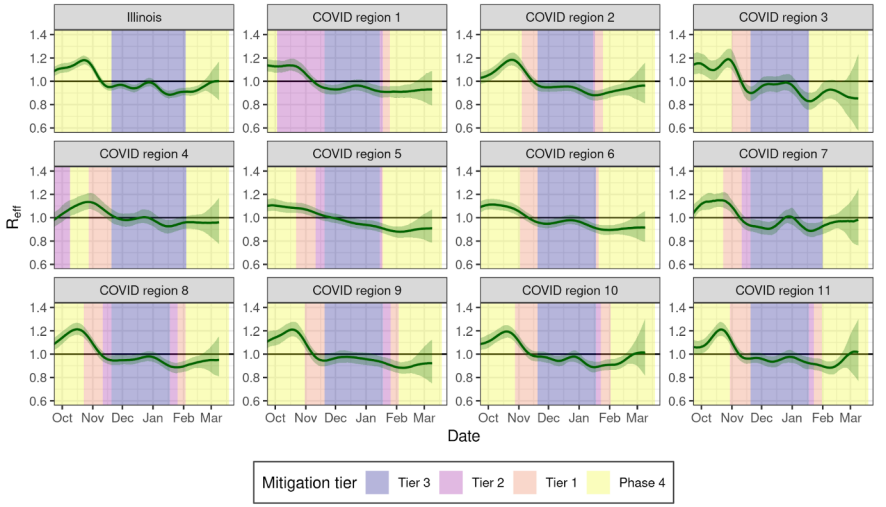
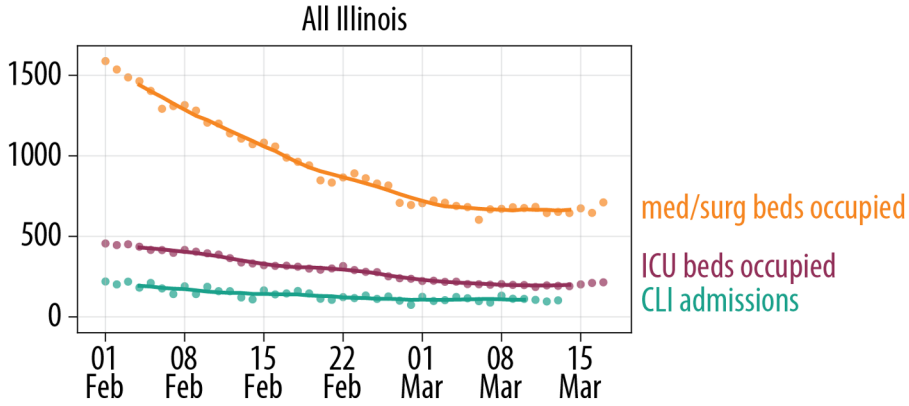
THE UNIVERSITY OF CHICAGO

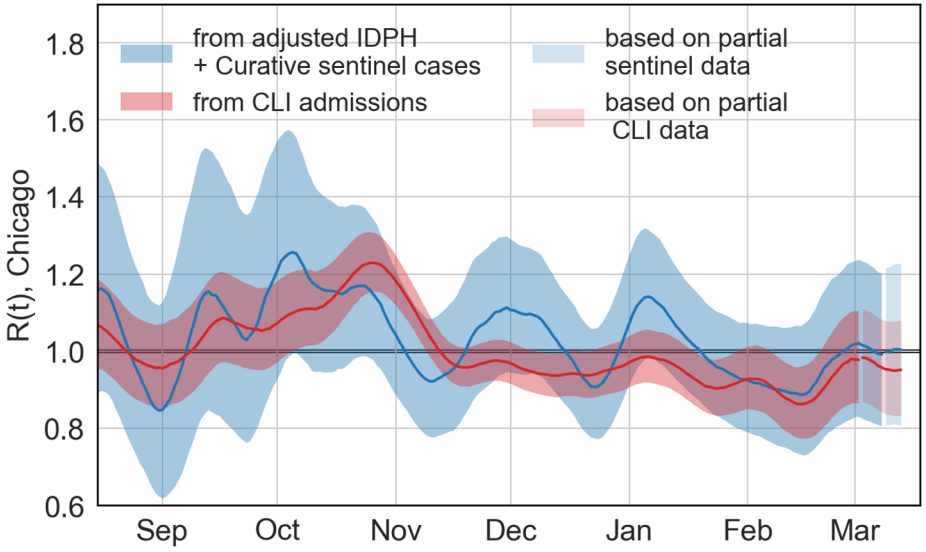
- As of March 9, $R_{eff}$ **in regions 10 and 11 was at or slightly above 1, indicating that transmission was no longer declining.** This is consistent with more recent data showing that census hospitalizations in these regions are leveling off.
- **Metrics for moving to the Bridge Phase risk being insensitive to recent trends in transmission and could lead to premature relaxation of restrictions.**
  - Using a 28-day window to evaluate trends in CLI admissions and hospital census will mask more recent upticks in epidemic growth.
  - Even if hospitalization metrics are not significantly increasing, flattening trends are still concerning and reflect sustained transmission.
  - Reimposing restrictions based on ICU availability might be too late to stop future outbreaks.



