

# The American Academy of Pediatrics Pediatric Research in Office Settings (PROS) Network Update

## Building Evidence for Better Child Health through Primary Care

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# Disclosures

- I am a consultant to the American Academy of Pediatrics for my work with PROS.

# Acknowledgement of Major Funders

**Pediatric Research** in Office Settings  
A program of the American Academy of Pediatrics

- The American Academy of Pediatrics
- The Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number (U5DMC39344) National Research Network to Improve Children's Health. The information, content and/or conclusions are those of the author(s) and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS, or the US Government.
- PROS current studies receiving funding from:
  - Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)
  - National Cancer Institute (NCI)
  - National Heart, Lung, Blood Institute (NHLBI)
  - National Institute of Alcohol Abuse and Alcoholism (NIAAA)
  - Patient-Centered Outcomes Research Institute (PCORI)

# Mission

**The mission of PROS is to improve the health of children and enhance primary care practice by conducting and fostering national collaborative practice-based research.**



# Great Reasons to Do Research in Primary Care Practices



Sutton's Law: that's where most patients and problems are!



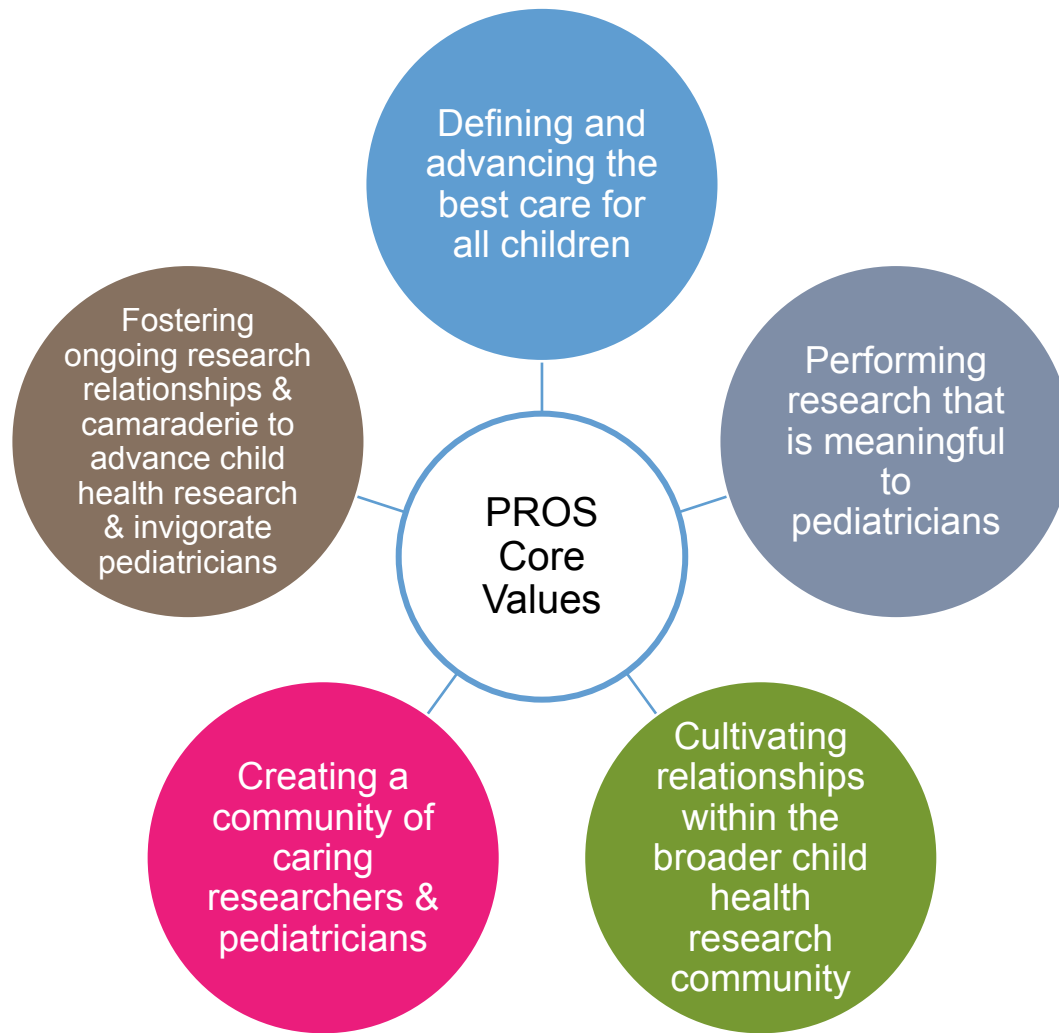
Practices are the best place to study the *prevention* of health problems



