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Commentary

The importance of seasonal influenza vaccination for people with disabilities during the COVID-19 pandemic



Georgina Peacock, MD, MPH ^{a, *}, A. Blythe Ryerson, PhD, MPH ^a, Ram Koppaka, MD, PhD ^b, John Tschida, MPP ^c

^a National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, Atlanta, GA, 30033, USA

^b National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, GA, 30033, USA

^c Association of University Centers on Disabilities, USA

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ABSTRACT

A large proportion of Americans have at least one disability and yet people with disabilities face inequities in health and health care access. Factors associated with underlying disability and health, how they perceive and interact with the world, and where they live, or work may increase the risk people with disabilities face for illness or severe outcomes from seasonal influenza. Given the need to reduce the burden of respiratory illness on a healthcare system already overwhelmed by the COVID-19 pandemic, maximizing seasonal influenza vaccination coverage is particularly important in 2020–2021. It is critical this season to ensure equitable access to influenza vaccination for people with disabilities. Providing influenza vaccination services in the unique places where people with disabilities are living, working, or receiving care during the COVID-19 pandemic is crucial, as well as communicating effectively to people with different types of disabilities.

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Background

In 2016, an estimated 25.7% of adults in the United States reported at least one disability.¹ For children aged 3–17 years, the prevalence of developmental disabilities was about 17% in 2009–2017.² Similar to racial and ethnic minority groups, people with disabilities face circumstances that may increase their risk of becoming infected with the viruses that cause seasonal influenza, developing more severe outcomes, and/or dying due to influenza.³ The Advisory Committee on Immunization Practices routinely recommends all persons aged ≥ 6 months receive influenza vaccination annually, but also emphasizes the importance of vaccinating populations at higher risk for medical complications attributable to severe influenza, including: older adults, adults and children with chronic medical conditions such as cardiovascular disease, diabetes, or obesity, those with neurologic disorders, and residents of long-term care facilities.⁴

People with disabilities are heterogeneous, and factors associated with their underlying disability and health, how they perceive

and interact in the world, or where they live, or work may increase their risk of illness or severe outcomes from influenza. Regardless of where they live, some people with disabilities also have family members or other formal caregivers (e.g., direct support providers) who provide assistance with daily living tasks and who introduce more opportunity for exposure to respiratory illnesses when they are circulating in the community. People with limited mobility may be unable to avoid coming into close contact with others who may be infected and people with intellectual disabilities may have a more difficult time understanding recommendations. People who are deaf, or blind may struggle to find or receive health recommendations in accessible formats. People with disabilities may live in group homes, intermediate care facilities, or long-term care facilities, putting them at higher risk for acquiring seasonal influenza or for worse outcomes due to increased risk for exposure to influenza.^{5,6}

Although there is a paucity of data describing severe illnesses, hospitalizations, or deaths related to seasonal influenza among people with disabilities,⁷ many of the factors associated with severe outcomes or death are also strongly associated with disability status. People with disabilities are more likely than those without disabilities to have coronary heart disease, diabetes, obesity, and hypertension.⁸ This reality has often been described as a “thinner

* Corresponding author. 1600 Clifton Road, MS E-86.

E-mail address: gpeacock@cdc.gov (G. Peacock).

margin of health” for people with disabilities, making them more vulnerable to additional health problems.^{9,10} One subpopulation of people with disabilities that has been shown to have more severe outcomes from seasonal influenza because of their underlying disability are children with neurologic and neurodevelopmental disorders.¹¹ The increase in risk for this groups is often due to increased or decreased muscle tone, underlying poor motor control, limited capacity for strength and power, and impaired pulmonary function (e.g., lack of ability to cough effectively). It is suspected that this may impact adults with neurologic conditions as well, though data are sparse. Additionally, a Dutch study of the 2017–2018 influenza season showed excess mortality related to influenza among people with intellectual disabilities to be three times higher than the general population.¹² People with intellectual disabilities may live in congregate settings where they have more close contact with the public putting them at higher risk for exposure. In addition, many people with intellectual disabilities have co-occurring chronic conditions which put them at higher risk for complications from influenza.¹³

