

Nearly 1 in 4 COVID- 19 deaths potentially attributable to surge-strained hospitals

A case in point for load balancing

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Disclosures

- **No financial interest or relationships to disclose**

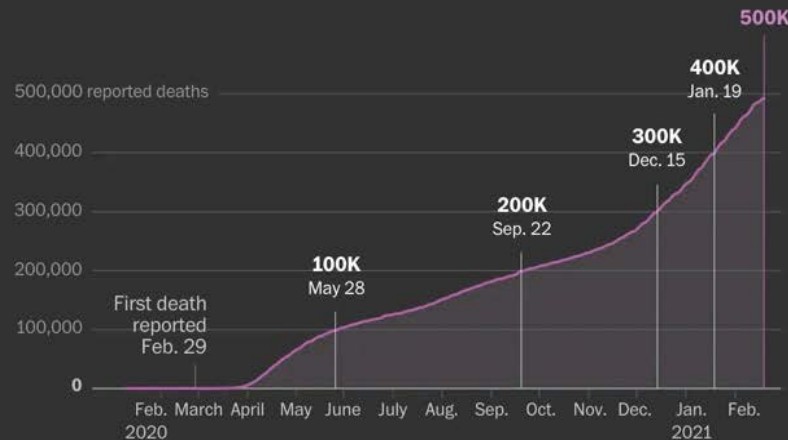
Ominous Landmark: But Why Are They Dying?

The Washington Post
Democracy Dies in Darkness

631,000 (AUG '21)
National

~~500,000~~ dead, a number almost too large to grasp

Here are three ways to visualize the monstrous death toll of the coronavirus in this country



By Artur Galocha and Bonnie Berkowitz

Feb. 21, 2021

Virus?

Age, Comorbidity?

Care Quality?

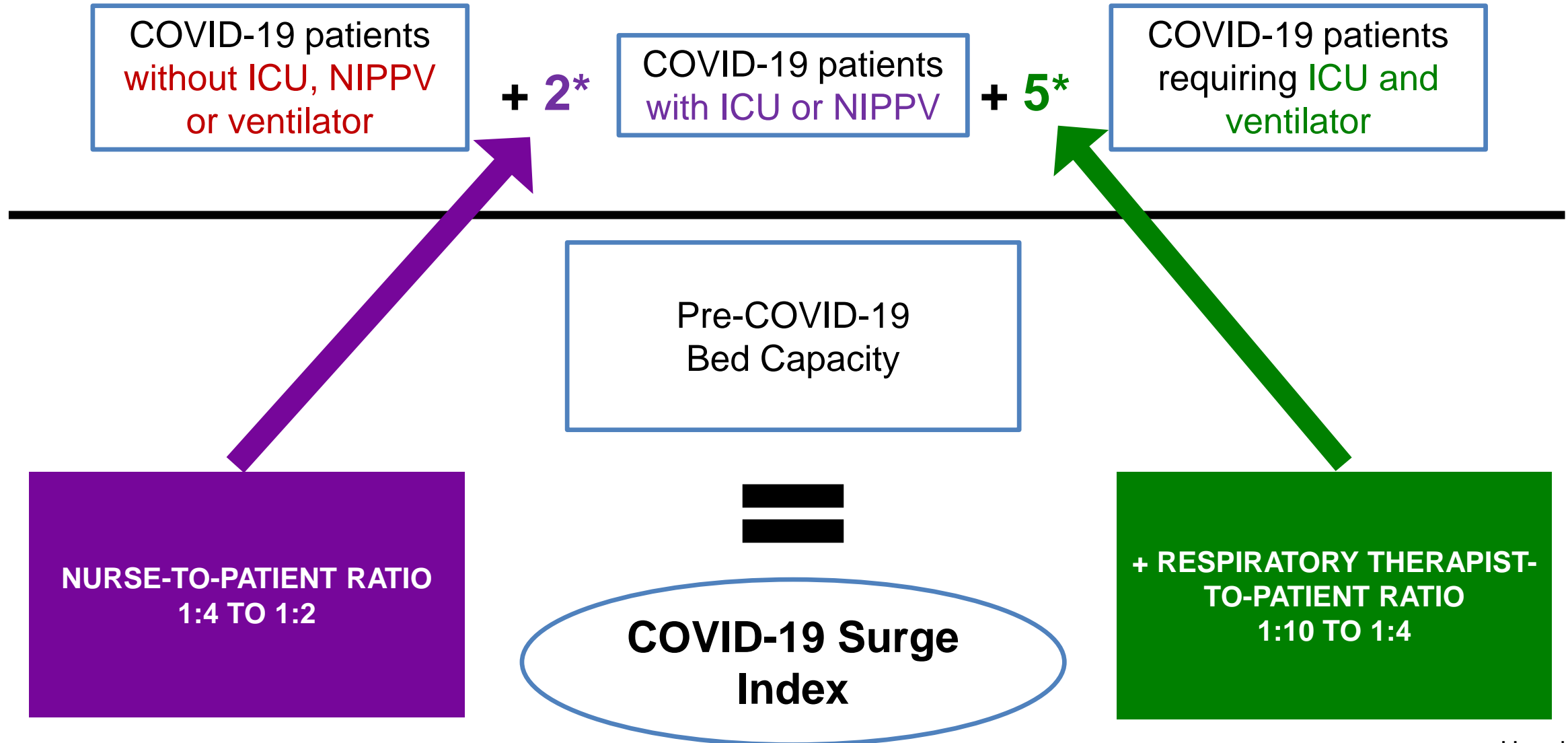
Modifying Care Standards comes at a Cost