Practices are a good place to study problems *over time*



Clinical data which details decision making and the care delivered resides in practices



# PROS Accomplishments and Updates



>40 completed studies

5 current NIH R01 studies

1 current PCORI project

>120 peer-reviewed publications

>400 unique practices participated in at least one PROS study since 2010

>20,000 individual study participants (children, teens, parents, and clinicians) since 2010

# Joining PROS: What's in it for Pediatric Clinicians?

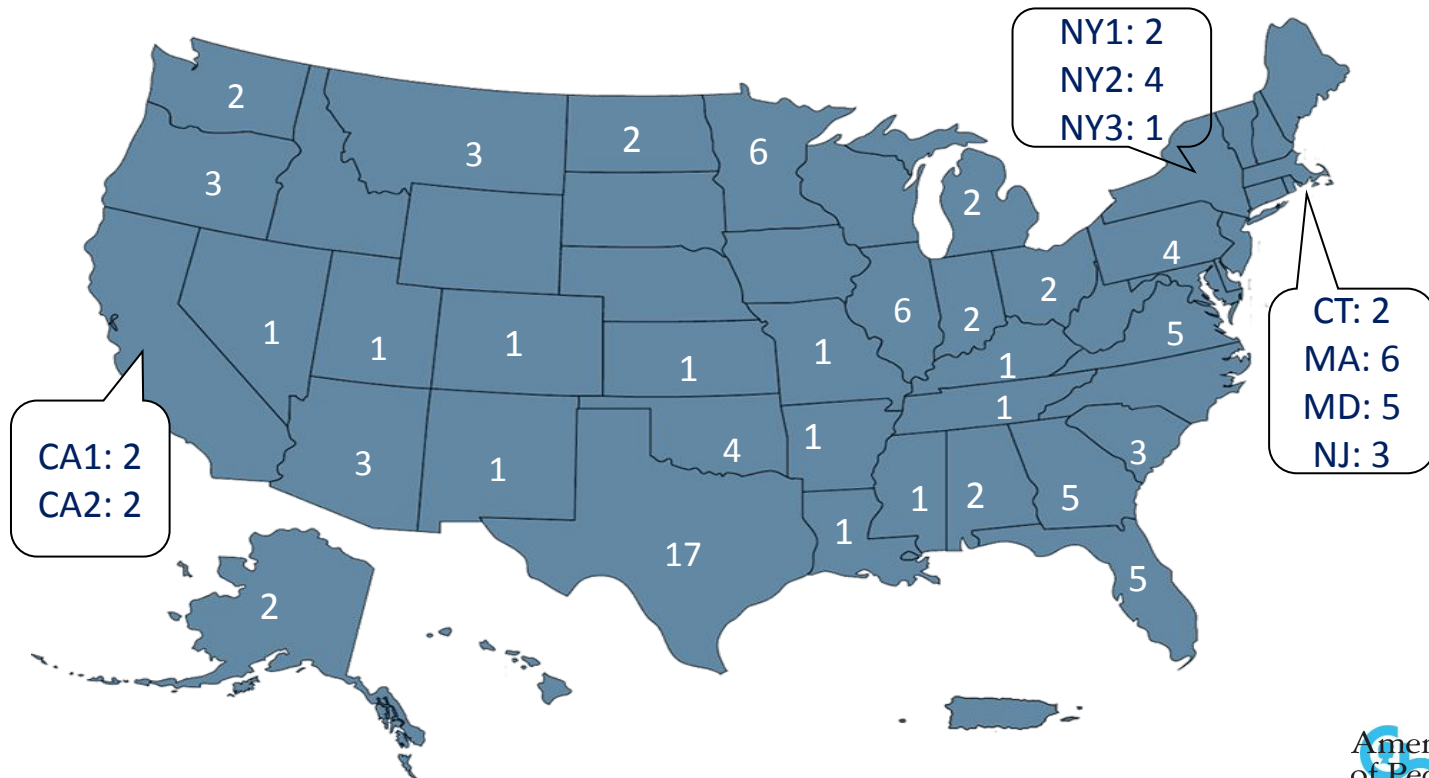
**94%** valued contributing to the advancement of knowledge and practice

