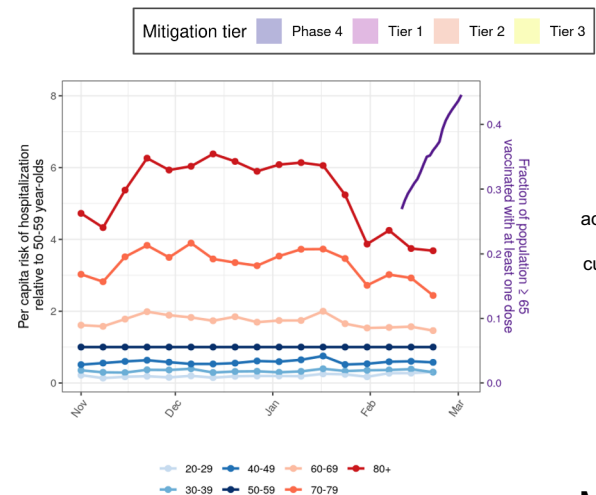
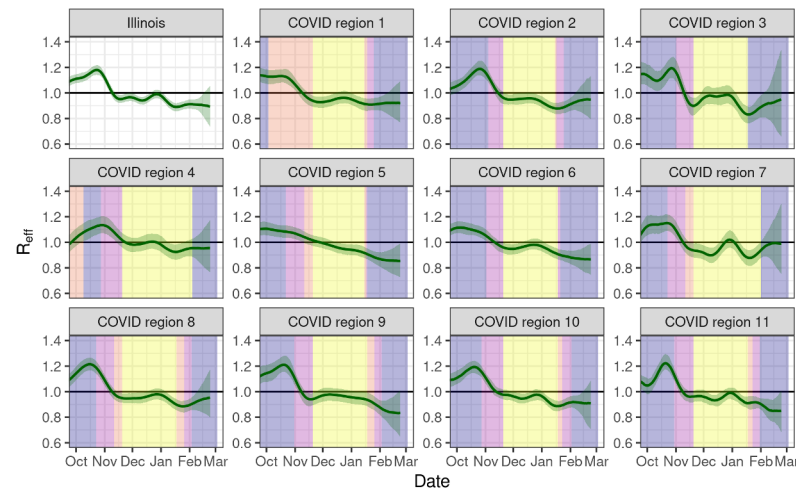
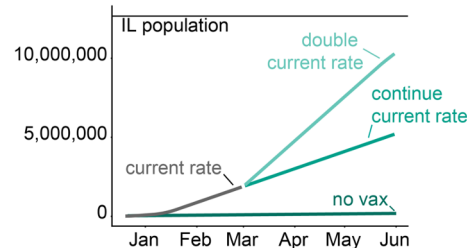


- In all regions, R_{eff} was at or below 1 as of February 23, indicating that **transmission was steady or declining**.
- We think an **increase in R_{eff} is very possible** due to the transition to Phase 4 and emergence of more transmissible variants. A recent CDC report indicates that relaxation of restrictions on on-premises restaurant dining significantly increases the growth rate of deaths. It is unclear how these factors will interact with seasonality.
- **Hospitalization risk among people ≥ 70 years old declined by 37% between January 17 and January 31.** Due to relatively low vaccination coverage among the elderly by January 31, we estimate that vaccination accounts for at most an 8% decrease in hospitalization risk during this time period.

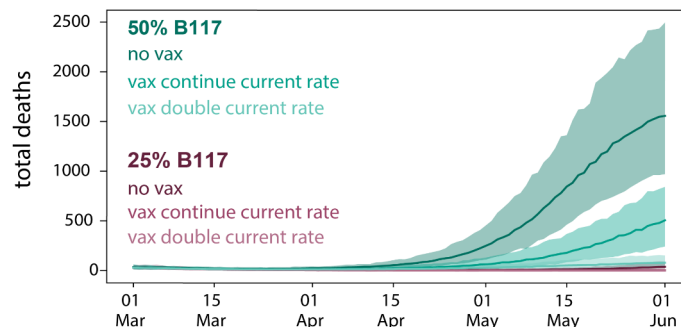


Calculated from CLI admissions. More recent data unavailable at current weekly cadence.

