



Adolescent AFIX: A Multi-state RCT to Increase Adolescent Immunization through Vaccine Provider Best Practices

Research In Progress Webinar

Thursday, September 14, 2017 12:00-1:00pm ET/ 9:00am-10:00am PT

Funded by the Robert Wood Johnson Foundation

Agenda

Adolescent AFIX: A Multi-state RCT to Increase Adolescent Immunization through Vaccine Provider Best Practices

Welcome: **Rick Ingram, DrPH**, Assistant Professor, University of Kentucky College of Public Health

Presenters: **Melissa Gilkey, PhD**, Assistant Professor, Department of Health Behavior gilkey@email.unc.edu and **Jennifer MacKinnon, MPH**, Project Coordinator, heislerm@email.unc.edu, School of Global Public Health, University of North Carolina at Chapel Hill

Commentary: **Phil Huang, MD, MPH**, S4A National Advisory Committee Member; Medical Director and Health Authority, Austin/Travis County Health & Human Services Department
Chrystal Averette, MPH, AFIX & QI Coordinator, Washington State Department of Health

Questions and Discussion

Presenters



Melissa Gilkey, PhD

Assistant Professor, Department of Health Behavior
UNC Gillings School of Global Public Health
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Jennifer MacKinnon, MPH

Project Coordinator
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HPV AFIX: A public health systems approach to improving HPV vaccine delivery

UNC Research Team

Melissa Gilkey, William Calo, Jennifer MacKinnon, Jennifer Leeman, Marcy Boynton, Jennifer Moss, & Noel Brewer

SHD Practice Teams

Chrystal Averette, Nicole Freeto, Wendy Bowman, Steffen Burney (Washington)
Susan Williams, Linda Kasebier, Tiffany Fuller (Illinois)
Stephanie Sanchez, Rachel Potter (Michigan)

Background

HPV vaccination in the U.S.