**72%** intellectual stimulation

**53%** camaraderie with local and national colleagues

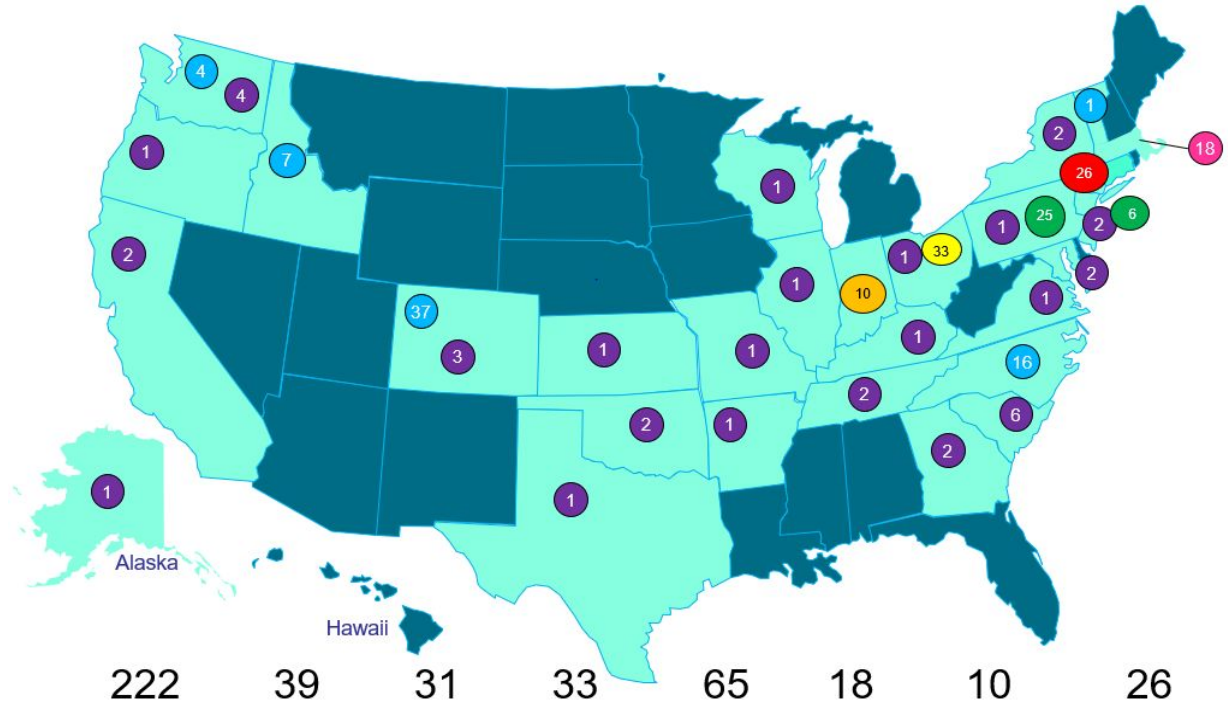


# Unique Practices (n=120) in Current PROS Studies



# Comparative Effectiveness Research through Collaborative Electronic Reporting (CER<sup>2</sup>)

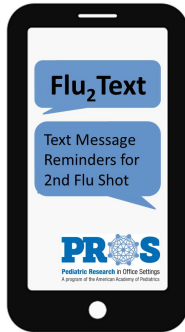
- **222** Practice Sites
- **27** States
- **2,119** Pediatricians and Nurse Practitioners
- **>2 Million** Covered Lives
- ...and growing!



