



knowledge changing life

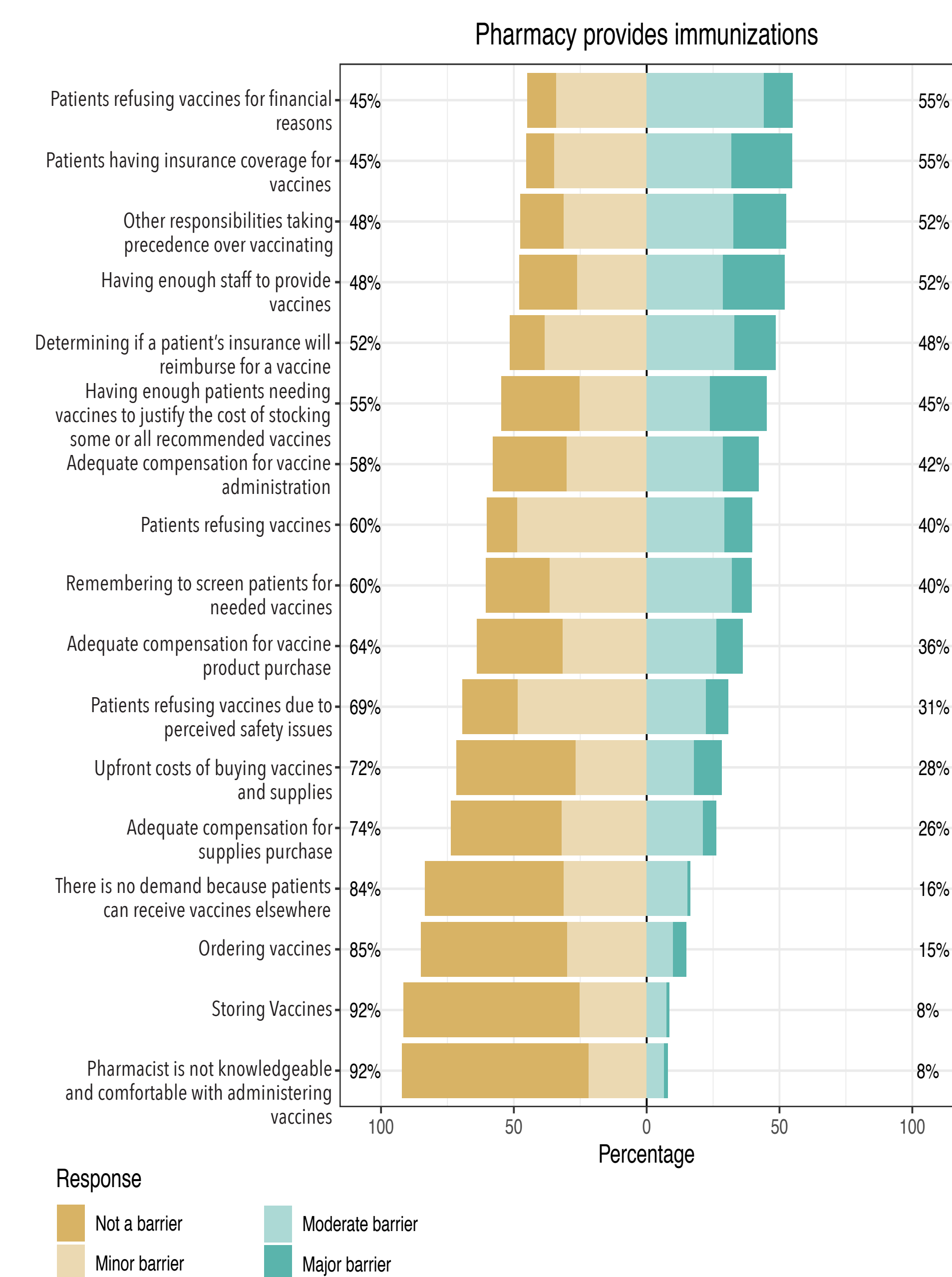
Prevalence and Barriers to Pharmacy-Based Immunization in Wisconsin; Analysis of State Immunization Registry and Pharmacist Survey in Interdisciplinary Partnership

Authors: Rebecca Bernstein, MD, MS, George E. MacKinnon III, PhD, MS, RPh, FAShP, Sarah Sorum, PharmD, Erica Martin, Phillip Berce, PharmD, Karen MacKinnon, BPharm, RPh, Michele Leininger and Ken Schellhase, MD

Problem: Gaps in vaccination result in vaccine-preventable illnesses.