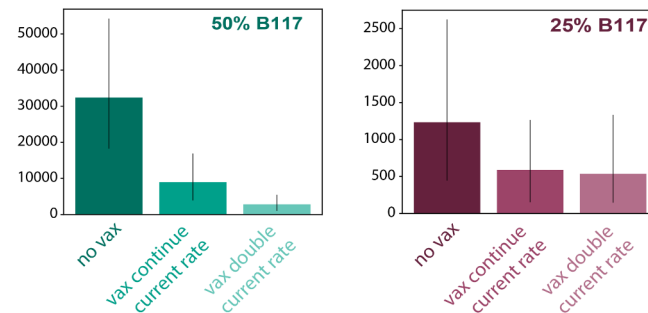
- R_t is hovering **just below 1** across IL.
- Vaccination continues to expand in IL, with **8%** of population now having received a 1st dose.
- State-level surveillance of the B.1.1.7 remains limited. Uncertainty remains around **how fast B.1.1.7 will spread**.
- We modeled hypothetical scenarios:
 - B.1.1.7, reaching 25% or 50% prevalence by June 1 with **increased transmissibility (50%)** and **increased hospitalization and lethality (50%)**.
 - Vaccine rollout, reaching either 30-60% or 60-100% of population per region by June 1 (1st dose), with **decreased transmissibility (90%)** and **decreased hospitalization and lethality (>95%)**.
- Depending on how fast B.1.1.7 prevalence increases, we could still be looking at **10,000** more deaths by June if vaccination continues at its current rate.
- **Quickly detecting increases in transmission** is critical so we can respond with mitigations as we continue to increase vaccination rate.



Number of deaths projected for Illinois



Total deaths projected for Illinois Mar 01 - Jun 01



POSSIBLE EFFECTS OF MARCH 2 RELAXATION IN RESTRICTIONS

March 5, 2021

Increasing Out of Household Activities

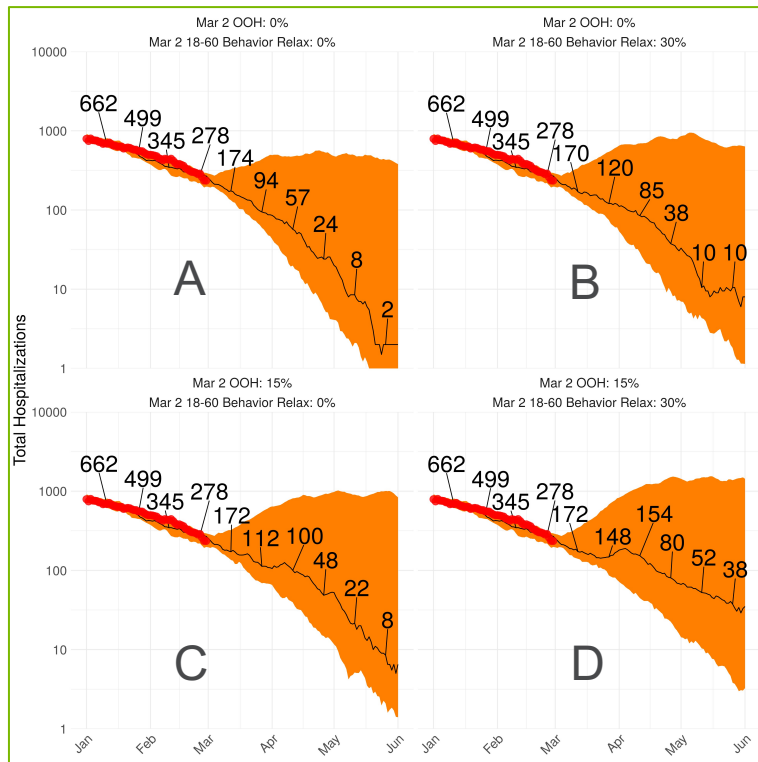
Relaxing Protective Behaviors

0%

30%

0%

15%



- We modeled the effects of the March 2 lifting of restrictions for Chicago on hospitalizations
 - Increased out of household activities by 15%
 - Increased possible associated relaxations (for example, due to more people eating indoors) in protective behaviors by 30%
- Baseline forecast of hospitalizations (A) continues to decrease to June
- Hospitalizations continue to decline with minimal increase in hospitalizations for each factor separately (B and C)
- Both factors combined continue to result in declining hospitalizations overall (D), but also produce a short-term spike, and non-linear interaction effects lead to more hospitalizations than either factor separately (38 vs. $18 = 10 + 8$)

Note: Simulations do not consider the effect of vaccinations, which would decrease hospitalizations, and the effect of the B.1.1.7 variant, which based on early prevalence estimates and preliminary analyses were shown to have negligible impact in previously reported CityCOVID results.

- 10-14,000 saliva tests/day of the UIUC community: staff/faculty, undergraduates & graduate students
- Scan for S-Gene Target Failure (SGTF) indicative of B117 (but potentially also benign variants)
- Early 2021 SGTF confirmed as B117 by genome sequencing – so no longer doing genotyping
- 30 cases in January
- 54 cases in February
- B117 ~ 40% of weekly cases in early March
- Growth occurring despite accelerated isolation of suspects
- Contact tracing: many cases associated with in-state travel
- Growth occurring even though UIUC case positivity ~ 0.1%
- Aggressive surveillance testing may be slowing but not preventing community spread of B117
- UIUC test catches suspects early in viral dynamics cycle, so not satisfying reporting requirements of IDPH
- Conclusion: prevalence of B117 in Illinois is likely under-reported

March 5, 2021

