USET COVID-19 ECHO

June 19, 2020

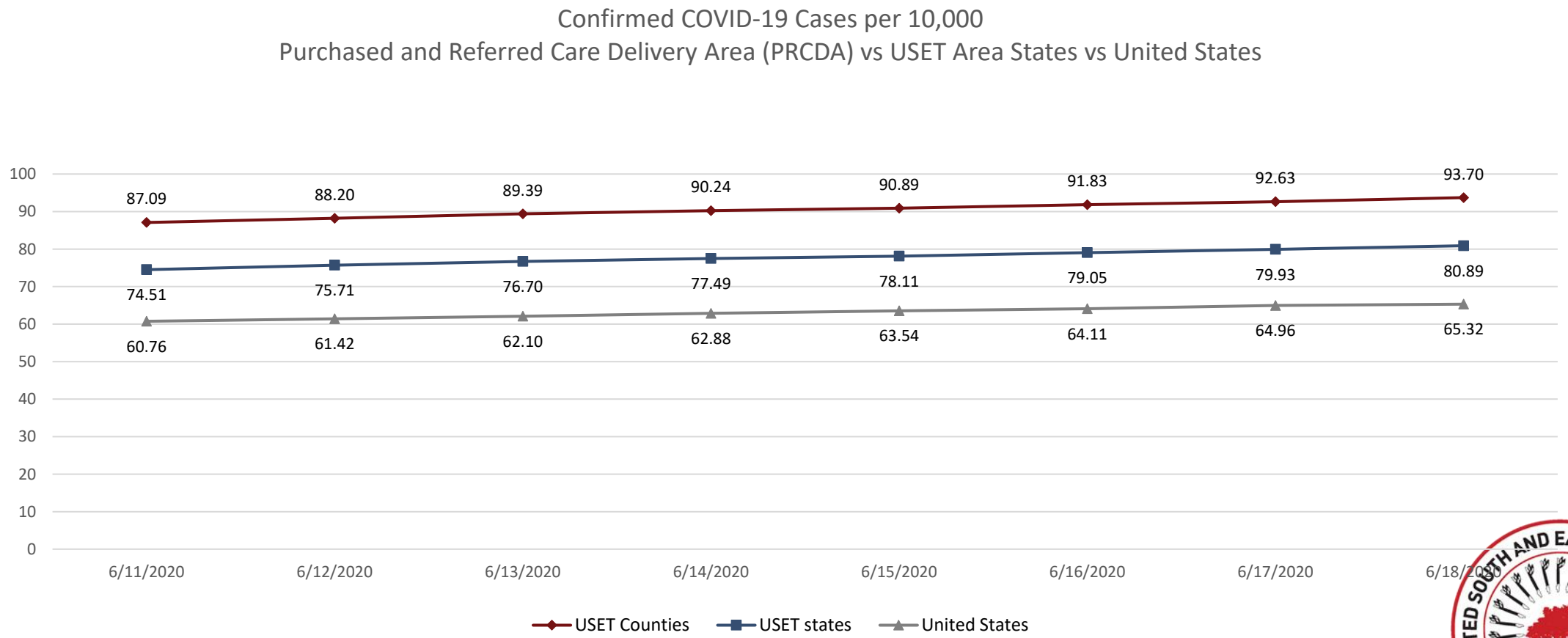
Because there is Strength in Unity

Nashville Area COVID-19 Epidemiology

26 Sites Reporting		
Number Tested	Number Positive	Number Negative
7832 (6276)	979 (909)	6388 (5542)

Because there is Strength in Unity

Cumulative Incidence Rate



Because there is Strength in Unity

Measurements	Meaning	Use	Formula
Incidence	Number of new case in the population over a given amount of time-Typically a year.	Measures how quickly a disease occurs in the population.	New Cases/Population x100,000
Cumulative Incidence	Number of new case in the population over a given amount of time…As they are occurring.	Measures how quickly a disease occurs in the population.	New Cases/Population x100,000
Prevalence	Percentage of cases ever.	How common a disease is in a population. Often use for chronic diseases.	All cases/Population x100
Case Fatality Rate	Percentage of those with disease that died.	How deadly a particular disease is. Influenced by time.	Number of decedents with disease/Number with disease x 100
Mortality Rate	Number of deaths in the population over a given amount of time-Typically a year.	How much a population is affected by a disease	Number of decedents with disease/Population x 100,000
Age Adjusted (mortality) rate	Same as above but with a statistical adjustment accounting for differences in ages among different populations.		

Scenario: Pleasantville has but hit particularly hard by COVID 19. There have been 595 cases and 200 deaths. The first 500 cases occurred between April 1 and April 15, 2020. 42,000 people live in Pleasantville.

Measure	Formula	Calculation	US Comparison (JHU website)
Incidence	New cases/Population x 100,000 in a given time frame. Incidence as of April 15, 2020	500/42,000 x 100,000= **1,190 per 100,000**	**191 per 100,000**
Cumulative Incidence	New cases/Population x 100,000 in a given time frame as they are occurring.	595/42,000 x 100,000= **1,416 per 100,000**	**630 per 100,000**
Prevalence	All cases/Population x 100	595/42,000 x 100= **1.41%**	**.63%**
Case Fatality Rate	Number of decedents with disease/Number with disease x 100	200/595= **33.61%**	**5.5%**
Mortality Rate	Number of decedents with disease/Population x 100,000	200/42,000 x 100,000= **476 per 100,000**	**35.37 per 100,000**
Age Adjusted (mortality) rate	Number of decedents with disease/Population x 100,000 With statistical adjustment accounting for age differences	200/42,000 x 100,000= **7.75 per 100,000**	**35.37 per 100,000**

What is this telling us? What decisions would you make?

Measure	Pleasantville Rates	US Comparison (JHU website)	Public Health Implications
Incidence	**1,190 per 100,000**	**191 per 100,000**	
Cumulative Incidence	**1,416 per 100,000**	**630 per 100,000**	
Prevalence	**1.41%**	**6.3%**	
Case Fatality Rate	**33.61%**	**5.5%**	
Mortality Rate	**476 per 100,000**	**35.37 per 100,000**	
Age Adjusted (mortality) rate	**7.75 per 100,000**	**35.37 per 100,000**	

Because there is Strength in Unity

Questions?

To request a REDCap account and get access to the USET TEC COVID-19 Surveillance Tool or for general assistance please contact us at usetepi@usetinc.org

Thank You!

Because there is Strength in Unity