

TEXAS COASTAL BEND COVID-19 PANDEMIC REPORT



June 26, 2020

CC TAMU-CC Joint COVID-19 Modelling Task Force

<https://tinyurl.com/TAMUCC-COVID>



Public Health
Prevent. Promote. Protect.



TASK FORCE OBJECTIVES

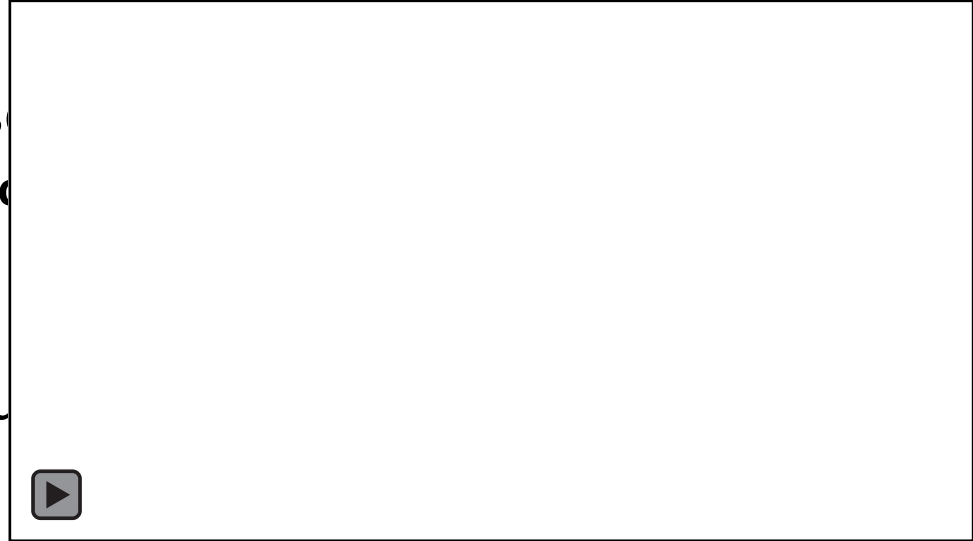
**ADDRESS PUBLIC CONCERNS &
QUESTIONS ABOUT *COVID-19* &
INTERVENTIONS**

**ENABLE EVIDENCE-BASED DECISION
MAKING**

WHAT IS AN OUTBREAK?

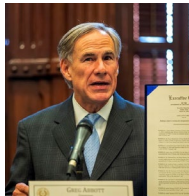
EXAMPLE SPREAD OF COVID-19

- Rapid rise in occurrence of disease
 - Can be localized or **widespread**
- COVID-19 is transmitted through air, surfaces, and contact



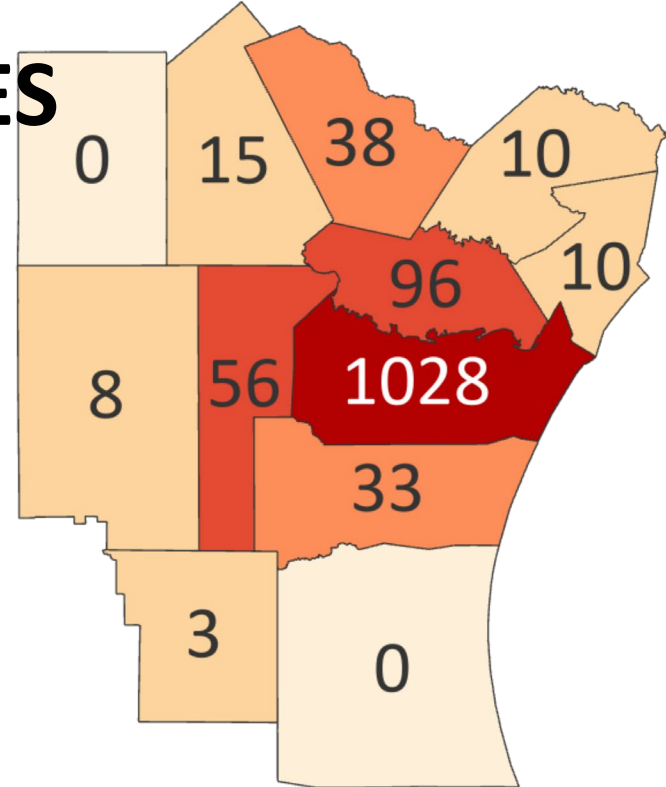
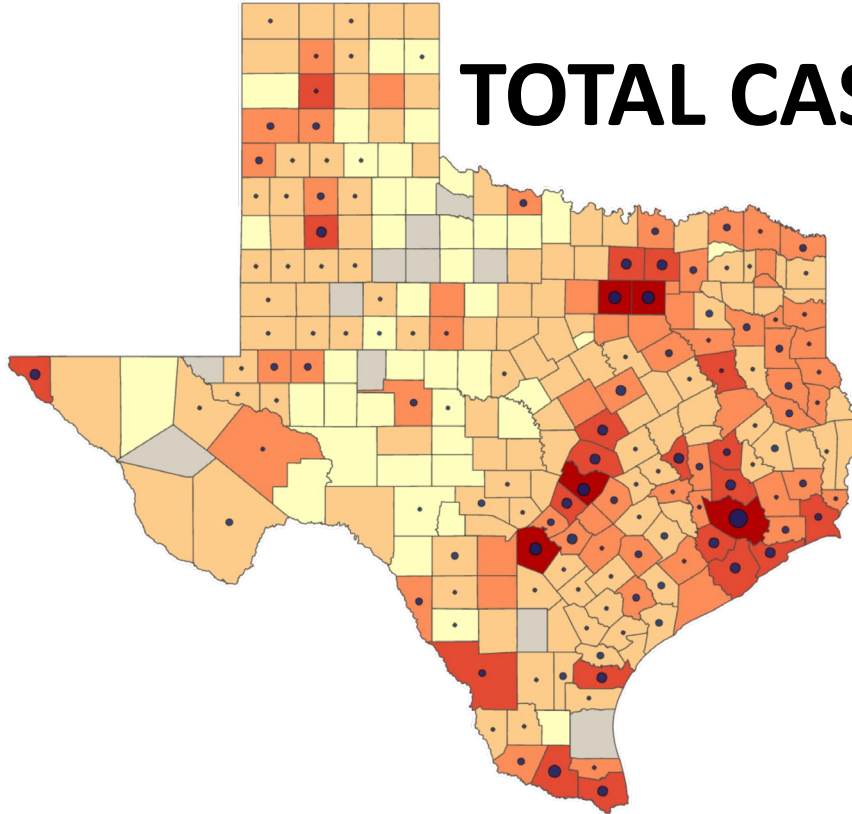
INTERVENTIONS & OPENING TX

1. **STAY-AT-HOME IF YOU CAN**
2. **SOCIAL DISTANCING & FACE COVERINGS**
3. **SELF ISOLATE WHEN SYMPTOMATIC**
4. **SCHOOL CLOSURES**
5. **OPEN TX 1, 2, 3, 3 repealed**

