THE UNIVERSITY OF CHICAGO

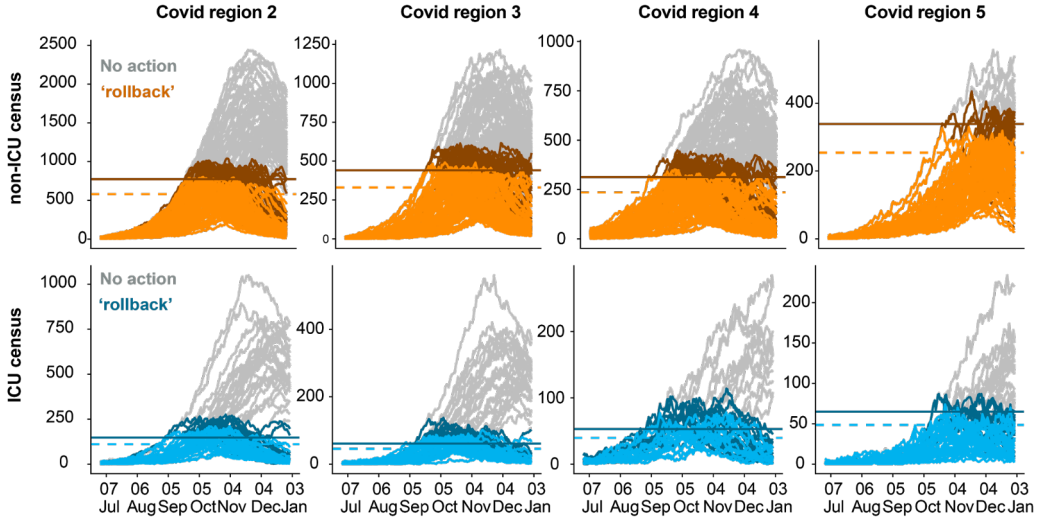
- **The epidemic is likely growing across the state.** R_{eff} was at or above 1 in all regions on August 8, the last date on which we can estimate R_{eff} well given reporting delays. Since then, cases have continued to increase in nearly all COVID regions, including in regions with R_{eff} near one, and hospitalizations are rising in COVID regions 2-6.

- **Interventions to reduce transmission remain important for epidemic control.** These include closing bars and restaurants and increasing compliance with mask-wearing and social distancing guidelines, especially indoors.

- **Less lagged estimates of R_{eff} would significantly improve our ability to detect recent changes in transmission and facilitate agile interventions.** Sentinel outpatient surveillance would provide the clearest and earliest signal, especially when transmission is focused in younger age groups. Daily reports of confirmed COVID-19 hospital admissions with dates of symptom onset could also be used to calculate R_{eff} with slightly more lag.

Northwestern University

- Transmission is **holding steady or increasing** in all parts of the state, based on lagged indicators.
- If current (lagged) trends continue, Regions 2, 3, 4, and 5 are predicted to overflow ICU capacity within the next 2 months.
- We can't assess yet whether Region 4 interventions have had any impact, because **indicators are too lagged and fluctuate a great deal because of low numbers**.
- **Sentinel surveillance** would help mitigate both the lagging and the low-numbers problems.
- We tested the impact of rolling back to June restrictions when capacity hits 75% (light color) or 100% (darker color) of availability.

