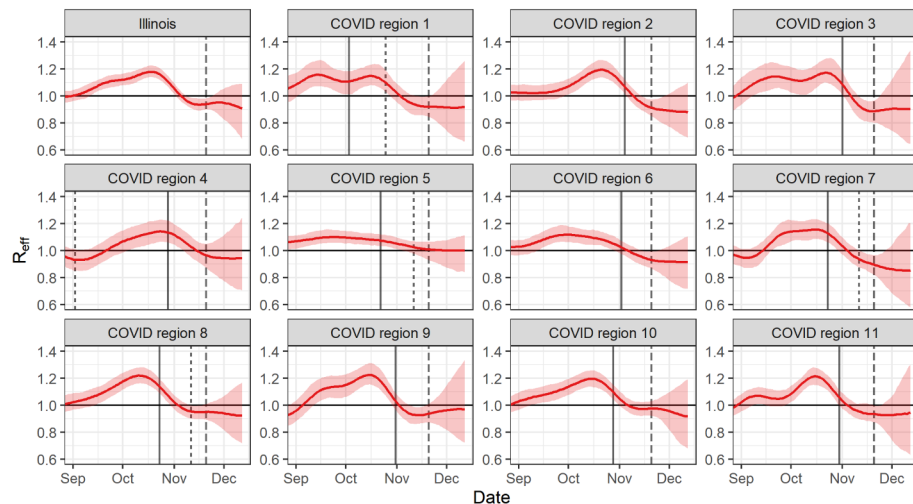
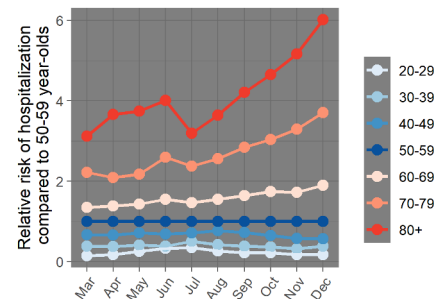
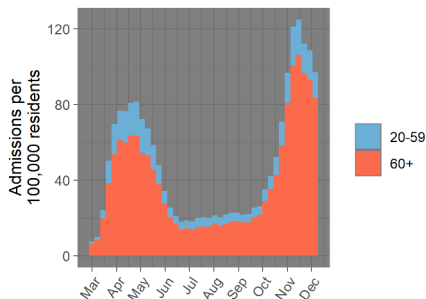


- In all regions,  $R_{\text{eff}}$  was at or below 1 as of December 12, indicating that **transmission was steady or declining**. However, hospitalizations in regions 4 and 11 hint at recent upticks in transmission.
- We estimate that statewide seroprevalence is currently **23%**, ranging from 16-31% by region. This assumes an initial 0.8% infection fatality ratio (taken from international studies) and is thus uncertain. **Representative serosurveys are needed for definitive estimates.**
- The **absolute and relative risk of hospitalization for those 60 years or older is higher now** than it was during the spring.



