



COVID-19 Delta Variant Update: East Tennessee Region

Knox/East Tennessee Healthcare Coalition Meeting

COVID-19 Variants

- It is normal for viruses to mutate; the appearance of new variants is not unexpected.
- Multiple variants of COVID-19 have been identified globally and in the U.S. throughout the pandemic.
- Not all variants are worrisome, **but some may change how the virus spreads or how sick people become when infected.**
- CDC's genomic surveillance program monitors for COVID-19 variants throughout the U.S. to determine how widely they are circulating and what implications the variants may have on testing, treatments, and vaccines.

The distribution of COVID-19 variants in the U.S. changed rapidly during December 2020–May 2021*

By late April 2021, the B.1.1.7 variant became the most common and the P.1 variant emerged

Variants have potential impacts on:

COVID-19 SEVERITY

TREATMENT

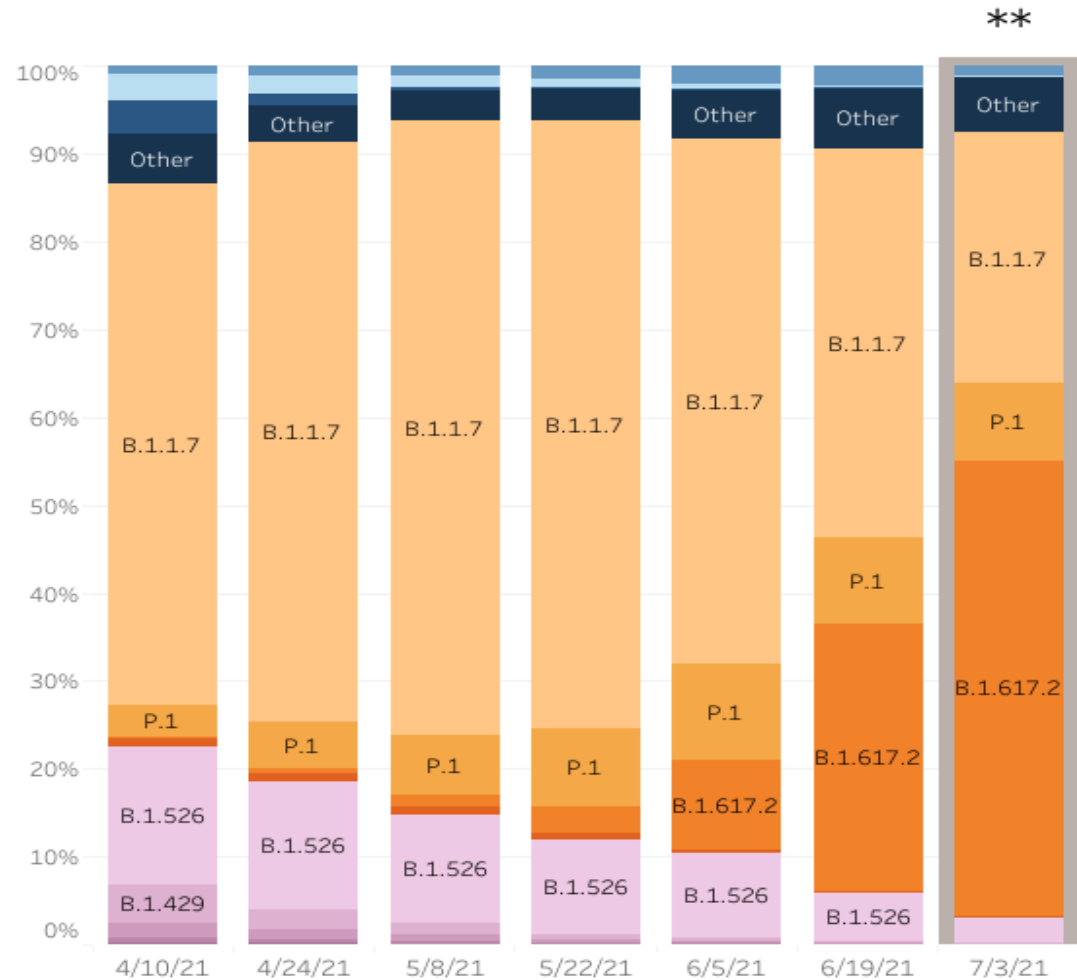
NATURAL AND
VACCINE-INDUCED
IMMUNITY

DISEASE SPREAD

COVID-19 Variants

- Over the last few months, the B.1.1.7 (aka “UK variant”, aka “Alpha”) has been the most common in Tennessee and in the U.S.
- In recent weeks, the **Delta variant has begun to outpace Alpha.**
- CDC predicts **Delta now accounts for 51.7% of specimens sequenced** in the U.S.