- Medication errors
- Provider fatigue
- Scanty documentation
- Higher bar to hospitalize
- Earlier trigger for comfort care
- Practicing outside scope
- Impact on non-COVID illnesses



Photo Credit: Scott Ball / San Antonio Report; Reuters

Surge Index Formula



Added value of Surge Index over Patient Counts

HOSPITAL A, 100-bed

June 2020
20 COVID-19 admits

None needing intubation,
ICU or NIPPV

CASES=20
SURGE INDEX=2

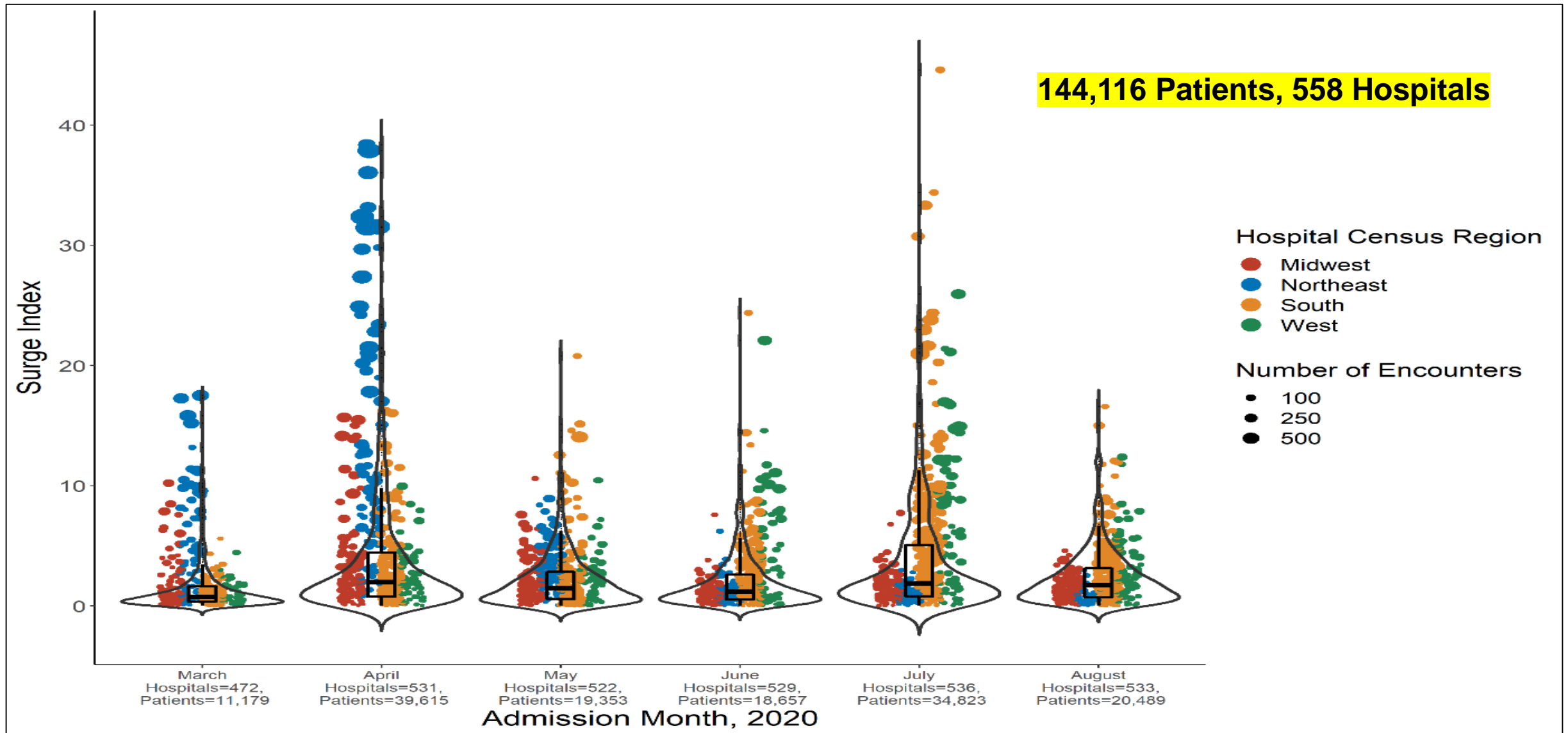
HOSPITAL B, 50-bed

June 2020
20 COVID-19 patients

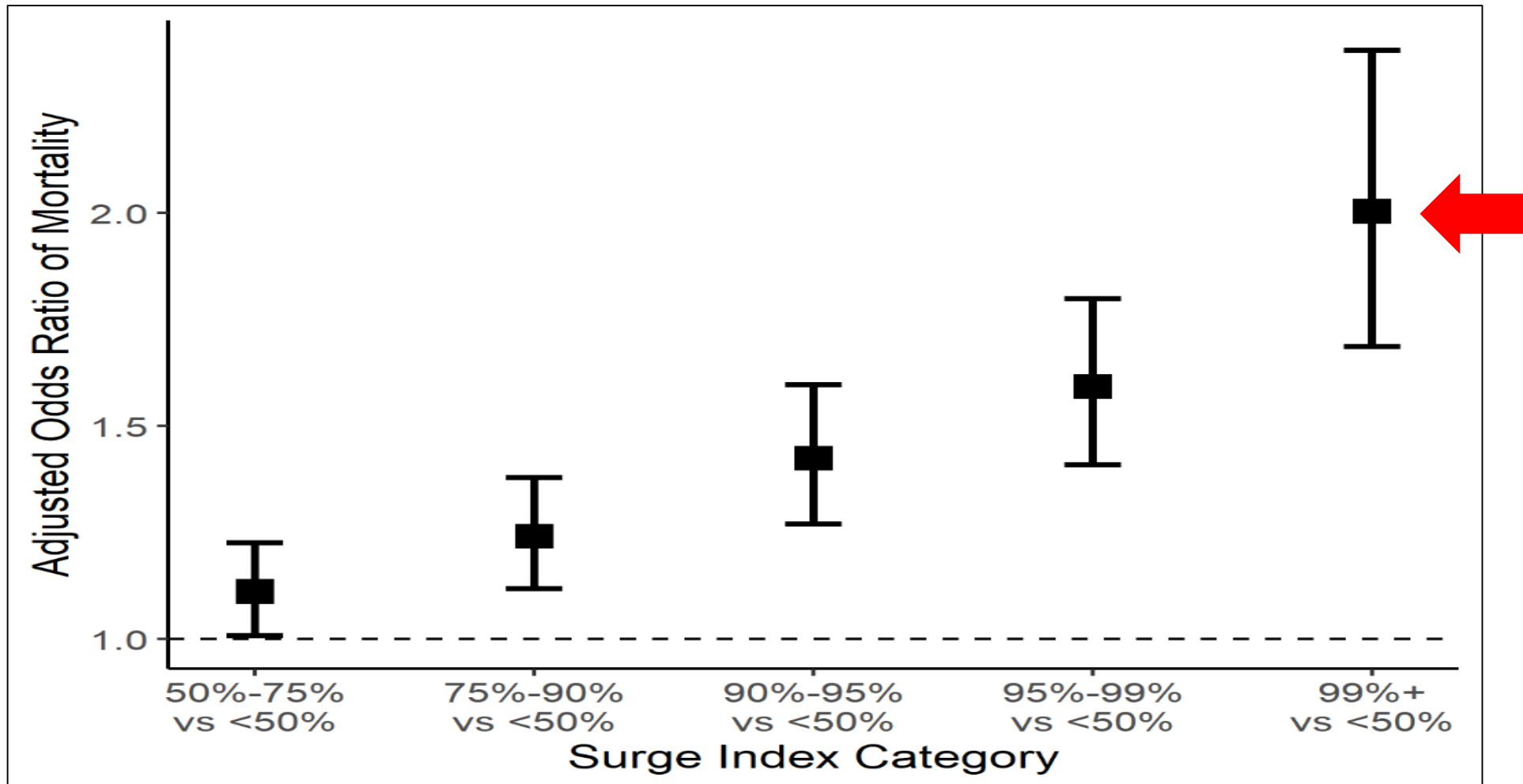
All intubated

CASES=20
SURGE INDEX=20

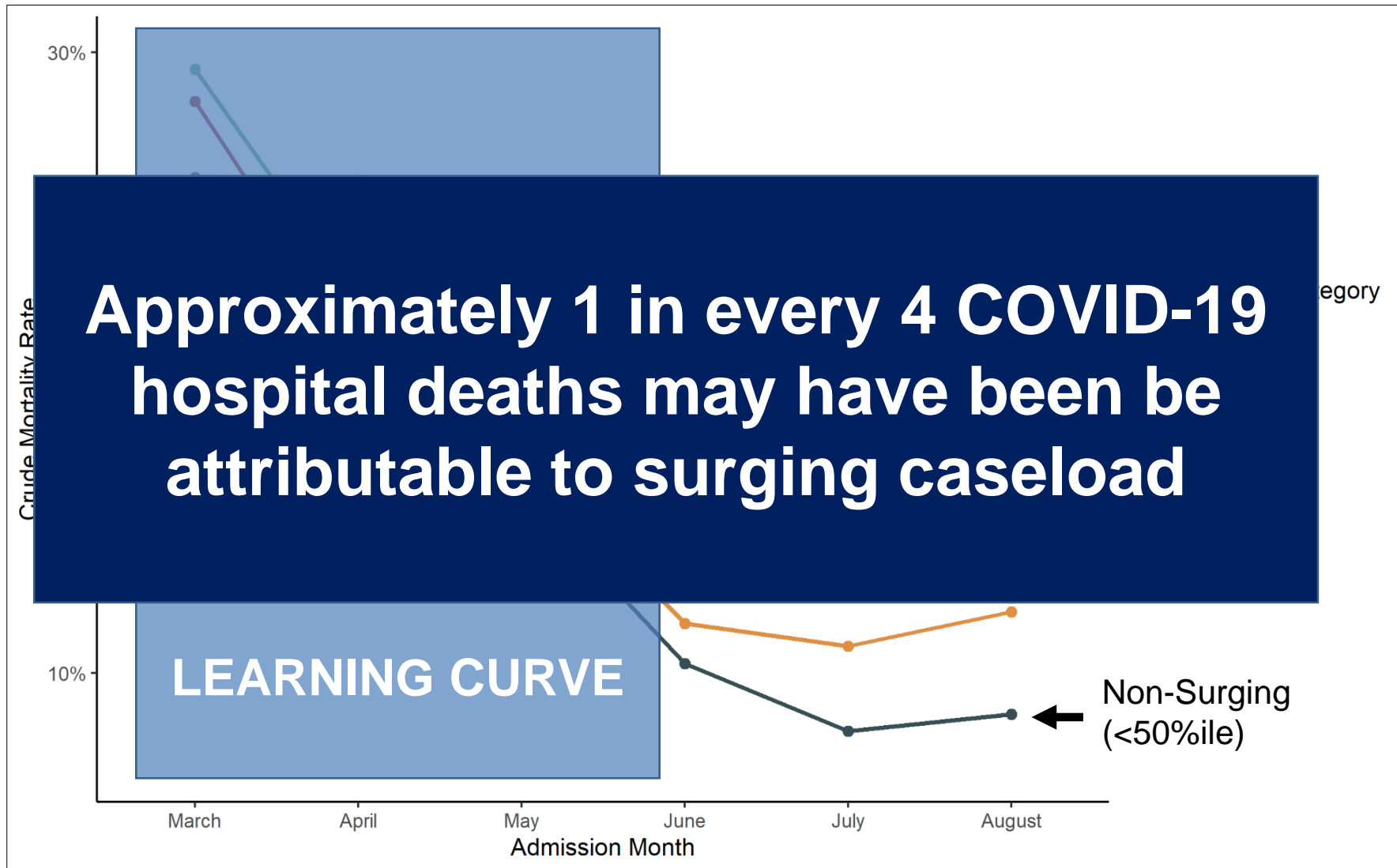
Surge Index Varied by Hospital, Month, & Region



Mortality risk **doubled** at worst hit hospitals



Excess surge-related mortality **persisted** despite overall survival improvements



Lessons for Hospitals and Governments

- Top decile of surge index → **80%** of caseload surge–attributable deaths
- Top 1 percentile → **37%** of caseload surge–attributable deaths



No. of hospitals in the top 1% of Surge Index

Mar-May 2020 : 49 hospitals

Jun-Aug 2020: 20 hospitals

→ **Earlier** support to and decompression of these **few** hospitals **could have saved many lives**