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A Trainee-led Social Media Advocacy Campaign to Address COVID-19 Inequities

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Abbreviations:

US — United States
BCRP — Boston Combined Residency Program
BMC — Boston Medical Center
BCH — Boston Children’s Hospital

Article Summary

The COVID-19 pandemic has exposed long-standing inequities and structural racism. In this case study, we describe advocacy campaigns aimed at highlighting and addressing these inequities.
Contributors Statement

Drs Jain, Kelly, and Mehta coordinated and carried out the advocacy campaign, drafted the initial manuscript, and reviewed and revised the manuscript.

Drs Perdomo, Stewart, and Tolliver provided mentorship throughout the campaign, and reviewed and revised the manuscript.

All authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.
Abstract

The COVID-19 pandemic has had a significant impact on the health of people globally. Yet, not all people are being affected by this crisis equally. In the United States, this pandemic has exacerbated long-standing inequities and entrenched structural racism. At the onset of the crisis, little data was available detailing the demographic characteristics of individuals with COVID-19. However, as data emerged, it became apparent that communities of color were disproportionately affected. In order to illustrate these inequities, we analyzed publicly available race and ethnicity data on COVID-19 cases and deaths and were one of the first groups to compile these findings. We launched a social media campaign to highlight these racial and ethnic inequities and raise awareness amongst the public and elected officials. Given the tremendous amount of missing data, we demanded transparency in state reporting of race and ethnicity data. Using both messaging and mapping tools, we publicized state and city efforts to address these inequities, focusing on the creation of task forces tackling the racial inequities of COVID-19. As racial and ethnic data on COVID-19 cases and mortality became more widely reported, statistics emerged about the downstream effects of these inequities. Despite initial false reassurance that COVID-19 largely spared children, the pandemic has exacerbated many social needs, leading to significant negative impacts on children. For example, as pediatricians, we saw how worsening food insecurity was affecting children. Using social media and infographics, we launched an additional stage of the campaign to illustrate these inequities and highlight advocacy opportunities.

Introduction

At the outset of the COVID-19 pandemic, there were numerous unknowns about the virus, including whether it was disproportionally impacting different subsets of the population. As COVID-19 began to spread in the United States (US), state and local departments of health started tracking known cases and mortality. Initial data in late March to early April 2020 reflected a notable paucity of demographic information, specifically about race and ethnicity. Furthermore, there was lack of coordination for centralized data collection and no standardized method of reporting data on a state or city level. As states and cities began to report race and ethnicity data, it became apparent that communities of color were bearing a disproportionate burden of disease.
This is not a phenomenon unique to COVID-19. Rather, the pandemic has highlighted and exacerbated the long-standing structural inequities, specifically structural racism, that place communities of color at a disadvantage in multiple spheres including access to housing, economic opportunities, education, transportation, food availability, and healthcare.³

The overarching goal of our advocacy work was to use social media as a tool to raise awareness amongst elected officials, healthcare professionals, and the public on the differential impact of COVID-19 by race and ethnicity. Our objectives included the following:

- Highlight the disproportionate direct impact of COVID-19 on communities of color
- Amplify calls for state reporting and sharing of COVID-19 impacts by race/ethnicity, and draw attention to states/cities lagging behind the national trend in reporting
- Publicize the cities and states that created task forces to address reporting on racial and ethnic data and their accompanying recommendations
- Combat misinformation regarding children being spared from the effects of COVID-19 by sharing the impact of COVID-19 on social determinants of health for children

**Methods and Process**

Pediatric residents and residency leadership in the Boston Combined Residency Program (BCRP) created the BCRP Advocacy Group in late March 2020 to foster information sharing and action around COVID-19 advocacy efforts. Under this umbrella we formed a subgroup of residents focused on data collection and data visualizations to elucidate inequities in COVID-19. Faculty from both Boston Medical Center (BMC) and Boston Children’s Hospital (BCH) served
as advisors. Our campaign took place on Twitter and had three phases, which leveraged different mediums to illustrate the impact of COVID on racial/ethnic disparities. The rationale, data collection methods, and product for the three phases of the campaign is summarized in Figure 1.

Phase I of the campaign began with a compilation of all publicly available state data on COVID-19 cases and mortality by race and ethnicity at different time points. At the time there were no publicly searchable compilations of such information; therefore, data was obtained from reports released by each state’s Department of Public Health. Given the variable availability of testing and testing standards across states, we focused on the proportion of deaths by race/ethnicity, rather than cases. The initial analysis focused on the Black population. A chart (Figure 2) was created to show the percentage COVID-19 deaths in Black individuals by state (adjusted to exclude deaths where race was unknown) compared to the percentage of the state’s Black population. Data was displayed as a snapshot, rather than a trend over time, since it was quickly evolving. The Phase I Twitter campaign launched on April 29, 2020.

