

Laidlaw Research Proposal

With the first sets of dosages being delivered across the United States, Europe and the United Kingdom countries are being presented with a whole host of new issues: second waves, lockdowns, and more. However, the problem which will define these next 10-12 months is how these new vaccines will be produced and distributed. The question has turned from “Will there be a vaccine?”, to “Who will get the vaccine, and when?”. In turn, governments have been presented with a catch-22: join international vaccination efforts or concentrate on an exclusively national rollout. This is a unique challenge, as countries are being forced to choose between maintaining a spirit of international solidarity and aid, having been championed by the WHO and EU, or choose to focus solely on protecting the lives and livelihoods of their own citizens. While pre-pandemic global politics grew relatively globalized, the pandemic has tested many country’s loyalty to these efforts.

Through my research I intend to analyze and map how national governments choose to pool or take on individual risk in COVID-19 vaccine production, specifically examining the dynamics and decision-making processes that lead to these choices. Through the lens of game theory, I aim to build models of national and international governmental decision making in cooperative and non-cooperative games. This analysis would outline the benefits and drawbacks of collaborative or purely domestic vaccination programs, seen in the EU and US as well as informing the approach of countries yet to begin vaccinations and examining the feasibility of future global vaccination programs. While larger western countries have already made significant progress on vaccine production my research could be helpful to areas of the world which will not be able to begin production for some time.