ] Leon
- [ ] Levy
- [ ] Liberty
- [ ] Madison
- [ ] Manatee
- [ ] Marion
- [ ] Martin
- [ ] Monroe
- [ ] Nassau
- [ ] Okaloosa
- [ ] Okeechobee
- [x] Orange
- [x] Osceola
- [ ] Palm Beach
- [ ] Pasco
- [ ] Pinellas
- [ ] Polk
- [ ] Putnam
- [ ] Santa Rosa
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- [ ] Unknown
- [x] Volusia
- [ ] Wakulla
- [ ] Walton