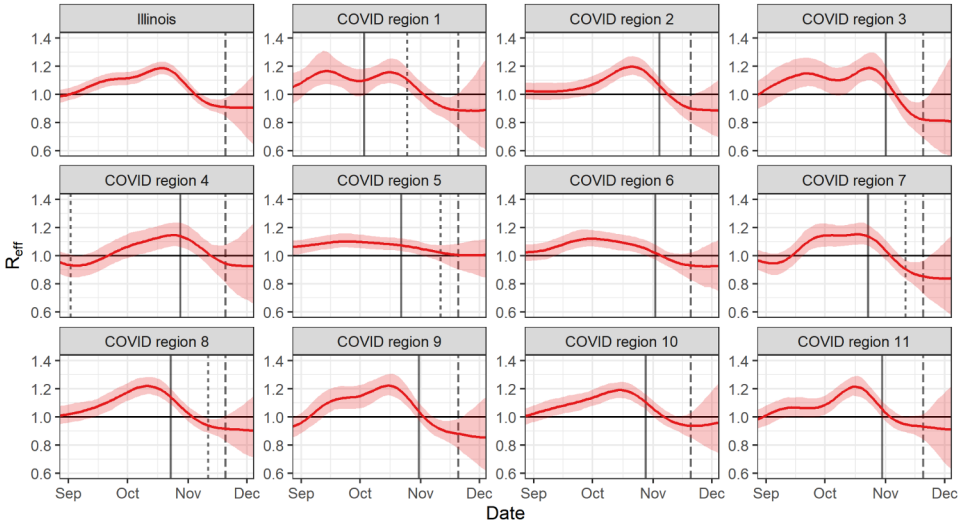
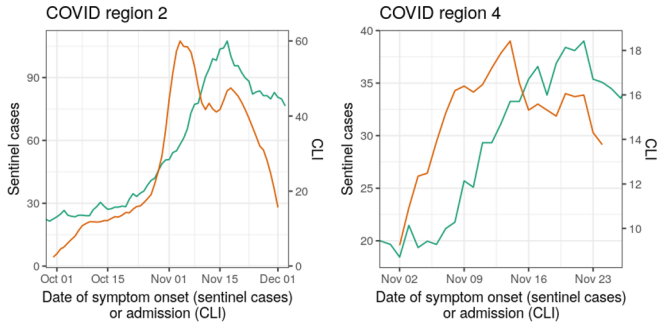
THE UNIVERSITY OF CHICAGO

- In all regions, R_{eff} was at or below 1 as of December 6, indicating that **transmission was steady or declining**. However, there are hints from the past few days that transmission might be starting to rise.
- **Expansion of sentinel surveillance appears could improve predictions of hospital admissions.** In regions 2 and 4, increases in sentinel cases appear before increases in hospital admissions.
- Depending on how prioritization groups 1b and 1c are defined, the **ACIP vaccine guidelines**, which have been said to determine Chicago DPH policy, might not minimize mortality.

