30 November 2020

BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

An inflammatory truth about kids getting sick with covid-19. MIS-C rates by race.

Racial disparities in healthcare influence children's health across the board. Covid-19 is no exception. As we recently covered, Black children were found to be *less likely* to be for covid-19 but were significantly *more likely* to have positive results. A new article in *JAMA Network Open* adds another blemish to the record of our country's inability to address structural racism as a persistent and pervasive plague in society. This time it concerns a rare but dangerous complication of covid-19 known as Multisystem Inflammatory Syndrome in Children, or MIS-C.

The latest research comes from the New York City Department of Health and Mental Hygiene's Incident Command System Surveillance and Epidemiology Section, and it describes the rates of this rare but potentially fatal later complication of coronavirus infection among children.

Epidemiologists focused on persons ages 0 to 19 years in New York City from March 1st to June 30th 2020 (though they collected data for persons up to age 21). Since MIS-C is a new and rare condition, finding children with this important covid-19 complication meant carefully scrutinizing medical charts for information related to inflammation. To that end, the New York State Department of Health issued guidelines on diagnosing MIS-C which included: persistent fever for four or more days, incomplete or complete signs of Kawasaki's Disease (a related condition, also often seen after viral infections in a small subset of children, though its causes are also unknown), and/or a "shock-like" presentation—meaning that the children are ill enough that they are not maintaining an adequate blood pressure, which in-and-of-itself can be life threatening. Once the researchers identified as many suspected MIS-C cases as they could, they then did something simple: they tabulated the numbers of children of various races and ethnicities and who had developed MIS-C.

In their search, 218 individuals ages 0-19 met the criteria for MIS-C. For those who met the diagnostic criteria, 82.5 percent of the medical charts had data on race and ethnicity. New York City is one of the most racially and ethnically diverse cities in the world and this paper lays that out explicitly: among the children whose records were studied, 36 percent were Hispanic, 26 percent White, 22 percent Black and 13 percent Asian or Pacific Islanders (other groups weren't covered in this analysis).

If we lived in a society where disease affected everyone equally, we would expect to see most of the cases of MIS-C in Hispanic and White children, based on the demographic data above. Alas, we do not. Black children bore a disproportionate brunt of MIS-C diagnoses, accounting for over 34 percent of the cases, despite accounting for 22 percent of the city's population. White children were underrepresented in the MIS-C sample, accounting for slightly under 13 percent of the MIS-C diagnoses.

Structural racism is a disease that cannot be cured without awareness. More resources and research are needed to uncover why Black children (and their parents) are suffering more acutely from this pandemic. But we must be brave enough to dismiss the notion of biology alone as the cause of this siphoning of sickness. Repeatedly, we have observed that social determinants of health are responsible for health disparities. Covid-19 has magnified that.

—Joanna Parga-Belinkie, MD

POLICY BRIEFING

States to determine vaccine prioritization, not a federal plan.

The United States, and the world, appears to be on the brink of a safe and effective vaccine for the coronavirus. So far, at least three different candidates appear to boast an efficacy of 90 percent or greater (with the caveat being that the Oxford/AstraZeneca vaccine was only found to be that effective in a subset of test subjects who received an unexpectedly low concentration of vaccine at their first injections, owing to miscalculations that affected production).

One of the three manufacturers, Pfizer, has already partnered with United Airlines to establish a distribution network. To prepare for what will surely be a limited initial supply, the National Academies of Sciences, Engineering, and Medicine (NASEM) has released its final recommendations for a four-phased approach to mass inoculation. It is with this backdrop that Alex Azar, Secretary for the Department of Health and Human Services (HHS), announced that governors will have the final say as to how any approved vaccine will be prioritized within their individual states.

While there is general consensus that frontline healthcare workers and the elderly are at the highest risk for developing severe or critical covid-19 illness (and should be among the very first to receive the vaccine), the anticipated forty million doses (the number of doses expected to be available via Pfizer's pending Emergency Use Authorization request and Moderna's anticipated application) are not enough to adequately cover even these two groups.

Meanwhile, the US Centers for Disease Control and Prevention (CDC) has convened its Advisory Committee on Immunization Practices (ACIP), but is awaiting formal Food and Drug Administration (FDA) Emergency Use Authorization (EUA) approval of candidates before publishing its guidelines.

Complicating matters is the administration's Operation Warp Speed, which has announced plans to begin shipping doses within twenty-four hours of EUA finalization and the decision to divide supplies to the states based on population, rather than the number of coronavirus infections. Together, this means that fifty different distribution plans will have to quickly be established—not to mention the supporting logistical infrastructure—in order to make this rollout successful. *Various*.

—Joshua Lesko, MD

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