Explore How Research Priorities Shift as COVID-19 Progresses
**Goal:** Understand how the development of COVID-19 affected research priorities and scientific development over time.

**Dataset:** Kaggle open dataset **COVID-19 Open Research Dataset Challenge (CORD-19)**
- 52365 unique scholarly articles about coronaviruses

**Hypothesis:**
- Virus origin -> transmission -> vaccines -> non-pharmaceutical interventions

**Methods:**
- 8 research categories: virus origin, transmission, risk factors, medical care, diagnostics and surveillance, vaccines and therapeutics, ethical and social science considerations, and non-pharmaceutical interventions
- assign each paper category(ies) through string matching in abstract
- Filter to containing covid19 keyword, published in 2020, and non-missing abstract

**Conclusion:**
- General focus shifts away from finding cues to preventive measures
From Jan to April:

- ~25% drop in viral origin
- ~5% drop in therapeutics
- ~5% increase in diagnostics
- ~10% increase in intervention
- A steady ~25% share in transmission

Potential reasons

- Increase of interest in medical health as healthcare systems reaches its maximum.
- Government encourages social distancing and enacts other non-pharmaceutical interventions.
- No effective vaccine has been developed

Figure 1: This graph shows changes in the research category composition from January 2020 to April 2020.
Figure 2: Changes in research trend corresponded with government policies; stay at home orders and lockdowns correspond to an increase in surveillance and medical care research. For instance, the declaration of national emergency (US) on 3/13/2020 immediately corresponded to an increase in diagnostics and surveillance research.