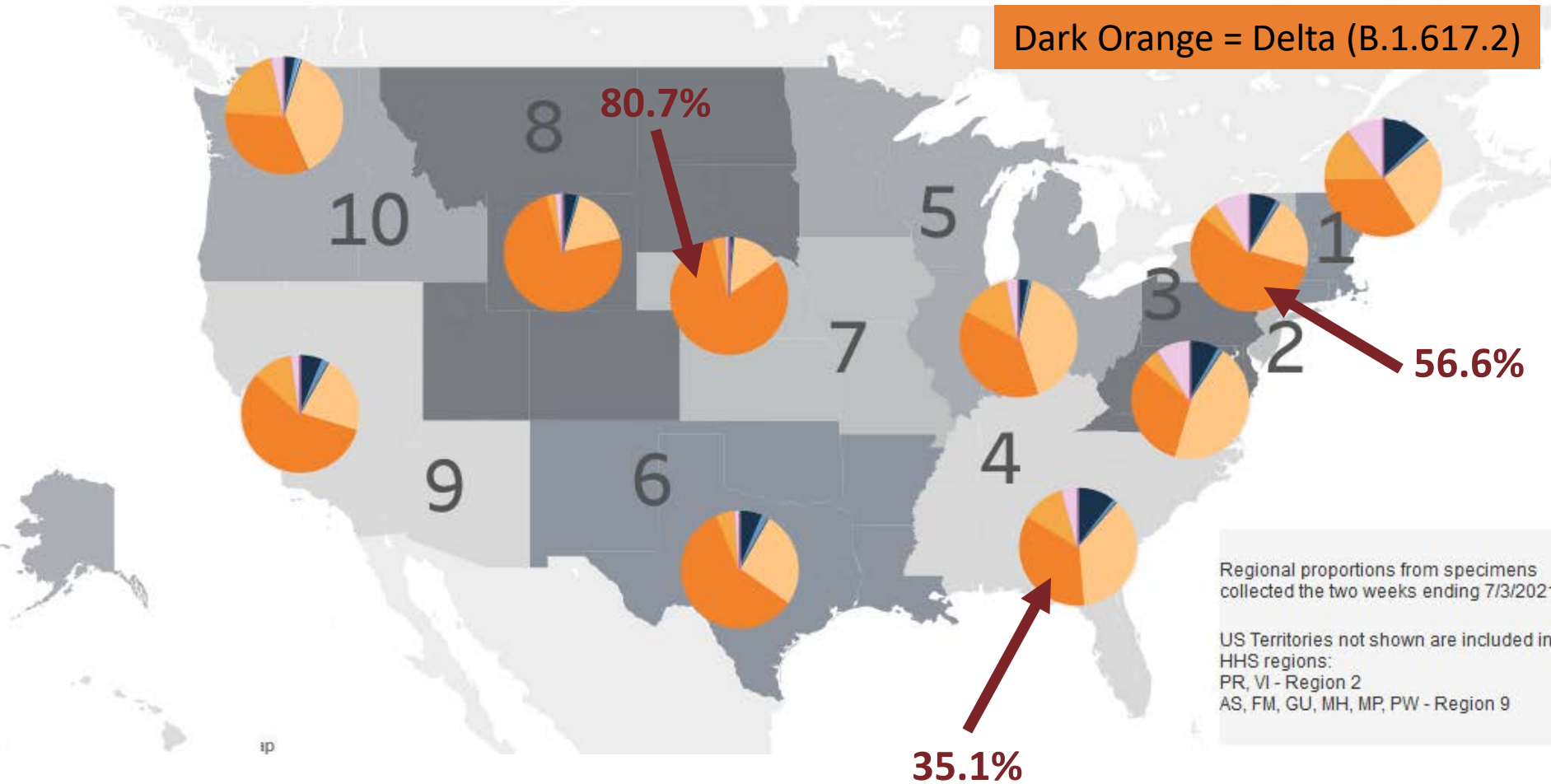
Weighted Estimates of Proportions of SARS-CoV-2 Lineages