HPV vaccination schedule

On-time

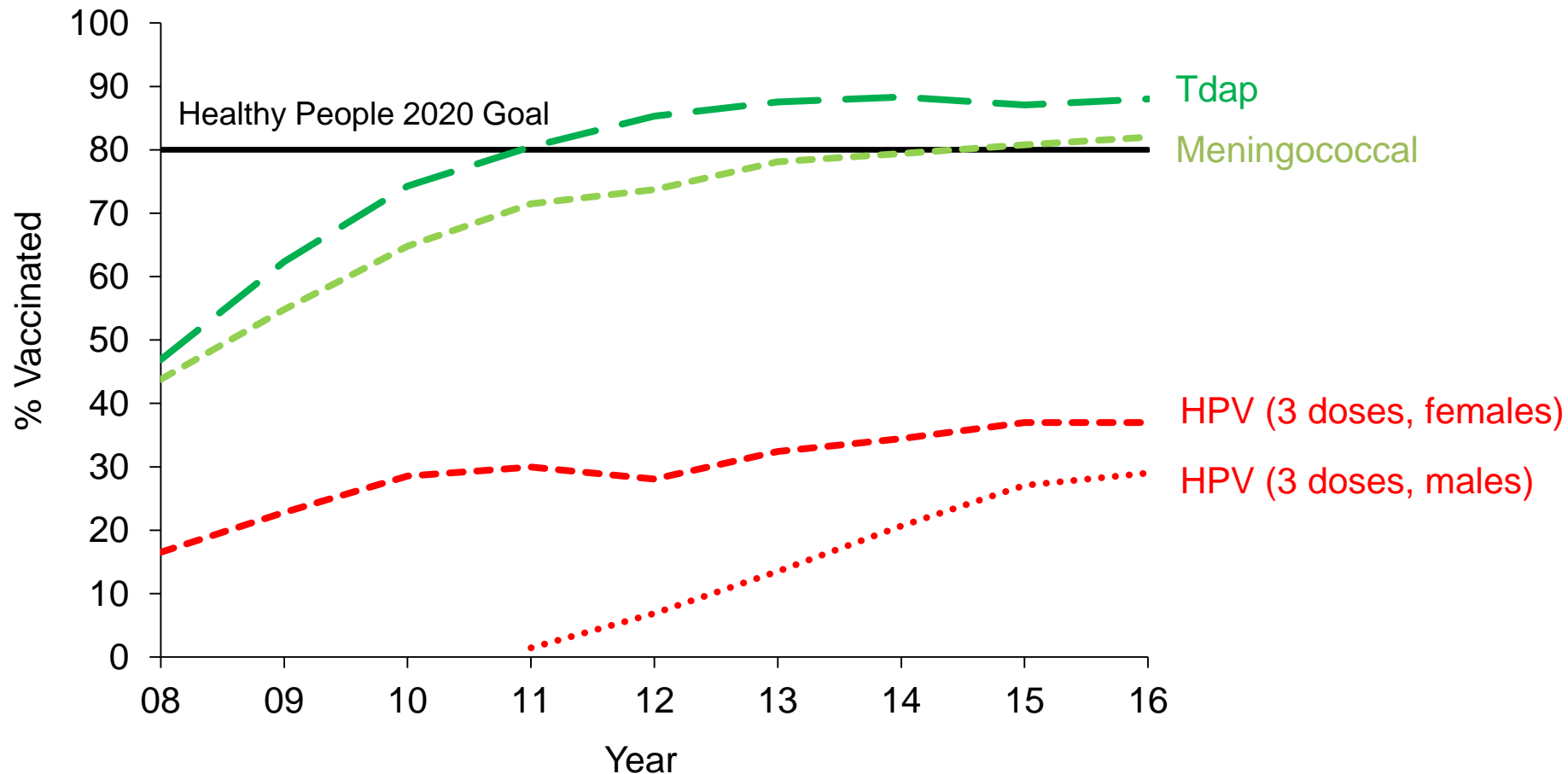
- Males and females, ages 11-12

Late

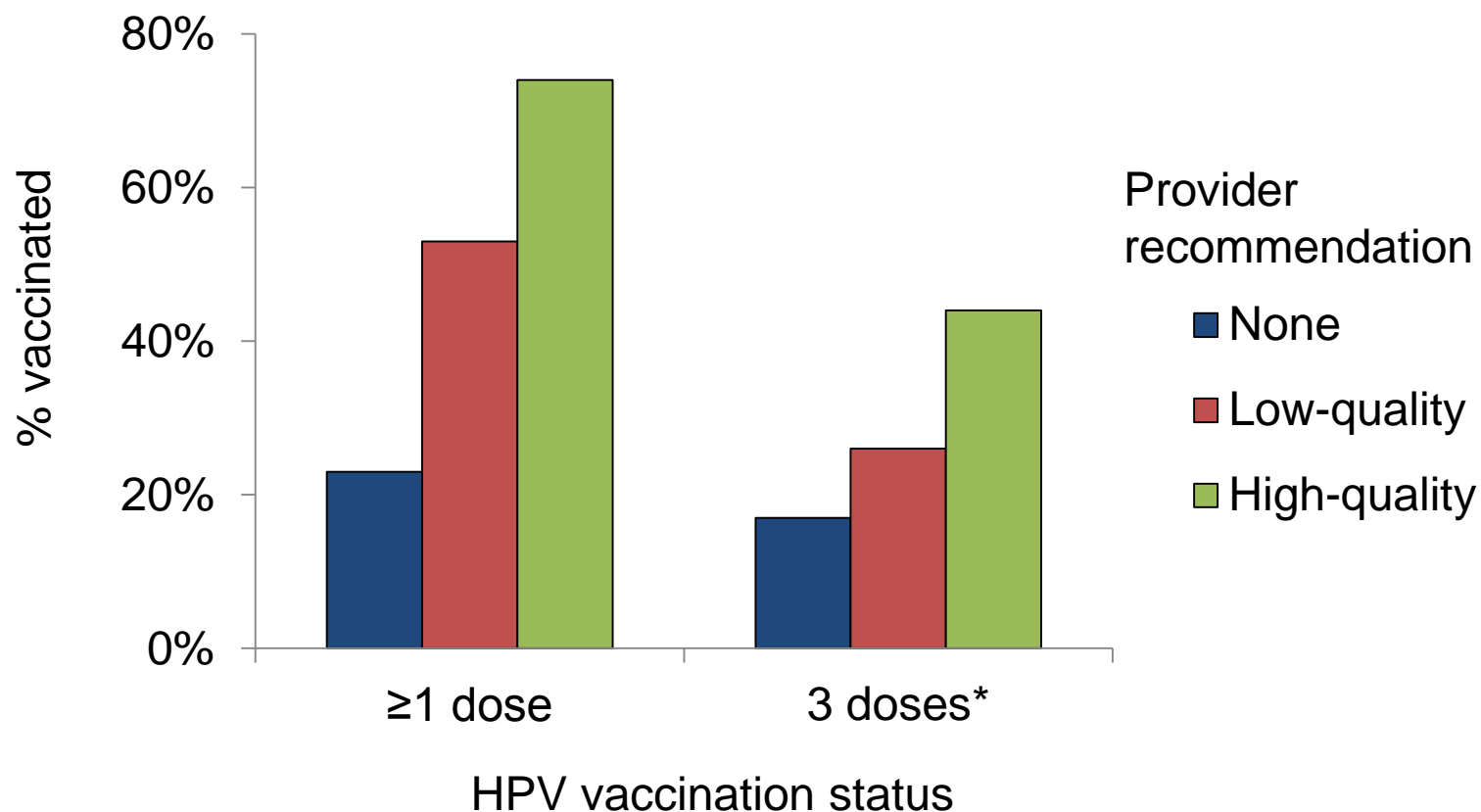
- Females to age 26
- Males to age 21



Adolescent immunization coverage, ages 13-15



Role of healthcare providers



* Among those who received first dose

(Gilkey et al., *Vaccine*, 2016)

Recommendations need improvement

- No recommendation
 - 36% of girls and 58% of boys, ages 13-17, have not received a recommendation
- Low-quality recommendations
 - 51% of physicians report using 2 or more lower-quality HPV vaccine recommendation practices

CDC's AFIX Model

- **A**ssessment of immunization coverage
- **F**eedback of the assessment results
- **I**ncentives to improve coverage levels
- **eX**change of information and resources



