Briefing Note on Study Analyzing the Role of SARS-CoV-2 Variants in the First Million Recorded U.S. COVID-19 Deaths

Over one million people have died from COVID-19 in the U.S. Since its emergence in late 2019, the coronavirus has spread rapidly around the world and continued to mutate, producing new variants that are deadlier, spread faster, and/or better able to evade the body’s immune response. Uncontrolled spread of the virus, along with inequalities in global COVID-19 treatment and vaccine access, contribute to viral evolution.

In a new study, researchers at Public Citizen and the Yale School of Public Health estimated the number of COVID-19 deaths that were caused by new variants. They used public data from the Centers for Disease Control and Prevention on COVID-19 deaths by state and circulating variants.

Key findings:
- **New coronavirus variants have caused ~460,000 deaths in the United States.**
  - Alpha, Delta and Omicron—which were first detected in Europe, Asia, and Africa—have led to ~430,000 deaths so far.
  - The other lesser-known variants, including those that were first detected in the U.S., accounted for an additional ~30,000 deaths.
- **More than 40 percent of national COVID-19 deaths were caused by SARS-CoV-2 variants that were first detected outside the United States.**
- **The South recorded the most variant deaths per capita (158 per 100,000) and overall (205,729).**
  - State-by-state totals were also estimated (Table 6, 7).

Implications:
- **With 460,000 American deaths caused by new variants, it is critical for Congress to fully fund the COVID-19 response, fighting the spread of the virus at home and abroad, to better protect Americans from the risk of new variants.**
  - Only 16% of people in low-income countries have received at least one vaccine dose. U.S. government officials have warned that they are running out of funds to support global COVID-19 vaccination and treatment campaigns. According to Samantha Power, head of USAID, the U.S. has spent 95 percent of its international response funding. There has also been limited investment in next-generation vaccines that could offer better protection.
- **No one is safe until everyone is safe.**
  - The study shows the significant impact of coronavirus variants on U.S. public health, and highlights the potential risk posed to Americans by new variants—a risk that is only amplified with low global availability of COVID-19 diagnostics, treatments, and vaccines.
  - “To beat the pandemic here, we need to beat it everywhere.” — President Joe Biden