COVID-19 Variants

United States: 6/20/2021 – 7/3/2021 NOWCAST

Dark Orange = Delta (B.1.617.2)

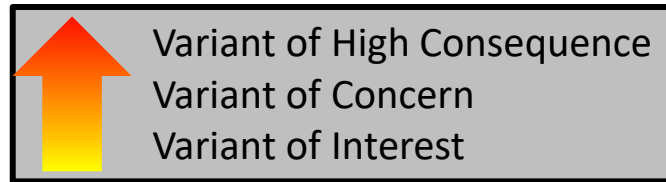


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COVID-19 Delta Variant

- Also known as India variant or B.1.617.2
- The Delta variant is classified by CDC as a “Variant of Concern”:
 - *A variant for which there is evidence of an increase in transmissibility, more severe disease (e.g., increased hospitalizations or deaths), significant reduction in neutralization by antibodies generated during previous infection or vaccination, reduced effectiveness of treatments or vaccines, or diagnostic detection failures.*



- Specifically, evidence indicates Delta is **more transmissible** and likely to cause **more severe disease**
- Recent studies suggest that the **risk of hospitalization is higher** for patients with Delta vs. those infected with Alpha

Delta in Tennessee

- At least 125 cases identified statewide as of 7/9
- ~10% of these Delta cases are in the East TN public health region
 - Pts live in several different ETR counties
 - All but one case unvaccinated
 - Majority diagnosed in the last month
- A note on sequencing:
 - Mixed methods for specimens that get sequenced, but the VAST majority of variants that we know about in Tennessee were just **randomly selected** for sequencing.

TAKE AWAY:

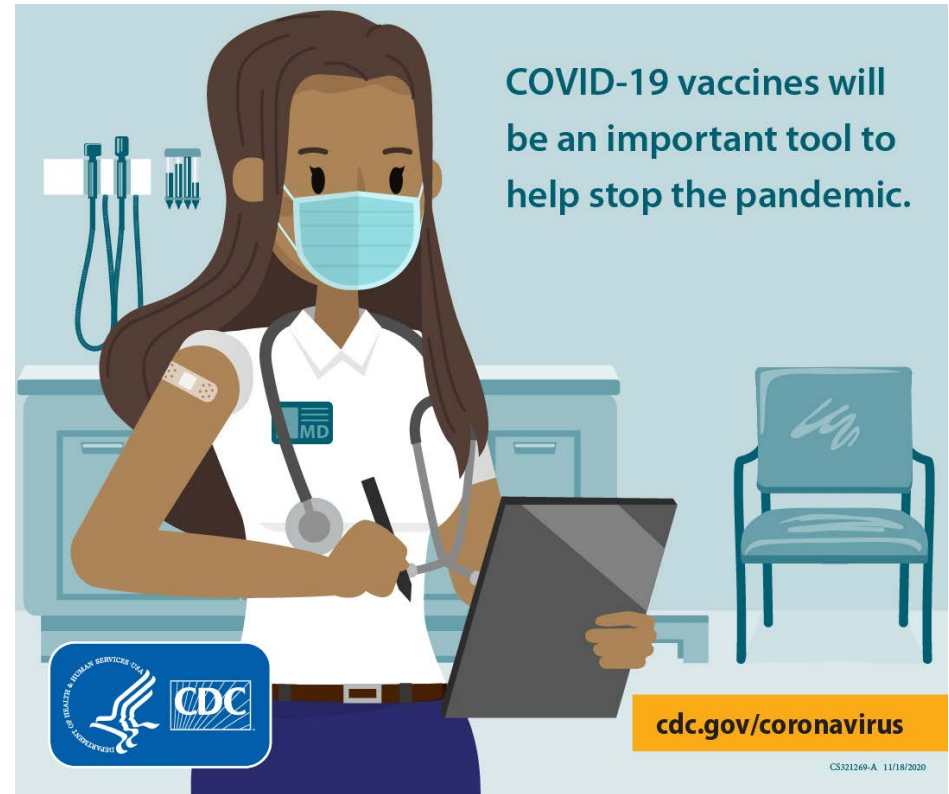
What we know about in TN is not the full picture of what is circulating.