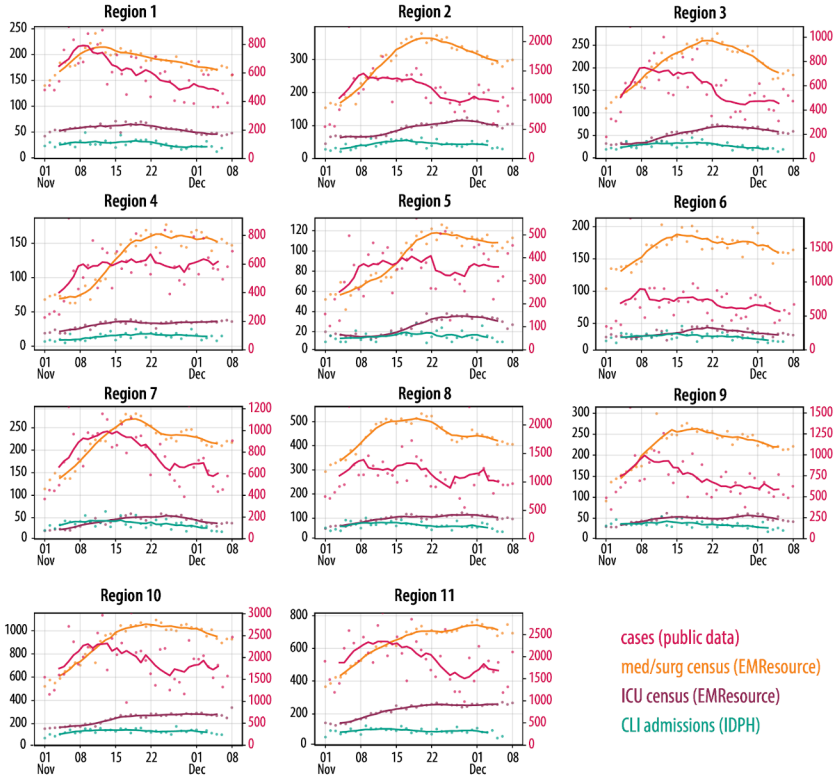




Dec 11, 2020

Northwestern University

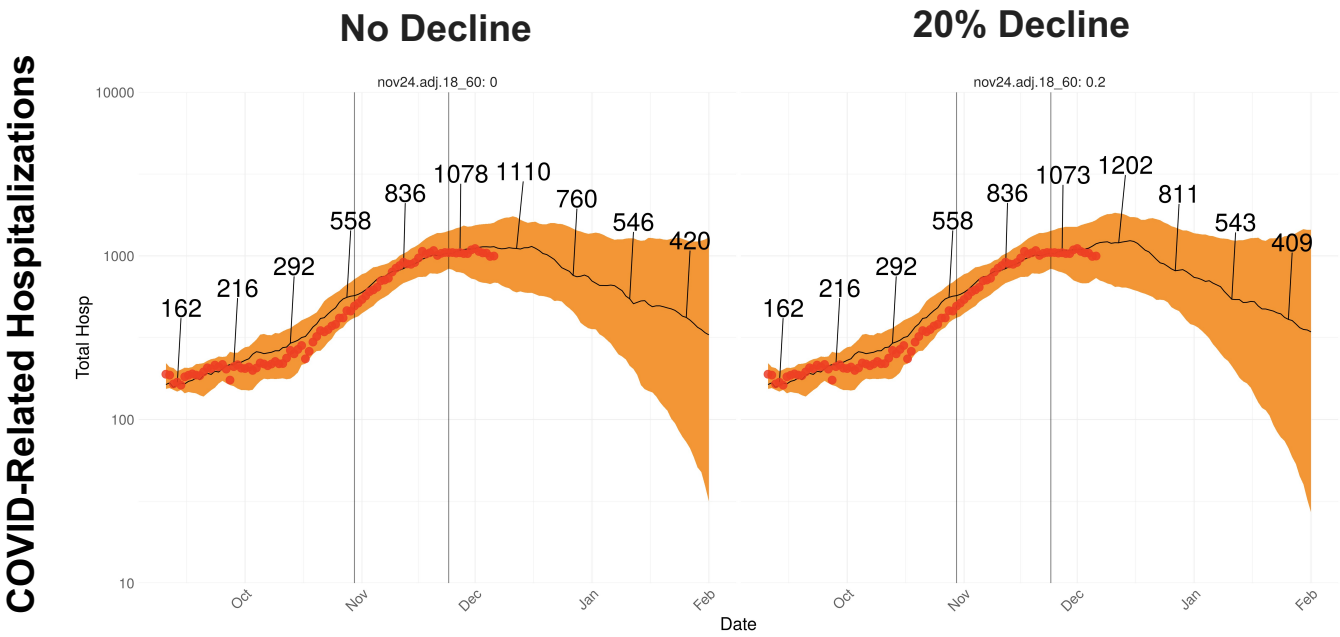
- Current trends are **decreasing or flat** in all Regions.
- **Flat is not good enough** because hospital occupancy is still high going into the holidays.
- It's still early to see a strong Thanksgiving bump. Turnaround time and reporting delays mean that case data is reporting ~1 week behind, and testing rates haven't yet recovered to pre-Thanksgiving levels.
- Even if we do not see a Thanksgiving bump, the holiday could have lessened the impact of current mitigation. **Lack of bump does not indicate family gatherings are safe during the holiday season**.
- **Sentinel surveillance** can detect trends **up to 10 days in advance** of hospital admissions, but those gains disappear if turnaround time is too long. TAT and reporting delays must be minimized to make the best use of sentinel surveillance.



