

Immunization Messaging, Communication, and Outreach Amidst the Growing Anti-vaccine Movement

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We face widespread personal resistance to recommended immunizations. Research shows that the primary indicator of vaccine acceptance is the provider. Credible health professionals, who are fully immunized, must use their personal immunization experience and scientific knowledge to develop messaging, communication, and outreach strategies to convince *all* people to accept *all* vaccines for which they are eligible.

Introduction

Immunizations have been among the most effective, life-saving public health interventions in the history of mankind. However, the tremendous successes of immunization campaigns in the 20th century have faded from memory for most people. This presents challenges when it comes to convincing many to participate in health initiatives aimed at achieving worldwide immunization goals. The COVID-19 pandemic, which has killed over 1 million people, will only be shortened by a safe, effective vaccine that is accepted by most people. It is imperative that health professionals develop effective messaging, communication, and outreach strategies *if* we are to convince our people to take a new vaccine.

As a pediatrician who has given immunizations to untold numbers of children since 1974, I have witnessed dramatic changes. Novel life-saving vaccines have eliminated the deaths, disability, and suffering that children previously experienced because of vaccine-preventable meningitis, pneumonia, and overwhelming bloodstream infection (sepsis) during my first 25 years of practice, and I am not aware of a patient in our practice who suffered any permanent injury from an immunization.

Our nation's system for vaccine development and approval, involving the Food and Drug Administration (FDA), the National Institutes of Health, and the Centers for Disease Control and Prevention (CDC), ensures that our people receive well-tested, safe, and effective vaccines. The groups of scientists who approve and monitor vaccines are not employees of government or pharmaceutical entities. The systems that oversee vaccine safety post-FDA licensure detected adverse reactions from a rotavirus vaccine that

was quickly removed from the market in 1999 [1, 2]. This is the last time a vaccine was recalled due to safety concerns.

The immunization program has grown and changed significantly during my career. When I entered practice, we gave diphtheria, tetanus, pertussis (DTaP); measles, mumps, rubella (MMR); and polio vaccines. Insurance companies did not cover immunizations. Medicaid did not pay administration fees to health professionals who gave state-purchased vaccines to patients. Physicians did not ask parents for permission to immunize children; parents wanted their children to receive all vaccines.

This all changed in 1982, when a British news brief showing vivid pictures of severely disabled children, who were thought to have suffered brain damage from unexpected reactions to the whooping cough (pertussis) vaccine, aired on national TV in the United States [3]. It took 24 years for scientists to prove the claims to be untrue [4], while the fear generated by the news brief transformed our immunization system forever. Vaccine prices increased as manufacturers became "deep pockets" for vaccine-related lawsuits. Physicians referred patients to health departments for immunizations because of financial and liability issues [5]. In response, Congress authorized the Vaccine Injury Compensation Program in 1986 to assure compensation to those children who may have been injured by a vaccine, to protect physicians and manufacturers from vaccine-related lawsuits, and to stabilize vaccine production and prices [6].

In North Carolina, we implemented the Universal Vaccine Distribution Program in 1994, through which the state provided all vaccines to all primary care providers at no cost. Simultaneously, Congress created the Vaccines for Children program, whereby the federal government pays for all vaccines recommended for children under age 19 who are uninsured, underinsured, Medicaid-eligible, Alaskan Native, or American Indian. The federal government established state-

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specific immunization administration fees that Medicaid pays to physicians for giving vaccines. Private insurance companies began to cover vaccines so that patients would not forgo immunizations in medical offices because of out-of-pocket expenses. North Carolina was a leader in these reforms and immunization rates rose in the mid-90s [7]. Today, we give 18 different vaccines to children between birth and age 19 [8].

I know—from my experience in developing government programs to improve immunization rates, and years in the leadership of the American Academy of Pediatrics (AAP), including my term as president from 2008 to 2009—that there are vocal anti-vaccine forces causing many people to become extremely hesitant about accepting the need for immunization. There is no scientific basis for the claims of the anti-vaccine movement. The anti-vaccine leaders prefer to prioritize what they believe is best for their children and themselves, even if their choices do not involve reason and logic and are detrimental to public health. They object to vaccine mandates that take away what they call “freedom of choice.” They disagree with public health experts’ conclusion that unless nearly all of us receive recommended vaccines, we cannot protect the most vulnerable among us, especially those who either cannot receive vaccines because of chronic disease, or do not develop adequate immunity when given vaccines [9].

With current social media opportunities, anti-vaccine spokespersons frighten millions of people. Because of extremely successful immunization efforts to date, it is easy for some to believe vaccine-related injury is more likely than a vaccine-preventable disease. Most people have never witnessed the death of a patient from a vaccine-preventable disease. They do not understand that life-threatening vaccine-preventable diseases will recur in our population if we allow our immunization rates to fall below the 90% range [10, 11]. Pediatricians ask parents to permit their children to receive nearly 30 immunizations to prevent 14 different diseases between birth and kindergarten entry—a daunting “ask,” especially in this environment of government and pharmaceutical industry distrust!

During this pandemic, there are people suggesting that we should conduct “business as usual” and allow everyone to become infected with COVID-19, claiming that is the best way to achieve “herd immunity.” Well-educated health professionals must refute this approach, since COVID-19 is much more deadly than influenza [12], most of us have *no* immunity to this virus, and it will take years to develop effective herd immunity waiting for all of us to become infected with COVID-19. With a safe, effective vaccine, we can scientifically and efficiently achieve herd immunity as we did with polio, the last major vaccine-preventable scourge in our country. A November 2020 research study showed that 14.3% of the US population have evidence of COVID-19 antibodies/immunity. At this rate, it will take 5 years to reach more than

70% immunity, the threshold for herd immunity [13].