It is likely that there is a greater Delta presence in our region than just this small number of cases.



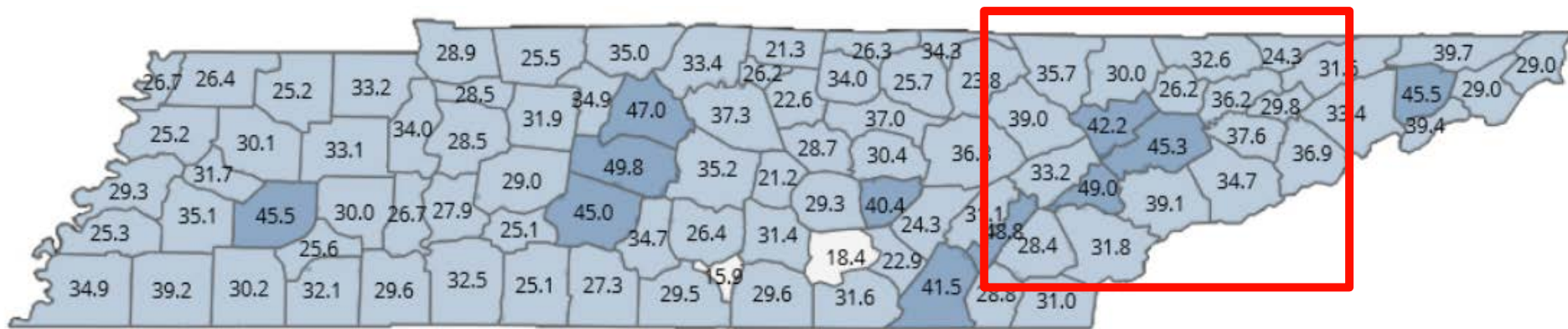
Variants vs. Vaccines

- Fortunately, our vaccines appear to offer good protection against known variants circulating in the U.S., **including Delta**
- However, as disease transmission continues, the virus has **more opportunities to mutate**, potentially making our **vaccines less effective**.
- Vaccination **as soon as possible** for all who are eligible is key to ensuring defense against emerging variants.

