COVID-19 SAN ANTONIO - ABRIDGED REPORT 21-Jun-2020

Modeling Outcomes UNDER CURRENT CONDITIONS	Value
Maximum number of projected total cases	235,000
Maximum number of concurrent active infections	33,000
Projected cases in 1 week	10,000
Projected cases in 2 weeks	17,000
Projected cases in 3 weeks	26,000
Projected cases in 4 weeks	40,000
Exponential growth's coefficient of determination	0.99759
Doubling time in days	12
Effective reproduction number R_e	1.54
Coefficient of Risk Mitigation K	1.3

This report contains analyses based on data transmitted on Saturday, June 20, by San Antonio Metro Health Department (SAMHD) and the South Texas Regional Advisory Council (STRAC) to the University of Texas at San Antonio. The last three days of data did not pass quality control, and were removed from analysis. This modeling report uses data up to June 17.

The model presented in this report has the following traits:

- *Calibration period of one week*: This means that after a major event, it takes one week of data to have a reliable prediction.

- *Window of predictability of two months*: This means that once the model is calibrated, the projections of case numbers are very unlikely to change for about eight weeks unless a major event occurs.

The major events that have defined the COVID-19 epidemic in San Antonio are:

- **Date of event**: Feb 13. **Date of observed effect**: February 18. This date was found computationally. A retrospective analysis revealed that the only reported event on February 13 was a positive test from an evacuee at JBSA-Lackland in San Antonio.

- **Date of event**: March 13: Declaration of local disaster and public health emergency by the County Judge.

- **Date of event**: May 1. **Date of observed effect**: May 6. Businesses open at 25% occupancy.

- **Date of event**: May 18: **Date of observed effect**: May 23. Businesses open at 50% occupancy.

- **Date of event**: June 3. **Date of observed effect**: June 8. Governor Abbott Announces Phase III.

- **Date of event**: June 17. **Date of likely observation of effect**: Approximately two to three infectious periods, or 10 to 15 days, by end of June or beginning of July.

