Data-Driven Decision-Making at the Gates Foundation During the COVID-19 Pandemic: *The Importance of the COVID-19 Trends and Impact Survey as a Publicly Available Research Tool*

The COVID-19 pandemic raised important questions about collecting and sharing COVID-19 data and highlighted the challenges associated with data-driven decision making. At the onset of the pandemic, there was a critical need to understand the spread and scale of COVID-19 and organizations and governments across the globe rushed to collaborate on how to best address the pressing global health crisis at hand.

One such organization at the forefront of COVID-19 strategy and decision making was the Bill & Melinda Gates Foundation. Since January 2020, the Gates Foundation has committed more than $2 billion to the global COVID-19 response. Funding allocation has covered a range of issues including supporting global efforts to design and implement testing programs, strengthening health systems to prepare for rising COVID-19 cases, developing new diagnostic, treatment and vaccines, ensuring equitable and timely vaccine delivery, and alleviating the broader effects of the pandemic by strengthening economic recovery, education, poverty alleviation, and gender equality efforts. Additionally, they made loans and other financing available to private sector partners to enable rapid procurement of essential medical supplies and help companies finance the production of COVID-19 products for low- and middle-income countries. In order to priority set across these various COVID-19 workstreams, the Gates Foundation relies heavily on numerous data sources to help them determine where they could be most effective.

The COVID-19 Trends and Impact Survey: Consistency in Measurement and Comparability Between Countries

One critical data source that informs the Gates Foundation global COVID-19 strategy, programming and funding is the COVID Behaviors Dashboard, which was developed using data from the COVID-19 Trends and Impact Survey (CTIS). The survey was designed and developed through a partnership between Meta's Data for Good program, the Johns Hopkins Center for Communication Programs (CCP), Carnegie Mellon University (CMU) Delphi Research Center, and the University of Maryland (UMD) Joint Program in Survey Methodology (JPSM). With over three billion people using Meta services, they were in a unique position to recruit survey participants across around the world. The CTIS collected over 100 million responses in 200+ countries and territories in 55+ languages. The survey was fielded daily on Facebook to help academic partners and policymakers learn real-time information on COVID-19 vaccine acceptance, preventative behaviors, symptoms, and more. CTIS data is imperative to Gates Foundation COVID-19 priority setting due to its global coverage, comparability in between countries and responsiveness to changing pandemic conditions.

> *"CTIS data helped us make strategic decisions on what we needed to fund, particularly early on in the pandemic when no other data sources were available. For example, when COVID-19 first started, people were concerned that there was going to be a lot of misinformation and high vaccine hesitancy across Africa. However, CTIS data showed us that this assumption was not accurate. Instead of wasting funds on massive persuasion campaigns across multiple countries, we funded more targeted interventions."*
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> - Tom Black, Gates Foundation

In addition to using this data to inform their funding strategies for COVID-19 prevention and vaccination across the globe, the Gates Foundation also uses CTIS data to keep their partners updated on weekly trends as well as to compare and supplement other data sources that they use for their research and programming.

Validation of Programmatic Findings

The Gates Foundation also uses CTIS data to better understand and validate their programmatic findings across countries. For example, they used CTIS data to track changes in perceptions of COVID-19 over time by country, which helped the team understand why vaccine rollout programs were more successful in some countries (such as Mozambique and Angola) over others. In India and Pakistan, researchers found that the question asking if the majority of people that survey respondents knew had gotten vaccinated was a key indicator for demonstrating that vaccine uptake was increasing in those countries. Lastly, several of the Gates Foundation's partner organizations are using CTIS data to understand the needs of their target population and to design their own social and behavioral change programs in line with those needs. For example, partners in Kenya found that a key barrier to getting the COVID-19 vaccine was people not getting time off of work, so they worked to make sure vaccines were available on the weekends and after work hours.

Publicly Available Research Tool

Rigorous surveys are difficult to design and implement on a global scale and can be both incredibly slow to conduct and costly to implement. Meta was in a unique position to reach survey participants from across the world quickly and they could easily adapt the survey to reflect changes in the pandemic and to meet the needs of public health officials and responders. Most importantly, they were able to partner with universities to ensure that the aggregated CTIS data is free and publicly available and that the microdata is available to nonprofit organizations and universities.

> *"If CTIS data hadn't existed as a publicly available research tool, we would have spent loads of money trying to get data to answer the questions that the CTIS covers. Having this data and embedding it with the JHU COVID Behaviors Dashboard helped all the large funders (World Bank, USAID etc.) by preventing us from funding several, individual studies. Instead, they were able to spend their funds on other important programs or interventions. The CTIS was incredibly important for this reason."*
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> - Tom Black, Gates Foundation

By rapidly creating a survey in response to the COVID-19 pandemic that was consistent in measurement across countries, global in coverage and allowed for data to be shared publicly, Meta ensured that many organizations such as the Gates Foundation could make reliable and timely data-driven decisions throughout the COVID-19 pandemic.