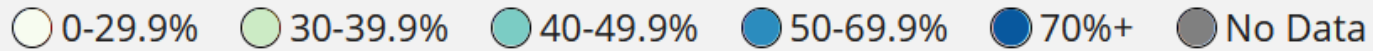


East Region Vaccination Rates

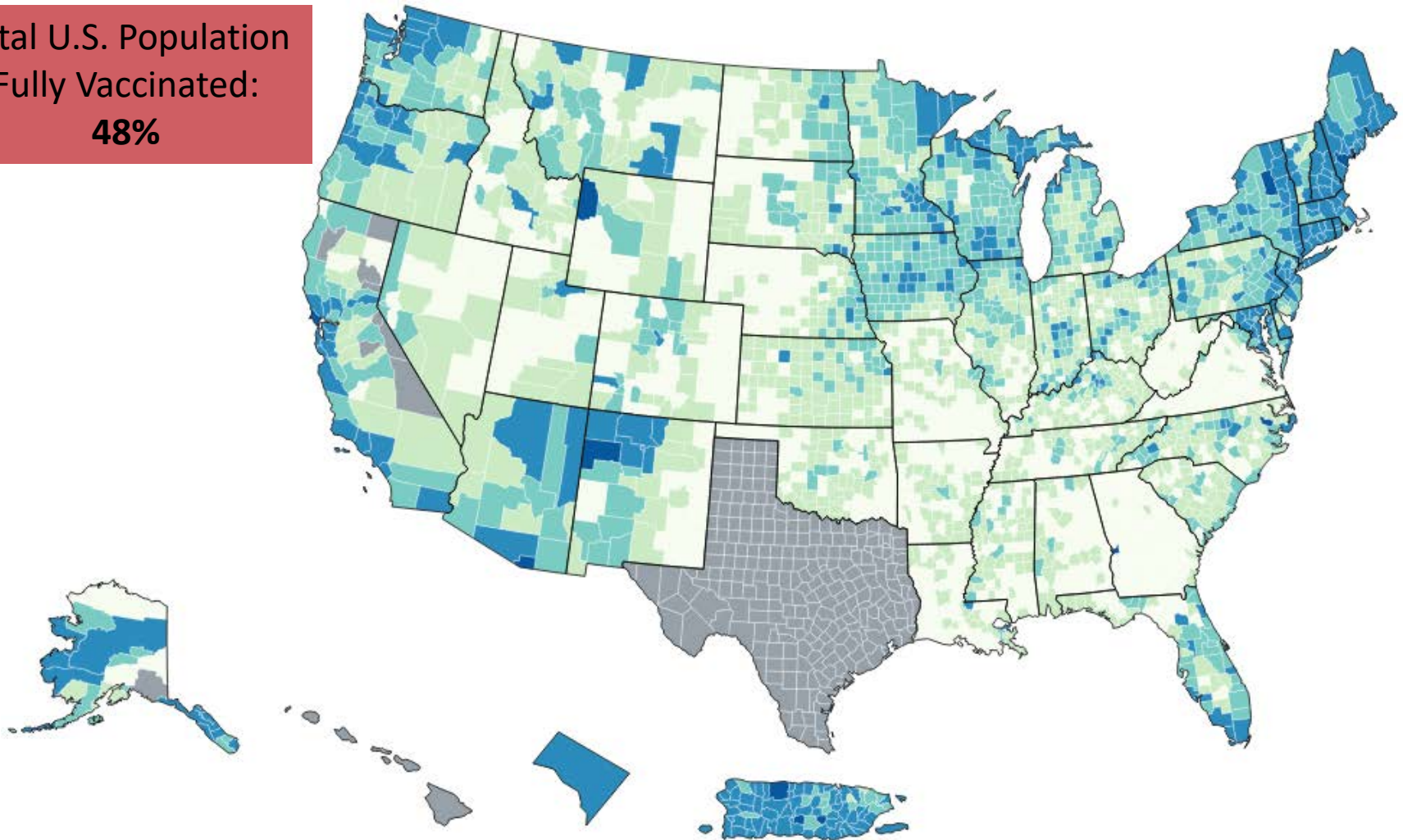
- Statewide: 38.0% fully vaccinated
- Demand for COVID-19 vaccinations continues to decrease.
- TDH estimates that, at the current rate, it will be March 2022 before 50% of Tennesseans are vaccinated.
- East Region
 - Highest: Loudon County, 49.0% fully vaccinated
 - Lowest: Union County, 26.2% fully vaccinated



