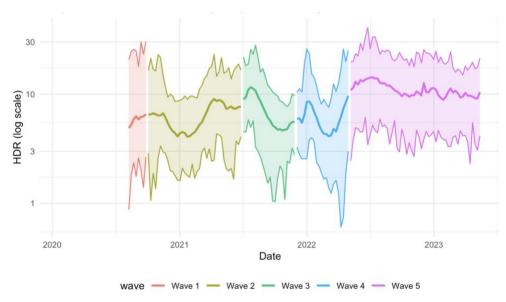
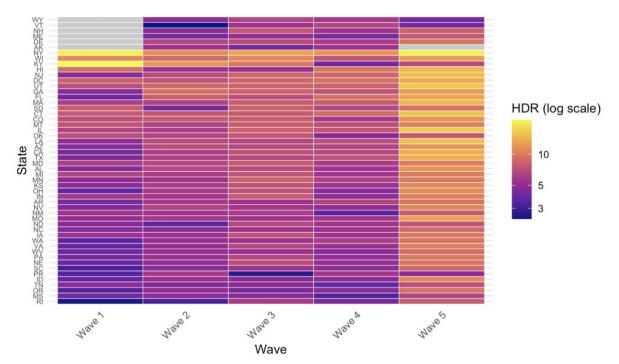


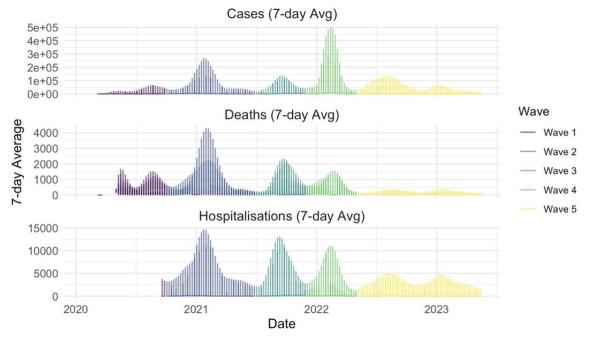
**Supplement Figure 1. COVID-19 Cases, Deaths, and Hospitalisations Over Time (All States)**. This figure shows the COVID-19 case rates, death rates, and hospitalisation rates per 100,000 population for all U.S. states over time. The results provide a comprehensive view of the overall pandemic trends, demonstrating fluctuations in all three metrics from 2020 through 2023.



**Supplement Figure 2. Hospitalisation-to-Death Ratio (HDR) Over Time by Wave**. This figure presents the HDR on a log scale across all five waves of the pandemic. It includes both average HDR trends and variability (shaded areas).



**Supplement Figure 3. State-Level Comparison of Hospitalisation-to-Death Ratio (HDR) by Wave.** This figure shows the HDR for each state across the five pandemic waves. States with higher HDR values during particular waves can be identified, shedding light on healthcare system performance.



Supplement Figure 4. Rolling Averages of Cases, Deaths, and Hospitalisations Over Time. This figure displays the 7-day rolling averages of cases, deaths, and hospitalisations throughout the pandemic, segmented by waves. This visualisation smooths out short-term fluctuations to reveal long-term trends.