Partnership: Pharmacy Society of Wisconsin, Medical College of Wisconsin School of Pharmacy, Medical College of Wisconsin School of Medicine and Advancing a Healthier Wisconsin come together to promote systems changes to increase access to immunization at pharmacies.

Figure: Barriers to Immunization for Pharmacies that Immunize



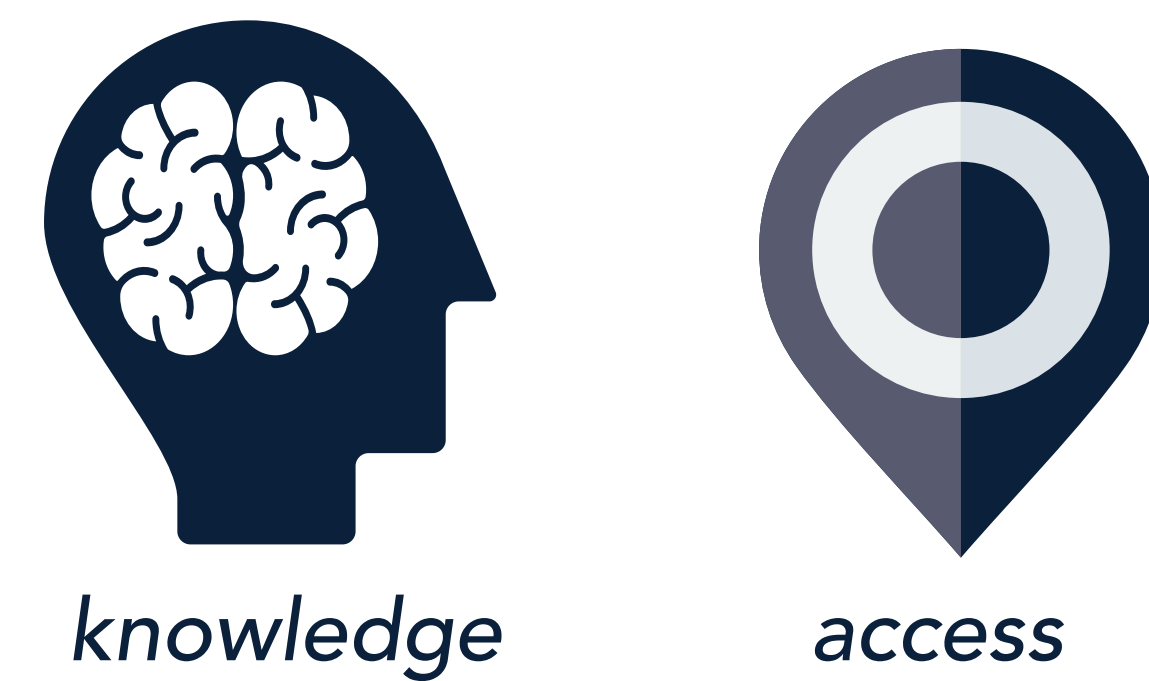
Increasing Community Access to Immunizations to Decrease Vaccine Gaps

There is no wrong door for immunization access



Survey of WI Pharmacists (n=241) November 2018 - February 2019

Facilitators to Pharmacy Immunization



Barriers to Pharmacy Immunization



Percent of Vaccine Doses Given in Wisconsin Pharmacies July 2017 - June 2018 (Wisconsin Immunization Registry)