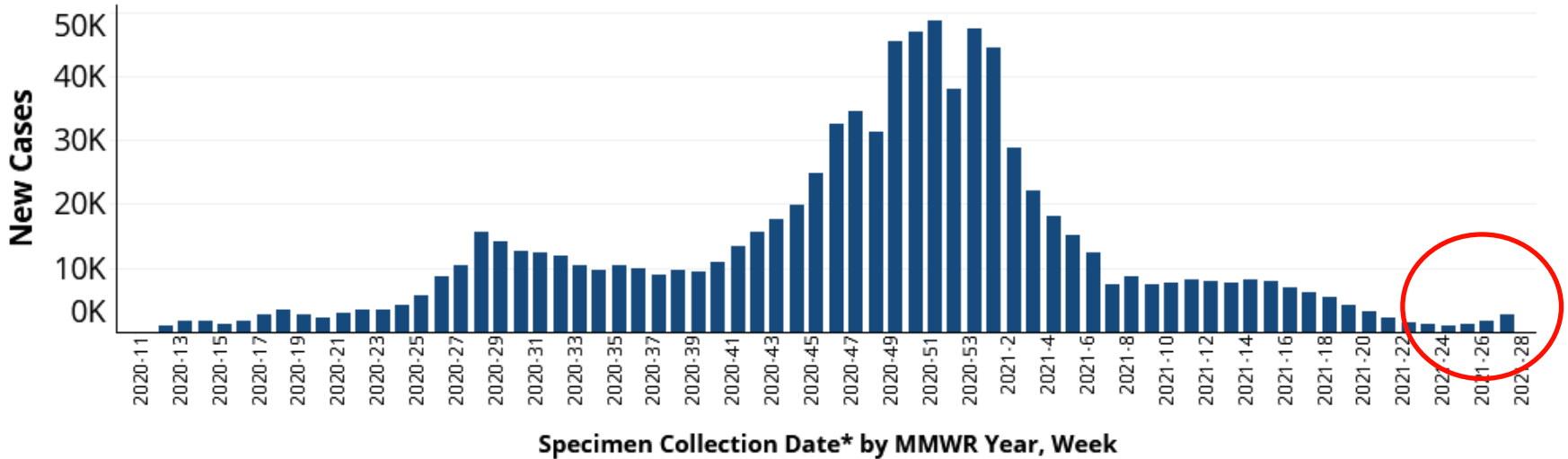
U.S. Vaccination Coverage by County



Total U.S. Population
Fully Vaccinated:
48%



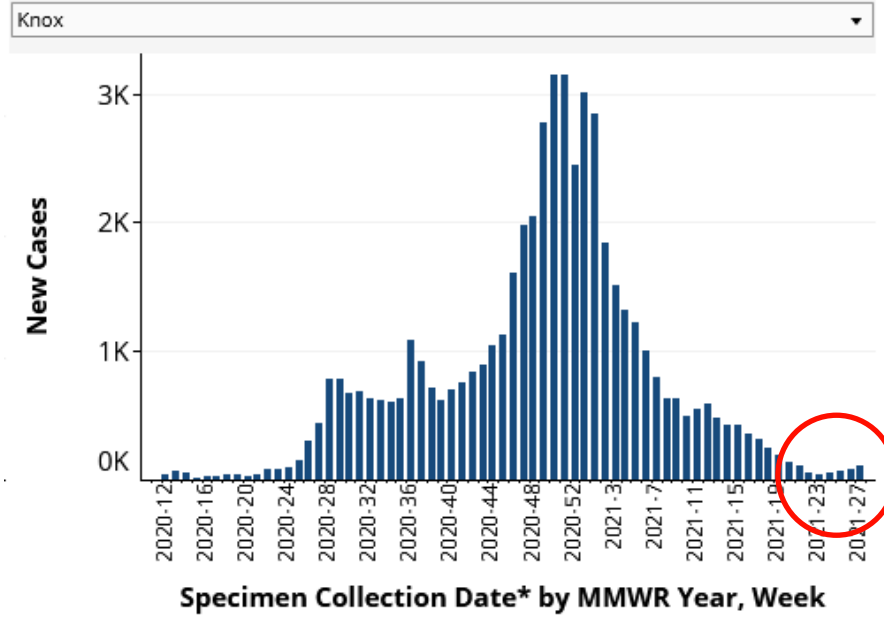
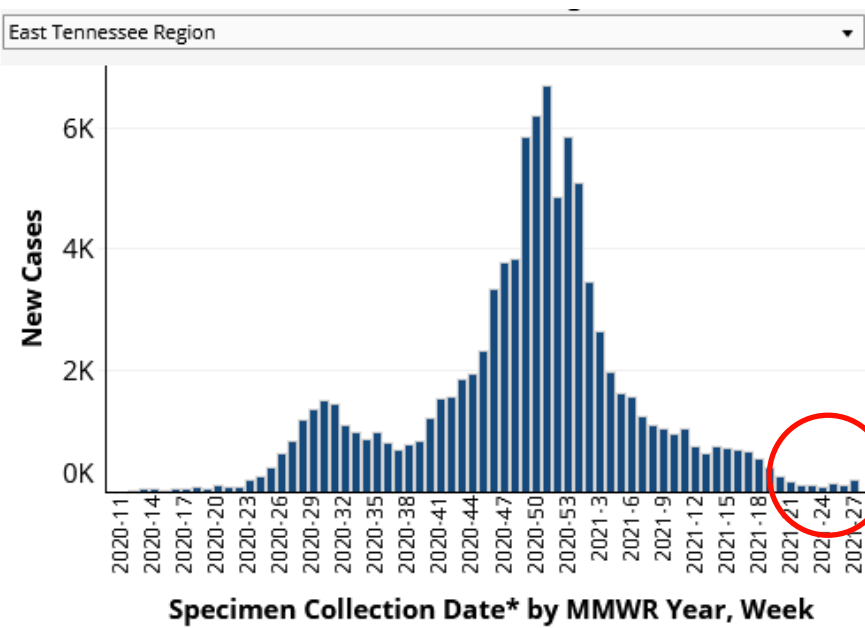
COVID-19 Case Trends - Tennessee