Dec 11, 2020

Thanksgiving Effect: Updated 12/11/20

Varying Thanksgiving Effect: Decline in Protective Behavior



Vertical lines are dates 10/30, when the recent restriction order was issued, and 11/24, the start of Thanksgiving week. Results are for Chicago, Region 11.

Current Trends and Holiday Gatherings

- We studied the effect of the expected decline in protective behaviors around the Thanksgiving holiday, calibration based on updated data as of December 7.
- We ran two scenarios: Panel A in which there was no decline and Panel B, in which we assumed a temporary 20% decline in protective behaviors for the period Nov 24-Nov 30 that resulted in increased transmission for individual contacts.
- In both scenarios, median hospitalizations peak around December 15 to about 1110 (A) and 1202 (B), but the temporary decline in protective behaviors does not significantly alter the overall hospitalization trajectory.
- Scenario A appears to be more closely aligned with the empirical trajectory.

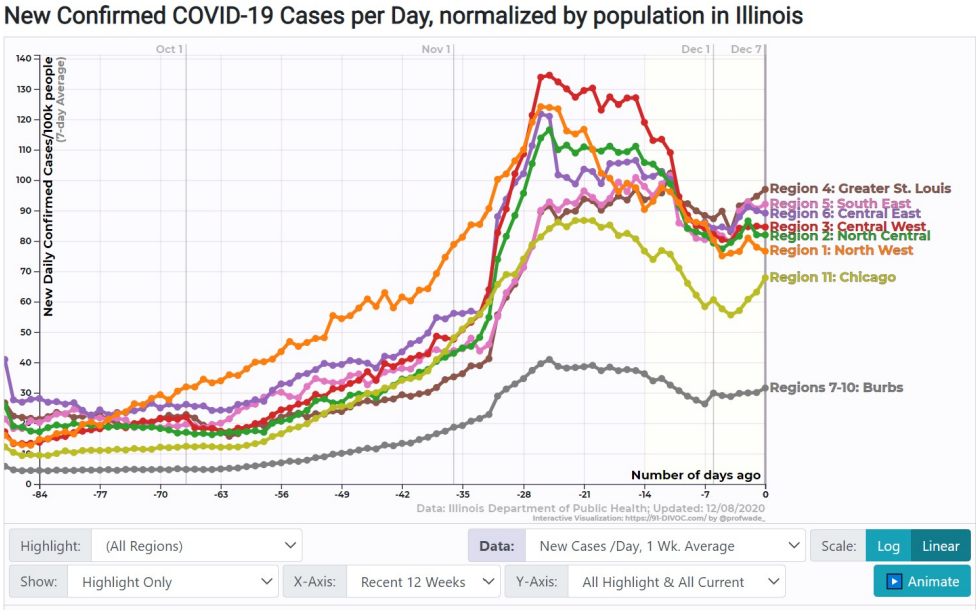
ILLINOIS

Our model predict low chance of ICU overflow this week, but the situation may dramatically worsen if new cases would continue to rise

1. The modeling outlook for both hospital and ICU overflow is good due to a drop in hospital and ICU beds and deaths before Thanksgiving

2. However, daily new cases (not used in our model fits) are rising again after December 2. This may be an artifact caused by filing delays due to holidays

3. If this effect is real, the modeling outlook may dramatically worsen in the next few weeks reflecting a new wave of the epidemic triggered by Thanksgiving.



Possible new wave of cases triggered by infections during Thanksgiving. This data for new daily cases/100k population is not used in our model fits.