IMPORTANT: 889 congregated cases were removed from analysis on 21-Jun-2020. These cases are not included in projections.
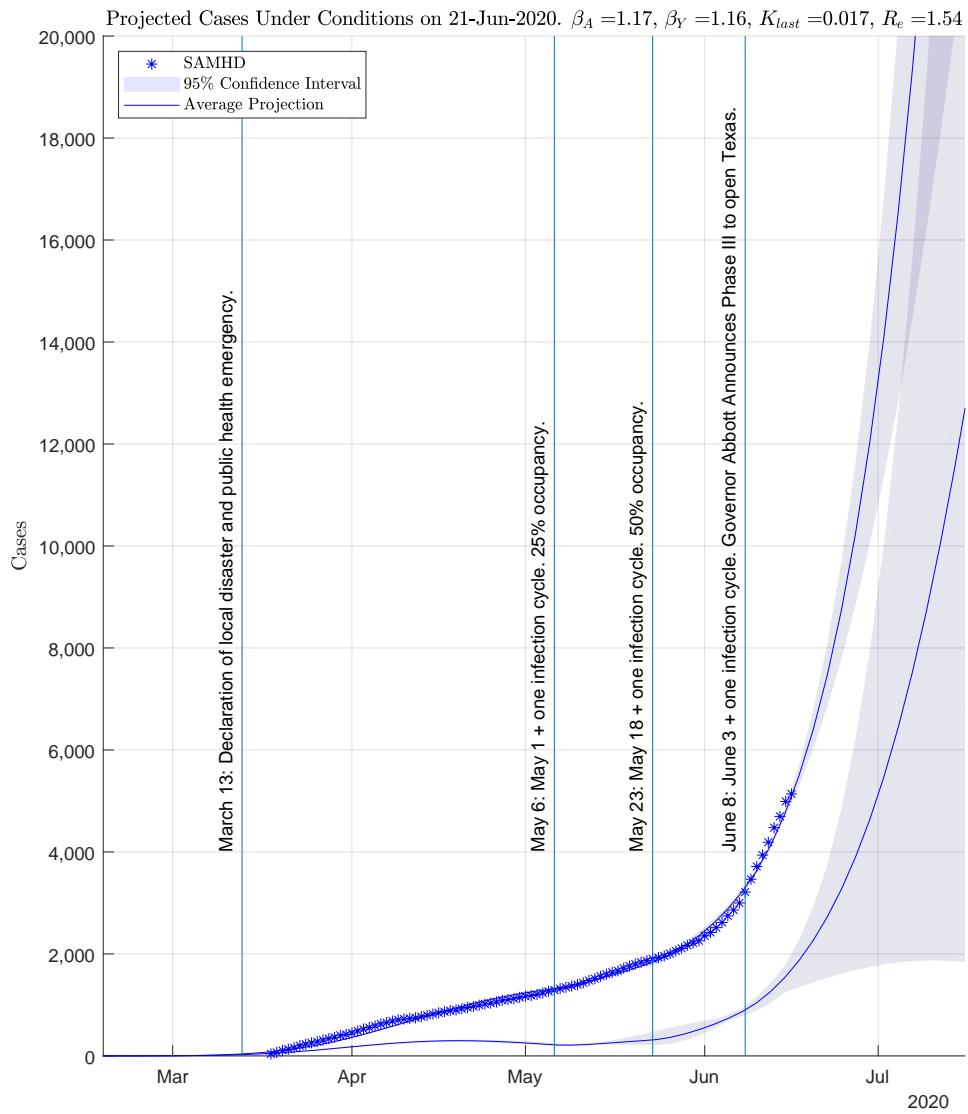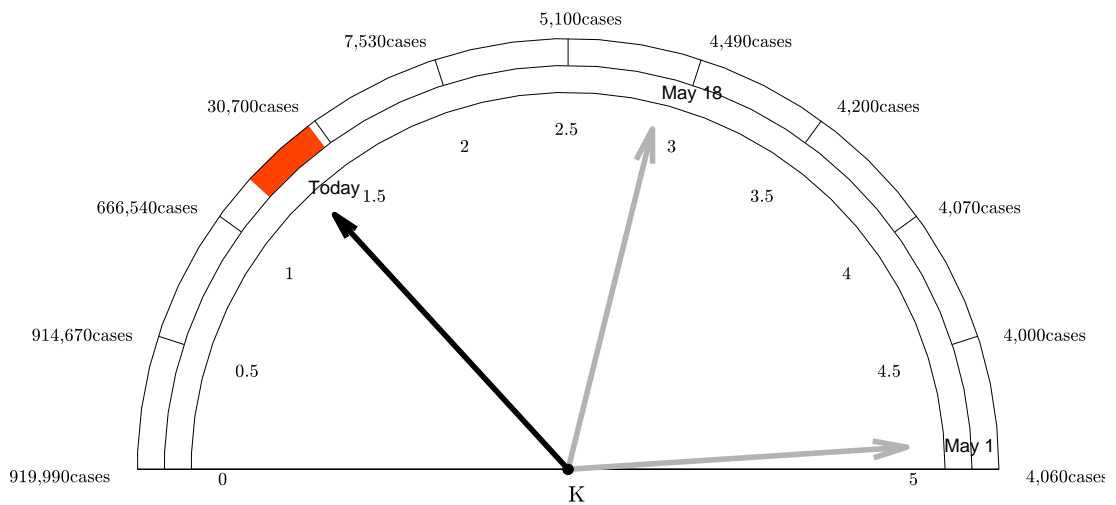
Figure 0.0-1: IMPORTANT: 889 congregated cases were removed from analysis on 21-Jun-2020. These cases are not included in projections. File: SanAntonio21-Jun-2020-EVOLUTION

Case Projection by Risk Mitigation Coefficient. $K =$**1.3%**, $R_e =$**1.54**

Colored annular wedge representes confidence interval for projected number of cases. Color represents hazard.

Maximum Hazard   Minimum Hazard
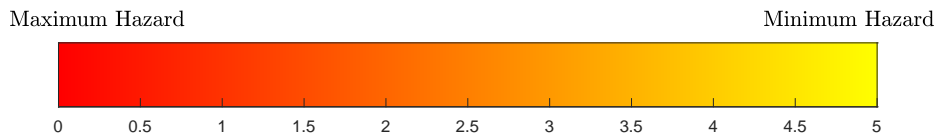
| 0 | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 |

Figure 0.0-2:   File: SanAntonio21-Jun-2020-INDICATOR-K