	No. of Cases Week of 6/6/2021	No. of Cases Week of 7/4/2021
Tennessee	1231 cases	2659 cases



COVID-19 Case Trends – East/Knox



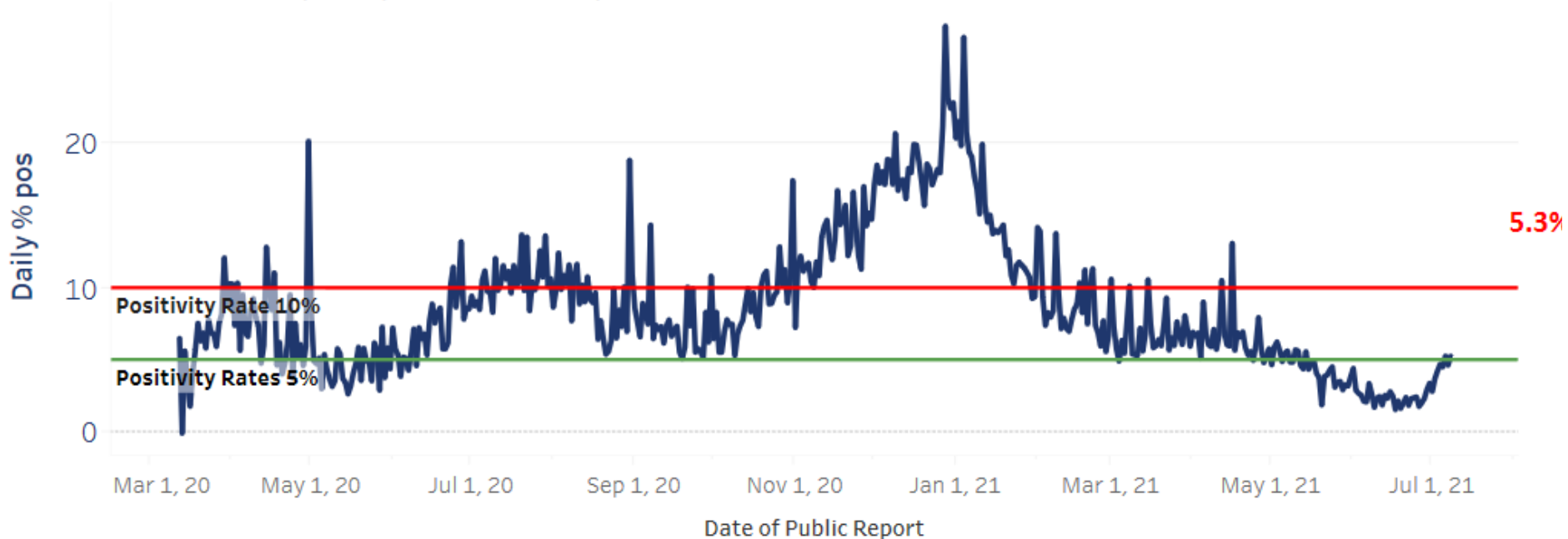
	No. of Cases Week of 6/6/2021	No. of Cases Week of 7/4/2021
East Region	104 cases	209 cases
Knox County	37 cases	113 cases



COVID-19 Trends - Tennessee

Daily Percent of Positive COVID-19 Tests₃

The chart below visualizes the daily percent of positive COVID-19 tests. While the daily percent of positive COVID-19 tests fluctuates, in September the daily positivity rate was more consistently between 5 and 10%, a downward trend from the higher daily positivity rates seen through much of July. In October, the daily positivity rate has started to rise again. For today, July 8, 2021, the daily positivity rate was 5.3% and the positivity rate for the last 7 days was 4.7%.





Questions?