Comparative Effectiveness Research  
through Collaborative Electronic Reporting  
A Program of the American Academy of Pediatrics

CER <sup>2</sup> Sites	ePROS	PeRC	Metro Health	ENQUIRENet	Boston University	Eskenazi	Allied Physicians
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# Current Studies

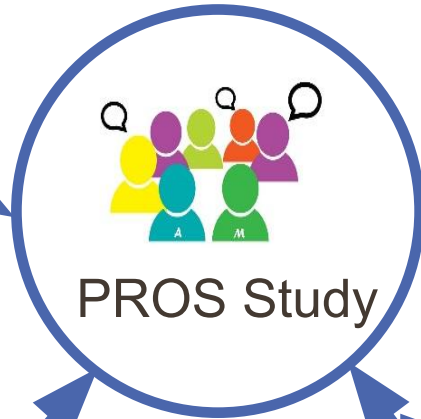


# Why is PROS Special?



Pediatric Research in Office Settings  
A program of the American Academy of Pediatrics

Pediatrician Leaders  
and AAP Staff

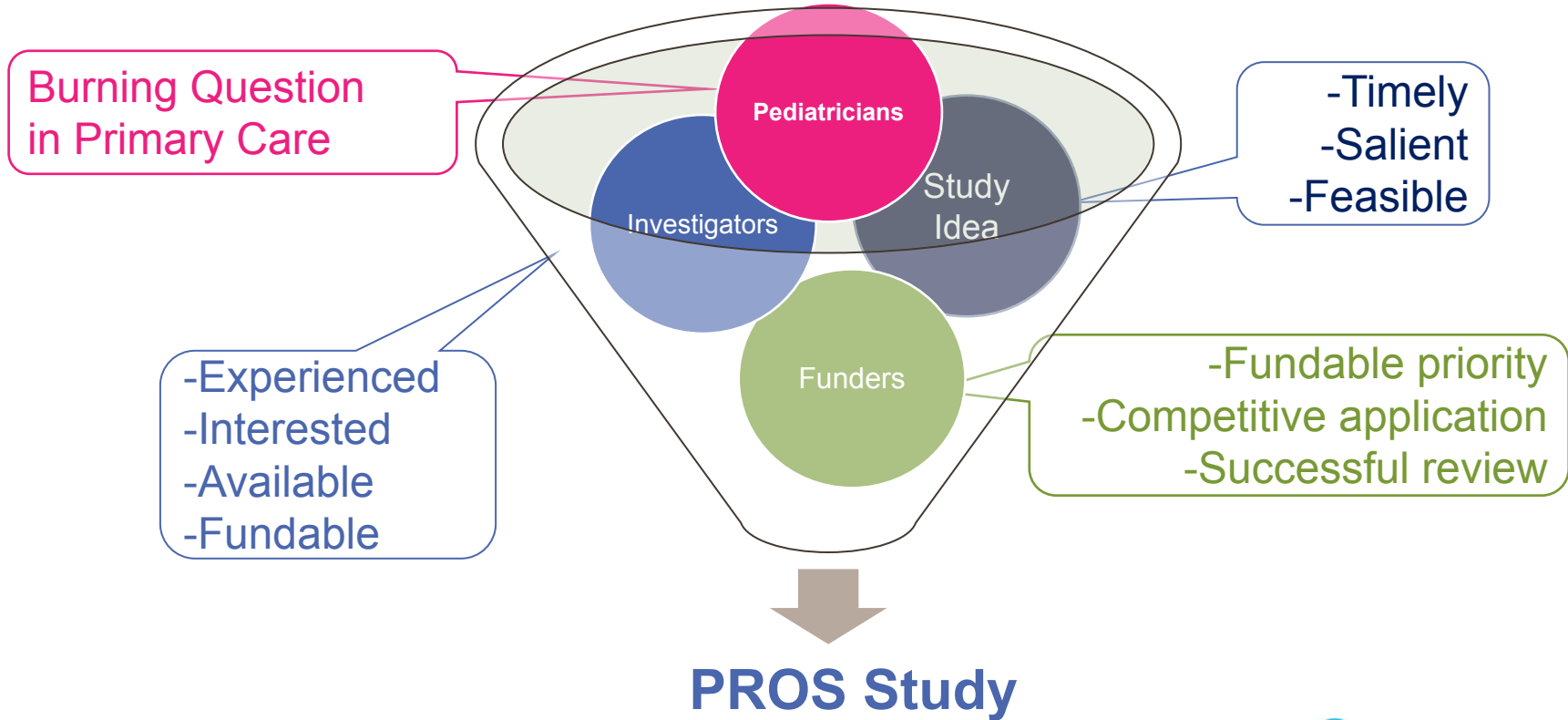


Researchers  
and Partnering  
Institutions

Practices,  
Families and  
Children



# What Makes a Project Good for



- PROS Core operations are funded by the US Health Resources and Services Administration (HRSA) Maternal Child Health Bureau (MCHB) and AAP
- PROS research is externally funded: e.g.: National Institutes of Health: large 4–5-year randomized trials; CDC, etc.
- Grant dollars cover work at prime academic institution and multiple sites; a portion of the total award comes to PROS
- PROS is a cost center meaning that the work PROS does on a project needs to be supported by grant dollars



## Benefits to Child Health of Practice-Based Research in Primary Care

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# Management and Outcomes of Care of Fever in Early Infancy

## Objectives:

1. To characterize the management and clinical outcomes of fever in infants
