

POLICY BRIEFING ON INCREASING VACCINATION RATES THROUGH THE VACCINE FOR CHILDREN PROGRAM

- To reduce the probability of receiving an inappropriate prescription for antibiotics that can contribute to antibiotic resistance, we must increase vaccination rates.
- The probability of being vaccinated varies by socioeconomic status. Only 46% of children covered by Medicaid or CHIP and 37% of uninsured children have been fully vaccinated against influenza compared to 74% of children with private insurance.
- To increase vaccination rates the CDC should increase the number of pharmacists that are registered providers with the Vaccine for Children program.

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About Evidence Impact Labs

Evidence Impact Labs is a health policy consultancy that develops, analyzes, evaluates and advocates for health policies, programs and services that improve access to affordable healthcare.

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Background on vaccinations as a tool to reduce antibiotic resistance

In 2022, there were 48.5 million prescriptions for antibiotics in the United States. This equates to approximately 60% of the population receiving at least one prescription for an antibiotic in 2022. Research has concluded that there are seasonal peaks in antibiotic prescribing with most antibiotics prescribed during cold and influenza season despite antibiotics not being indicated for influenza. It is estimated that 40% of patients receive an inappropriate antibiotic for a viral respiratory infection such as influenza, COVID-19 or RSV.

As outlined in the National Action Plan for combating antibiotic-resistant bacteria, the inappropriate use of antibiotics will lead to the development of drug resistance, making existing antibiotics ineffective. To reduce the probability of receiving an inappropriate prescription for antibiotics, we must reduce the risk of contracting or spreading a viral respiratory infection. This can be achieved by increasing vaccination rates for influenza. It has been established that increased vaccination rates are associated with a reduction in antibiotic use.

According to the American Academy of Pediatrics, children should receive two doses of the influenza vaccine by 24 months. However, the current vaccination rate for influenza is low with only 58.7% of children being fully vaccinated. There is also significant variation across socioeconomic status. Approximately 74% of children with private insurance have been vaccinated, but this decreases to 46% for children insured through Medicaid or CHIP and 37% for children uninsured.

Understanding the factors that influence vaccination rates

The vaccination rate for influenza is influenced by contextual factors, individual factors and vaccine specific factors. Contextual factors can include religion, politics, and personal beliefs. Individual factors can include awareness of vaccines, perceived risk of the disease, perceived risk and benefit of the vaccine and trust in the health care system. Vaccine specific issues include vaccine supply, vaccination schedule, cost of the vaccine and design of the vaccination program. Changing the contextual and individual behaviors that influence vaccination rates will have limited impact at a population level because it does require a focus on changing individual perceptions through community outreach and public health education programs. Alternatively, the vaccine specific factors have a direct impact at a population level because they inform how vaccines are provided regardless of contextual or individual factors.

The VFC Program is a federally funded vaccination program administered by CDC that provides vaccines free of charge to children that are eligible for Medicaid, CHIP or are currently uninsured or underinsured. To receive a vaccine through the VFC program, a child must be immunized by a VFC provider. According to the regulation that established the VFC program, a VFC provider is anyone eligible to administer a pediatric vaccine under the law of that state. However, the operating guidelines for the program state that a VFC provider must have the authority, “to administer vaccines by prescription, vaccine protocol, or prescribing authority.” The statement regarding “prescribing authority” has led many states to restrict VFC providers to only include health care providers that have prescribing authority. The uncertainty in the regulation has resulted in limited pharmacists' participation in the program, with only 17 states having pharmacists enrolled as VFC providers.

Therefore, an appropriate intervention to increase vaccination rates and reduce antibiotic resistance is improving the design of the CDC administered VFC program to ensure pharmacists are registered as VFC providers in states that they can administer vaccines. Research has concluded that increasing access to influenza vaccines by making them available at pharmacies increases vaccination rates for adults so I anticipate similar results will occur for children if more children are able to be vaccinated by pharmacists.

Enrolling pharmacists as providers in the Vaccine for Children Program

To increase influenza vaccination rates amongst children eligible to participate in the VFC program, the CDC must clarify in the operating guidelines that the only requirement to be a VFC provider is the ability to administer a vaccine in the state that they are registered. The CDC must also proactively engage with state health departments to enroll more pharmacists as VFC providers. By increasing pharmacists' participation in the VFC program, it is reasonable to expect an increase in vaccination rates because it increases access to vaccines and will ultimately lead to a reduction in antibiotic use.

This intervention increases access by addressing availability, accessibility and accommodation concerns that currently exist with the VFC program. By expanding who can provide vaccines, availability increases beyond physicians. By providing vaccines at locations that are near where people live and that are more prevalent than doctors' offices, accessibility is improved. By providing vaccines during traditional pharmacist's hours which include weekends and evenings, accommodations are enhanced.

Implementation Plan

To implement this intervention, the CDC must clarify eligibility criteria to be a VFC provider in the operating guidelines and widely communicate it. As the key messenger for the VFC program, the CDC will need to communicate the importance of being vaccinated to parents and the role of pharmacists in increasing vaccination rates to decrease the risk of antibiotic resistance. The CDC will also need to engage with pharmacists and physicians on why increasing the number of pharmacists as VFC providers is critical to increase vaccination rates and reduce antibiotic resistance. To increase enrollment of pharmacists as VFC providers, the CDC should partner with state health departments to increase awareness of pharmacists being eligible to be VFC providers in states where they are able to administer vaccines. If this clarification is communicated widely by the CDC, then pharmacists will be empowered to enroll as VFC providers, thus increasing availability. To incentivize pharmacist enrollment as VFC providers, the CDC will need to request that CMS have the same reimbursement to pharmacists as physicians for providing a vaccine. If pharmacists are adequately reimbursed for their time to vaccinate, then more pharmacists should enroll to increase revenue and profits. Lastly, to assess if increasing the number of pharmacists that are VFC providers will increase vaccination rates and reduce antibiotic use, the CDC should conduct an evaluation on vaccination rates and antibiotic dispensing before and after this intervention in the states where pharmacists are eligible to be VFC providers.

Conclusion

Research has established that vaccines are a critical tool for reducing the inappropriate use of antibiotics and reducing the risk of antibiotic resistance. By increasing the number of pharmacists that are VFC providers, the VFC program will address core components of vaccine access including affordability, accessibility, accommodation, and availability.

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