Northwestern University

- **Transmission is no longer decreasing.** $R_t$ is currently at or slightly **above 1 in all Regions**.
- Sentinel surveillance in Chicago also estimates $R_t \sim 1$.
- Hospital med/surg and ICU bed occupancy is slightly **trending up**.
- However, because of increasing vaccine coverage in the most hospital-prone population (adults age >65), previous gold-standard **hospital indicators are now less reliable in detecting changing transmission.**
- Given increased $R_t$, variants of concern, and limited visibility into changing community transmission, **equitable vaccination must precede easing mitigations** in order to protect those most vulnerable.
- **Sentinel surveillance** can detect trends up to 10 days in advance of hospital admissions. **Quality surveillance is critical to quickly identify areas with increasing transmission.**



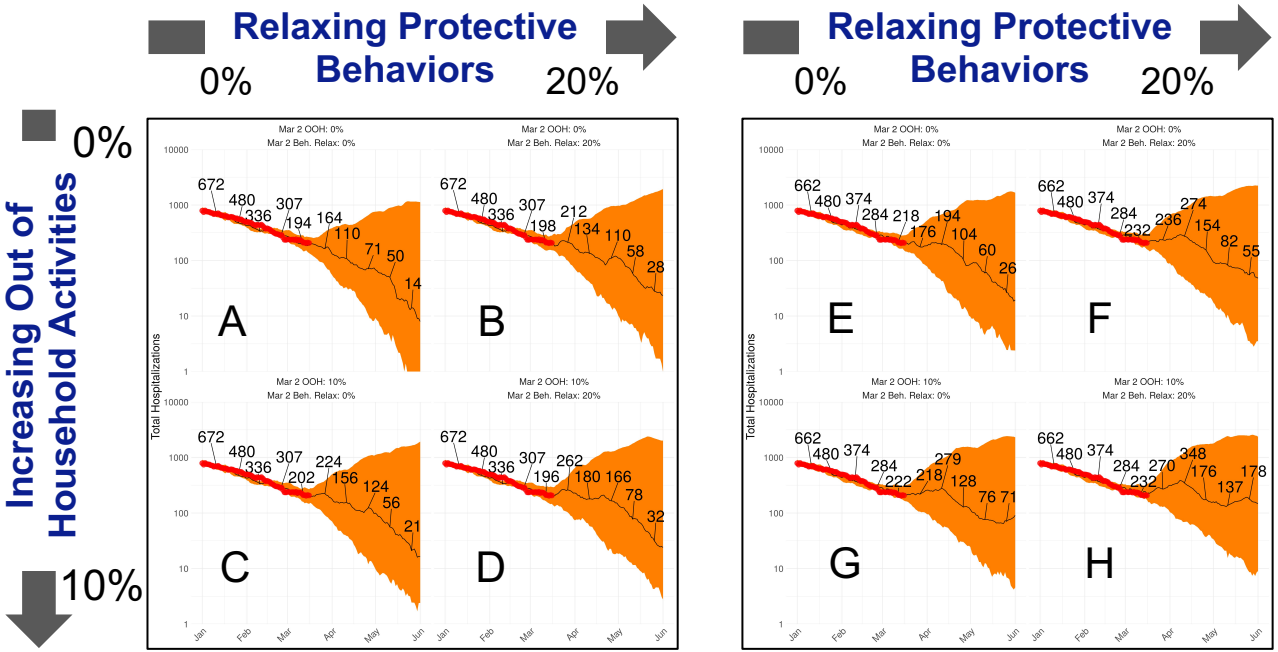

March 19, 2021

# VARIANT x MARCH 2 RELAXATION

Argonne NATIONAL LABORATORY

Feb 1 variant prevalence **4.5%**

Feb 1 variant prevalence **7.6%**




- We modeled the combined effects of the B117 variant and the March 2 lifting of restrictions for Chicago on hospitalizations
  - Increased out of household activities by 10%
  - Increased relaxations in protective behaviors by 20%
- We identified Feb 1 variant prevalence scenarios consistent with current hospitalization data, showing Feb 1 variant prevalences of 4.5% and 7.6%.
- In the 4.5% scenario, panels A-C show continued decreases to June, while panel D shows a plateau until mid to late April before declining.
- The 7.6% scenario shows that combined increased activities and behavior relaxation (H) can lead to a plateau through the end of May.

The B117 variant is **more transmissible** (x1.4-1.5) and leads to **more severe outcomes** (x1.67). Given the uncertainty about the actual prevalence of B117 in Chicago, it is important to continue to stress social distancing practices and to distribute vaccines as quickly as possible to avoid another resurgence.

Note: Simulations do not consider the effect of vaccinations, which would decrease hospitalizations.

March 19, 2021