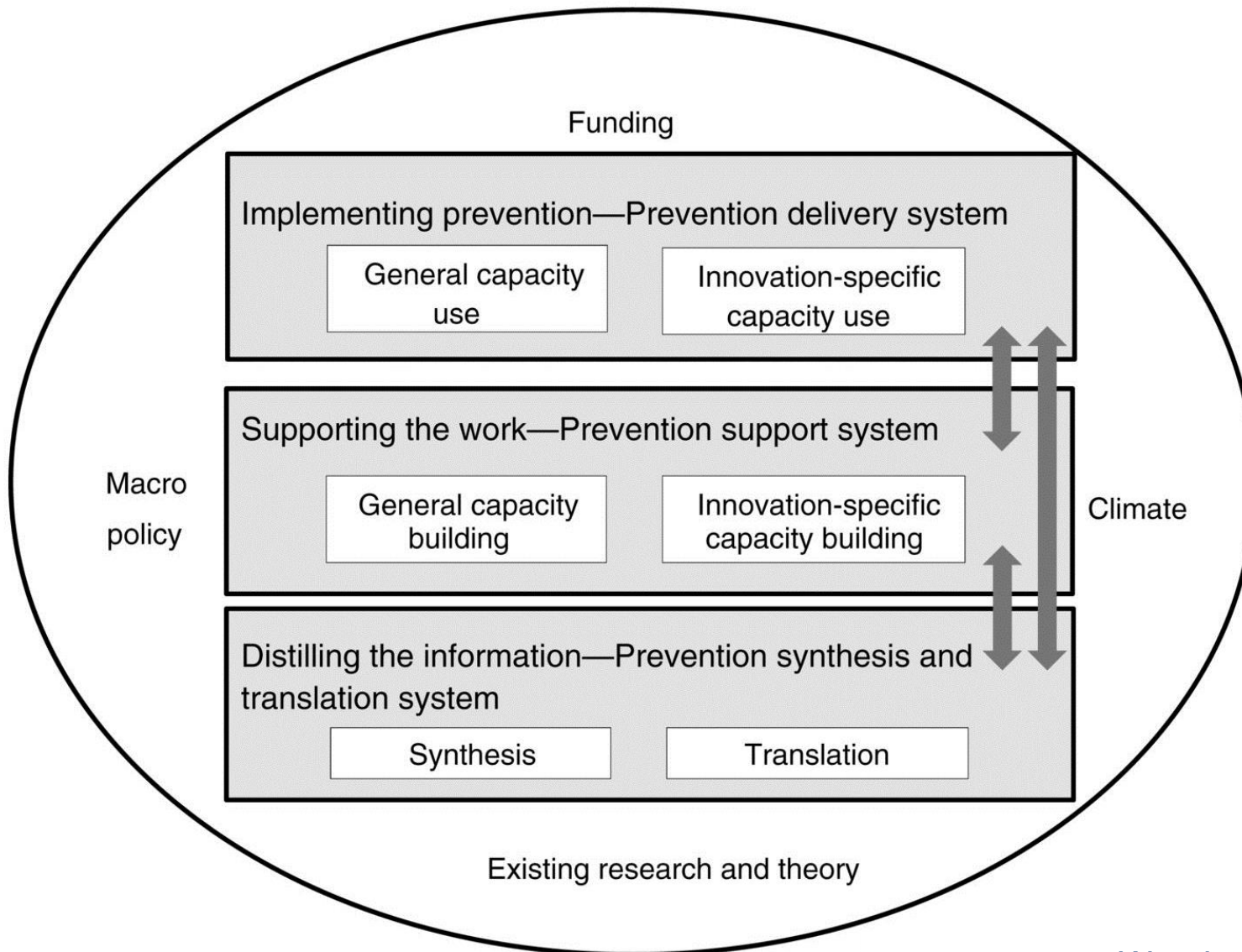
AFIX as intervention

- Uses provider assessment and feedback, an evidence-based strategy
- Shown to be effective for increasing coverage for early childhood vaccines
- Has evolved over time

