

VIEWPOINT

COVID-19: BEYOND TOMORROW

Maximizing the Uptake of a COVID-19 Vaccine in People With Severe Mental Illness

A Public Health Priority

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People with serious mental illness (SMI) are at increased risk of being infected by coronavirus disease 2019 (COVID-19) and have higher subsequent rates of hospitalization, morbidity, and mortality.^{1,2} Factors that contribute to worse outcomes include concomitant medications, poorer pre-morbid general health, physical comorbidity, reduced access to medical care, and environmental and lifestyle factors such as lower socioeconomic status, overcrowding, smoking, or obesity. In light of these vulnerabilities, it is important that people with SMI are a priority group to receive a vaccination, should one be developed and deemed safe and effective.³ De Hert and colleagues³ noted that there is an ethical duty to prioritize vaccination for people with SMI given their increased risk of worse outcomes following COVID-19 infection and the structural barriers faced by people with SMI in accessing a vaccine. In addressing the *Framework for Equitable Allocation of the COVID-19 Vaccine*⁴ principle mitigation of health inequities, people with SMI should be included with other priority groups, including Indigenous people, older adults, and people with physical health comorbidities.

Over and above the ethical need to ensure vaccination allocation priority for people with SMI, evidence from existing vaccination programs suggests that there are challenges in achieving this aim at both an individual and public health level. People with SMI are less likely to receive preventive or guideline-appropriate health care for concerns such as cardiovascular disease and cancer. This reduced access to preventive care is reflected in the low uptake of immunizations recommended for adults among people with SMI. Of these, influenza may serve as a particularly useful model given the recommendation for an annual vaccination. In contrast with other vulnerable groups in the United States, influenza vaccination rates among people with SMI are as low as 25%.^{5,6} Based on the experience with influenza vaccination programs, we have outlined key barriers and solutions to access any potential COVID-19 vaccine for people with SMI (Table).

Individual-Level Barriers and Solutions

In people with SMI, a willingness to adopt preventive measures, such as vaccination, is facilitated by their perceived risk to self of a preventable disease, peer support, influence, and belief in the effectiveness of the vaccine.⁵⁻⁷ Notably, as reported in a cross-sectional study, education by a health care professional about the role and importance of vaccination increased uptake by 4-fold.⁶ Negative beliefs about safety and misconceptions that the vaccine itself can cause the illness may be

held by people with SMI.⁶ These beliefs should be directly addressed given both are predictive of vaccine hesitancy and avoidance in this population.⁶ It would assist this discussion if COVID-19 vaccination trial data from high-risk groups such as those with SMIs can be gained to inform the risk-benefit ratio.

Mental health professionals are uniquely skilled to deliver this education, being able to adapt for those with communication difficulties and balance factors influencing decision-making. There may be a delicate balance between factors that facilitate immunization, such as perceived fear of infection, and those that reduce uptake, such as concurrent general anxiety.⁷ This highlights the importance of an individualized and clear message while enhancing capacity to consent.

System-Level Barriers and Solutions

Systemic barriers to vaccination include access, acceptability, awareness of services, cost, and other practical considerations. Historical enrollment into influenza vaccination programs was predictive of future vaccination completion, suggesting these existing routines and resources could also be harnessed for a COVID-19 vaccine.⁶ Running vaccination clinics parallel to mental health services can increase vaccination rates by up to 25%.⁵ Transportation to the vaccination clinics, even when colocated with a mental health service, may be a significant barrier, especially for infrequent service users.⁵ Therefore, one solution may be to embed vaccination clinics within mental health services, although none have been evaluated to date and to our knowledge. Studies also show that children of mothers with psychotic or depressive disorders were less likely to receive vaccinations, suggesting that concurrent family vaccination may have additional benefits.⁸ Direct access to existing immunization registers would assist in both monitoring and coordination. Other policy-driven solutions include emergency legislation to allow for a wider group of health care professionals to administer the vaccination. Given that almost 80% of individuals without health insurance do not get vaccinated for influenza, any COVID-19 vaccine should be provided at no cost to the individual.⁶