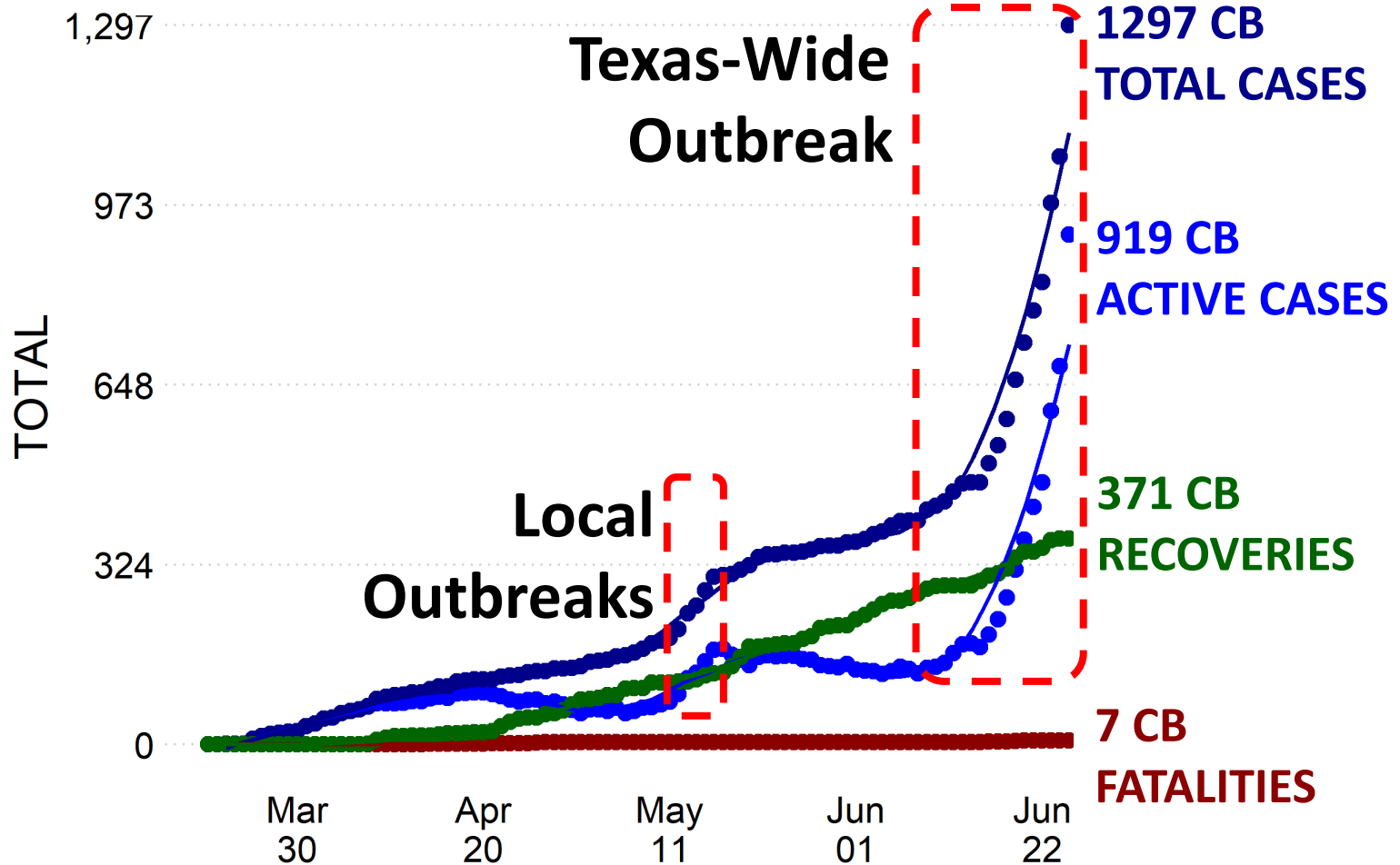


REPORT FOR 12 COUNTY COASTAL BEND

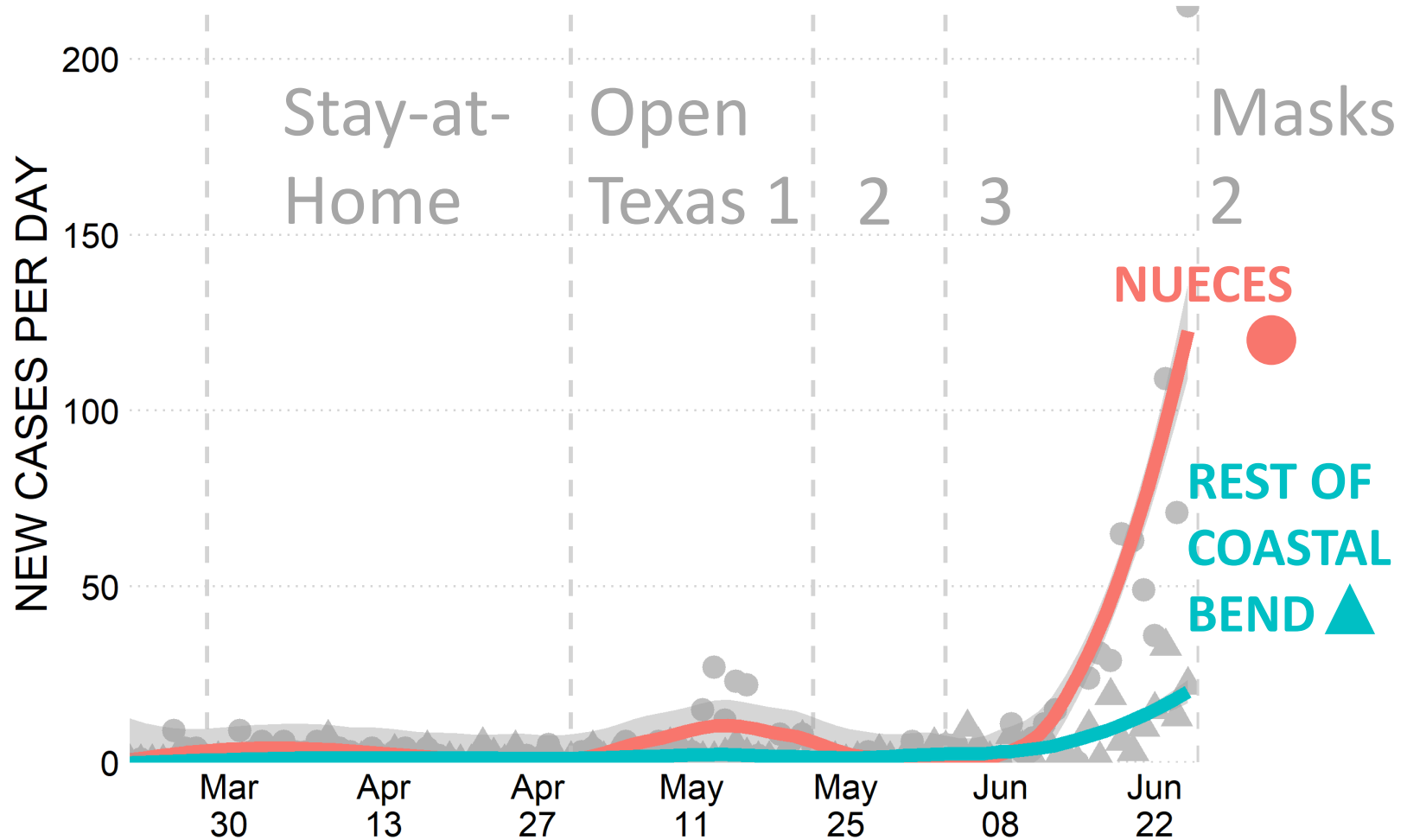
TOTAL CASES



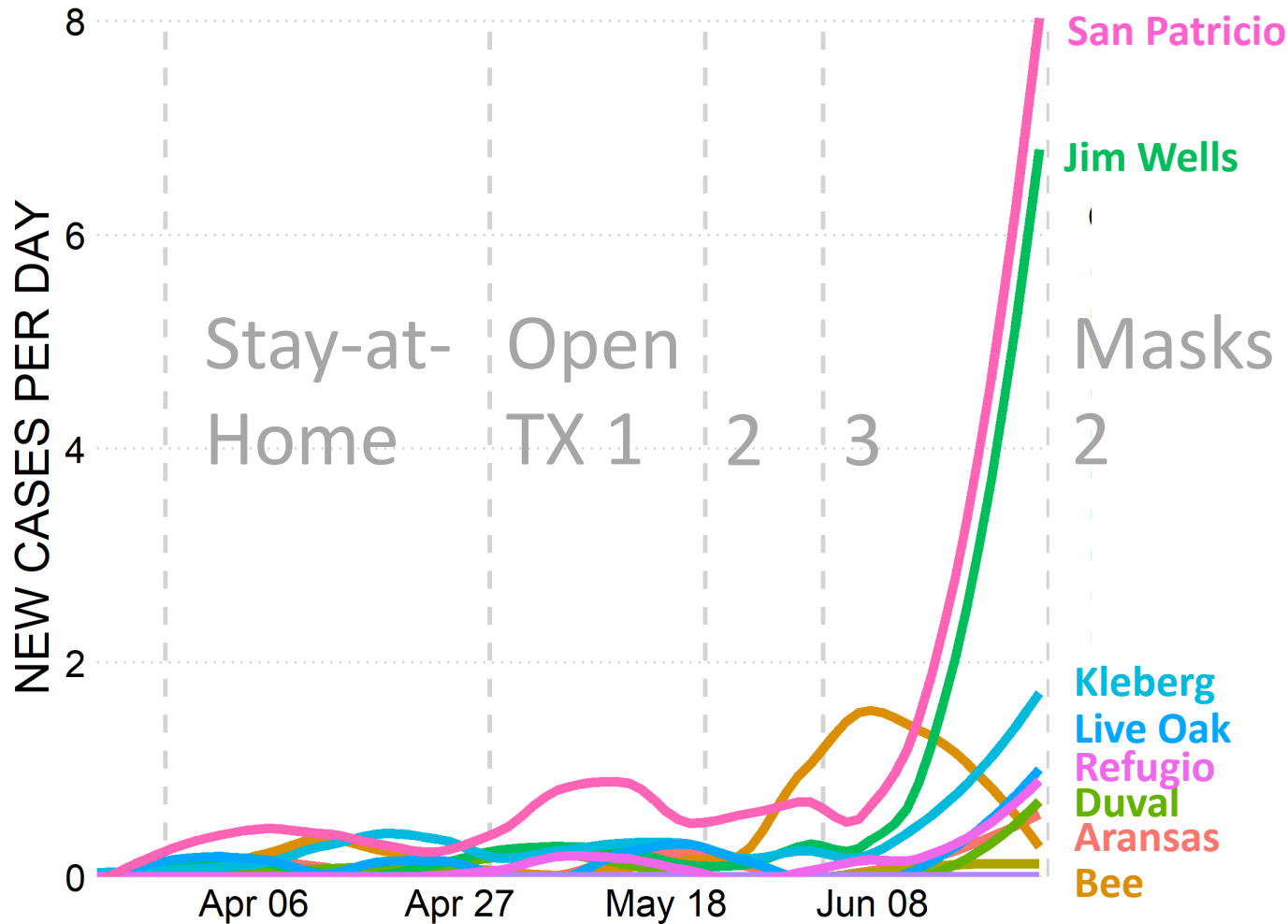
COASTAL BEND COVID-19 CASES



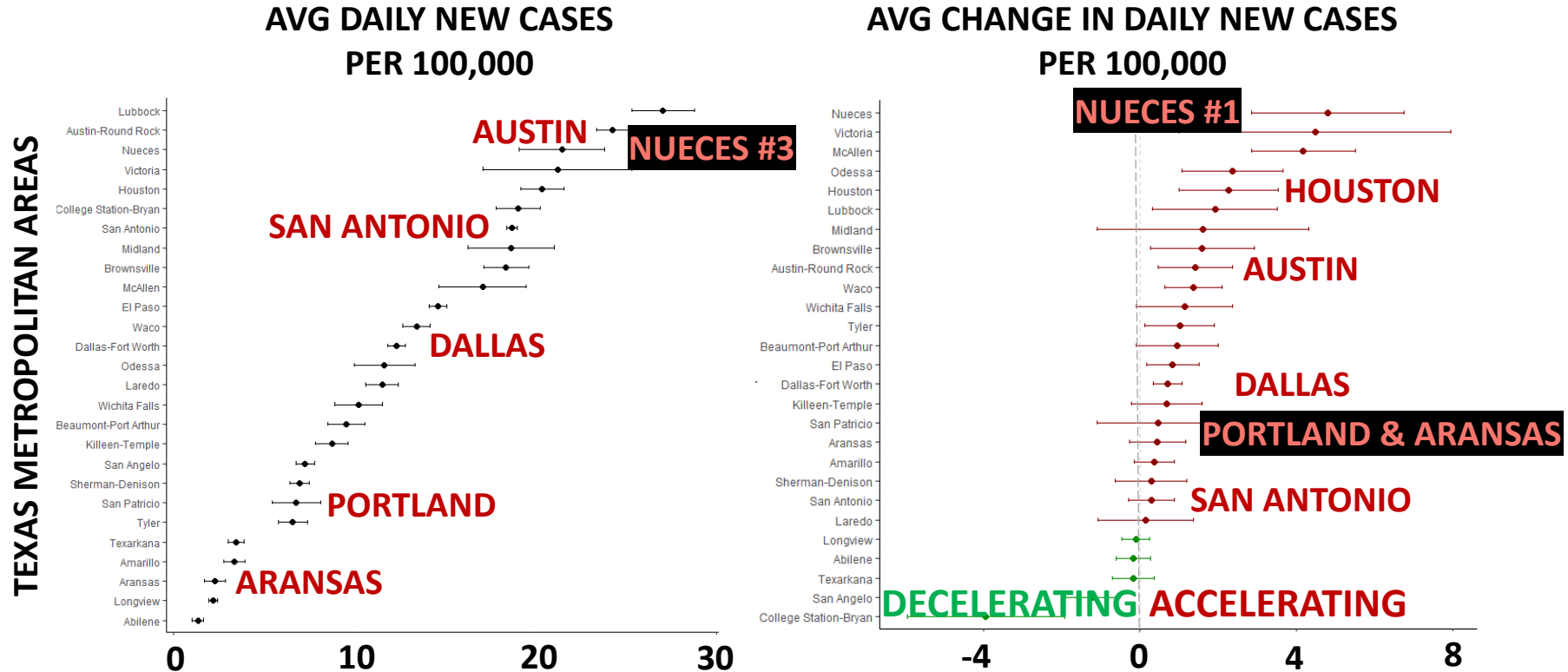
NEW COVID-19 CASES PER DAY



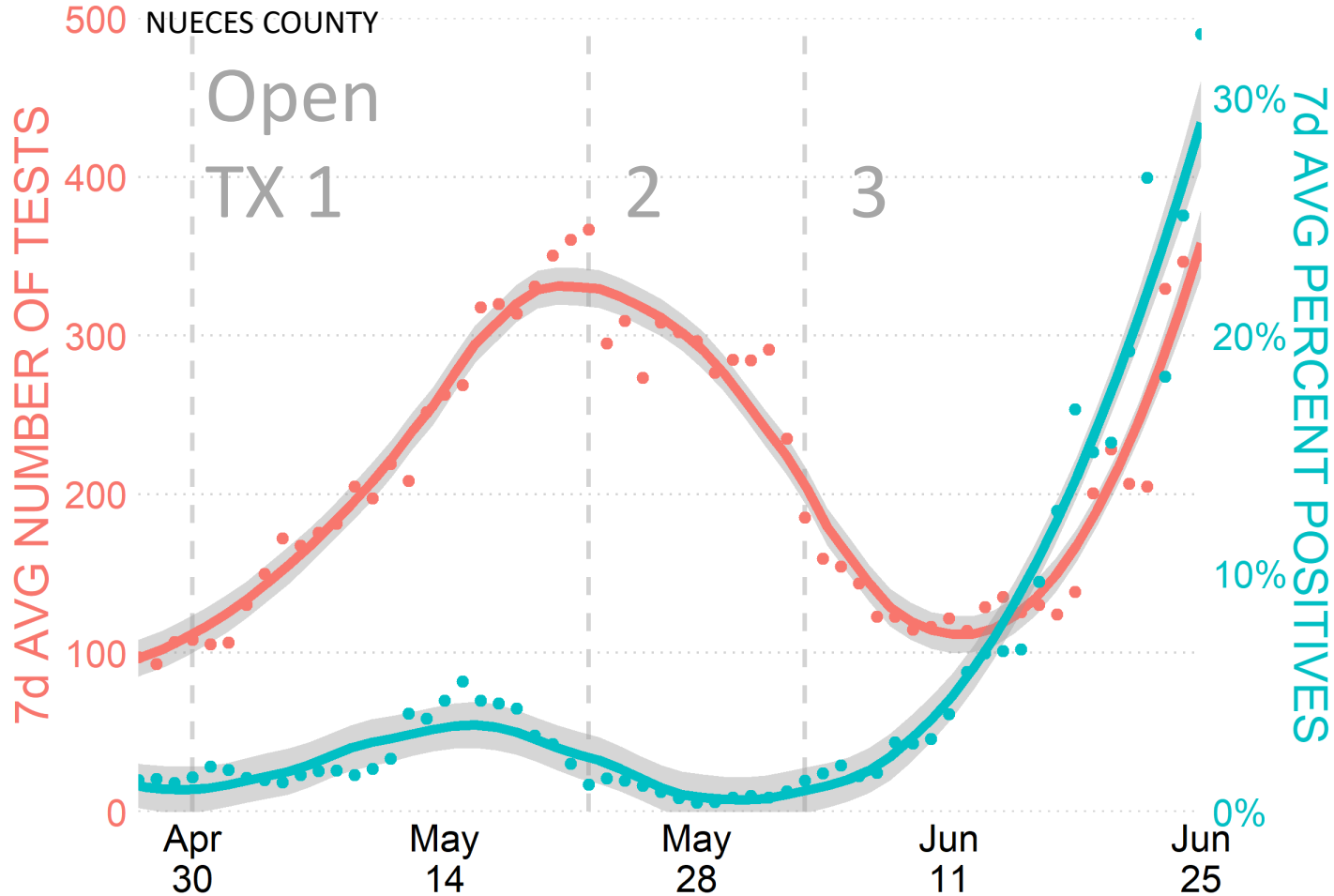
NEW COVID-19 CASES PER DAY



CASES ACCUMULATING RAPIDLY IN NUECES COUNTY IN PAST WEEK



RATE OF POSITIVE TESTS RISING



CELL PHONES CAN BE USED TO ASSESS OUR BEHAVIORS, EVALUATE INTERVENTIONS



**Foot
Traffic**

**Leaving
Home**

**Potential
Encounters**

WHAT ABOUT OUR PRIVACY?

- Apps track your location and the data is sold to businesses
 - Google maps
 - Facebook
 - Instagram
 - Flashlight
- Anonymized data is used for targeted advertising & decision making

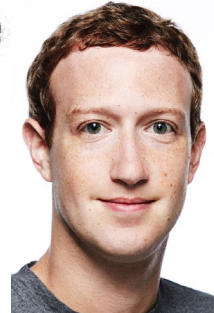
Use location?