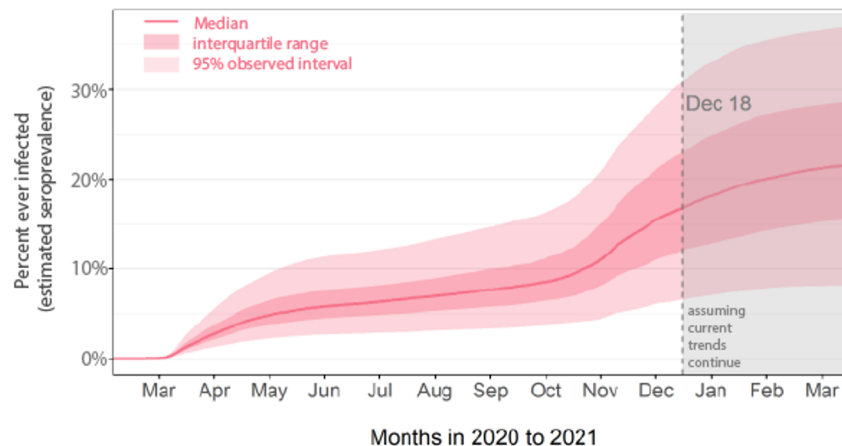
Mitigation tier | 1 | 2 | 3



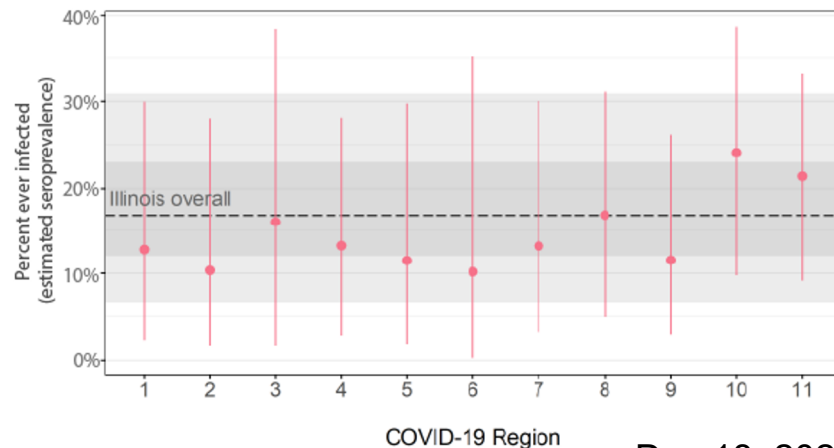
# Northwestern University

- Recent trends are not as rosy as 1-2 weeks ago: in many regions, declines are slowing and/or trends are flat.
- Med/surg and ICU census are both still high going into the holidays.**
- Testing is still lower than pre-Thanksgiving levels** for all age groups under 60. Testing continues to be lowest in the Hispanic/Latino population. Highest mortality rate is in Hispanic/Latino elderly, which is tested at <50% the rate of white elderly. Mortality rate in white elderly is now higher than during first wave for this demographic.
- An estimated **18%** of all people in IL have been infected as of mid-December. Seroprevalence ranges regionally from ~8% in Region 6 to ~25% in Region 10. We are still **far from herd immunity** and **vaccination coverage will need to be high**.

