Children's Hospital of Philadelphia
PolicyLab

Supporting Effective Immunization Policy: Identifying and Addressing Barriers to Timely Immunization

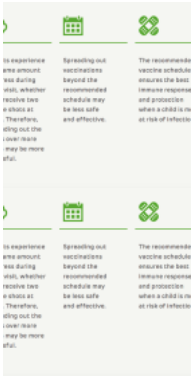
Statement of Problem

Despite availability and routine recommendation of these vaccines, approximately 42,000 adults and 300 children in the United States still die each year from vaccine-preventable diseases. While ongoing vaccination programs help to keep these diseases at bay, some vaccine-preventable diseases have been re-emerging. The shift toward intentional vaccine delay and refusal is directly associated with increased occurrence of preventable diseases for individuals and entire communities. Furthermore, infants and young children with delayed vaccinations are more likely to be under-immunized as they get older.

A rise in vaccine hesitancy—a behavior influenced by lack of trust in the medical community, concerns about vaccine safety, efficacy, necessity or convenience and other issues related to vaccination—has contributed to undervaccination through parental decisions to delay or refuse vaccines for their children. The goal of this research portfolio is to provide a conceptual framework for understanding the multiple factors that impact vaccine acceptance, explore strategies for effective vaccine communication, particularly in an era of increasing access to information and consider the implications of advocacy and policy approaches to address vaccine hesitancy.

Description

Talking Points to Address Vaccine Hesitant Parents



Health care providers can reduce or eliminate the number of patients on alternate vaccination schedules by addressing some of the most common concerns about vaccine safety and efficacy.

Dr. Feemster and her team have conducted several studies to better understand vaccine initiation barriers related to vaccine hesitancy and how to overcome them:

1. A 2009 study of newborns from a large urban setting found that children most at risk of late vaccine initiation are those whose mothers attend fewer prenatal care visits and who are younger, less educated and already have at least one other child. These delays may not be driven by negative attitudes toward vaccines, but demonstrate that barriers to accessing vaccines combined with an underappreciation of the severity and prevalence of preventable diseases can keep children from being fully vaccinated on time. Dr. Feemster's findings suggest that it is critical to target at-risk mothers early, even prenatally through vaccine education and to encourage prenatal pediatric visits. These data also highlight the potential for immunization registry data to identify infants for targeted outreach.
2. PolicyLab researchers Dr. Alex Fiks and Dr. Feemster evaluated the feasibility and impact of interventions informed by behavioral economics (retail pharmacy vouchers for Tdap vaccines and a celebrity public service announcement) to increase Tdap vaccination among caregivers of young infants. They found that despite leveraging existing infrastructure for adult vaccination, the results suggest that retail pharmacy vouchers delivered during a newborn visit are not an effective strategy for promoting Tdap. Furthermore, alternative approaches are needed that prioritize convenience and provide an immediate opportunity to vaccinate when motivation is high.
3. Caregivers often ask for an alternative immunization schedule that spreads immunization over a longer period of time. Dr. Feemster and colleagues recently examined the characteristics of pediatricians and practices associated with different practice-level responses to alternative immunization schedule requests. They found that pediatricians who work in practices that accommodate alternative immunization schedule requests have increased odds of having a high frequency of alternative immunization schedule requests, and beliefs that relationships with families would be negatively affected if they refused requests while practices that discontinue care to families who request alternative immunization schedules have increased odds of being a private group practice and having a formal office vaccine policy.

Next Steps

Dr. Feemster's ongoing work continues to build a conceptual framework for vaccine acceptance that can be applied to the development of strategies to optimize implementation of vaccine recommendations. This is especially challenging in an era of rapid information dissemination. In order to combat this, the public health community must prioritize effective communication strategies. Dr. Feemster's ongoing projects continue to evaluate these communications strategies that ensure pediatricians give strong recommendations for the proven vaccine schedule and other projects that aim to understand the how institutional policies affect vaccine acceptance.

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Suggested Citation

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PolicyLab Leads

Kristen Feemster
MD, MPH, MSHP

Faculty Scholar

Kristen A. Feemster is a faculty scholar at PolicyLab at Children's Hospital of Philadelphia (CHOP), an adjunct associate professor of pediatrics in the Division of Infectious Diseases at the University of Pennsylvania Perelman School of Medicine, research director for the Vaccine Education Center at CHOP and medical director of the Immunization Program and Acute Communicable Diseases at the Philadelphia Department of Public Health.