This app wants to change your device settings:



Use GPS, Wi-Fi and mobile networks for location

[Find out more](#)



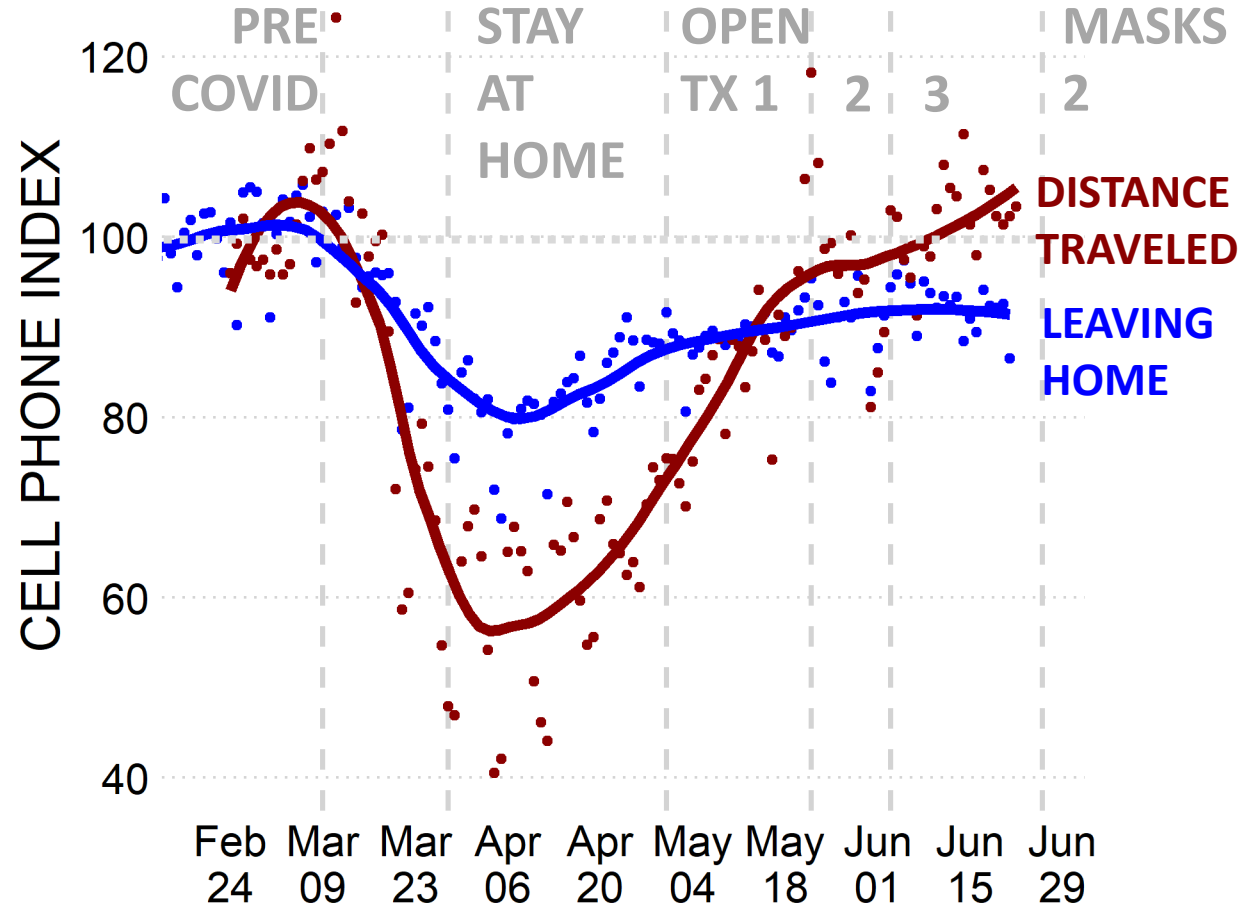
NO

YES

MANY ARE LEAVING HOME

Cell Phone Location Model

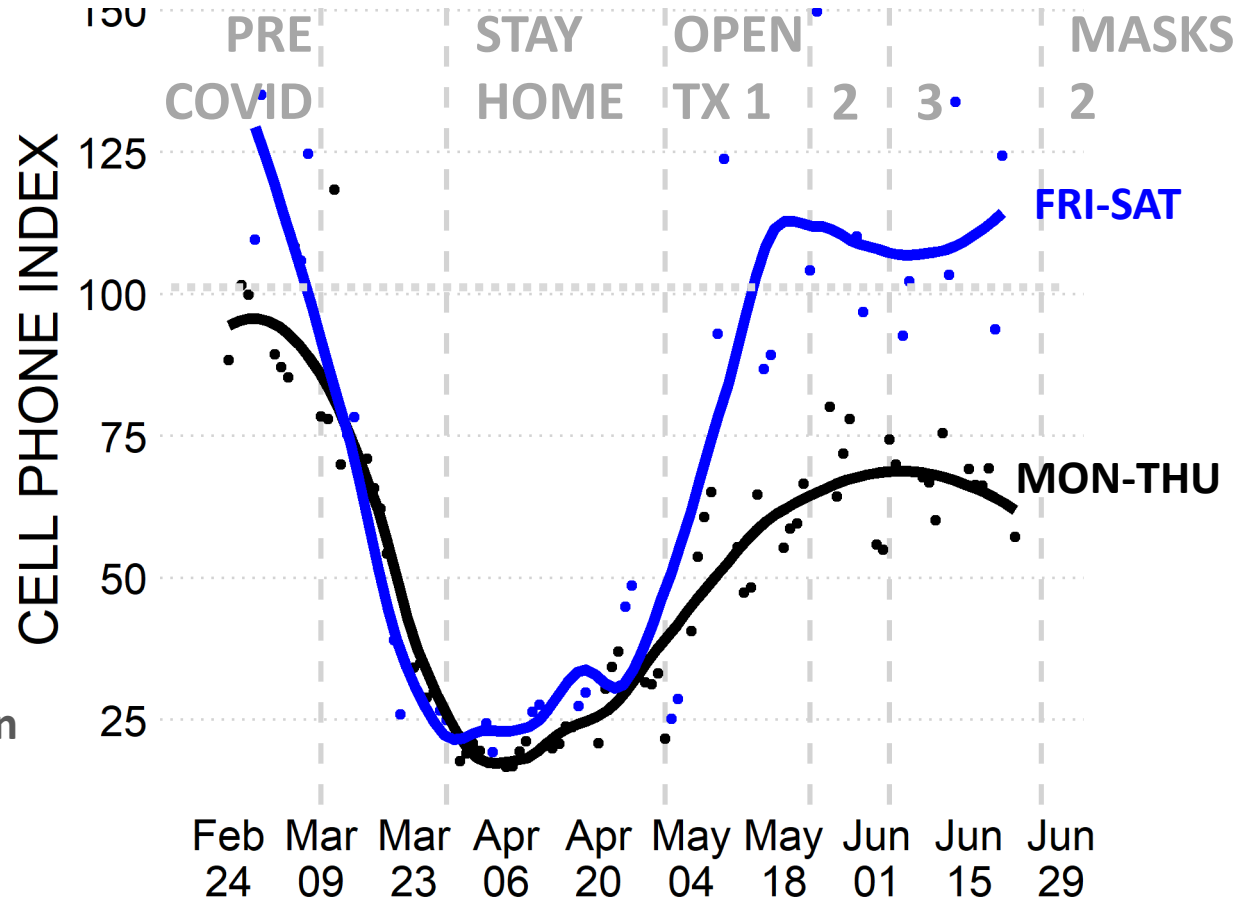
- Proportion leaving home per day
- Device leaves home triggers count
- Distance traveled



POTENTIAL ENCOUNTERS TOO HIGH ON WEEKENDS

Cell Phone Location Model

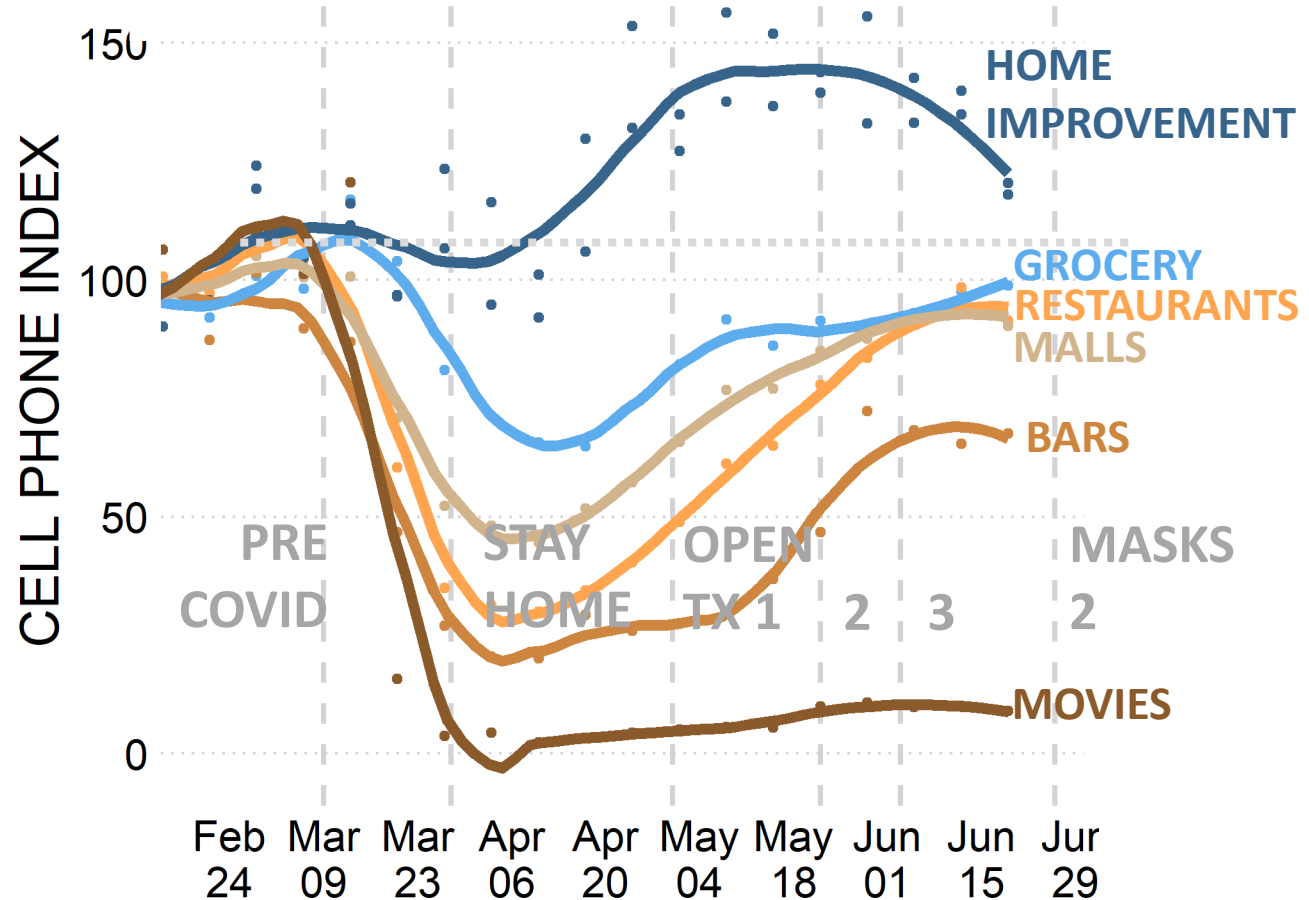
- Number of encounters per km² per day scaled to Nueces
- Estimate probability of contact
- 2 devices within 50 meters for less than 60 minutes



ESSENTIAL & NON-ESSENTIAL GATHERINGS

Cell Phone Foot Traffic Model

- Visits to local establishments counted
- Device near or in building
- safeGraph.com

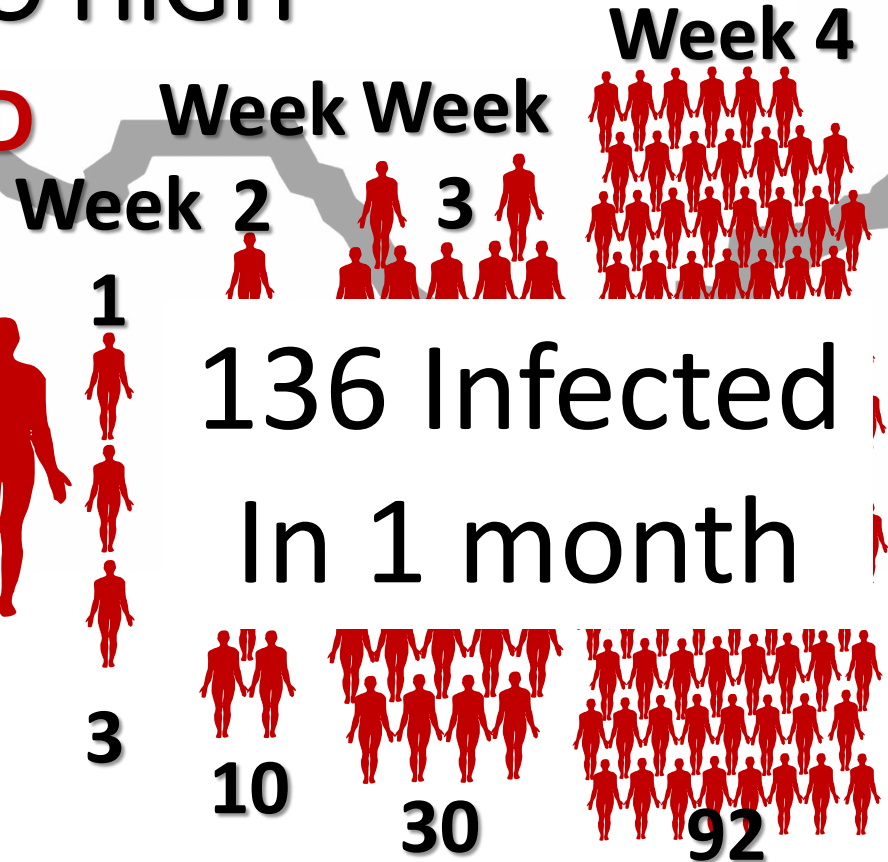
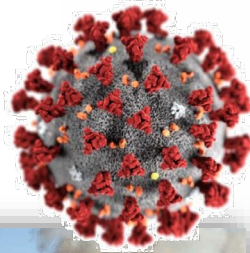