Seasonal influenza vaccination is particularly important in 2020–2021 for people of all abilities given the co-circulation of influenza and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). There is little information about how the 2019 coronavirus disease (COVID-19) pandemic will impact the influenza season. Early data from China indicate that SARS-CoV-2 coinfections with influenza A, influenza B, or respiratory syncytial virus were common (15.6% of COVID-19 patients also tested positive for at least one of these viruses).¹⁴ COVID-19 patients coinfecting with other viral pathogens had longer hospital stays when compared with patients coinfecting with atypical bacterial pathogens (*Mycoplasma pneumoniae* and *Chlamydia pneumoniae*).¹⁴ Beyond the potential for an additive impact to morbidity and mortality from co-circulating respiratory illnesses during 2020–2021, an increase in seasonal influenza during the ongoing COVID-19 pandemic could overwhelm health-care resources. Influenza alone during the 2019–2020 season contributed to an estimated 400,000 hospitalizations in the United States.¹⁵

Estimates of vaccination rates for both children and adults with disabilities typically rely on self-report or administrative claims data. Estimates of levels of vaccination can vary significantly depending on reporting method. According to 1998–2000 Behavioral Risk Factor Surveillance System data, people with disabilities reported receiving influenza vaccinations (64.4%), somewhat more frequently than people without disabilities, but vaccination rates varied by disability type and severity.¹⁶ Similar results were observed in 2010 BRFSS data (adjusted odds ratio of 1.2 for people with disabilities compared to people without).¹⁷ Based on commercial insurance claims in 2013–2014, influenza vaccination coverage among children with neurologic disorders was slightly higher than among their siblings, but still only 42.3%.¹¹ More data on influenza vaccination rates among both children and adults with disabilities and their caregivers, including rates by disability type and severity, would facilitate a better understanding of vaccination practices among this large, heterogeneous group. Additional analyses of existing data sources could also elucidate health inequities above and beyond those observed among people with disabilities, including across racial, ethnic, socioeconomic, and geographically diverse subgroups.

Moving forward

The COVID-19 pandemic has stressed the health care system, disrupted routine outpatient care, and caused an increase in hospitalization rates throughout the United States.¹⁸ To mitigate the impact of the increased number of viral respiratory illnesses

expected this fall and winter, it is essential that public health prevention activities continue to be implemented. The current recommendations for slowing the spread of COVID-19 — namely, hand washing, social distancing, use of masks when around others, and cleaning and disinfecting frequently touched surfaces — should also help reduce spread of influenza.¹⁹ However, influenza vaccination remains the most effective means of reducing illness, including hospitalization and death, from influenza, with some studies showing reduced severity of influenza-related illness among vaccinated persons who become infected with influenza virus. With the prospect of co-circulation of SARS-CoV-2 and seasonal influenza, strategies to maximize influenza vaccination are therefore essential in order to conserve healthcare resources such as personal protective equipment for healthcare workers, hospital beds, and mechanical ventilators so they are available for persons with COVID-19.

It has been well established that adults with disabilities experience health inequities. Okoro et al. found that adults with disabilities, particularly those aged 18–44 years, have challenges accessing health care with 33.7% reporting not having a usual healthcare provider in 2016, 31.4% reporting an unmet healthcare need because of cost during the past 12 months, and 38.3% reporting no routine check-up within past 12 months.¹ Given the large number of people with disabilities and their frequent barriers accessing the healthcare system, establishing alternative sites for influenza vaccination is important as there are people with disabilities who are unable to be vaccinated in primary care offices because of effects of the COVID-19 pandemic (e.g., clinics scaling back in-person visits, or patient risk aversion). Additionally, many people with disabilities who normally receive seasonal influenza vaccination through occupational health or school clinics may encounter barriers this year accessing vaccine due to school closures, transition to remote work, or unemployment.