Conclusions

It is vital to commence planning and development of appropriate policies to ensure rapid delivery of a COVID-19 vaccine when it becomes available. It is recognized that COVID-19 has placed strain on mental health services and physical, human, and financial resources. However, use of existing physical health programs, collocation of vaccine administration with mental health services, and,

Table. Barriers and Enablers to Coronavirus Disease 2019 (COVID-19) Access for People With Serious Mental Illness (SMI)

Barriers	Solutions
Vaccine awareness and education	Mental health professionals should begin discussions with consumers about vaccinations for preventive health, addressing safety concerns, and vaccine misconceptions
	Develop vaccine education and awareness programs for people with SMI
	Discuss physical health comorbidity and risks of COVID-19 in an open and supportive manner with people with SMI
	Advocacy for vaccination programs within mental health services
Policies	Early discussion within health care service networks about distribution and administration processes especially if there are specific cold chain requirements
	Emergency legislation or governmental recommendations to allow for short-term increases in clinicians to administer vaccinations
Structural resources for a vaccination program	Commence vaccination program for influenza while COVID-19 vaccine is being developed
	Align with existing preventive health programs such as smoking cessation and metabolic monitoring
	Engage peer workers to provide education about vaccine, including their own personal experiences about receiving vaccines
Engagement to a vaccination program	Rollout of vaccination program at, or in parallel with, public mental health clinics and mental health professionals' offices
	Training for mental health professionals to deliver vaccine, where appropriate
Cost	Outreach to at-risk individuals, where safe and feasible, including home-based visits to administer vaccine and/or transportation support for people with SMI to attend vaccination clinics
	Government and/or health insurance subsidy for vaccine with no cost to patient
Monitoring of vaccination program	Adequate resourcing for mental health services if tasked with vaccine rollout
	Work with immunization registries to identify people with SMI who are at risk or have not yet received vaccination (subject to local data sharing laws)

where possible, actually delivering the vaccine may help increase uptake. Importantly, interventions should target both the individual and system level, including active engagement, education, and peer

support. Mental health clinicians have a key role in advocating for priority access to a COVID-19 vaccination for those with SMI, as well as facilitating its uptake.

ARTICLE INFORMATION

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REFERENCES

- Wang Q, Xu R, Volkow ND. Increased risk of COVID-19 infection and mortality in people with mental disorders: analysis from electronic health records in the United States. *World Psychiatr*. Published online October 7, 2020. doi:10.1002/wps.20806
- Li L, Li F, Fortunati F, Krystal JH. Association of a prior psychiatric diagnosis with mortality among hospitalized patients with coronavirus disease 2019 (COVID-19) infection. *JAMA Netw Open*. 2020;3(9):e2023282. doi:10.1001/jamanetworkopen.2020.23282
- De Hert M, Mazereel V, Detraux J, Van Assche K. Prioritizing COVID-19 vaccination for people with severe mental illness. *World Psychiatr*. Published online November 1, 2020. doi:10.1002/wps.20826
- National Academies of Sciences, Engineering, and Medicine. *Framework For Equitable Allocation Of COVID-19 Vaccine*. The National Academies Press; 2020.
- Miles LW, Williams N, Luthy KE, Eden L. Adult vaccination rates in the mentally ill population: an outpatient improvement project. *J Am Psychiatr Nurses Assoc*. 2020;26(2):172-180. doi:10.1177/1078390319831763
- Lorenz RA, Norris MM, Norton LC, Westrick SC. Factors associated with influenza vaccination decisions among patients with mental illness. *Int J Psychiatry Med*. 2013;46(1):1-13. doi:10.2190/PM.46.1.a
- Maguire PA, Reay RE, Looi JC. A sense of dread: affect and risk perception in people with schizophrenia during an influenza pandemic. *Australas Psychiatry*. 2019;27(5):450-455. doi:10.1177/1039856219839467
- Osam CS, Pierce M, Hope H, Ashcroft DM, Abel KM. The influence of maternal mental illness on vaccination uptake in children: a UK population-based cohort study. *Eur J Epidemiol*. 2020;35(9):879-889. doi:10.1007/s10654-020-00632-5