A Small Allocation of the COVID-19 Vaccine Yields Critical Benefits to One-third of Americans: Prioritize School Staff and Childcare Workers

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Abstract

The Food and Drug Administration (FDA) is anticipated to issue two Emergency Use Authorizations (EUAs) for two COVID-19 vaccines by the end of 2020, along with the subsequent availability of 40 million vaccine doses, enough for 20 million recipients. General consensus among the Advisory Committee on Immunization Practices (ACIP) and U.S. public health experts is that the nation’s 21 million healthcare workers and approximately three million elderly in long-term care will be among the first recipients of a vaccine. Following this phase, the focus shifts to frontline and essential workers. By vaccinating the relatively small population of frontline school staff and childcare workers, more than one-third of the country’s population will reap positive COVID-19 related physical and mental health benefits. Restoring safer schooling and childcare options provide immense societal and health benefits, mitigate COVID-19 related disparities among vulnerable populations, and break ground towards a more rapid realization of a post-pandemic normal.

The Food and Drug Administration (FDA) is anticipated to issue two Emergency Use Authorizations (EUAs) for two COVID-19 vaccines by the end of 2020, along with the subsequent availability of 40 million vaccine doses, enough for 20 million recipients. The Advisory Committee on Immunization Practices (ACIP) within the Centers for Disease Control (CDC) is readying guidelines to assist with ethical and equitable allocation of the vaccine across the United States.

The ACIP has leveraged vaccine allocation and prioritization frameworks from the National Academies of Sciences, Engineering and Medicine (NASEM) and the World Health Organization (WHO). Input from other public health experts and the public has also been utilized in creating the ACIP in-progress recommendations to assist policymakers in the United States and globally with prioritization of vaccine recipients.

General consensus among the ACIP and public health experts is that the nation’s 21 million healthcare workers and approximately three million elderly in long-term care will be among the first recipients of a vaccine (Dooling et al., 2020; NASEM, 2020; WHO, 2020). Following this phase, known as “1a”, experts are divided as to who is next in line. In an ACIP meeting in late November, committee members deviated from the NASEM and WHO frameworks by placing essential workers in phase “1b”, ahead of older adults and adults with high-risk medical conditions who would fall into phase “1c” (CDC, 2020). To many, this decision implies priority of a quicker return to a semblance of societal normalcy over preservation of the lives of elderly and high-risk individuals. This perspective attempts to simplify a highly complex and nuanced prioritization approach that is void of considering longer term, physical and mental health-related indirect effects of vaccinating some groups before others. The prioritization of vaccine recipients is fraught with ethical concerns including the critical consideration of vulnerable populations such as economically disadvantaged, and racial and ethnic minorities who have been disproportionately impacted by the pandemic.

As vaccine production and availability ramps up in early 2021 and states utilize the ACIP guidance for vaccination program planning and implementation, K-12 school staff and childcare workers should be strongly considered as a top priority among the essential worker “1b” phase. Restoring safer schooling and childcare options provide immense societal and health benefits, mitigate COVID-19 related disparities among vulnerable populations, and break ground towards a more rapid realization of a post-pandemic normal.
The direct benefits of vaccinating frontline school staff and childcare workers are obvious in reducing the risk of contracting COVID-19 for this group. Additional effects are evident in considering the subsequent benefits that both working parents and their children realize from the ability of parents to return to the workforce. Working parents can be assured that their children will be back in safer educational establishments receiving academic instruction, and engaging in social interaction and physical exercise essential for their mental and physical health and development.

The strain of the pandemic on working parents with children has induced crippling physical and mental health impacts, psychosocial and economic effects for all members of the family unit, especially those families with parents who are considered frontline workers. On average, frontline workers earn less, are less educated and are more likely to be racial minorities than national averages (Tomer & Kane, 2020). Without consistent in-person schooling and childcare options, frontline working parents have faced unique challenges in simultaneously juggling domestic and work life. Mental health issues for parents have resulted from voluntarily leaving the workforce to care for children to job loss, and the inevitable economic challenges.

There is no replacement for the cornerstone that in-person educational institutions provide. Without this pillar, children have fallen behind academically in 2020, especially those within underprivileged families due to disparities in the technology necessary to conduct virtual learning and the necessity of many parents working outside the home.

With many low-income families relying on schools to provide two balanced meals a day, significant health implications for their children have resulted from a year of food insecurity. The health effects of even short periods of missed or inadequate meals include long-term developmental, psychological, physical, and emotional damage to children. The lack of safe establishments for physical exercise and sports exacerbate many health issues children struggled with before the pandemic. Low levels of physical exercise and inadequate nutrition during youth perpetuate the cycle of increased risk of an already a high prevalence of diabetes and cardiovascular disease in vulnerable socioeconomic and ethnic groups.

The population of 3.7 million K-12 teachers and approximately 488,000 childcare workers may appear inconsequential in comparison to the total population of 330 million Americans or even compared to the 90 million American essential workers (National Center for Education Statistics, 2019; United States Census Bureau, 2019; Tomer & Kane, 2020). Yet when considering the number of individuals positively impacted by a safer reopening of schools and childcare centers, the numbers justify the value of considering the school and childcare staff as a priority group for vaccination. The cohort of parents with children under age 18 includes 50.5 million Americans or 19.5% of the civilian labor force (United States Bureau of Labor Statistics, 2019), with 21.5 million parents having children under the age of six. Across the country 56.6 million children attend elementary, middle, and high schools, while 8.7 million children are enrolled in pre-primary institutions (Bustamante, 2019; Duffin, 2020). By vaccinating the small population of school staff and childcare workers, more than one-third of the country, inclusive of children, will reap positive physical and mental health benefits.

While children under the age of 16 will not initially be eligible to receive the vaccine, children demonstrate lower incidence of COVID-19 transmission and infection (Stokes, 2020), along with a lower incidence of development of severe clinical symptoms. Investigations in what were thought to be school-related clusters in France, Ireland and Australia later revealed that the students were not associated with significant transmission within the schools (Fontanet, 2020; Heavy, 2020; National Centre for Immunisation Research and Surveillance, 2020).

It is imperative to acknowledge that prioritizing the vaccination of school staff and childcare workers does not mitigate the issue of all frontline and essential workers’ increased risk of exposure to COVID-19. There is no perfect prioritization framework in the most ethically loaded scenario of the century. While many frontline workers have simply been unable to return to work, reliable school and childcare provides an opportunity for frontline workers with children to return, mitigating further exacerbation of socioeconomic and health disparities among vulnerable populations and allaying a portion of the pandemic-related mental health impacts parents are facing.

As vaccines are authorized for use, states must take a tailored approach to vaccination prioritization among their constituents. States should evaluate the direct COVID-19 protection benefits garnered from vaccinating specific groups and should also examine the indirect, exponentiated impacts to frontline and essential workers, and vulnerable populations, inclusive of children. Consideration of vaccinating groups such as school and childcare staff in early 2021 will enable children to return to safer school and childcare center environments. Positive physical and mental health, and economic impacts may be realized sooner rather than later, placing the country in a position to rebound psychologically, socially, and economically in the post-pandemic environment.
References