Phase II of the campaign began by updating state COVID-19 cases and deaths by race and ethnicity. We also collected data for the 50 most populous cities in the US. Additionally, we looked at three other variables for states and cities: creation of a COVID-19 task force focused on racial inequities, recommendations released by these task forces, and percentage of cases/mortalities with unknown race and/or ethnicity. The task forces were identified by using a combination of Google search techniques and looking for announcements on the official
governmental website for each state and city. We then developed a 0-5 point scoring system as follows:

- 0 - no reporting of race/ethnicity
- 1 - reporting of cases by race/ethnicity
- 2 - reporting of mortality by race/ethnicity
- 3 - reporting of both cases and mortality by race/ethnicity
- 4 - creation of COVID-19 racial inequities task force + reporting of both cases and mortalities by race/ethnicity
- 5 - recommendations released by COVID-19 racial inequities task force + reporting of both cases and mortalities by race/ethnicity

We combined data from Phase I and II to create a time-lapse map (Figure 3) that showed the trend in state reporting of race and ethnicity over the span of three weeks. The map also had an interactive component that allowed users to hover over a specific state to learn the states’ score per the aforementioned system, percentage of data with unknown race/ethnicity, and access a hyperlink to recommendations released by that state’s task force as applicable. This dynamic figure both called attention to states lagging behind in COVID-19 race/ethnicity data reporting and highlighted those cities and states taking swift action to change their reporting systems and mobilize COVID-19 task forces focused on addressing inequities. The Phase II Twitter campaign launched on April 26, 2020.
During phase III, we pivoted to illustrating the broader impact of COVID-19 on children. Despite many false reassurances in the media that children were being spared, as pediatricians we witnessed the impact of COVID-19 on childhood wellbeing in ways that were not always apparent to lawmakers or the public. This included adverse impacts on access to food, housing, a stable family income, and educational opportunities. This was particularly true for children of color.

To highlight one domain of these effects, we created an infographic (Figure 4) on the child hunger crisis in our home state of Massachusetts. Due to the pandemic, the percentage of children who are food insecure is expected to double throughout 2020. A combination of school closures, loss of income, and barriers to food access has led to a situation where demand for assistance outpaced the existing safety-net programs. We highlighted government and hospital programs working to address food insecurity and included action items to advocate for increased funding and attention to this issue. The Phase III Twitter campaign launched on July 6, 2020.

For each phase, we reached out to residency program leadership as well as media relations at both of our institutions, who assisted in optimizing data visualization, messaging, and provided institutional logo approval. We shared each of the figures with accompanying text and commentary on Twitter, tagging members of the BCRP Advocacy Group, residency faculty, state officials, local and national news outlets/journalists, and other key stakeholders. These
people/groups were chosen due to their reach, influence, and positions of power, with the goal of spreading the information as far as possible.

Success for all phases was defined by several analytics for the Twitter posts (engagements, impressions, likes, retweets, and video views) as well as engagement in advocacy efforts through comments. On Twitter, engagement is defined as the number of times a user interacts with a tweet and impression is the tally of all the times a tweet has been seen. Challenges during our campaign included non-standardized methods of data reporting by states, presenting the data in a non-misleading manner, and choosing the appropriate software to best visually display the data. We addressed these by using the same source of data collection (i.e. each state’s Department of Public Health) for each data point and relying on the expertise of faculty advisors and hospital media relations teams to provide guidance on the most effective ways to visualize and share the data.

Outcomes

The data analysis completed in Phase I showed that COVID-19 disproportionately impacted communities of color. The published chart revealed that Black populations bore an uneven burden of COVID-19 deaths (Figure 1) by state. At the time of reporting, 25 of 29 (85%) states reporting race/ethnicity data had a disproportionate amount of COVID-19 deaths among Black populations as compared to their state’s total Black population. This figure was shared on Twitter along with a messaging campaign that voiced structural racism as the cause of this inequity, called for reporting of COVID-19 data by race/ethnicity, and urged governments to
develop strategies to combat these stark inequities. This information was shared widely with over 325 retweets and greater than 340 likes of the graphic with more retweets, likes, and comments on the accompanying commentary. Overall, the graphic garnered more than 75,000 impressions and 6,800 engagements at the time of this writing (8/24/20). It was also subsequently incorporated in the BMC HealthCity article entitled “Coronavirus Threatens to Worsen Inequities, Distrust of Healthcare System Among Black Community.”11