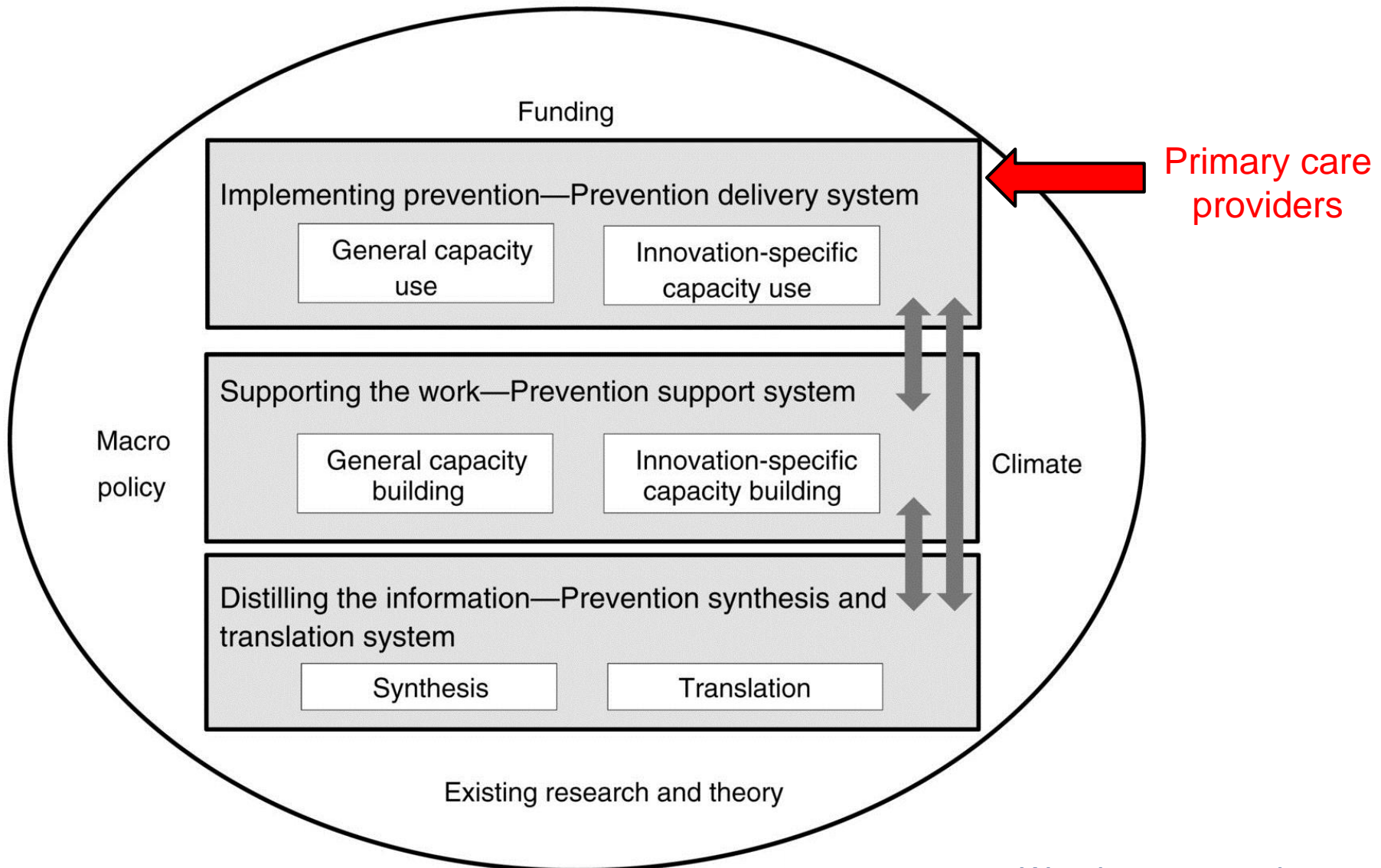
AFIX as system



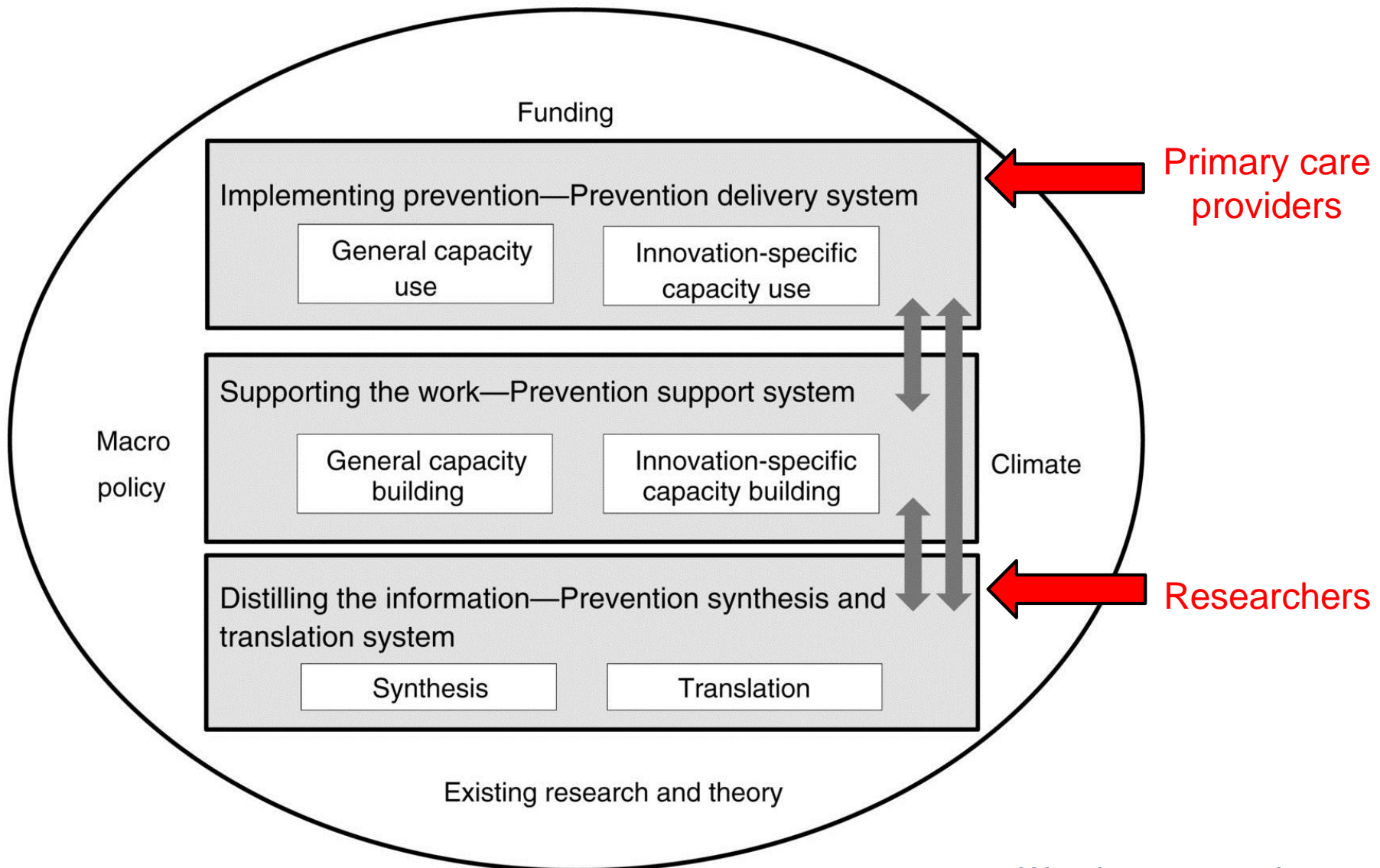
Interactive Systems Framework



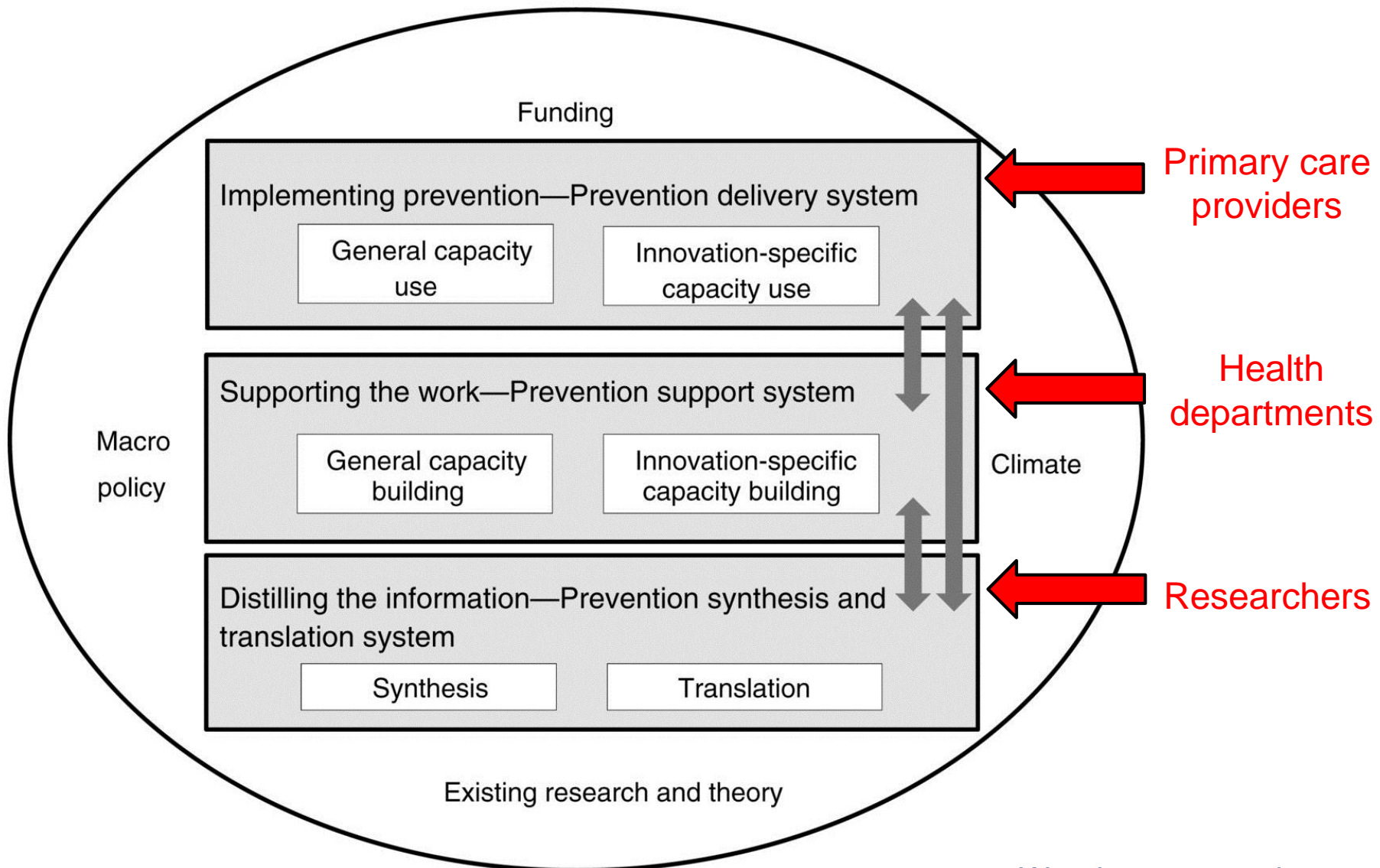
Interactive Systems Framework



Interactive Systems Framework



Interactive Systems Framework



2011 AFIX Pilot: 3-arm RCT w/ 91 clinics