Since the advent of the anti-vaccine movement, we have struggled to maintain satisfactory immunization levels. Therefore, we must have strategies for messaging, communication, and outreach if we are to have a successful immunization program. We have allies in this campaign, including Vaccinate Your Family (www.vaccinateyourfamily.org); the AAP (<https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/immunizations/Pages/Immunizations-home.aspx>); the Immunization Action Coalition (www.immunize.org); and the Vaccine Education Center at Children’s Hospital of Philadelphia (<https://www.chop.edu/centers-programs/vaccine-education-center>).

Fortunately, research shows that the primary indicator of vaccine acceptance is the provider. It is critical that providers use a presumptive approach when vaccinating; providers must assume that the patient and family will be on board with immunization recommendations. Written messaging must be straightforward and basic, and written at no higher than the fifth-grade reading level to reach the broad population that regularly logs on to social media, watches TV, listens to the radio, and reads billboards. The messaging must be in multiple languages, depending upon the diversity of the targeted population. Including the phrase, “your doctor recommends,” can be powerful when promoting any medical therapy. Messaging must target the populations most at risk for individual vaccine-preventable diseases and take into consideration the thought processes of these groups. The AAP has a suite of materials regarding communicating with families about vaccines [14].

Communication efforts must include multiple strategies. Immunization advocates, including health care providers, must identify the favorite social media sites, TV programs, and radio stations of potential recipients of the vaccines, and those utilized by the anti-vaccine forces, so they can implement effective campaigns to promote immunizations. Primary care health professionals have a captive audience of patients who are eligible for vaccines. These professionals must impress upon their patients the need for immunizations, assuring them that health professionals and their own families/extended families have *all* received *all* recommended vaccines at the correct time to prevent illness when it is most likely to cause harm. Public officials, celebrities in the entertainment world, sports stars, business spokespersons, and religious leaders must become vocal immunization advocates. Leaders of minority groups that are more likely to be vaccine-hesitant, and more likely to suffer death or disability from vaccine-preventable diseases [15], must become strong advocates for life-saving immunizations. Families of patients who have suffered permanent injury or death from vaccine-preventable diseases can be powerful advocates for immunization campaigns.

Outreach initiatives must involve grassroots groups with a vested interest in population health:

Schools

If students and school staff contract life-threatening, vaccine-preventable diseases because of unimmunized students and staff, parents will demand safe schools in which all students and staff are immunized. State legislatures can mandate immunization requirements for public school students and staff.

Churches

Immunization advocates must convince churches that *all* people deserve the chance to enjoy creation in safe surroundings that are free of vaccine-preventable diseases, and that the benefits of vaccines far outweigh the possibilities of rare side effects. Despite the allowance of religious exemptions to vaccines in many states, no formal religious groups oppose recommended immunizations [16].

Businesses

Employees may be unable to work if they become ill with vaccine-preventable diseases like influenza, or if they must stay home with children who have contracted vaccine-preventable diseases like chickenpox and measles. With the COVID-19 pandemic, the businesses most affected (gyms, restaurants, bars, theaters) must publicly encourage all people to accept the vaccine, since that is the only way to speed economic and societal recovery.

Civic Groups

Rotary International has targeted polio for eradication, and the world is close to that goal. There are many other civic groups that could join our community-based coalitions to promote the value of vaccines and the need for *all* eligible people to receive *all* vaccines.

Conclusion

The best opportunities for immunization are primary care clinic visits. It is particularly important for health professionals to understand how immunizations are developed and approved for administration to all eligible people. Health professionals must understand the reasons why patients may be hesitant about receiving immunizations. They must especially prepare themselves to answer questions from highly intelligent vaccine-hesitant patients by accessing educational websites like <https://www.immunize.org/talking-about-vaccines/>. The best investment the larger health system can make in the immunization effort is to educate all health professionals who might become involved so they have the information they need to reassure hesitant patients about the safety of our vaccines. This may include explaining the comprehensiveness of the system we have for assuring safety, both during manufacture and after patients begin receiving vaccines. If health professionals understand immunization science and history and give hesitant patients the information they need, they can convince nearly all hesitant patients to make the right deci-

sions. The AAP has resources for health professionals who engage in attempts to convince vaccine-hesitant people to accept recommended vaccines [14]. These hesitant patients often become effective advocates in our nationwide effort to ensure herd immunity. Health professionals can also use the Vaccine Information Statements of the CDC (<https://www.cdc.gov/vaccines/hcp/vis/current-vis.html>) to help families understand the value of immunizations.

Our practice is Goldsboro Pediatrics. We operate four offices and seven school-based health centers in a seven-county area of Eastern North Carolina. We contract with a public relations firm to assist with messaging, communication, and outreach so that we can provide good information about immunizations and other topics on our practice website, our Facebook page, billboards, posters in the office, the on-hold messages for our phone system, and written handouts provided during office visits. We publish information in the local newspaper and participate in radio/TV programs as necessary to enhance our efforts to ensure immunization of our patients. Our parents like to log on and know what we think is important. Spanish-speaking health professionals work in the practice to assist with day-to-day communication, face-to-face and through other modalities, with our large Spanish-speaking population. In this COVID-19 environment, we offer drive-thru flu vaccines to all our patients in the parking lots of our offices. I believe that if physicians are to implement effective immunization programs, we must implement messaging, communication, and outreach strategies that ensure the timely immunization of our patients, especially in the current era of rampant anti-vaccine propaganda and vaccine hesitancy. NCMJ

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