Dr. Feemster's portfolio reflects a longstanding interest in public health and a commitment to improve outcomes for children by addressing contextual factors that may impact disease risk and access to health services. This has resulted in two complimentary foci: 1) understanding how environmental factors, social networks, and community systems affect the epidemiology of infectious diseases; and 2) evaluating policies related to the prevention of pediatric infectious diseases, specifically vaccine policies. Her current research includes vaccine acceptance among parents and immunization providers in the U.S. and internationally, community-based interventions to improve vaccine uptake, neighborhood factors associated with the incidence of pertussis and influenza, and health-care associated respiratory infection in the pediatric ambulatory setting. This body of work has also demonstrated the importance of understanding the drivers of health-related behaviors and adoption of new recommendations to ensure effective policy implementation.

At Penn and CHOP, Dr. Feemster is affiliated with the Leonard Davis Institute of Health Economics, PolicyLab, Clinical Futures and Global Health programs at CHOP. She serves as a technical advisor for an American Academy of Pediatrics global immunization advocacy initiative and is past-chair of the Advisory Commission for Childhood Vaccines that advises the National Vaccine Injury Compensation Program. In the community, she serves on the boards of the Philadelphia and Pennsylvania Immunization Coalitions.

Dr. Feemster received her MD and an MPH in population and family health from Columbia University Schools of Medicine and Public Health in New York City. She completed pediatric residency at CHOP then pursued a dual fellowship training program in health services research and pediatric infectious diseases: she was a fellow in the Robert Wood Johnson Foundation (RWJF) Clinical Scholars Program at Penn, completing a master of science in health policy research then returned to CHOP for pediatric infectious diseases training. She joined the faculty in 2010.

Kristen Feemster
MD, MPH, MSHP
Email: Feemster@chop.edu

Team

Alexander Fiks
MD, MSCE

Faculty Member

Alex Fiks is a faculty member at PolicyLab at Children's Hospital of Philadelphia (CHOP), an urban primary care pediatrician at CHOP, director of Clinical Futures at CHOP and an associate professor of pediatrics at the Perelman School of Medicine at the University of Pennsylvania. He is also the director of the American Academy of Pediatrics (AAP) Pediatric Research in Office Settings (PROS), a national research network, medical director for the Pediatric Research Consortium (PeRC), CHOP's practice-based research network and co-director of the Possibilities Project, an initiative to innovate primary care delivery. Additionally, Dr. Fiks is a founding member of the hospital's Department of Biomedical and Health Informatics.

Board certified in clinical informatics, Dr. Fiks' research is aimed at improving outcomes for ambulatory pediatric patients through practice-based research with a focus on improving health and health care decision-making through health information technology. To achieve these goals, much of Dr. Fiks' research is focused on fostering shared decision making between clinicians and families, especially in the setting of behavioral health conditions. He is also especially interested in how electronic health record data may best be used to improve primary care, medication use and child health more broadly. As Director of AAP PROS, Dr. Fiks has been involved in building the Collaborative Electronic Reporting for Comparative Effectiveness Research (CER^2), an electronic health record database designed to support pharmacoepidemiologic and other comparative effectiveness studies that currently includes >2 million U.S. children from across multiple health systems.

Dr. Fiks received his medical degree from Harvard University, and received a Master's of Science in Clinical Epidemiology (MSCE) degree from the University of Pennsylvania. He has received additional training in clinical informatics.

Alexander Fiks
MD, MSCE
Email: Fiks@chop.edu

Philadelphia Department of Health, Division of Disease Control

CHOP Global Health Program

UPenn Center for Vaccine Ethics

Alison Buttenheim

Vaccine Education Center

Susan Coffin

Joshua Metlay

Project Contact

Kristen Feemster
Feemster@email.chop.edu

Related Tools & Publications

- Remembering the Benefits of Vaccination
  Article
  May 2015
- Factors Associated With Pediatrician Responses to Alternative Immunization Schedule Requests
  Article
  Feb 2017
- Addressing Vaccine Hesitancy to Protect Children and Communities Against Preventable Diseases
  Evidence to Action Briefs
  Mar 2017
- Vaccine Hesitancy in Pediatric Primary Care Practices
  Article
  Nov 2018
- Pediatricians' Vaccine Attitudes and Practices Before and After a Major Measles Outbreak
  Article
  Jan 2018
- Higher Education Student Vaccination Policies: How Administrators Can Encourage Vaccine Uptake
  Evidence to Action Briefs
  Aug 2023
- Improving Campus Health—Building on Research to Increase Vaccination Rates
  Webinars
  Mar 2024