TRANSMISSION RATE IS TOO HIGH

**PEOPLE INFECTED
PER CARRIER**

3.1

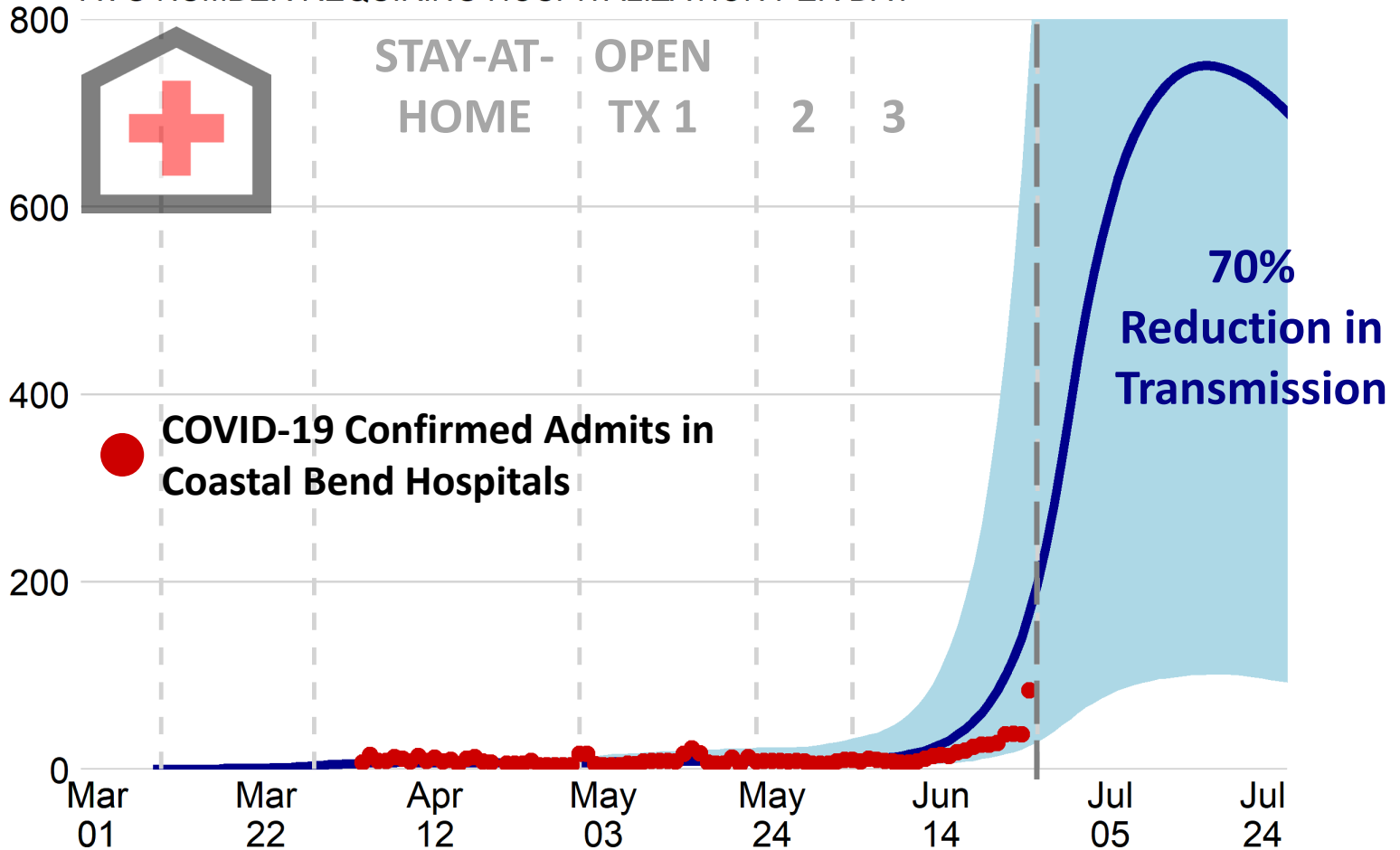
SOUTH TEXAS



PROJECTED HOSPITALIZED

AVG NUMBER REQUIRING HOSPITALIZATION PER DAY

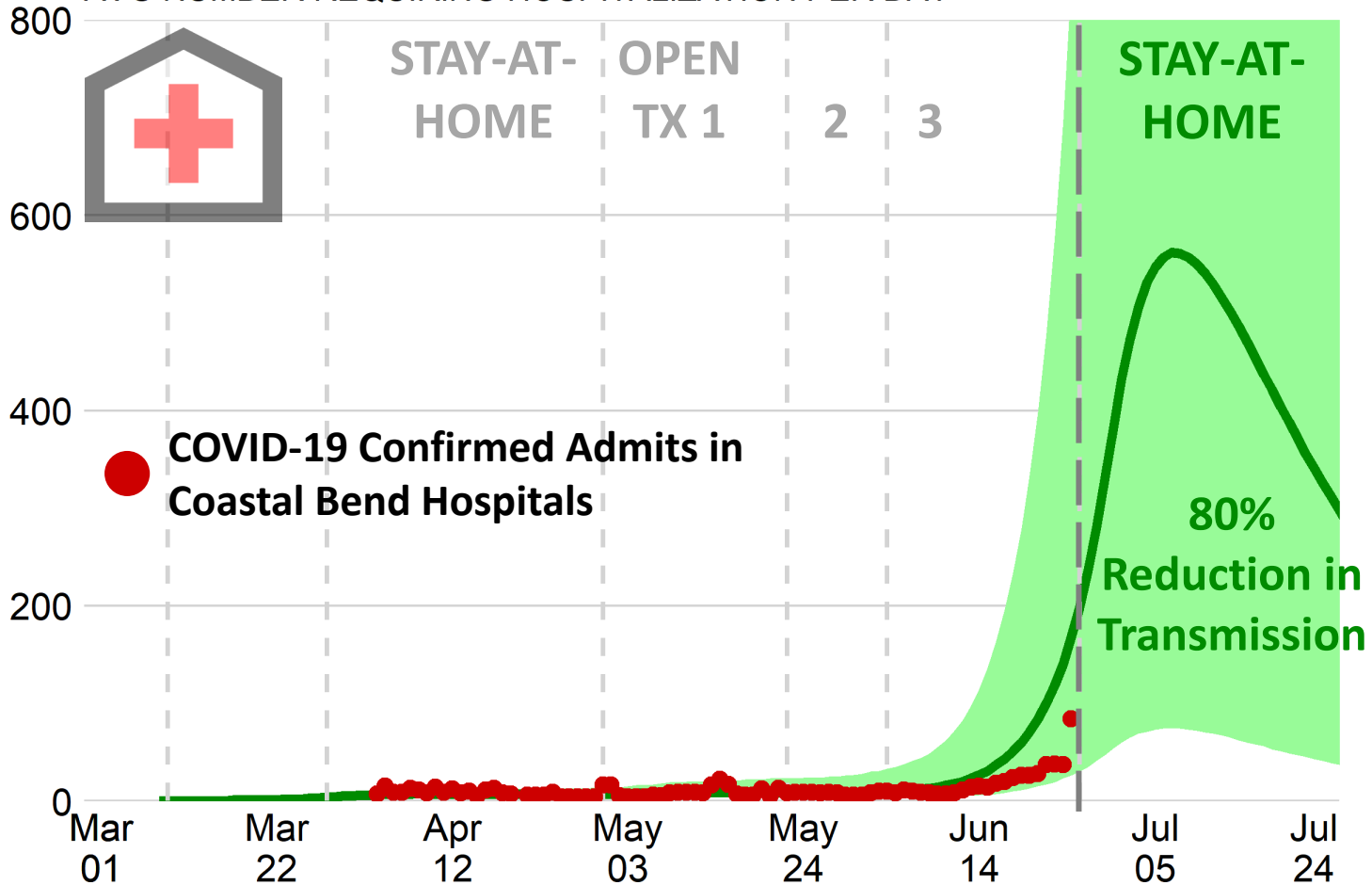
COVID-19 PATIENTS



PROJECTED HOSPITALIZED

AVG NUMBER REQUIRING HOSPITALIZATION PER DAY

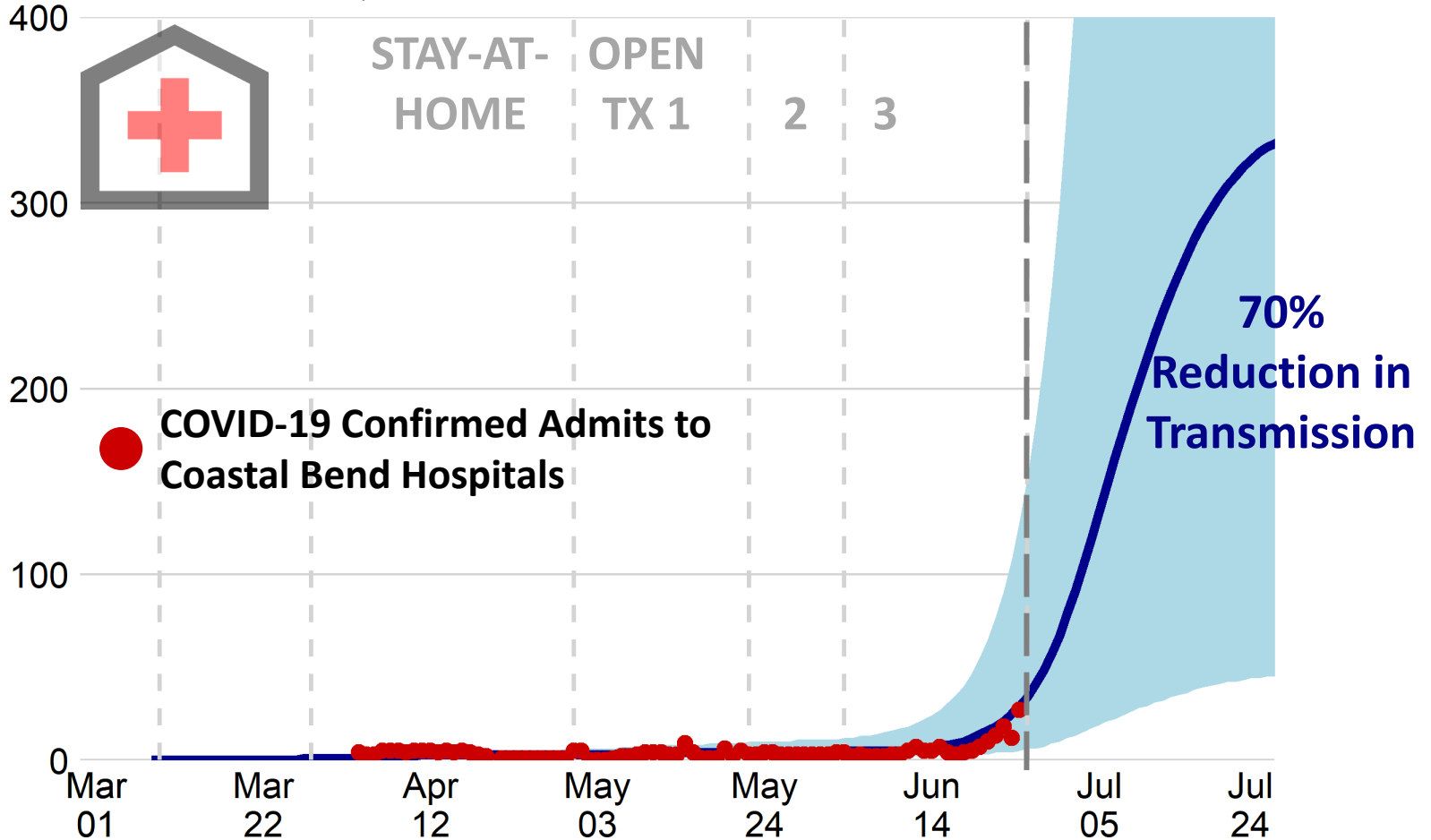
COVID-19 PATIENTS



PROJECTED ICU

AVG NUMBER REQUIRING ICU PER DAY

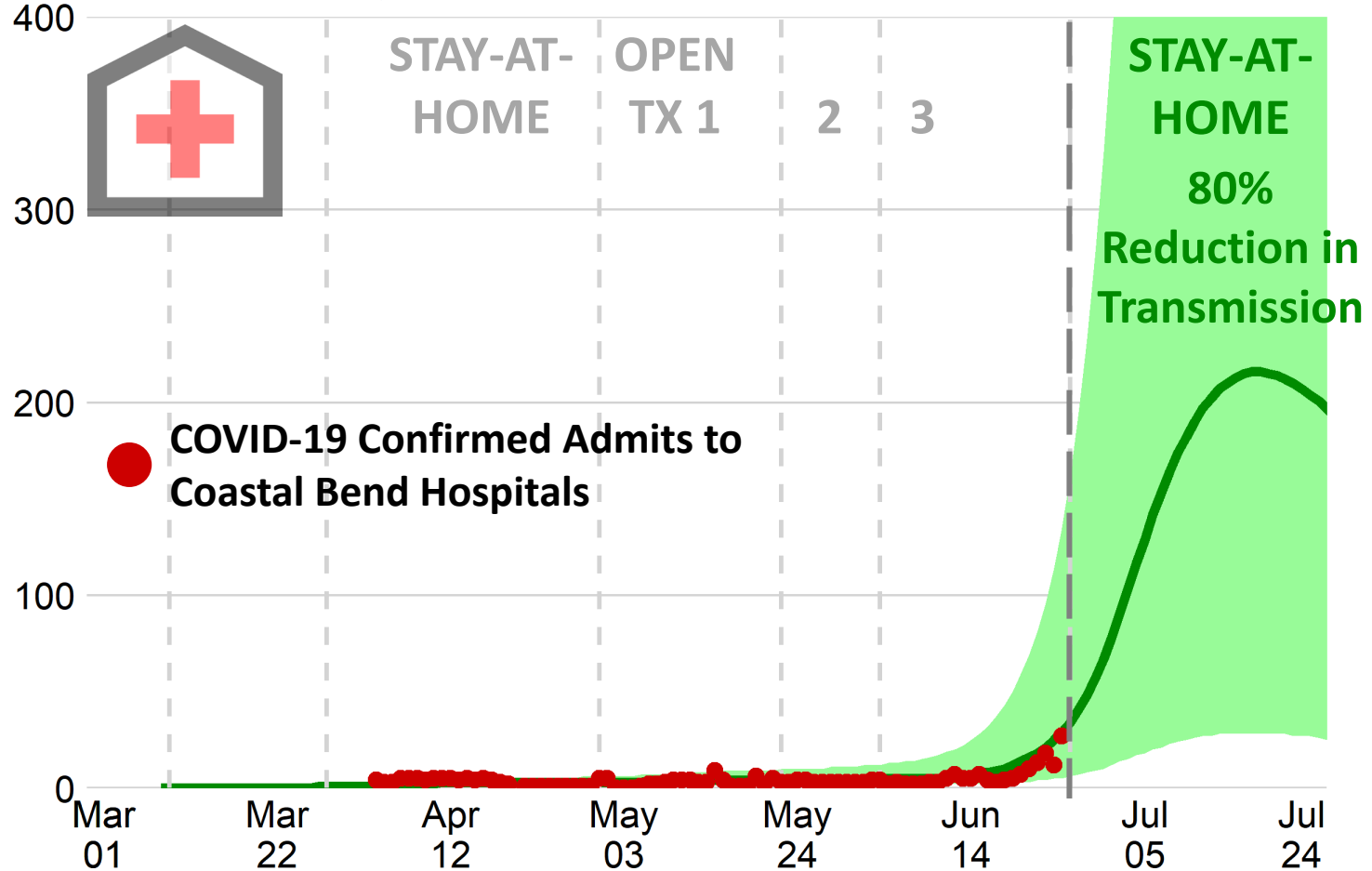
COVID-19 PATIENTS



PROJECTED ICU

AVG NUMBER REQUIRING ICU PER DAY

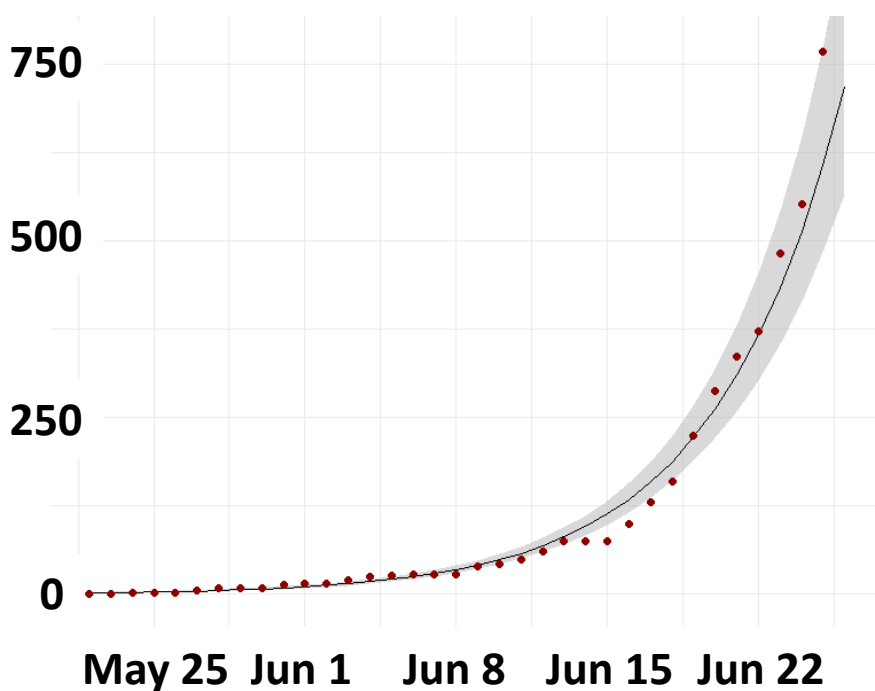
COVID-19 PATIENTS



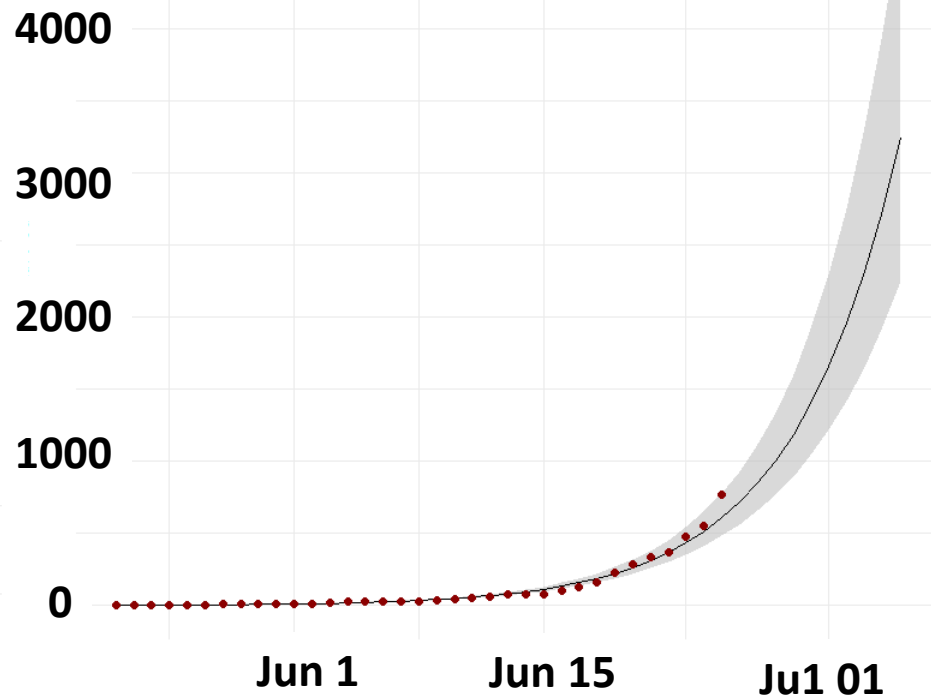
EXPONENTIAL PROJECTION

TOTAL CASES SINCE OPEN TX 2

FIT OF EXPONENTIAL GROWTH MODEL
TO ACCUMULATION OF CASES IN
NUECES SINCE MAY 22, 2020



SAME MODEL, PROJECTING 10 DAYS
INTO FUTURE



SUMMARY

- Texas-Wide-Outbreak
- COVID-19 still expanding RAPIDLY in South TX
- 7-14 days until changes made today affect cases, hospitalizations
 - Today's cases were infected last week
- Expect indicators of COVID to be affected
 - Capacity of system to test and report COVID cases will be strained

HELP CONTAIN LOCAL OUTBREAKS

- Critically important to identify & contain localized outbreaks
 - Involved businesses, leaders, essential & front-line workers should be commended for compliance & comprehensive testing