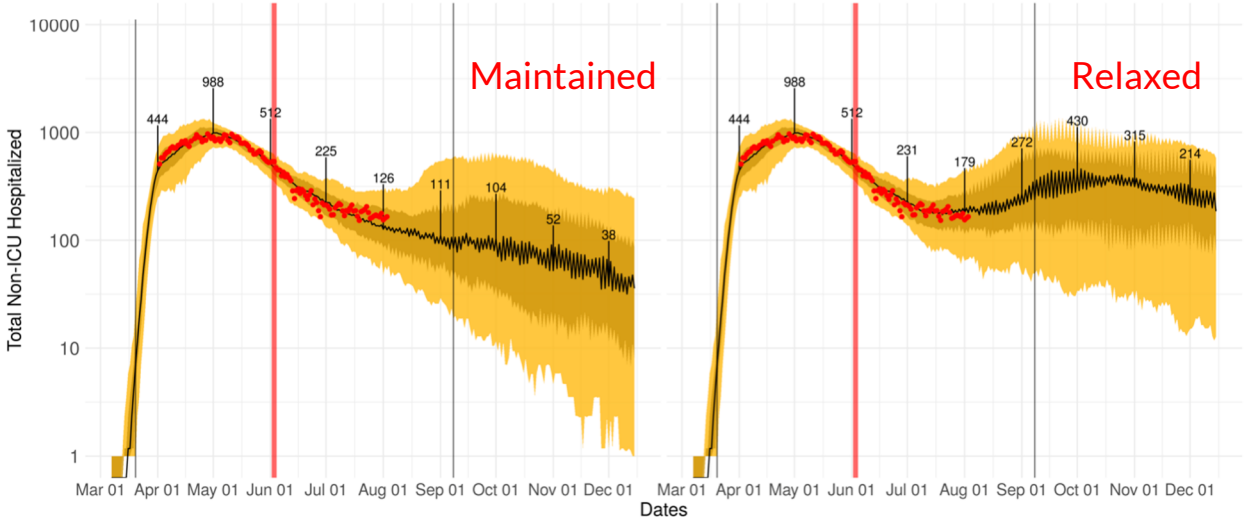


- Immediate action when the 75% trigger is reached could prevent exceeding capacities, but could also be too late in some cases--- ICU or med/surg bed needs could still exceed availability.
- We need **better indicators to tell us sooner** if interventions are working, or if we need immediate action --- **sentinel surveillance will help**.

Aug 15, 2020

Argonne NATIONAL LABORATORY

Maintained vs. relaxed behaviors for 18-40 year olds



- Based on our simulation analyses we find that the overall trajectory of the COVID-19 epidemic in Chicago is very sensitive to even slight increases in relaxed behaviors among the 18-40 age group.
- Here we show two scenarios where, coinciding with the Phase 4 reopening on June 26, 18-40 year olds either maintain their SIP protective behaviors or exhibit slightly more relaxed self-protective behaviors, resulting in a 20% increase in transmission probability per encounter.
- These results continue to show the important role that individual protective behaviors can play in reducing the spread of COVID-19.

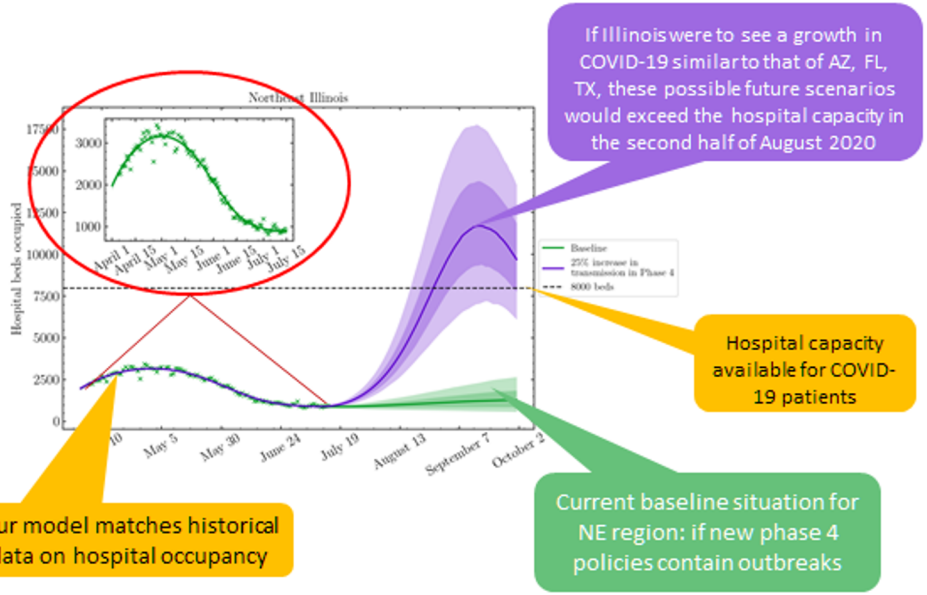
Aug 15, 2020

ILLINOIS

Second wave continuing, but below hospital capacity for now

- Second wave continues as previously predicted
- We developed methodology to calculate if hospital and ICU bed capacity will be exceeded in the next 4 weeks
- Explained with two hypothetical scenarios for Northeast in the right pane
- Currently, we do **not** see a risk of exceeding capacity in next 4 weeks
- The most likely region to breach threshold beyond then would be the Southern region
- Watching carefully COVID-19 regions 3, 4 and 7 & will report next week

How we calculate the likelihood of COVID-19 exceeding hospital capacity



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