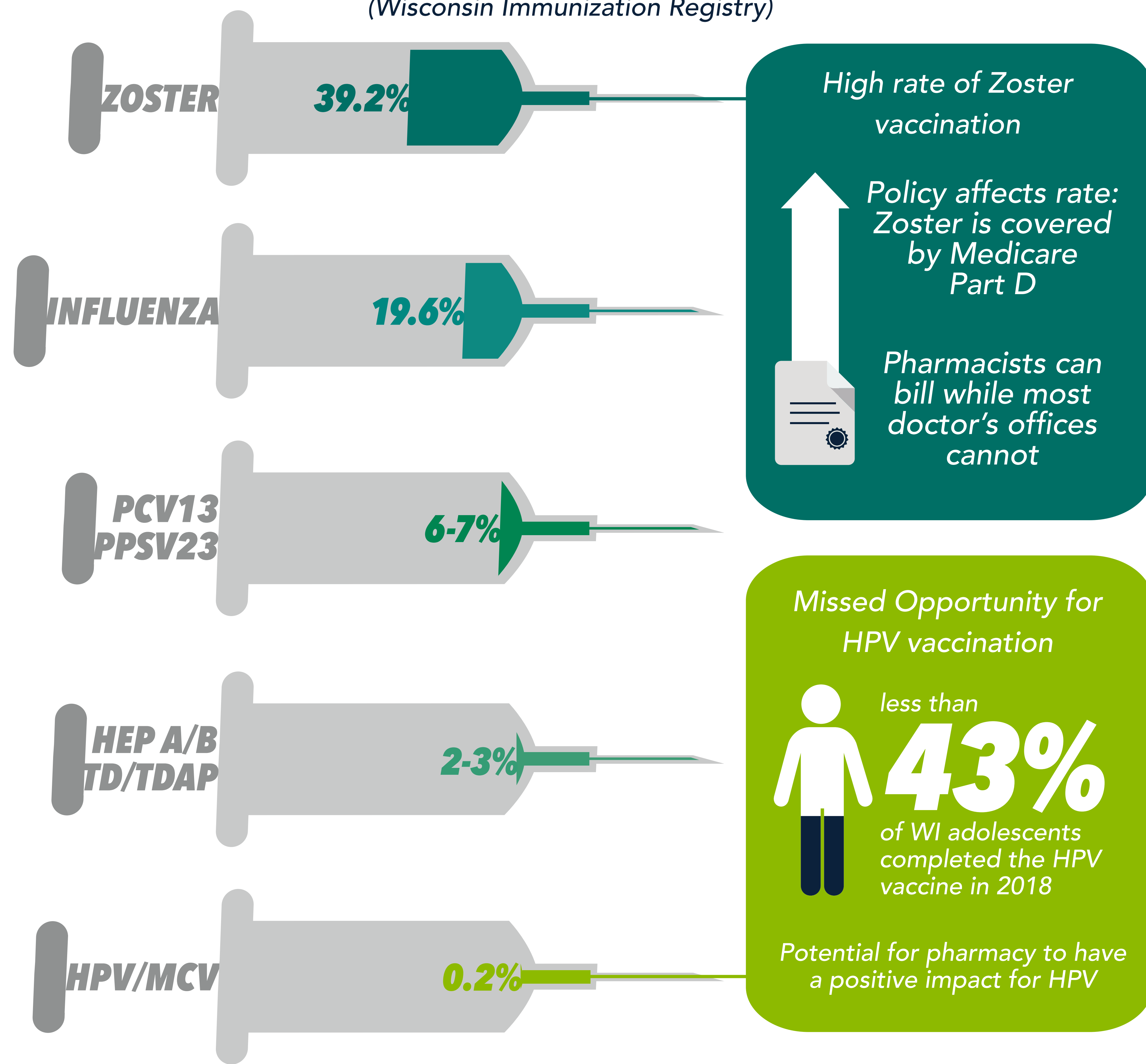
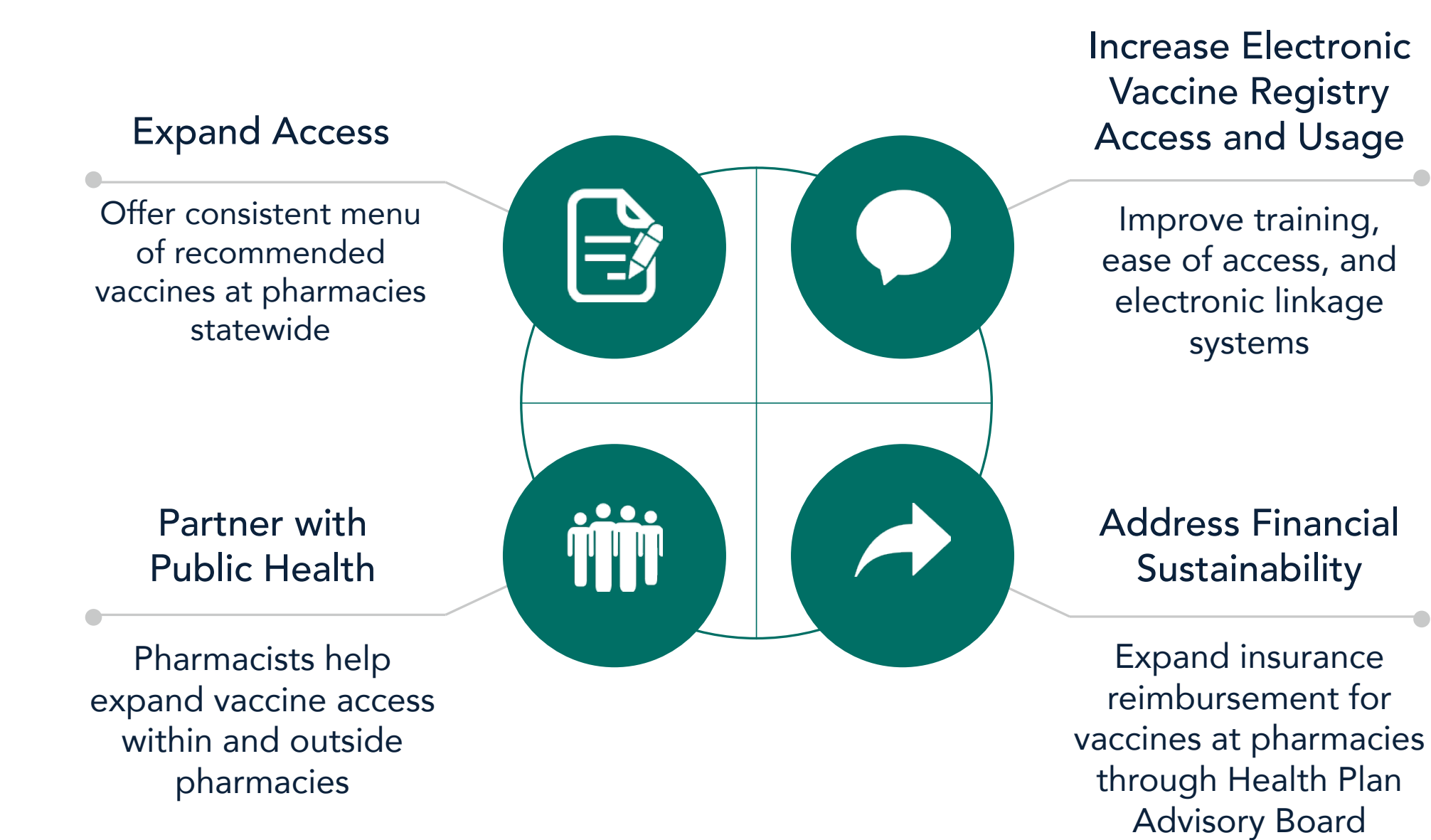