- Lessons learned for managers
 - Task force recommends you do as much as possible to stop the transmission of COVID

WHAT CAN WE DO TO CONTROL THE SPREAD OF COVID-19?

- Each of us can make a difference
 - Face coverings in public decrease transmission by up to 50%
 - Social distance (6+ ft)
 - Self-isolate when symptomatic
 - Stay-at-Home if you can
 - Postpone social gatherings, or have them online
 - Curbside & takeout
- Support testing & contact tracing

<https://tinyurl.com/TAMUCC-COVID>



ACKNOWLEDGEMENTS

<https://www.conradblucherinstitute.org/covid19-response>

- The joint taskforce was created by Judge Canales, City leadership including City Manager Zanoni, TAMU-CC President Miller and Vice President Mahdy
- Many Organizations and People Contributed to this Work
- Including: Philippe Tissot, Keren Costanzo, Chris Bird, Daniel McGinn, Steve Viera, Lucy Huang, Jason Selwyn, Bryan Gillis, Meng Zhao, Greg Buck, Jason Louis, Hilary Watt, Annette Rodriguez, Mike Mohat, Mike Simmons, Scott King, Evan Krell, Mahmoud Eldefrawy, Roy Roberts, Audrey Garza, Gina Concannon, Davey Edwards, Qianqian Liu, Leisha Martin, Ed Warga, Dante Gonzalez, Tiffany Anderson, Maggie Turner

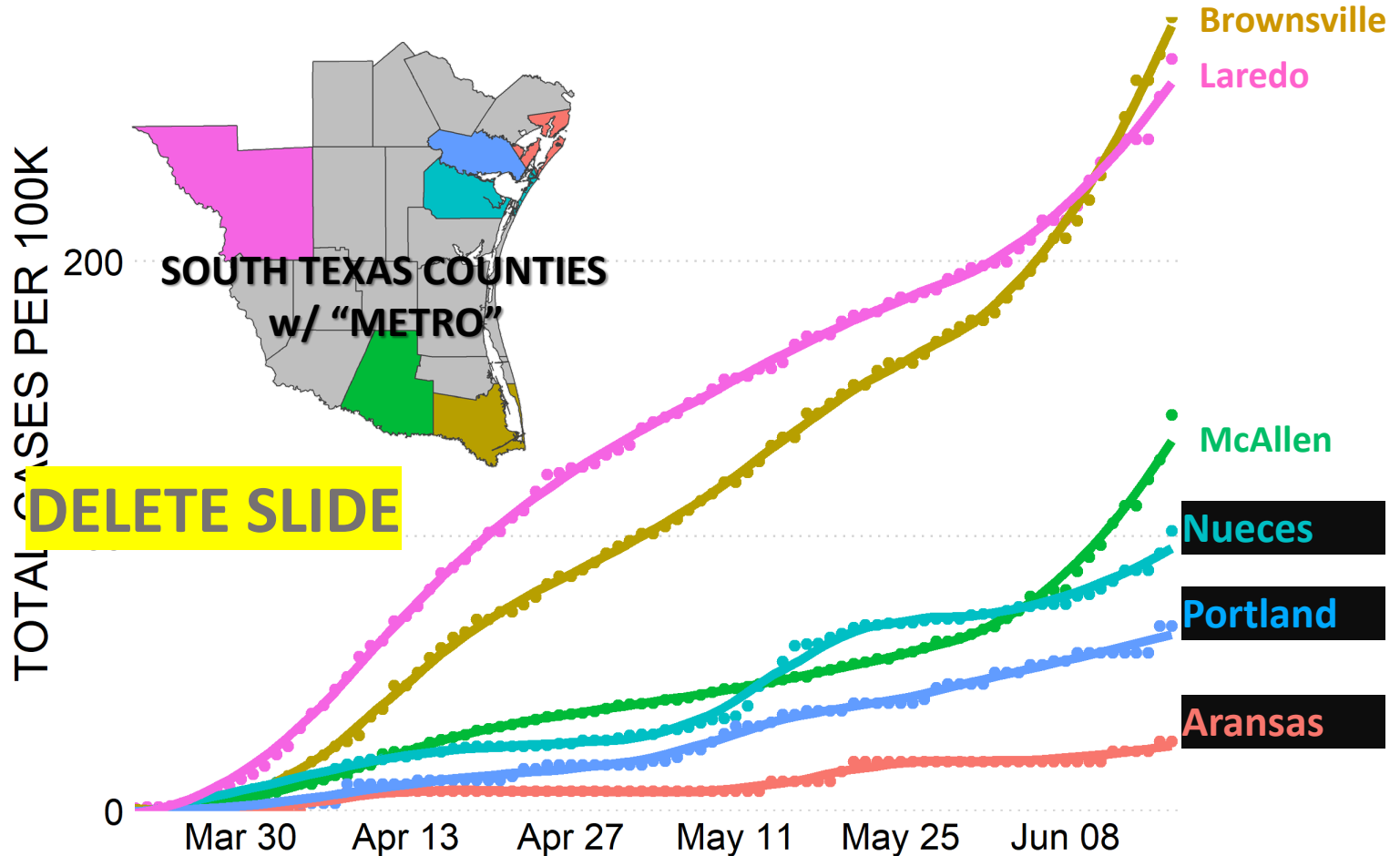


Public Health
Prevent. Promote. Protect.



