



Samir Akre

Background

COVID-19 mortality forecasting models provide critical information about the trajectory of the pandemic to **guide decision-making**. There are many forecasting groups making it difficult to assess which to trust and why. [Covidcompare.io](https://covidcompare.io) was built to **enable comparisons of top forecasting groups** and offer insight into how each has performed over the course of the pandemic.

Methods

Data and Code

- Data aggregation framework from Friedman, Liu et al Nature Communications 2021
- Front-end: Next.js and React
- Back-end: SQL
- Open source: github.com/covidcompare

Website Layout and Design

- [Model Forecast](#): View current forecasts any country or U.S. state
- [Model Performance](#): View a heatmap depicting historical error across different models in different regions
- [Historical Errors](#): View all versions of a single modeling groups forecasts in a country or U.S. state

Usability Testing

- Post-study System Usability Questionnaire (PSSUQ)
- Administered to 8 participants

Results

- >5k Unique users globally and 20k page visits
- Usability scores better than benchmark

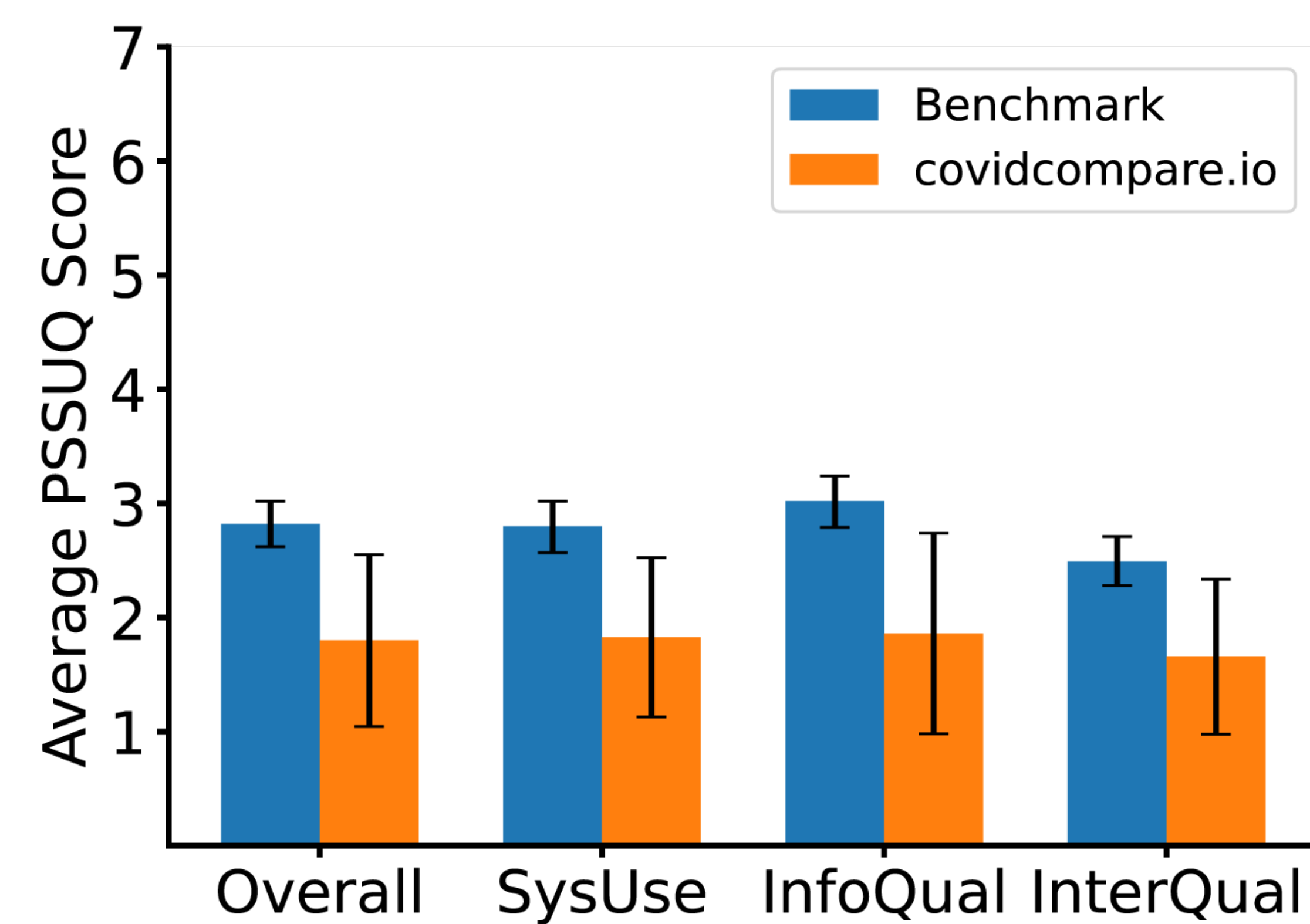


Figure 1. Performance of covidcompare.io (n=8 participants) and benchmark comparison from 21 studies (n=210 participants) on usability metrics. Error bars indicate 99% confidence intervals.



