

Raising Adult Immunization Rates

Madalyn Schaeffen, MD, FAAFP, Barbara A. Sikora, LPN, Donna Wendling

Lehigh Valley Physician Group Family Medicine—Cetronia Road, Allentown, Pa.

Scope of the Problem

- Costs of vaccine preventable diseases in the US are significant:
 - Influenza: \$87B/yr, 3,000-49,000 deaths/season
 - Herpes Zoster: One million cases/year
 - Pneumococcus: 40,000 cases and 4,000 deaths/year
- Vaccination rates in the United States are below Healthy People 2020 goals

Background

A **quality improvement project** to work on interventions to improve immunization rates in adults which could be reproduced in other family medicine offices.

- part of the “**Adult Immunization Office Champions Project**”, by the American Academy of Family Physicians (AAFP), supported by a cooperative agreement with the Centers for Disease Control and Prevention
- Lehigh Valley Physician Group (LVPG) Family Medicine—Cetronia Road** — selected as one of 25 family medicine practices and residencies in the United States to participate in the pilot phase.

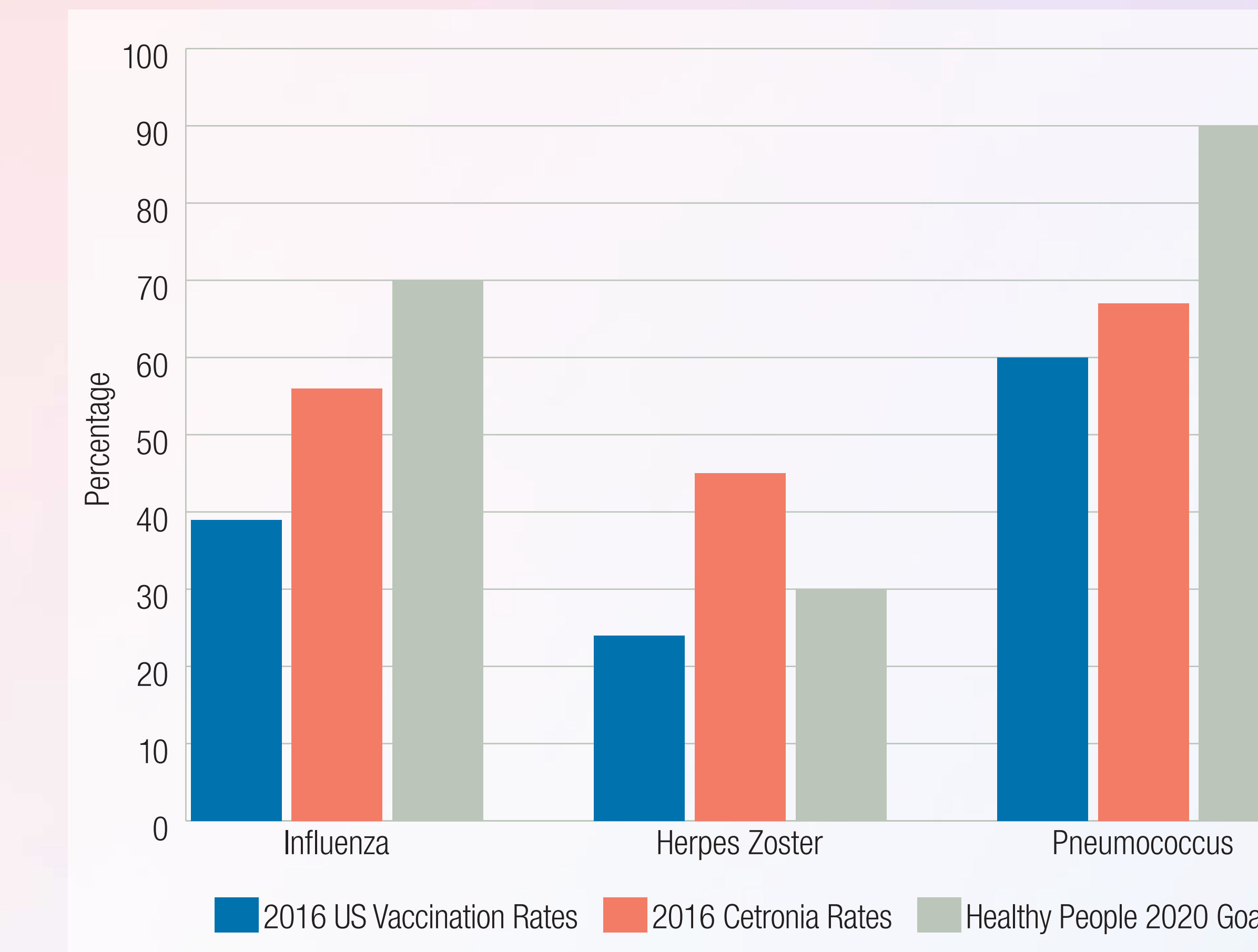
Methods

- Team identified:
 - Physician Champion — Madalyn Schaeffen, MD, FAAFP
 - Nurse Champion — Barbara A. Sikora, LPN
 - Data Analyst — Donna Wendling
- Definitions for Inclusion in the study:
 - LVPG FM at Cetronia for 3 years - Aug. 2016 (baseline), Aug. 2017 and Aug. 2018.
 - Patients — those seen in the practice at least twice during the measurement year and who were within the age range at the time of the evaluation.
- Data — demographics and vaccination rates for vaccines PCV13 (≥ 66 years), PPSV23 (≥ 66 years), Influenza (≥ 19 years) and Zostavax (≥ 61 years), and for Aug. 2018 added Shingrix (ages 51-60 years and ≥ 61).
- June 2016 pre-planning —
 - Practice Survey of staff regarding immunizations — noted need for education.
 - Met with other 24 practices and CDC to review surveys, current and best practices
 - Met with local hospital Information Systems regarding data analysis and linking with the State Immunization Registry