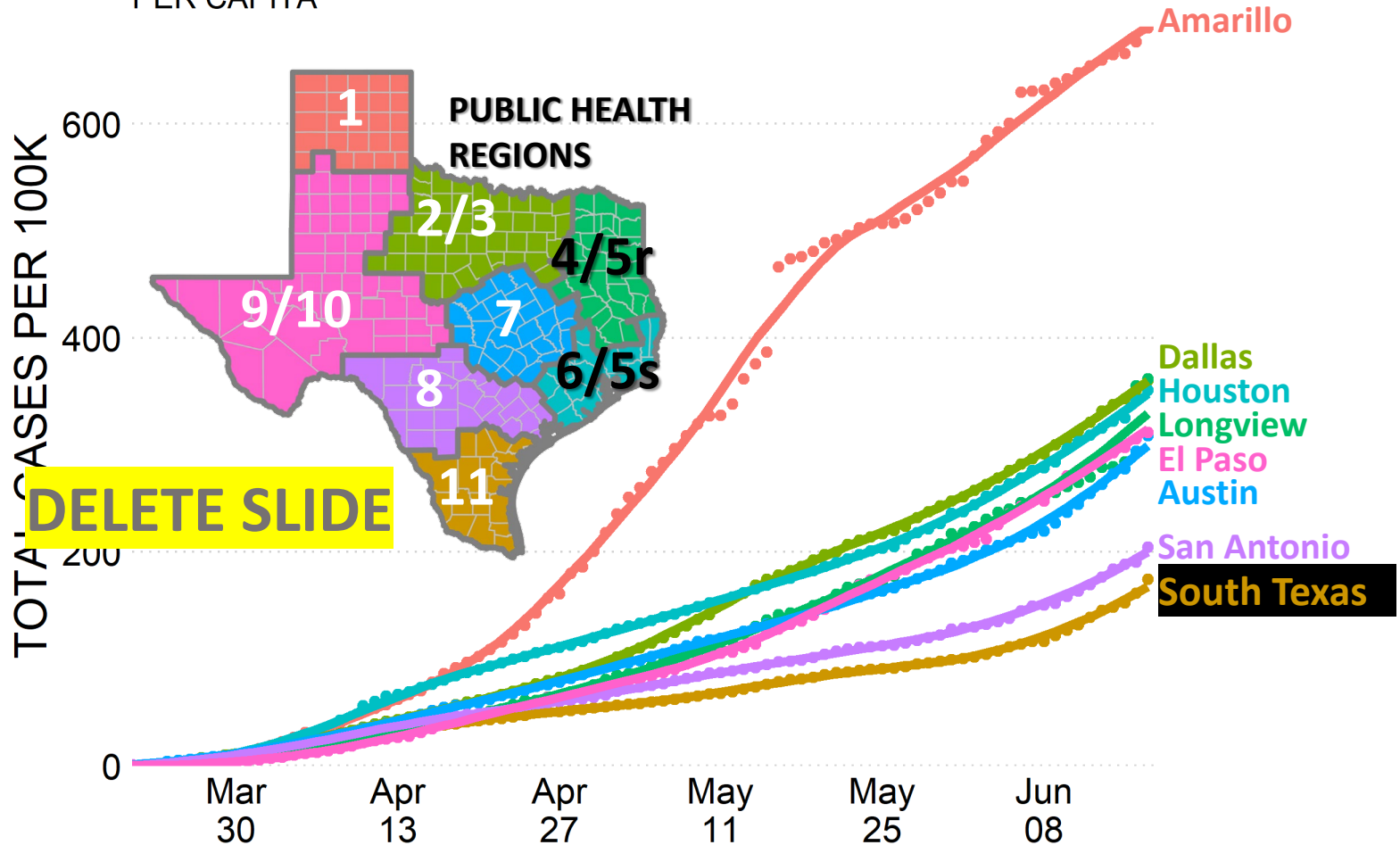
TOTAL COVID-19 CASES

PER CAPITA

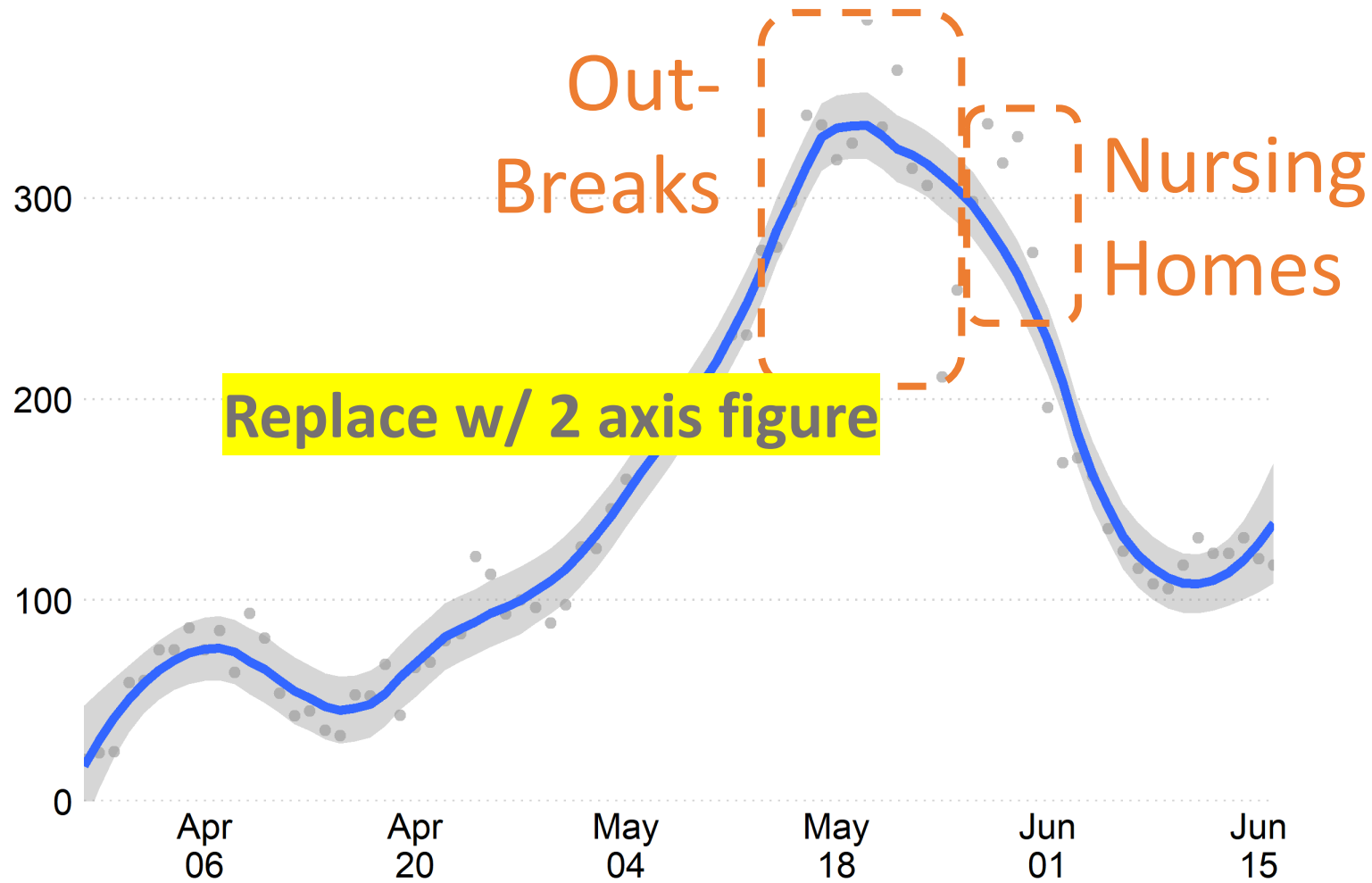


TOTAL COVID-19 CASES

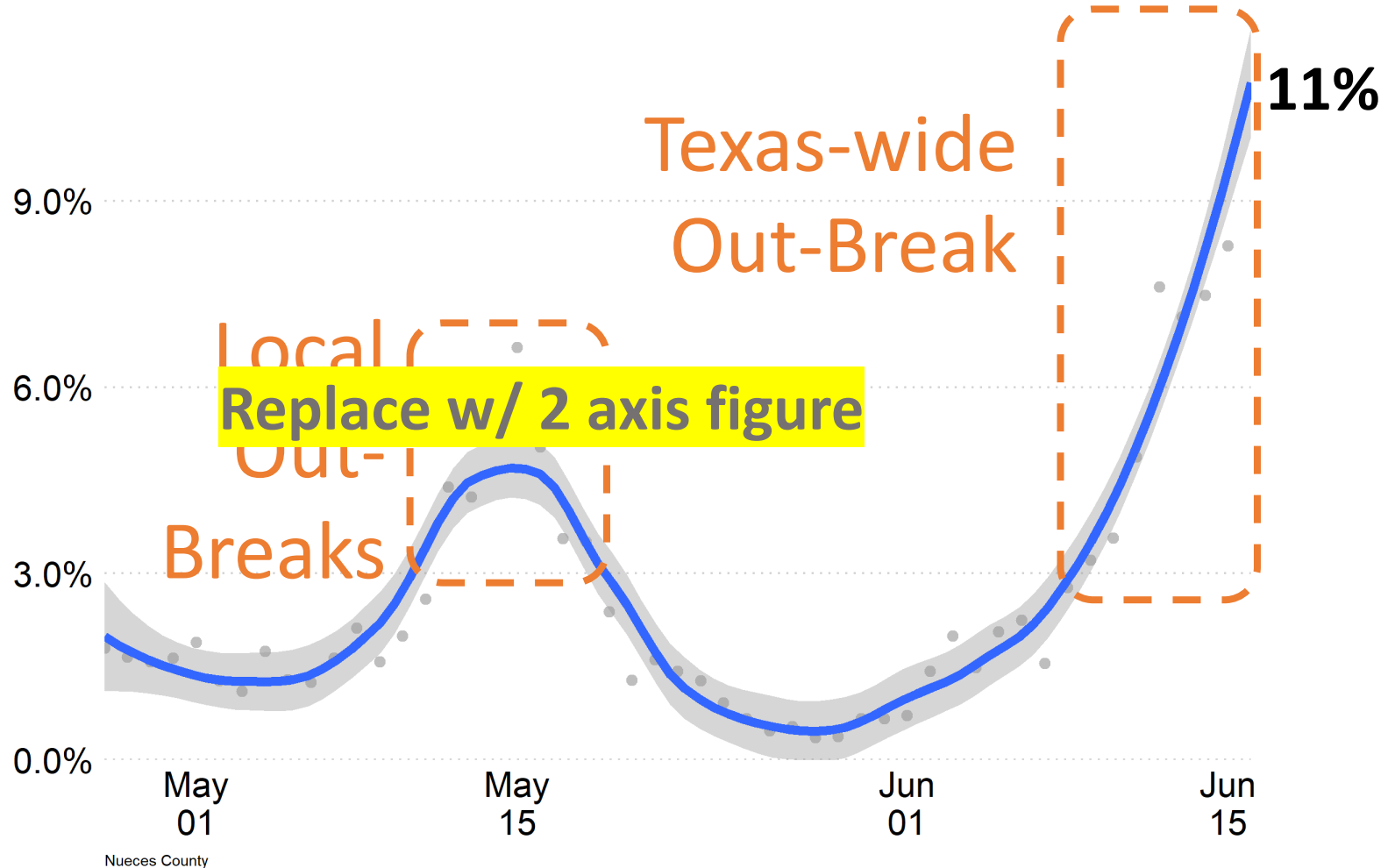
PER CAPITA



TESTS PER DAY NUECES COUNTY



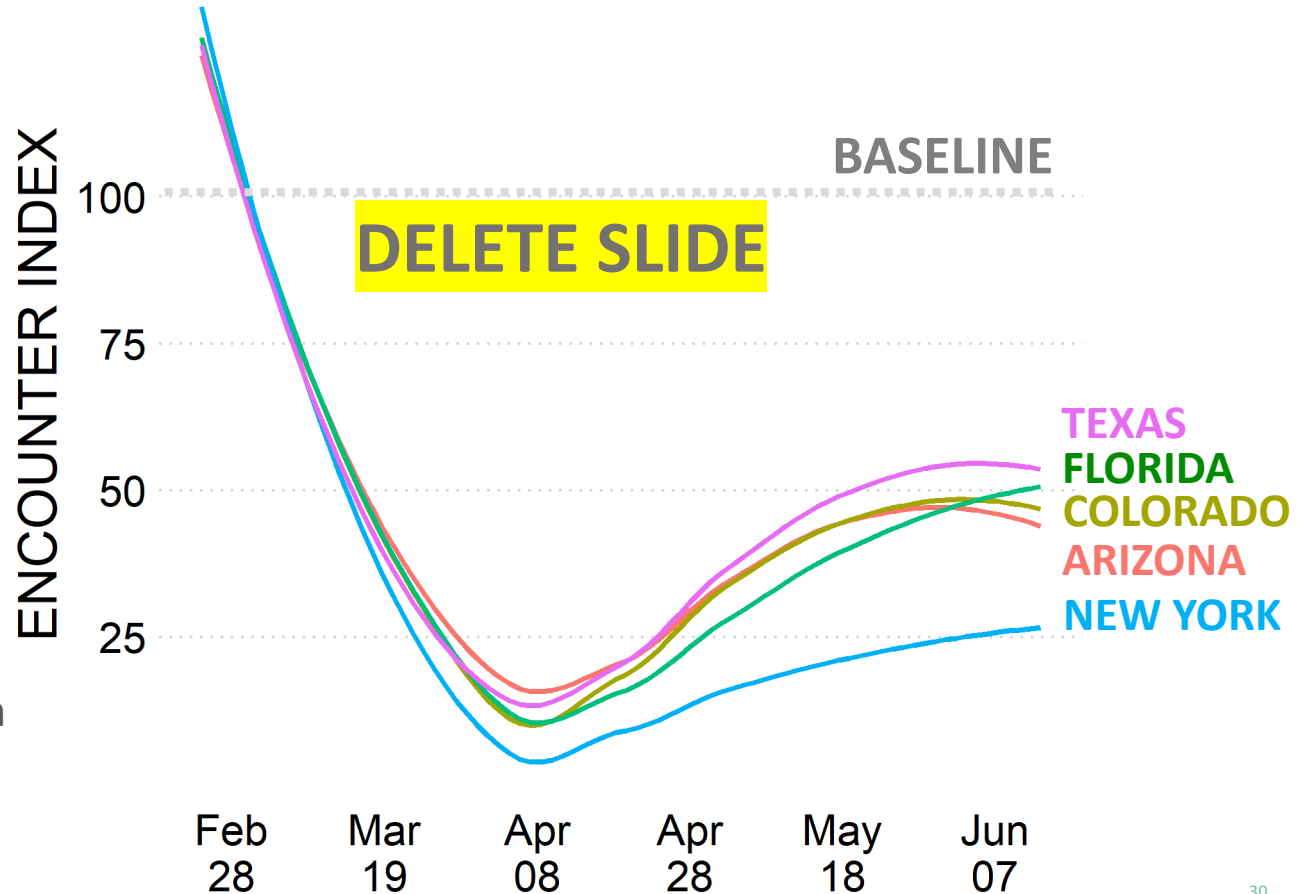
PCT POSITIVE TESTS PER DAY



PHONE ENCOUNTERS

Cell Phone Location Model

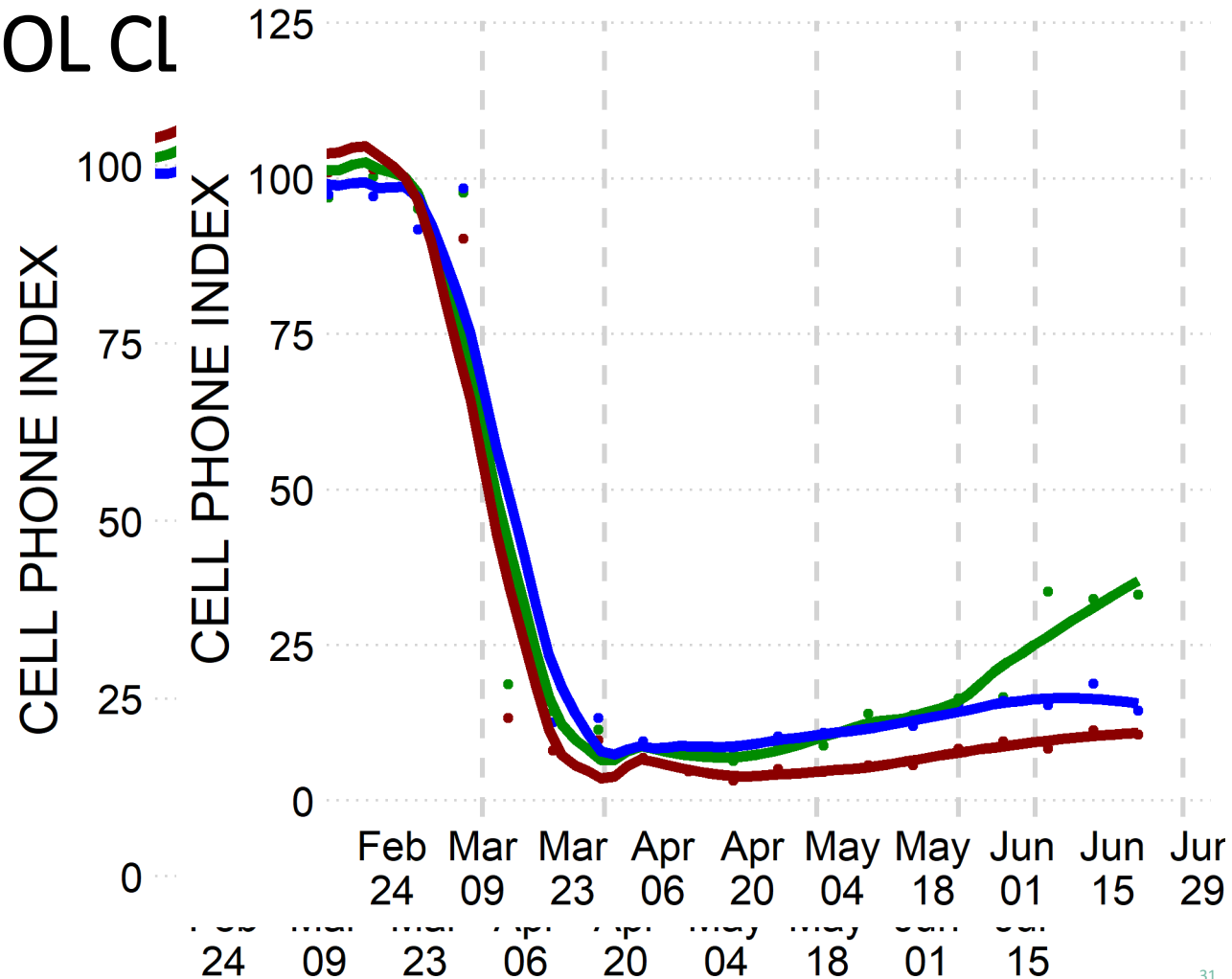
- Number of encounters per km^2 per day scaled to Nueces
- Estimate probability of contact
- 2 devices within 50 meters for less than 60 minutes