2. To develop a clinical prediction model for the identification of bacteremia/bacterial meningitis, and
3. To compare the accuracy of various strategies.



N=537  
practitioners from  
PROS



44 states, DC  
and PR



3066 infants  
( $\leq 3$  months)



38+ C



Feb 1995- Apr  
1998

# Management and Outcomes of Care of Fever in Early Infancy

## Conclusion:

*“Pediatric Clinicians in the United States use individualized clinical judgment in treating febrile infants. In this study, relying on current clinical guidelines would not have improved care but have resulted in more hospitalizations and laboratory testing.”*



# Clinical Practice Guideline: Evaluation and Management of Well-Appearing Febrile Infants 8 to 60 Days Old

Robert H. Pantell, MD, FAAP;<sup>a</sup> Kenneth B. Roberts, MD, FAAP;<sup>b</sup> William G. Adams, MD, FAAP;<sup>c</sup> Benard P. Dreyer, MD, FAAP;<sup>d</sup> Nathan Kuppermann, MD, MPH, FAAP, FACEP;<sup>e</sup> Sean T. O'Leary, MD, MPH, FAAP;<sup>f</sup> Kymika Okechukwu, MPA;<sup>g</sup> Charles R. Woods Jr, MD, MS, FAAP<sup>h</sup> SUBCOMMITTEE ON FEBRILE INFANTS

*June 2021*

## DIALOGUE AROUND RESPIRATORY ILLNESS TREATMENT (DART) OBJECTIVE



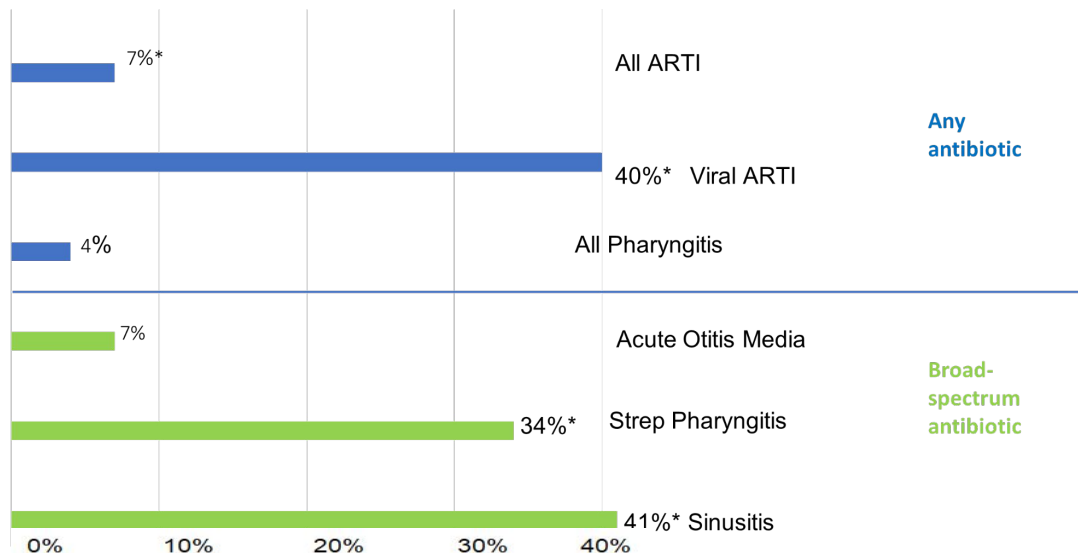
- Does educational **training** on antibiotic prescribing and communication **paired** with individualized provider prescribing **feedback reduce** antibiotic use during childhood **Acute Respiratory Tract Infection (ARTI)** visits?