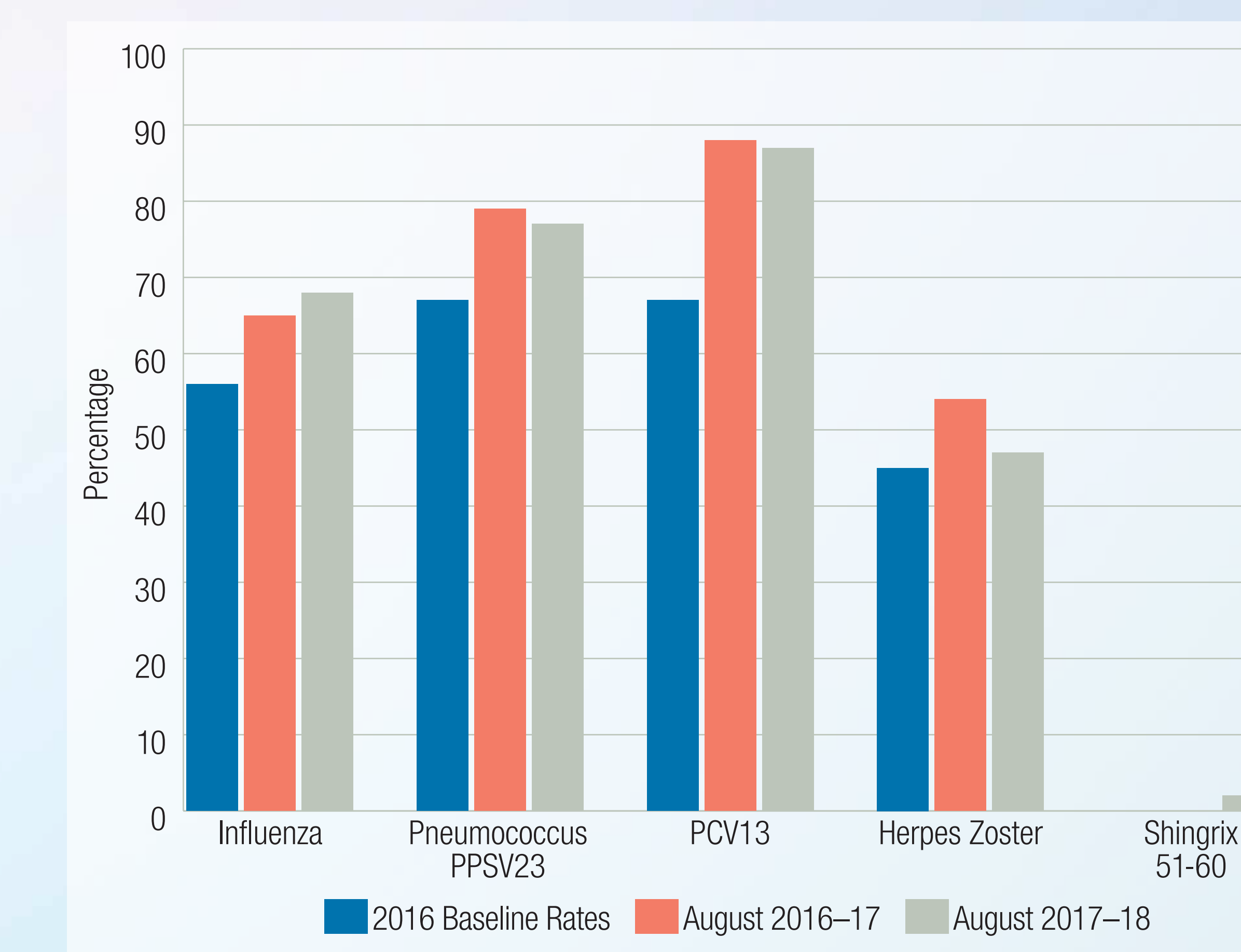
Practice Improvement Plan

- Staff education** — met Sept. 2016 and Aug. 2017 with champions and pharmaceutical immunization specialist
 - immunizations (schedule and safety)
 - insurance coverage
 - documentation
 - health maintenance
 - quick texts
 - standing orders
 - STRONG recommendations
- Patient education** at every visit
 - STRONG recommendations by ALL staff
 - CDC handout on reasons to immunize if refusing the immunization
 - information on after visit summaries to notify us if getting immunizations outside of the office
 - general and targeted letters regarding need for immunizations
 - posters in waiting room advertising the benefits of vaccine
- Access** — performed vaccine counts weekly with pre-visit planning
 - Influenza vaccine — still ran out early — 2/13/2017 and 2/5/2018
 - Shingrix approved by ACIP 10/25/2017 — No further Zostavax given and no Shingrix available until 5/2018, (and limited thereafter)
- Increase documentation** of data outside of the office —
 - Worked with Information Systems and others to get information from hospital run flu clinics and bidirectional flow from State Immunization Registry (SIIS)
 - Enlisted pharmacies to place information into SIIS
 - Asked patients to notify us of vaccines given outside of the office.
- Incentives** to increase rates —
 - Monthly prizes given to staff during first year — most scheduled, most increased rate
 - Sent reminder letters to patients deficient in vaccines (leveraging EMR)