SCHOOL CL

Cell Phone Location Model

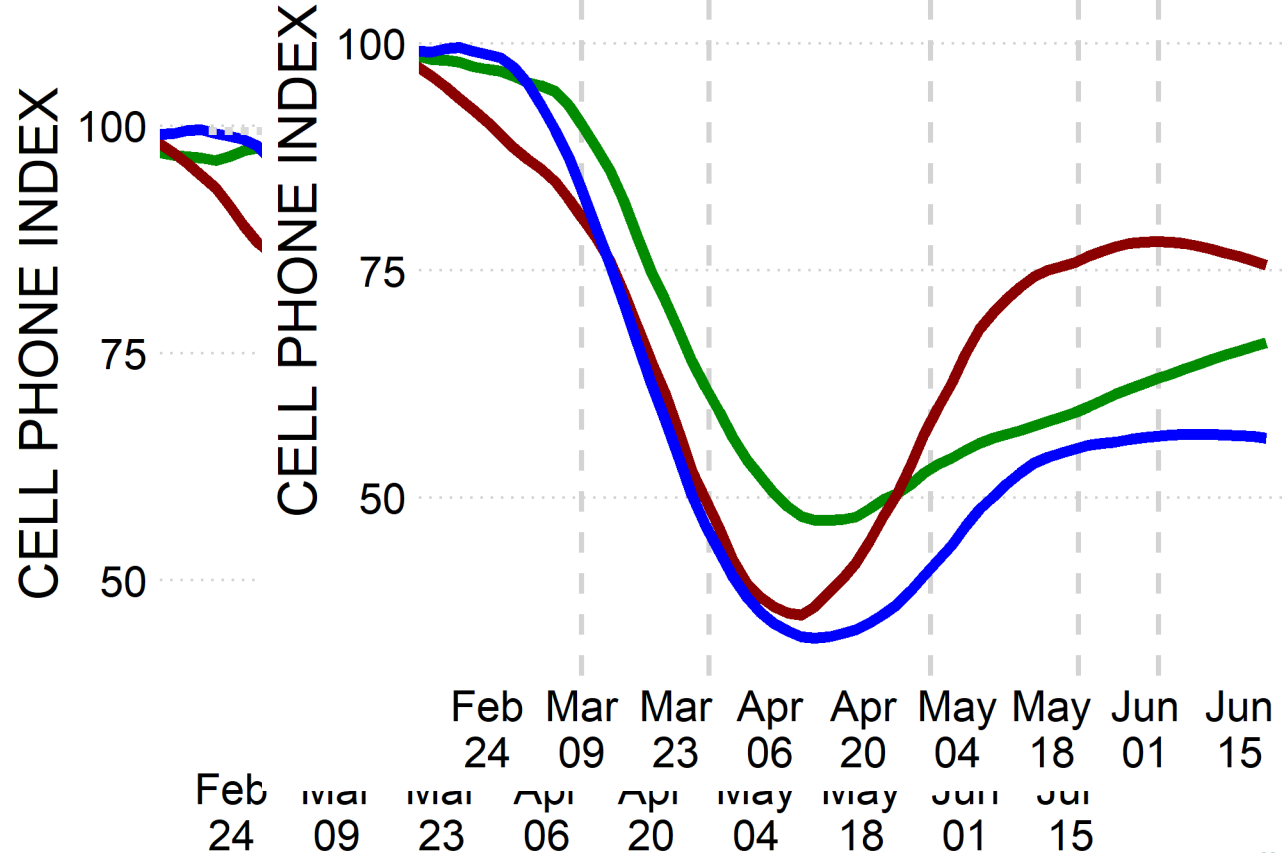
- Visits to schools, K-12-PhD
- Device near or in building
- safeGraph.com



MEDICAL OFF

Cell Phone Location Model

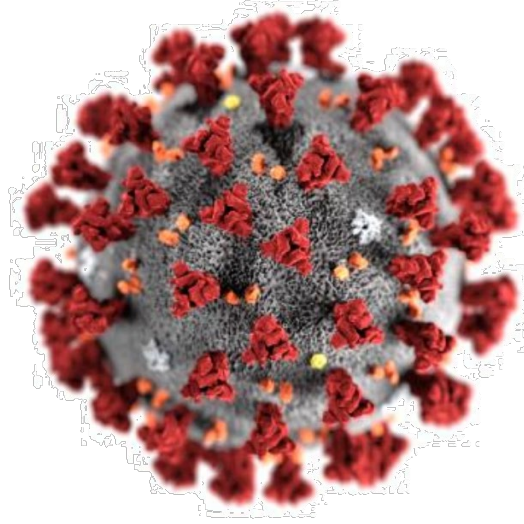
- Visits to medical facilities
- Phone near or in building
- safeGraph.com



Maybe Slide for ISDs (Could just put on website)

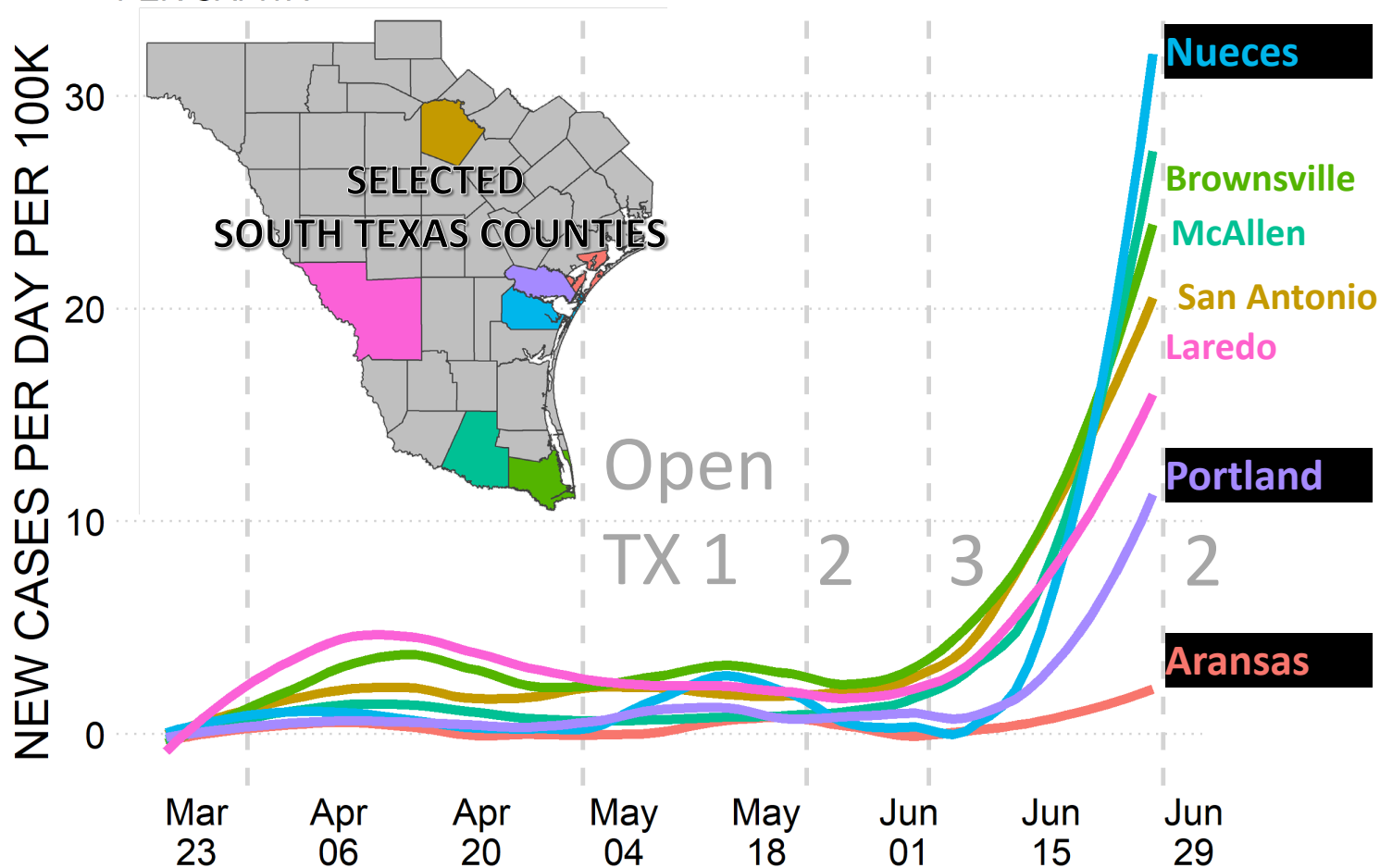
- Corpus Christi ISD
 - Ccisd.tx@k12-lets-talk.com
 - Looking to follow Texas Education Agency Guidance
 - Current plan includes starting on August 13
- Flour Bluff ISD
 - District Phone 361-694-9000
 - District email info@flourbluffschoools.net
 - <https://flourbluffschoools.net/coronavirus-covid-19-updates/>
- London ISD
 - District Phone 361-855-0092
 - Looking to follow Texas Education Agency Guidance
 - Considering two options found here (<http://www.londonisd.net/>)
- All other Coastal Bend ISD/CSDs can be found here: <https://www.esc2.net/schools/>