## Primary outcome:

The intervention group reduced antibiotic use and sustained the reduction in the follow-up period.

## Decrease in antibiotic prescribing following a clinician training and feedback program



ARTI = acute respiratory tract infection; Strep = streptococcal

\* Indicates statistical significance

Chart from AAP NEWS, Research Update, October 2020

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# STOP-HPV: Communications Skills Training to Improve Vaccination Outcomes

- Human papillomavirus (HPV) causes over **600,000** cases of cancer worldwide each year
- HPV vaccine is safe and very effective, but uptake remains low
  - In the US, **54%** of adolescents are up-to-date for the HPV vaccine, far **below the 80% target**
- Every day that HPV vaccination rates are 50-60% instead of 90%:
  - 10 girls in the US will eventually develop cervical cancer
  - >8 boys and >2 girls in US will eventually develop oropharyngeal cancer
- Strategies to improve clinician communication may **reduce vaccine hesitancy** and **boost vaccination rates**

# The Communication Intervention: 3 Online Modules

Module	Content
<p>Module 1 An Effective Approach</p>	Burden of HPV Cancers
	Importance of HPV vaccine
	An effective recommendation: Same way, same day
	Answering common questions
	Resources for the practice
<p>Module 2 Your Confident Recommendation</p>	Review of Module 1
	Involving the office staff
	Answering more common questions- safety, sexuality, others
	Resources for the practice
<p>Module 3 Talking with Parents Who Hesitate</p>	4 common groups of parents (with respect to HPV vaccine)
	Common scenarios of hesitant parents
	Using motivational interviewing strategies
	Supporting yourself and your colleagues
	Resources for the practice

# The Communication Intervention: Weekly Quick Tips

Practice what you've learned from the STOP-HPV module with a colleague. Then use it with parents.

Are you giving the HPV recommendation from the Module 1-same way, same day as other vaccines? "Sam needs 3 vaccines TODAY: Tdap, HPV, and meningitis."

HPV vaccine is as safe as all other vaccines you give (>12-year US track record of safety).

STOP-HPV: Almost everyone will be infected with HPV at some time. Do providers in your group think HPV vaccine is only important for "high-risk" kids?

Why vaccinate at 11-12 years? Because HPV vaccine works better at a younger age.

It is safe to vaccinate during acute visits. An adolescent's cold, sore throat, diarrhea, etc. won't increase the risk of a vaccine side effect.