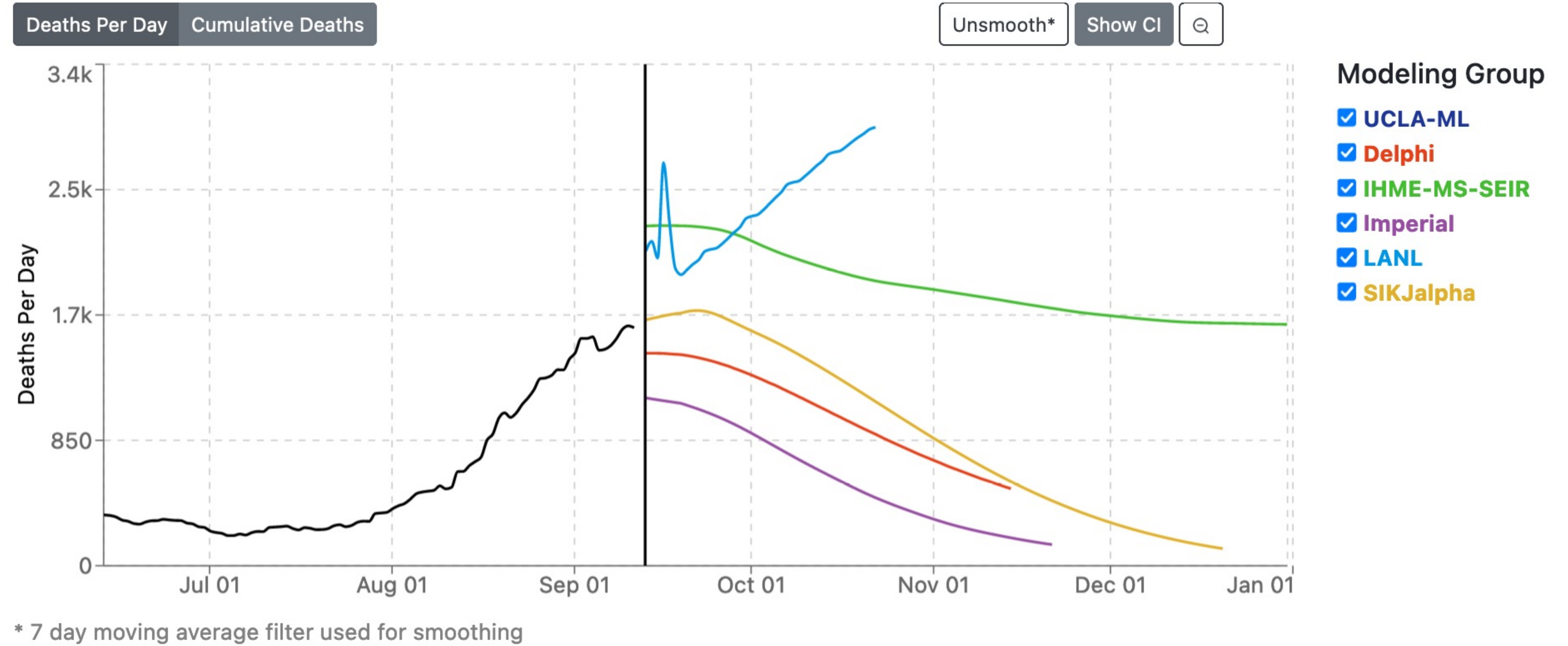
Covidcompare.io

Compare the top COVID-19 mortality forecasts *globally*

Samir Akre, Patrick Y. Liu, Joseph R. Friedman, Alex A. T. Bui
Submitted Manuscript

Model Forecast Page

United States



Model Performance Page

Region: Global

Error Metric: Median Absolute Percent Error

Model Month: Jan, 2021

Forecast week: 1-12

	1	2	3	4	5	6	7	8	9	10	11	12
UCLA_ML	0.95	2.22	3.5	4.88	6.3	7.63	8.97	10.21	11.07	12.08	12.61	14.1
Delphi	1.32	2.83	4.5	6.38	8.43	10.32	12.48	14.19	16.43			
IHME_MS_SEIR	0.88	1.83	3.17	4.24	5.45	6.87	8.05	9.24	10.58	12.43	13.48	14.9
Imperial	0.89	1.92	2.98	4.24	5.71	7.18	9.49	11.36	14.22	17.13	19.63	22.62
LANL	0.74	1.56	2.59	3.59	4.63	5.82						
SIKJalpha	0.7	1.49	2.45	3.5	4.53	5.77	7.08	8.67	10.46	12.23	14.14	15.85

Historical Errors Page

