COVID-19 research update

Thursday, June 18, 2020

Comorbidities and severe COVID-19 illness

A **study of adult workers who have COVID-19 risk factors** (Kaiser Family Foundation, June 15) found that that 90 million adult Americans are at heightened risk for severe illness from COVID-19 due to comorbidities or age. Of the American adults at a higher risk for severe COVID-19, 37.7 million were employed at a business or job within the past year - making up 24% of all adult workers in the United States. Additionally, it is estimated that another 12 million additional high-risk adult Americans live with at least one full-time worker. Risk factors used in the analysis include diabetes, chronic obstructive pulmonary disease (COPD), cardiovascular disease, a body mass index (BMI) score > 40, moderate to severe asthma, complications due to cancer and being older than age 65.

A **study of COVID-19 cases in the U.S.** (MMWR, June 15) found that hat individuals with underlying medical conditions such as cardiovascular disease, diabetes and chronic lung disease are six times more likely to be hospitalized and twelve times more likely to die if infected by COVID-19, compared to those who do not have those conditions. Additionally, 45.4% of patients with underlying health conditions required hospitalization and only 7.6% of patients without underlying health conditions were hospitalized, while 19.5% of patients with underlying conditions died compared to 1.6% of patients without underlying conditions. This report also detailed the clear disparities in COVID-19 between white Americans and minority groups, outlining that among the 600,000 cases of COVID-19 for which the CDC has race and ethnicity data, 33% of patients were Hispanic while 18% of the United States population is Hispanic, 22% of patients were Black while 13% of the United States population is Black, and 1.3% of patients were Native American or Alaskan Natives, almost twice their representation in the United States population.

A **modeling study estimating the population with risk factors for COVID-19 complications** (The Lancet, June 15, 2020) found that 22% of the global population, or 1.7 billion individuals, have at least one underlying condition that puts them at an increased risk for severe COVID-19 complications. The study also estimates that one in five Ohioans are at risk of developing severe complications due to COVID-19 if infected and one in 20 Ohioans will require hospitalization if infected. The risk changes based on age, with less than 5% of people younger than 20 and more than 66% of people older than 70. Of the global population, 4% are estimated to require hospitalization if infected

(less than 1% of people younger than 20 and 20% of people older than 70). This study focused on underlying health conditions as reported in medical records and not other risk factors such as socioeconomic status, obesity and old age as an independent risk factor.

COVID-19 pneumonia in pregnant women

A **study of pregnant women who tested positive for COVID-19** (The Lancet, June 15) found that Half of the 52 patients studied required supplemental oxygen therapy and approximately 25% of the 32 developed acute respiratory distress syndrome. Six patients gave birth during the study, and in three patients, delivery was precipitated by COVID-19 via cesarean section. There were no cases of neonatal COVID-19 transmission. The findings suggest that COVID-19 is more severe during pregnancy.

Health consequences of school closures

A **commentary on the health impact of COVID-19 school closures** (JAMA, June 16) provides a number of recommendations to protect students' health during widespread school closures, such as continued nutrition assistance and health service, virtual tutoring and distributing technology to bridge the digital divide. The COVID-19 pandemic prompted widespread closures of K-12 schools, affecting approximately 124,000 schools and 55.1 million students. As COVID-19 evidence evolves, there is increased awareness of the disproportionate health impact of closures on vulnerable children and an intensified call to reopen schools safely. Health consequences of school closures include: Restricted access to the free and reduced-price meal programs, limited provision of school-based health centers and behavioral health services and lack of support for students with special needs and Individualized Education Programs (IEPs).