CASE DATA REPORT



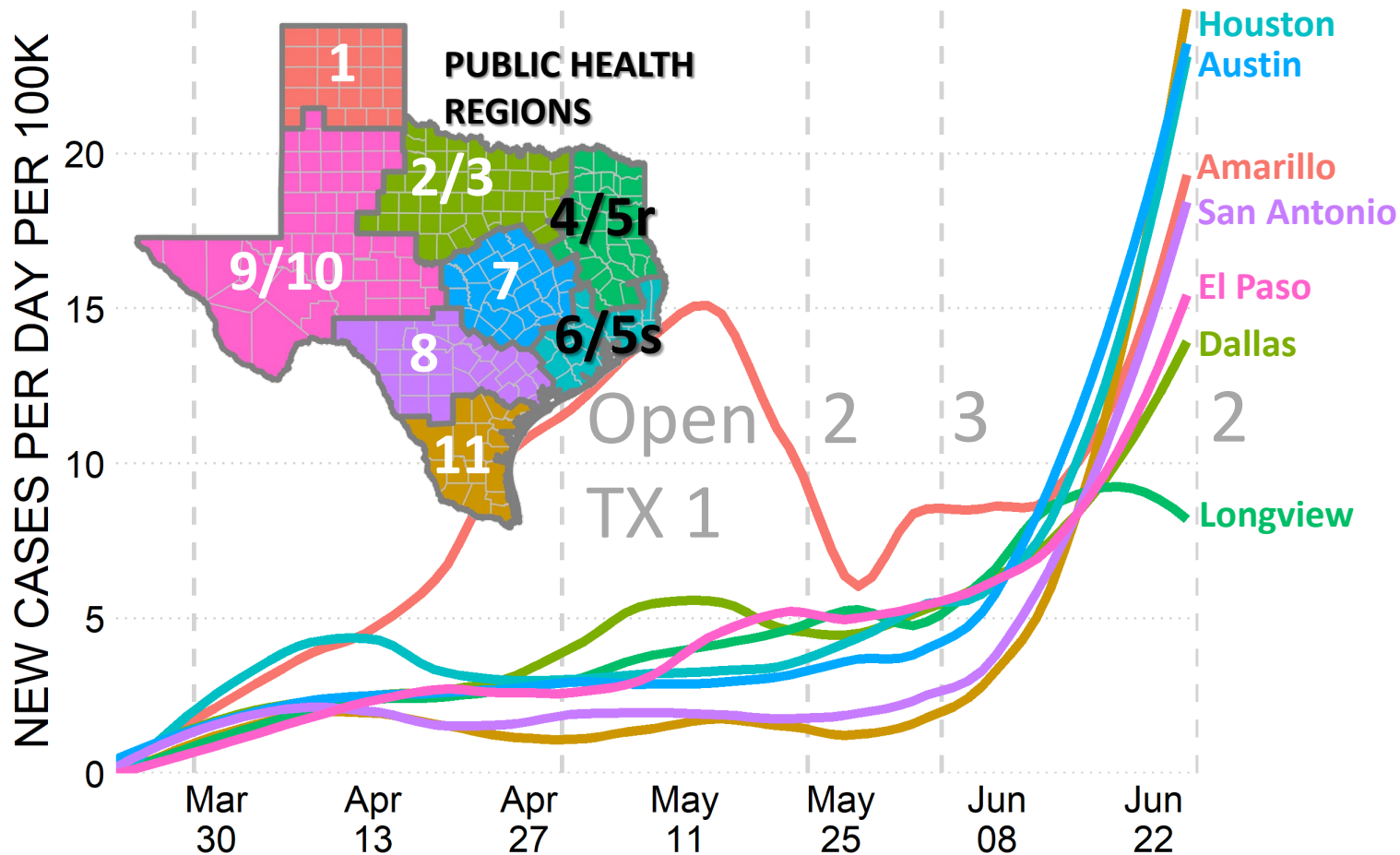
NEW COVID-19 CASES PER DAY

PER CAPITA

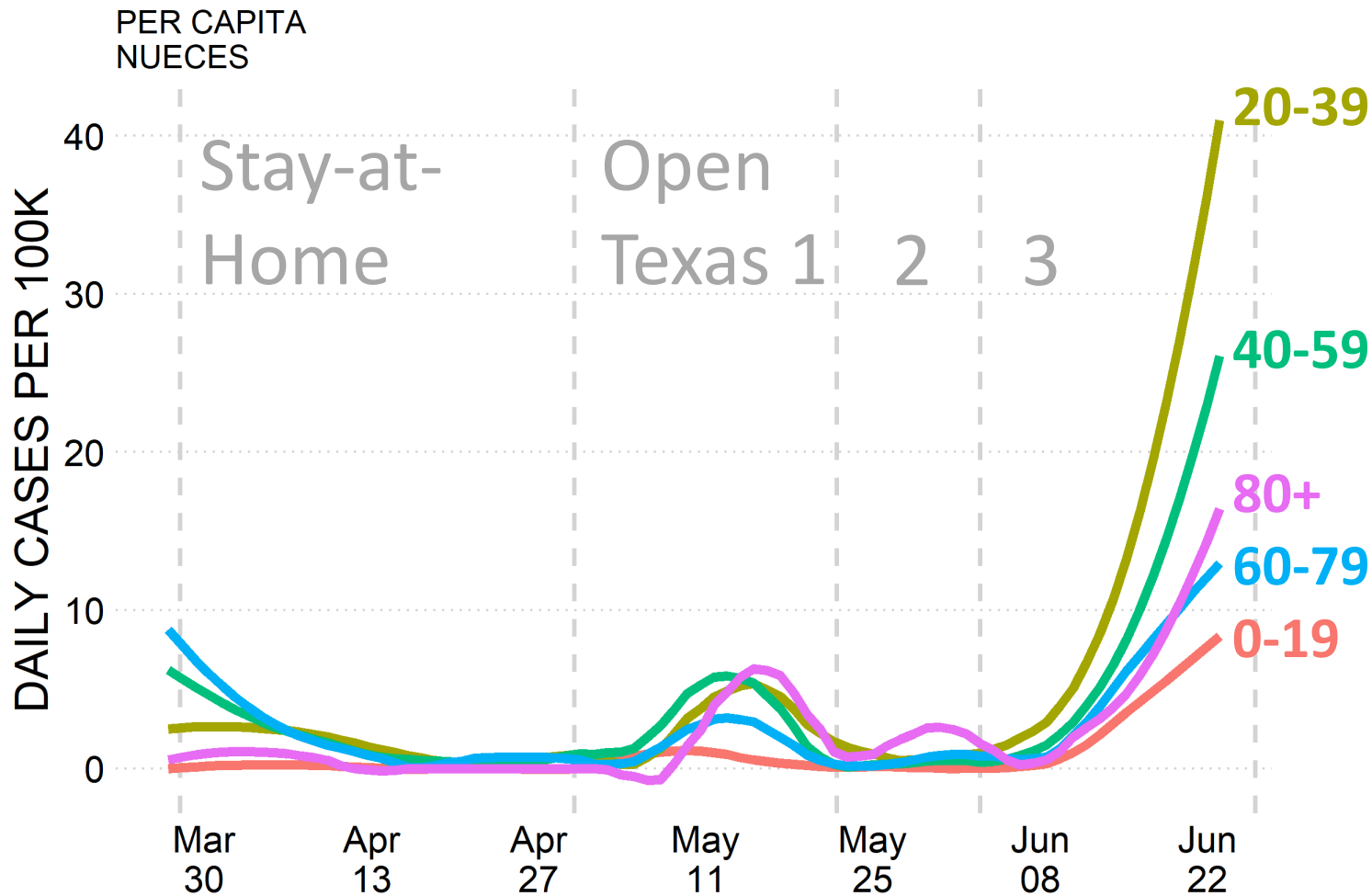


NEW COVID-19 CASES PER DAY

PER CAPITA

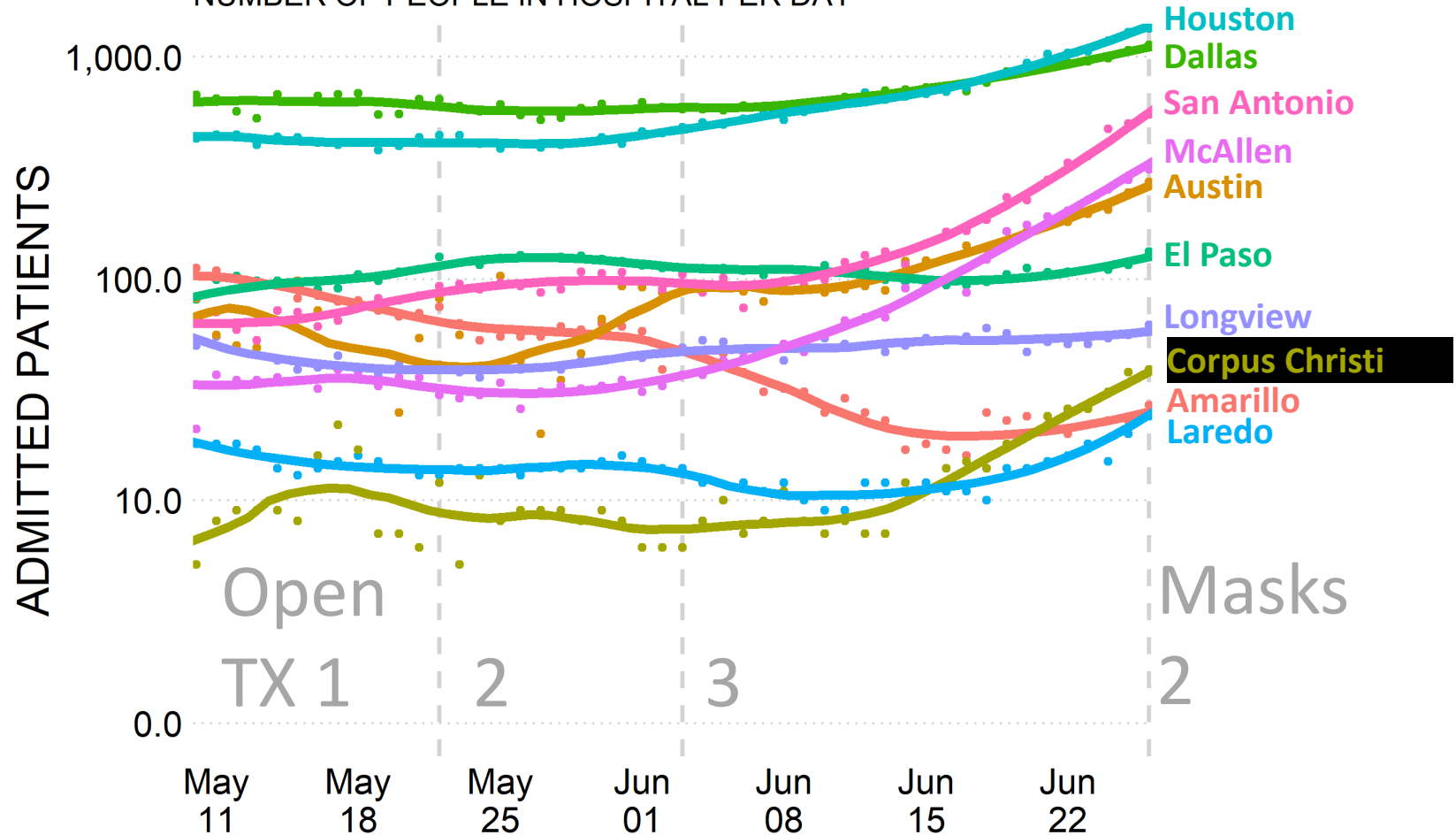


CASES RISING AMONG ALL AGE GROUPS



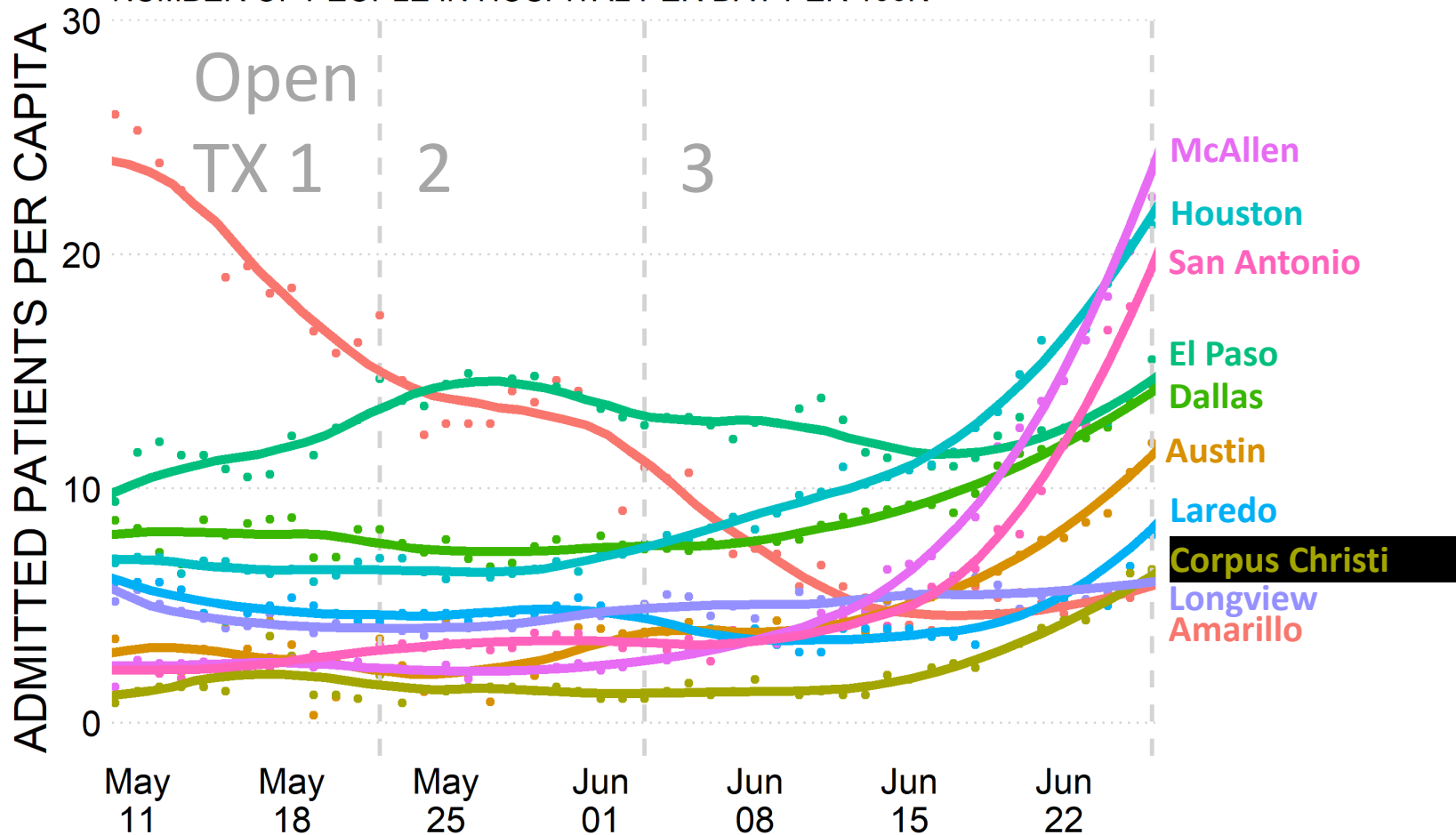
COVID-19 HOSPITALIZATIONS

NUMBER OF PEOPLE IN HOSPITAL PER DAY



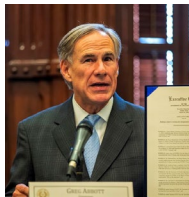
COVID-19 HOSPITALIZATIONS

NUMBER OF PEOPLE IN HOSPITAL PER DAY PER 100K



INTERVENTIONS DECREASE TRANSMISSION

1. **STAY-AT-HOME IF YOU CAN**
2. **SOCIAL DISTANCING & FACE COVERINGS**
3. **SELF ISOLATE WHEN SYMPTOMATIC**
4. **SCHOOL CLOSURES**
5. **RESTRICTIONS TIGHTENED ON GATHERINGS/ BARS/ RESTAURANTS**



Statewide “Open Texas” Philosophy

- Slowly Roll Back Interventions
- Contain Flare Ups
 - Example: May Nueces Outbreaks
 - Example: Close Restaurant Dining Rooms
- Stop Rolling Back Interventions When COVID Gets Too Hot

COVID in March



‘Stay-at-Home’: Turn Off



‘Open Texas’: How High Can We Turn the Dial Before it Gets Too Hot?

SOMETIMES THE BURNER IS HOTTER THAN IT LOOKS

COVID in March



COVID in May (heating up)



COVID in April



COVID Now



EPIDEMIOLOGICAL MODELS SIMULATE THE COVID-19 PANDEMIC