Phase II continued the call for more reporting of COVID-19 data by race/ethnicity with additional encouragement to hold city, state, and federal leadership accountable for tangible action plans. The time-lapse map showed that while the national trend for reporting COVID-19 data by race/ethnicity was increasing, very few places had created dedicated task forces or proposals to address these inequities (Figure 2). For those that had, the map included hyperlinks to the state or city webpages detailing the work of the task forces. Additionally, states were still reporting a large percentage of cases and deaths with unknown race and ethnicity. As of 4/27/20, only 9/50 (18%) states had created task forces and 24/50 (48%) states had over 30% unknown race/ethnicity data at the time of reporting. These data were once again shared via Twitter, resulting in over 1,800 views of the time-lapse video and more than 9,000 impressions according to Twitter Analytics at the time of this writing. The data were also featured in a multi-institutional journal club titled “Health Equity Rounds: Addressing Inequities in COVID-19” and in a department-wide grand rounds presentation at Boston Children’s Hospital.

Phase III pivoted from the previous campaigns and focused on the impacts of COVID-19 on children. The infographic (Figure 3) demonstrated how childhood food insecurity has been
exacerbated by the pandemic and shared statistics specific to Massachusetts and Boston. Additionally, the infographic provided links to resources that could be shared with patients and families as well as information on how people could advocate on this topic. Similar to Phase I and II, this graphic was shared on Twitter resulting in over 11,000 impressions and more than 650 engagements at the time of this writing. This infographic was also distributed to different pediatric residency programs in the hopes that it could be used as a template to create similar graphics for other major cities and states in the country.

**Lessons Learned**

Working through the processes of searching, collating, and presenting data on social media taught us many valuable lessons. Although much of this data is now widely available, Phase I and II of our campaigns launched early in the pandemic, at a time when the data of interest was often presented in a multitude of different formats and was prone to misinterpretation given the non-standardized method of reporting race and ethnicity across states. In order to maintain as much objectivity as possible in data collected, we decided to only use reports published by state Departments of Public Health. In regards to data visualization, the input from our hospitals’ media relations teams was invaluable in demonstrating how certain graphic/visual displays, such as landscape cropping and sizing, had a significant impact in viewer engagement with the data. The media relations and institutional leadership were also instrumental in obtaining approval to use the institutional logo, which helped amplify our message and increase its credibility.
In terms of spreading the research and findings, given the fast-paced evolution of the data and state-specific updates, it became apparent that using Twitter as a medium would be more effective than waiting to share the data in an academic publication. Under the guidance of our faculty advisors, we also tagged key stakeholders and legislators when sharing our message on Twitter, which helped further spread the word and catch the attention of local journalists and news outlets. We received interest from news outlets and retweets from health care providers, epidemiologists, local legislators, and private citizens, expanding our reach to their thousands of Twitter followers. We found Twitter to be an effective tool for measuring the impact of our messages by utilizing various Twitter analytic metrics including retweets, views, impressions, and engagements.

Yet, through this process, we also learned about some of the limitations of advocacy through Twitter, including information potentially being shared in an echo chamber of like-minded individuals, balancing sharing information with sharing concrete advocacy items, and feeling limited in our ability to enforce accountability. These limitations further highlighted the importance of promoting our work through additional forums beyond Twitter to reach new audiences, including a weekly residency-wide advocacy bulletin, a multi-institutional journal club, and a department-wide grand rounds.

Conclusions

This advocacy work clearly illustrated that the current COVID-19 pandemic is exacerbating long-standing structural racism and inequities and resulting in a disproportionate impact on
communities of color. The first two phases of this advocacy campaign focused on the disproportionate impacts of COVID-19 by race/ethnicity and current plans or polices to address this. With the third phase we shifted our focus to the effects on children through various inequities in social determinants of health. We plan to continue building our Phase III advocacy campaign with further infographics highlighting the impact on pediatrics in areas such as housing, school closures, mental health, and more. Additionally, we are exploring a multi-institutional joint advocacy effort where several pediatric programs in different states share a similar templated graphic, drawing attention to the same national issue but highlighting their local findings and resources.

We hope that by learning about the racial/ethnic inequities worsened by the pandemic through our Twitter campaign, viewers will be empowered to hold those in leadership positions accountable for investing in policies that directly address these inequities. Although we may be socially distanced, through the collective power of social media advocacy, we can work towards mitigating the structural racism that has historically disadvantaged communities of color and push for a more equitable future.

Acknowledgments
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References


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Figure 1: Phases of COVID-19 Advocacy Twitter Campaign
Figure 2: Percent of Black Population and Black COVID-19 Deaths by State
Figure 3: Time-Lapse of Reported COVID-19 Race/Ethnicity Data and Establishment of Task Forces by State

See the Supplemental Data tab for the video.
Figure 4: The Impact of COVID-19 on Childhood Food Insecurity: Boston and Massachusetts
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