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An Examination of Global Perioperative Mortality

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My research is focused on investigating death in the period surrounding surgery. I am collecting studies from all over the world published after 2014, extracting their data and running statistical models that account for similarities between patients imposed by clustering (e.g. patients operated on in the same country are more likely to have similar outcomes). The goal of this phase is to assess time trends in perioperative mortality; examining if surgery is getting safer.

The results will then be used as prior information to inform a second set of analyses using data from the COVIDSurg international study. The goal of this phase of the project is to assess the current risk of perioperative mortality and causes of death globally.

Finally, a third phase will again use the COVIDSurg data to assess the effect that experiencing a postoperative complication has on the risk of perioperative death using advanced causal inference techniques.