Table: Proportion of Immunization Doses Given at Pharmacies

Vaccination	Proportion of doses at pharmacies [95% CI]	Number of doses (pharmacies/total)
Zoster	0.392 [0.388-0.395]	26,817/68,458
Influenza	0.196 [0.196-0.197]	392,017/1,995,993
Tetnus/diphtheria + Tetanus/diphtheria/pertussis	0.033 [0.033-0.034]	27,314/819,066
Tetnus/diphtheria	0.032 [0.031-0.032]	14,084/440,635
Tetanus/diphtheria/pertussis	0.035 [0.034-0.035]	13,230/378,431
Pneumococcal 13-valent conjugate + pneumococcal polyvalent	0.068 [0.067-0.069]	16,293/240,658
Pneumococcal 13-valent conjugate	0.077 [0.075-0.078]	8666/113,206
Pneumococcal polyvalent	0.060 [0.059-0.061]	7627/127,452
Human Papillomavirus	0.002 [0.002-0.003]	438/179,922
Meningococcal	0.002 [0.002-0.003]	323/130,152
Combined Hepatitis A/B	0.039 [0.036-0.041]	982/25,388
Hepatitis A+ Hepatitis B + Hepatitis AB	0.025 [0.024-0.026]	4009/158,711
Hepatitis A (Hep A)	0.023 [0.022-0.024]	1814/79,030
Hepatitis B (Hep B)	0.022 [0.021-0.024]	1213/54,293
All non-influenza	0.047 [0.047-0.047]	75,194/1,596,967

Planned Interventions



Pharmacists help expand vaccine access within and outside pharmacies

Expand insurance reimbursement for vaccines at pharmacies through Health Plan Advisory Board

Offer consistent menu of recommended vaccines at pharmacies statewide

Improve training, ease of access, and electronic linkage systems

Partner with Public Health

Address Financial Sustainability

What is access to immunization like in your state?

For more information contact:
Rebecca Bernstein, MD
rbernstein@mcw.edu



"This project is funded in part by the Healthier Wisconsin Partnership Program, a component of the Advancing a Healthier Wisconsin Endowment at the Medical College of Wisconsin."

Thank you to Michelle Schaefer, Lisa Rein and Sergey Tarima for their contributions.