Model predictions for Illinois over time



Model predictions per COVID-19 Region for December 18



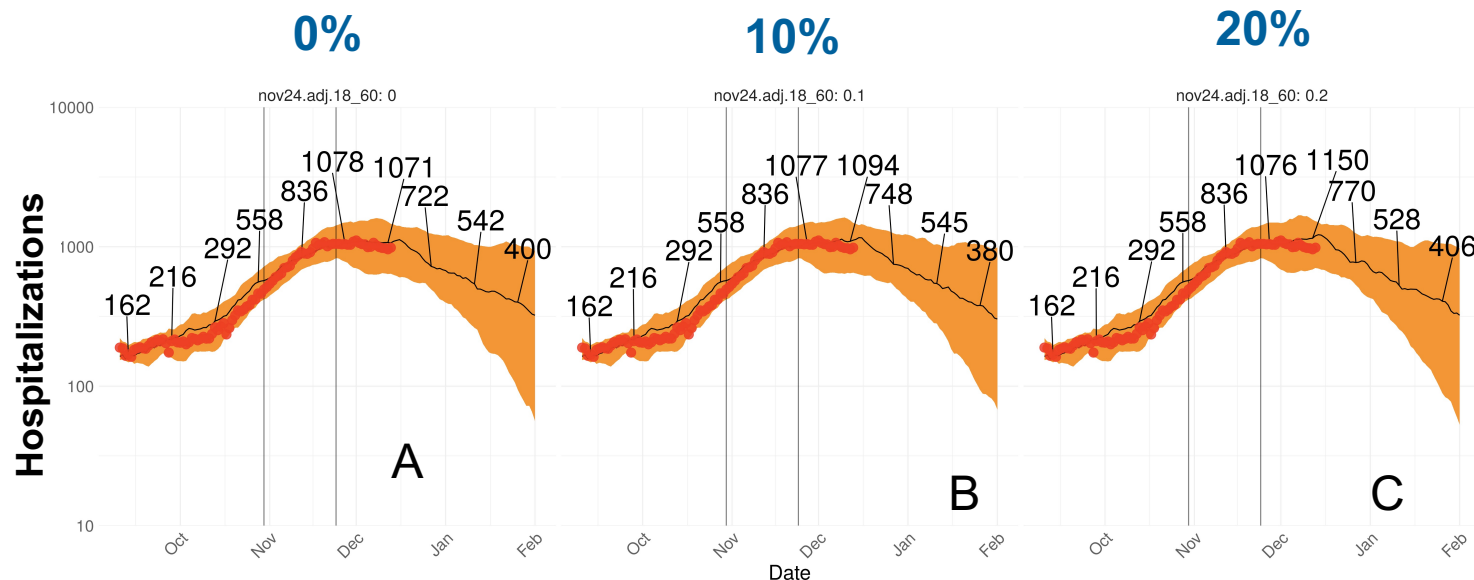
Dec 18, 2020

# Will there be a Thanksgiving Effect? Updated 12/16/20

Varying Thanksgiving Effect: **Decline in Protective Behavior**

## Current Trends and Holiday Gatherings

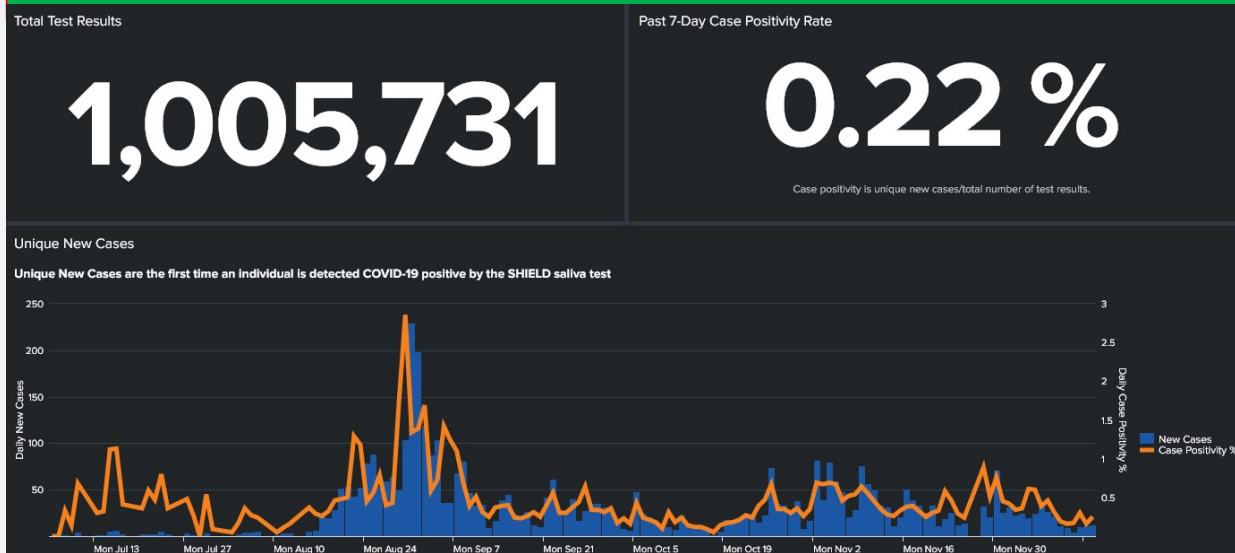
- We studied the effect of the expected decline in protective behaviors around the Thanksgiving holiday, calibration based on updated data as of December 13.
- We ran three scenarios: A: no decline, and B and C with temporary 10% and 20% declines in protective behaviors for Nov 24-Nov 30, resulting in increased transmission for individual contacts.
- Median hospitalizations peak around December 15 to a max of 1150 (C)
- The temporary decline in protective behaviors does not significantly alter the overall hospitalization trajectory.



Vertical lines are dates **10/30** and **11/24**. Results are for Chicago, Region 11. Note, results are on logarithmic scale.

1. UIUC's "SHIELD" program tested everyone on campus two or three times a week depending on risk, isolating cases and quarantining close contacts
  - (a) Partnership with Champaign-Urbana Public Health District
  - (b) Typically 10,000 tests per day
2. The SHIELD program is the first large-scale high-throughput surveillance testing of an entire population
3. Case positivity was typically in the range 0.1-0.4%
4. SHIELD achieved an estimated R0 in the range 0.5-0.7, based on its success in reducing cases after mini-spikes
5. No severe cases, hospitalizations, deaths. No evidence for transmission within classrooms or to the community
6. SHIELD is being rolled out at other universities (e.g. Wisconsin), companies and even countries
7. UIUC is starting to expand SHIELD to the Champaign-Urbana community
8. SHIELD is working on a number of trials to determine the vaccine effect on transmission of COVID-19

The University of Illinois at Urbana-Champaign completed its 1,000,000 COVID-19 test this week.



Dashboard from UIUC on Wednesday Dec 16 2020, showing the daily new cases and the 7-day case positivity of 0.22%. Excluding UIUC: