TRENDS: The number of new cases of COVID-19 is increasing for the country, state, and county. Some of the Eastern Shore counties have had the highest case rate per one hundred thousand population in the state during the past three weeks. Hospitalizations are also inching up across Maryland. Unfortunately, we are approaching the Holiday Season with all its family and social gatherings and these are some of the biggest risks for transmitting the coronavirus. Predictions about surges during November and December are being made across the board. Although many European countries are experiencing a surge in new cases, the United States has had more cases and deaths per one hundred thousand population than other countries. The US is about 4.25% of the world’s population but has had 20% of the world’s COVID cases and deaths. People ask, “Why does the US have over four times the cases and deaths of other countries combined?”

Maybe the bigger question is what could we be doing to decrease our number of new cases to one fourth the current number? Other counties don’t have better healthcare. They don’t have any better drugs to treat or a vaccine to prevent. They are just using the proven strategies of wearing facial coverings and practicing social distancing better than we are. These other countries still get lax and their numbers climb again, but they are starting from a lower case rate than the US before they surge. If we give a lot of thought to this issue, we probably can think of a lot of reasons we might have a case rate over four times the combined case rate of the world. But most of the difference is because we are not using masks and social distancing to prevent spread of the virus. Simple but effective strategies we could be using better along with good hand hygiene.

Dr. Anthony Fauci told a group of physicians on October 20, 2020, “… COVID-19 is not disappearing and it is out of control in the U.S... Unfortunately for the United States, we are the worst hit country in the world... Americans did not halt public and social activities as European countries did.”

TESTING: The health department continues to receive questions about rapid antigen testing for COVID-19. It sounds great to be able to get a relatively cheap machine that can last two years or run over 3,000 tests, whichever comes first, and the test takes only fifteen minutes to produce the results. Manufacturers are making good money on these machines and the test kits. At this time, the federal government is shipping these machines to nursing homes for testing staff and residents. The state is also distributing these machines to congregate living facilities where there might be a higher risk of positives. Currently Maryland has 250,000 tests in kits of 30 per kit. Before we get too excited about these tests, we should consider a few facts.
• This rapid antigen test cannot diagnose a case of COVID-19. If the test is positive, one has to get the PCR (polymerase chain reaction) test that the health department has been using to have a confirmed case of COVID-19. There can be false positive tests.  
• This test is not recommended for screening asymptomatic people. You will miss a lot of infected people because you need a higher amount of virus in the body before this test is positive.  
• If the test is negative, you have to also get a PCR test to confirm the person doesn’t have COVID-19. So, if you have to get a PCR test regardless of the rapid antigen test results, then why get the rapid test? It is true that if the test is positive, you are more likely to be positive than negative, but it is just not reliable enough to use alone without the PCR test.

Some companies are also working on molecular tests like the PCR which can be done at the point of care and get rapid results. With a little more time and a few more improvements, this might turn out to be reliable enough to use without the standard PCR test.

SCHOOLS: Talbot County has begun the hybrid model for bringing children back to classrooms. Dr. Kelly Griffith and her staff have developed a schedule to allow those children whose parents selected in-person teaching to have two days in classrooms and two days virtual training. Those that did not want to return to classrooms can do virtual learning only.

I have been asked, “How safe is this model for children and teachers?” Dr. Griffith and I have discussed safety measures frequently to assure that all necessary precautions are being used. I will try to summarize my responses:

**What is being done?**

1. Children, teachers and staff must wear masks/facial coverings correctly at all times.
2. Desks have been spaced six feet apart which limits the number of students in a classroom to fourteen.
3. Children are in cohorts so they only have contact with students in their classroom. They even have lunch at their desks.
4. Parents, teachers, and staff have been asked to follow guidelines: don’t come to school sick even if symptoms are mild; if there has been contact with a known COVID-19 case, inside or outside of the family, then don’t come to school and follow quarantine instructions; if you have had contact with a known case and get tested, stay at home until you get the negative results from a PCR test.
5. Hand hygiene materials are available for frequent use.
6. School nurses and staff have weekly telephone conferences with health department staff for good communication and guidance.
7. And many efforts in addition to the above.

**Are there risks?**

There will always be some element of risk of transmission of this virus when people gather. Teachers or students can bring the virus into the classroom. That is why stressing the masks and six foot distancing is so important. If all are wearing masks, then the spread is unlikely and definitely less if any spread does occur. The schools cannot limit what the teachers or students do during their time away from school, but good precautions and practices are to prevent the virus from spreading in the schools setting. Parents should encourage their children to always wear their masks properly covering their noses and to avoid being within six feet of others for any period of time. Parents, students, teachers and staff should avoid high risk settings outside of school, including bars, large family and social gatherings, and inside events. No one likes to be told what to do on their own time, but back to school can only be safe when everyone takes responsibility.
for their health and those they might infect. Many teachers were worried about returning to classrooms and being infected by children. The greater risk is often not from the children but from fellow teachers infected outside the classroom and transmitting the virus in the teachers’ lounge when masks are not always worn. Helping to get children back into classrooms is a community endeavor in which we all have to do our part to keep the transmission of the virus low throughout Talbot County.

I have also been asked, “If there is documented transmission within one or more classrooms or schools, that fit the criteria and guidelines established, will you order them closed?” Both Dr. Griffith and I would answer “YES” to that question. With the first case announced, there was the expected concern and questions about why the school was not closed. The answer to that is that closure guidelines depend upon more than just one person testing positive. That doesn’t signify transmission within the school setting. I understand that the public and press are not familiar with the guidelines that schools and health departments have been asked to follow, and that their trust in anything government is low, but I haven’t dedicated thirty-three years of my life to public health to neglect the health of children during this pandemic.

VACCINE: The United States has invested in six companies for producing a vaccine for COVID-19. Dr. Anthony Fauci explained, “...we are harmonizing these vaccine trials so they have a common data monitoring and safety board, common primary and secondary endpoints, and common immunological parameters... phase one trials indicate that the vaccine induces a robust neutralizing antibody response, equivalent if not greater than natural infection... we are cautiously optimistic, again, with never a guarantee – that we will have a vaccine that would be safe and effective by the end of this year...”

HOW BAD IS THE VIRUS? Dr. Fauci also provided the following for what is known at this point about how people respond to infection.

- 40% to 45% of infections are asymptomatic (no symptoms at all)
- Of those that have symptoms, 81% involve either mild or moderate symptoms
- About 14% of cases are considered severe
- 5% are classified as critical
- The current fatality rate is 2.3% of those confirmed to have the infection.

*Until we have a better treatment or an effective vaccine, our best protection from COVID-19 lies within our own actions and of those people around us.*