

17 December 2020

BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

Is your home a covid-19 hotspot?

A new study in [JAMA Network Open](#) investigated how dangerous the household is as source of covid-19 infection. Researchers from Florida and Washington combined results from 54 previous studies by other researchers (a “meta-analysis”) in order to estimate the overall household “secondary attack rate”—which measures how many people in a home are infected by a housemate.

From these 54 studies the authors were able to include almost eighty thousand patients. An estimated secondary attack rate was calculated at 16.6 percent. This was more than double than attack rates seen for SARS-CoV (the “first” SARS from 2002-2004) and more than triple seen with Middle East Respiratory Syndrome (also a coronavirus). Secondary attack rates were higher in households in which the initial infected person (“the index case”) was symptomatic (18.0 percent) compared to asymptomatic first household cases (0.7 percent). Spread was higher to other adults (28.3 percent) compared to children (16.8 percent). Attack rates were also far higher among spouses (37.8 percent) when compared to other family members. Interestingly households with 1 contact had higher attack rates (41.5 percent) than ones with 3 or more contacts (22.8 percent). This is thought possibly due to the spouse rate being so high in 2-person dwellings.

These results, while limited by the fact that they were assembled from retrospective studies, do show how the home, often thought to be safe place, can be a high-risk area for SARS-COV-2 transmission. This high attack rate may be due to poor isolation behavior observed within the home when a family member tests positive. But practically speaking, it’s almost impossible to stop transmission in homes with many shared spaced, including restrooms and kitchens.

—*Christopher Sampson, MD, FACEP*

POLICY BRIEFING

Trump Administration memos in July encouraged infection of young Americans to achieve herd immunity.

Amid unrelenting covid-19 deaths and hospitalizations across the United States, a leaked memo from a Trump Administration official indicates there was actually an effort to encourage the spread coronavirus among children and young adults in order to achieve “herd immunity.” If so, such a policy would go down as one of the most inept of many poor choices made during the pandemic.

Then-science adviser Paul Alexander [wrote in a July 4 memo](#), "Infants, kids, teens, young people, young adults, middle aged with no conditions etc. have zero to little risk....so we use them to develop herd...we want them infected..." Alexander argued

further in a July 27 memo to US Centers for Disease Control and Prevention Director Robert Redfield that colleges should stay open specifically so as to allow infections to proliferate. He also characterized school closures as taking “off the battlefield the most potent weapon we had,” with this weapon being the mass infection of younger individuals. “The issue is who cares? If it is causing more cases in the young, my word is who cares,” Alexander wrote in July.

So, who should care? While it is true that young individuals are at lower risk of complications from coronavirus than are those who are elderly, the CDC reports that 553 individuals under the age of 25 have died from coronavirus. In fact, [recent research suggests](#) that July, when Alexander’s memos were drafted, may have been the deadliest month for young adults in modern American history, with nearly 12,000 more deaths among 25-44 year-olds than were projected based on historical trends. What’s more, children and young adults are able to transmit coronavirus to those who are more vulnerable, whether due to older age or preexisting medical conditions, who may in turn experience complications from the virus.

Experts estimate that in the United States, approximately 70 percent of the population would need to have recovered from the virus in order to halt the epidemic through herd immunity. Such proliferation of the novel coronavirus would quickly overwhelm the American health care system at a time when hospitalizations are already at record levels, and with available ICU beds few and far between in many parts of the country. The death toll would be staggering—and avoidable given emerging vaccines.

Politico reported that not only did Alexander argue in defense of a herd immunity strategy but watered down agency guidelines and pressured the CDC on guidance documents. As we continue to see devastating numbers of cases, hospitalizations, and deaths across the nation, the human cost resulting from individuals such as Paul Alexander having been in positions of influence during crucial moments of this pandemic are not exactly immeasurable. In fact, the mayhem is quite measurable, given data that we now have. The level of havoc is only now becoming objectively apparent.

—*Miranda Yaver, PhD*

Kimi Chernoby, MD, JD, Policy Section Founder; Joshua Niforatos, MD Research Section Editor; Frederick Milgrim, MD, Editor-at-Large, Barb Cunningham, Copy-editor, Anna Fang, Week-in-Review. Megan Davis, social media. Kane Elfman PhD, Publishing and Design. Jeremy Samuel Faust MD MS, Editor-in-Chief. <http://www.brief19.com/> Twitter: [@brief_19](https://twitter.com/brief_19) submissions@brief19.com. Brief19 is a daily executive summary of covid-19-related medical research, news, and public policy. It was founded and created by frontline emergency medicine physicians with expertise in medical research critique, health and public policy.