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BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

How long will immunity to SARS-CoV-2 last? A [pre-publication](#) paper by researchers at Columbia University attempts to predict how long patients who have recovered from a SARS-CoV-2 infection might have some immunity against future infection. The researchers used data from previous cold and flu seasons to assess how long patients were immune after recovering from other viruses. Immune responses to four other seasonal coronaviruses (HKU1, 229E, NL63, and OC43) were analyzed using nasal swabs collected from 191 participants and self-reported respiratory symptoms, from Fall 2016 to Spring 2018. Participants included children in daycare, their parents and siblings, teenagers and high school teachers, and adults working in either the emergency departments or hospitals. During the course of this 2-year period that was studied, 86 individuals tested positive at least once for seasonal coronavirus—a related but milder form of the virus that causes covid-19. Twelve individuals tested positive multiple times for the same coronavirus. Of those, nine were children. The average time to reinfection with the same coronavirus was thirty-seven weeks. However, the researchers found no association between repeat infections and symptom severity. There was an association between symptom severity among members of the same family, which the authors think may signal a strong genetic determinant of immune response. This study suggests that reinfections with the same coronavirus are possible within one year. Symptom-free individuals who tested initially positive for a coronavirus did not report any symptoms when they again tested positive at a later date. The authors suggest that innate immune responses may play a greater role in infection severity than immune responses that are acquired during an infection. If SARS-CoV-2 follows a pattern similar to seasonal coronaviruses, we may see many reinfections. Identifying individuals who are at high risk to another serious illness may be possible.

—Christopher Sampson, MD, FACEP

POLICY BRIEFING

AMA calls for national coronavirus strategy. The American Medical Association (AMA) has [sent a letter](#) to Admiral Brett Giroir, the Assistant Secretary for Health in the Department of Health and Human Services (HHS) requesting for a national strategy on the capacity and supply chain for testing materials. Citing increased need by the states, and the lack of a streamlined process, the AMA called on the administration to take a stronger leadership position. The letter asks for national coordination of testing resources, transparency around governmental requests to divert supplies from labs, the ensuring adequate supplies at test facilities, and clarity regarding the limitations and role of the serologic (blood) testing, as well as the need for professional interpretation of their results. This last request likely comes in response to [direct-to-consumer](#) antibody testing that companies including LabCorp and Quest Diagnostics are now offering. *The American Medical Association.*

—Joshua Lesko, MD

Will fast be fast enough? The Trump administration has begun organizing an effort titled [Operation Warp Speed](#) to develop a vaccine to SARS-CoV-2 and produce enough of it to be able to vaccinate most Americans by January 2021. One of the early proposals to speed vaccine development attempts to arrange a single clinical trial that would test multiple vaccine contenders simultaneously, as opposed testing each vaccine independently. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases, and a member of President Trump's coronavirus task force, has previously estimated that a vaccine would be available no sooner than in twelve to eighteen months from now. Recent reports have cited research from Oxford University suggesting that at least one candidate vaccine may be ready for production by this September. *Bloomberg*.
–Jordan M. Warchol, MD, MPH

Global poverty projected to increase for the first time since 1998. A United Nations working [paper](#) projects an increase in global poverty because of the covid-19 pandemic. The report predicts a newly poor population will emerge, mostly throughout Sub-Saharan Africa and South Asia “accru[ing] together between two thirds and 80-85 percent of the total poor.” This would be the first increase in global poverty since 1998, and would come despite global stimulus packages. A discrepancy in per capita stimulus in different countries appears to be a determinant. India has committed to a [\\$22.5](#) billion stimulus package for its 1.35 billion citizens while Pakistan has stated that \$7.5 billion will be distributed to its population of 212.2 million. In contrast, the United States has committed to spending almost \$3 trillion in domestic relief efforts for a country one fourth the size of India, and Singapore's [\\$45.2](#) billion fund for its 5.6 million citizens, which is two percent of Pakistan's population. The covid-19 recession has been felt around the world, but Sub-Saharan Africa and South Asia are poised to be hit harder than countries with wealthier economies. Whether additional international funds will materialize to support the new poor, in addition to ameliorating the exacerbated poverty, is an open question. *New York Times, International Monetary Fund*.
–Aida Haddad, M.Div

Have your cake and eat it too. Mexico, like many other countries, has [ordered](#) the closure of many factories in an effort to stem the spread of SARS-CoV-2. The close working quarters of factories make them ripe for disease transmission. However, many countries including the United States depend on Mexico for production of critical products, including military supplies. As a result, the Pentagon has put pressure on the Mexican government, asking them to keep some factories open, despite the known risk to Mexican workers. For now, Mexico will continue to enforce factory shutdowns, prioritizing the health of its citizens over export quotas. *New York Times*.

–Kimi Chernoby, MD, JD, Policy Section Editor

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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 policy, and public policy.