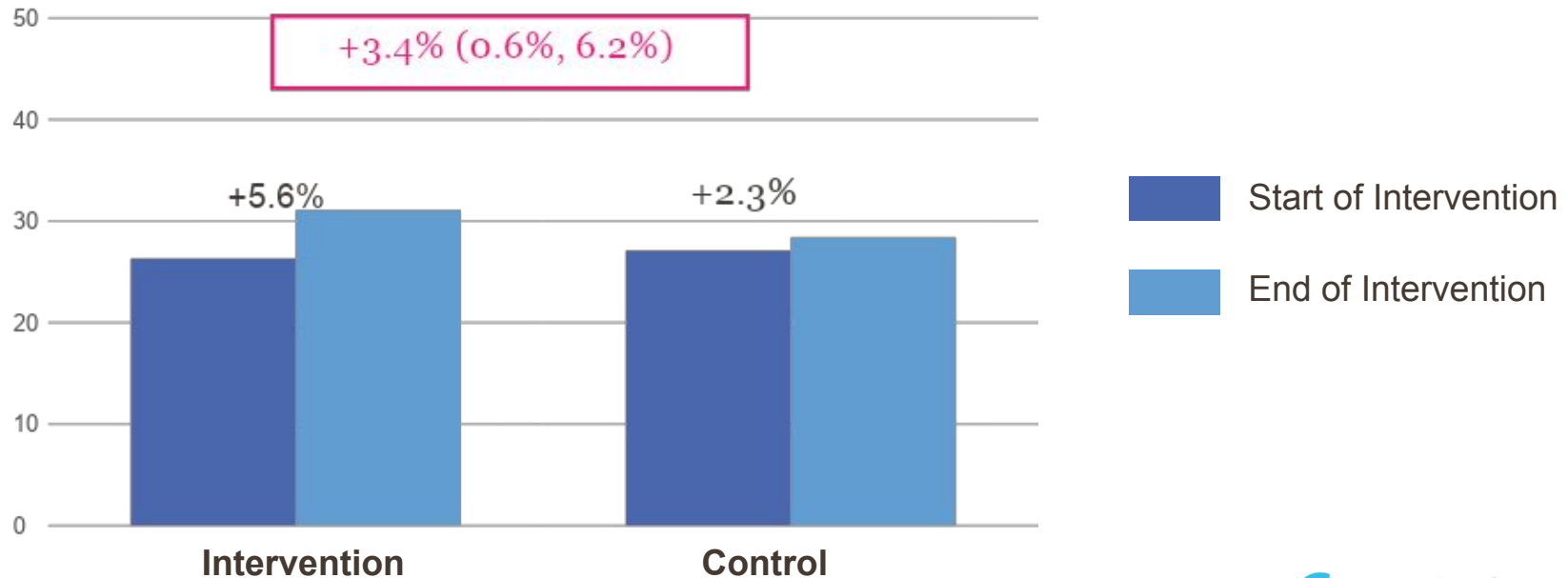
# Results: Impact of Training on the % of Missed Vaccination Opportunities

Visit Type	Baseline Period	Intervention Period	Percentage Point Change in MOs (95% CI)
Intervention	57.5%	48.7%	-8.8%
Control	55.0%	53.0%	-2.0%
Intervention vs Control Groups			<b>-6.8%</b> <b>(-9.7%, -3.9%)</b>

**6.8%** fewer missed opportunities for vaccine initiation at preventive visits

# % Teens Who Received Initial HPV Dose At Start vs End of Intervention Period

**3.4%** more teens received the initial HPV dose





# Studies Adapted for non-English Speakers



# Projects in Development

## Telemedicine Integrated into Pediatric Primary Care (TIPP-C)

- Overarching goal: Identify actionable strategies for promoting the use of telemedicine within primary care in ways that improve child health and health equity.
- **If funded, PCC practices will be needed in late 2022/early 2023**

## NIH Researching COVID to Enhance Recovery (RECOVER)

- Overarching goal: to rapidly improve understanding of recovery after SARS-CoV-2 infection and to prevent and treat Post-Acute Sequelae of SARS-CoV-2 (PASC).
- **Practices expected to be needed in late 2022/early 2023**

Health literacy and outpatient medication prescribing

Suicide prevention through primary care

## How to Join PROS



# Who Can Join?

## Practices

- Practices must provide a full range of direct Pediatric and/or adolescent patient primary care (including preventive services) to an active panel of patients. Each participating practice must include a current AAP member—but that member does not need to join PROS themselves.

## Individuals

- Physicians, nurse practitioners, or physician assistants who provide a full range of direct pediatric and/or adolescent patient primary care (including preventive services) in a PROS practice to an active panel of patients.

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# Summary



- Primary care is increasingly recognized as a foundation of pediatric care, but practice is changing
- Research from primary care practice is uniquely positioned to influence the future of pediatric care
- PROS studies have already influenced care guidelines and practice in many ways
- Many find that joining PROS answers a higher calling, mitigating burnout and bolstering career satisfaction
- We welcome you to contact us and to help build the future of primary care

Thank you!

Questions?

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