Alternative, community-based influenza vaccination sites such as retail stores or pharmacies provide increased opportunities for vaccination. These sites often provide vaccination during times outside the typical business hours of a clinic or hospital as well as places to be vaccinated with potentially less exposure to sick individuals, who might be present in a clinic waiting room. An increasing number of drive-thru influenza vaccination clinics, sponsored by both public and private entities, provide a safe, accessible way for some people with disabilities to be vaccinated, provided they have access to transportation. This option enables vaccination while minimizing possible exposure to other circulating respiratory viruses, including SARS-CoV-2. Ensuring equal access to these alternate sites for people with disabilities, however, requires that providers and administrators work to ensure physical access and have a willingness to provide services that accommodate people with cognitive, physical or sensory disabilities. Some alternative sites may also be hesitant to provide vaccination services to children. Educating administrators at these sites about the high prevalence of disabilities in the community across the lifespan, different disability types, and the unique needs of various groups may increase their willingness and ability to effectively serve children and adults of all abilities.

While the trend of investing more in community-based support options for people with disabilities versus institutional settings continues in most states, many people with disabilities live or work in congregate settings such as group homes, intermediate care facilities, or long-term care facilities. The Institute on Community Integration estimated that in 2017, 23% of people in the U.S. who received long-term care supports and services from state intellectual or developmental disability agencies lived in a group setting (estimate excludes nursing homes or psychiatric facilities).²¹ Often, facilities such as these have arrangements with local health

departments for vaccination events within the facility to ensure protection of residents and employees from influenza in these environments where the risk of transmission is high. During the COVID-19 pandemic, health departments may not have enough personnel to engage in these activities, potentially leaving people living in these situations who would typically have access to seasonal influenza vaccine, vulnerable to influenza virus infection this year. Alternative plans for vaccination of both residents and employees of these facilities may need to be considered (e.g., mobile clinics making a stop at these facilities).

Effective communication with people with disabilities and their caregivers is essential to ensure uptake of public health prevention measures, including yearly influenza vaccination. Typical public health messages often consider different cultural and (spoken) linguistic preferences, but many times overlook the unique communication needs of people with certain disabilities. Federal law requires that websites are accessible for people with disabilities through Section 508 of the Rehabilitation Act of 1970.²⁰ Beyond legal requirements, making communication materials accessible to people regardless of disability type increases their ability to understand and apply the health information being communicated. A person with an intellectual disability might need text written in a format with shorter sentences and fewer topics on the communication material. For people with intellectual disabilities or low literacy, simple pictures or infographics may be used to convey the desired public health actions. A person who is deaf may need to receive influenza vaccination messages through American Sign Language or captioned text. Trusted sources of health information for people with disabilities including disability advocacy organizations, healthcare and community-based service providers, and hospital systems can and should partner with public health professionals to deliver these communication messages to people with disabilities. In some cases, disability organizations may be in the best position to co-create communication materials and methods which will increase the likelihood of adoption and effective delivery of messages.

Finally, it is of utmost importance to improve public health surveillance of disease, disease outcomes, and receipt of preventive services for people with disabilities. Collection of even the most basic disability status indicator as a standard demographic variable in existing public health surveillance systems, including immunization information systems, would help identify health disparities, distribute resources more efficiently and effectively, and identify and deliver interventions targeted to people with disabilities. Inclusion of more specific disability types and severity measures within existing national surveys could help identify the unique needs of people with certain disability types, such as those with intellectual disabilities. Ultimately, the ability to address the extensive and long-standing health inequities faced by people with disabilities is contingent on adequate data to inform interventions and policies aimed to improve the health and lives of people with disabilities.

Call to action

We are living in unprecedented times with the presence of the COVID-19 pandemic. The combination of circulating seasonal influenza viruses and SARS-CoV-2 presents an urgency to vaccinate as many people as possible this year against influenza.⁴ Given that certain groups have contraindications to receiving an influenza vaccination such as infants under 6 months and people with certain medical conditions, those eligible for the flu vaccine should not delay being vaccinated in order to protect both their health and the health of those around them. Although people with disabilities typically face barriers to health care including preventive care, it is

particularly important this season to ensure influenza vaccine access to children and adults with disabilities and their caregivers and to move toward increased health equity for people with disabilities. To understand if progress is being made, data sources must be identified and analyzed to measure health services and outcomes for people with disabilities. Influenza vaccination can prevent severe complications, which are typically seen in greater numbers among children and adults with certain disabilities, keep hospital beds available for COVID-19-related admissions, and potentially save lives this fall and winter.

Disclaimer

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