 - Encouraged use of standing orders with every visit
 - Gave monthly feedback to clinicians and staff on performance rates

2016 Baseline Adult Vaccination Rates



Cetronia Vaccination Rates 2016-2018



Challenges

- Documentation of vaccines given outside of the office — improving
 - Bidirectional SIIS starting daily in Sep 2019
 - Immunizations coming in through EMR from outside sources
 - Hospital flu clinics now automatic
- New zoster vaccine — demand far exceeding supply, recommended over older vaccine, resulting in decreasing immunization rates
- Office mergers with differing immunization rates, differing office procedures
- Significant staff turnover

Lessons Learned

- Increased vaccination rates occurred with
 - Making strong recommendations
 - Offering the vaccine at every eligible visit
 - Using standing orders
- State Immunization Registries need to be more robust.
- Memory is short — need to reinforce behavior frequently
- Change is inevitable — you cannot always predict new vaccines, staff and provider turnover. Expect the unexpected and start all over again!

REFERENCES

¹2.5 years of patient data from the practice at LVPG FM—Cetronia Road, Allentown, PA 181032) Healthy People 2020 Goals, including data from 2015-2016 influenza and 2016 pneumococcal and zoster rates <https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives3>) Adult Vaccination Resources <https://www.cdc.gov/vaccines/hcp/adults/index.html>