This application provides a customizable SARS-CoV-2 / COVID-19 projection model for the state of Tennessee. The model was developed by researchers in the Center for Health Economic Modeling at Vanderbilt University School of Medicine, Department of Health Policy and Department of Biostatistics.

The model's foundation is a Susceptible (S), Exposed (E), Infectious (I), and Recovered (R) epidemiological model adapted to SARS-CoV-2 (the virus) and COVID-19 (the disease caused by the virus). The model takes as its inputs attributes parameters that describe the transmission dynamics of SARS-CoV-2, as well as health and health system impacts of COVID-19. The model also includes adaptable parameters that describe how testing environment has changed Tennessee. This allows the model to account for the explicit recognition that not all infections are symptomatic, tested and reported. Finally, the model allows for user customization of 'what if' scenarios for how transmission of the virus will change in the near future.

The Vanderbilt model assesses calibration of default and user-defined parameters to reported data on cases,

deaths, and hospitalizations. This ensures that users

Our model accounts for several dimensions of uncertainty in modeling the trajectory of SARS-CoV-2

infections in Tennessee.