In-person
visit



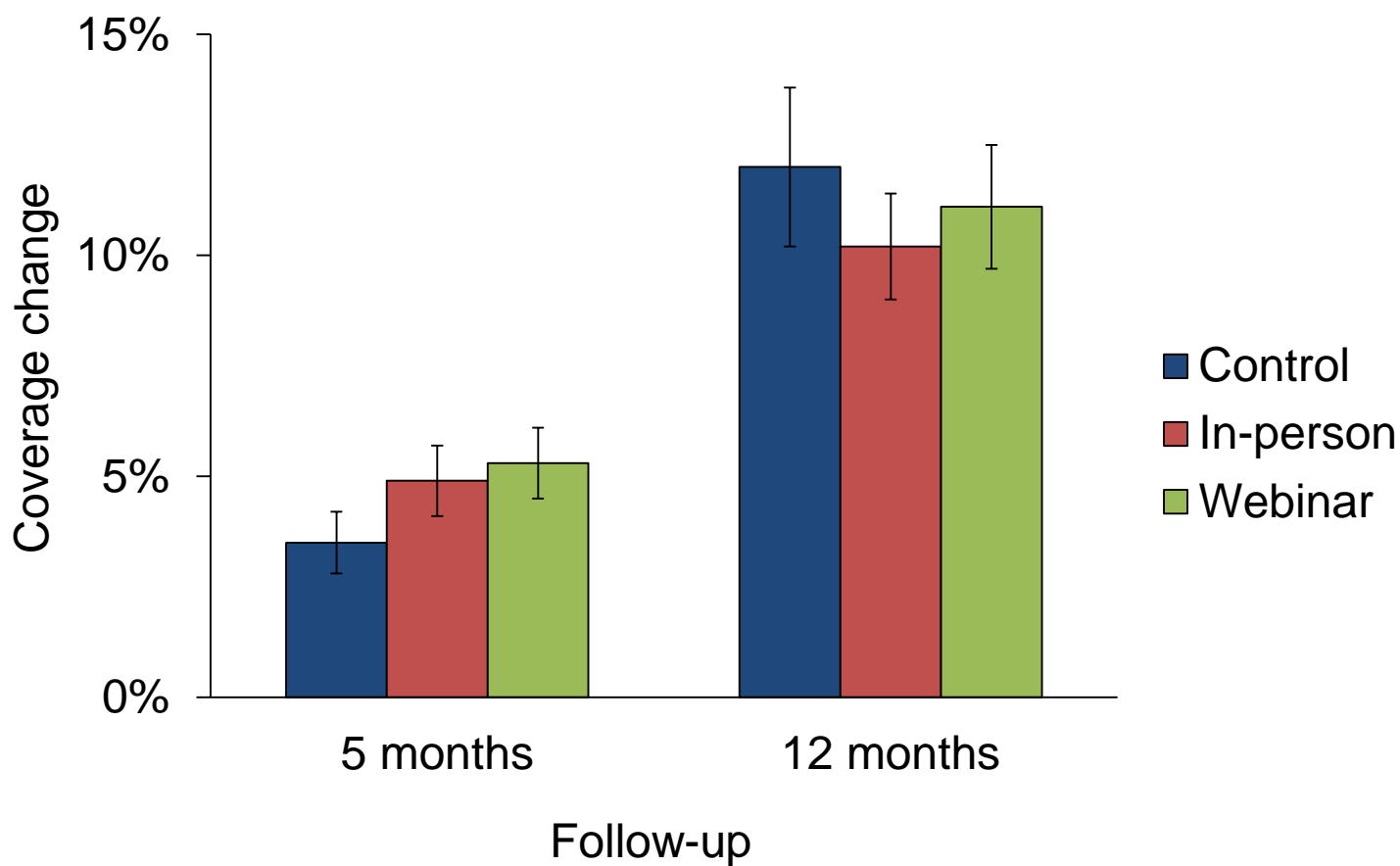
Webinar
visit



Control

No AFIX

HPV vaccine coverage changes (≥ 1 dose), girls ages 11-12



HPV AFIX Study

Aims, intervention development, and evaluation



Study goal: Raise HPV vaccination coverage

1. Identify key challenges to HPV vaccination quality improvement in primary care settings
2. Develop tools and strategies to address those challenges during AFIX visits
3. Assess the impact of modified AFIX visits on adolescents' HPV vaccination status

Our partners



HPV AFIX Intervention

Schedule
clinics

- CMEs to incentivize provider participation

HPV AFIX Intervention

Schedule clinics

- CMEs to incentivize provider participation

Deliver AFIX visits

- Report card to communicate problem, set QI goal
- PPT slides to improve knowledge, skills
- Action plan to facilitate communication within clinic

HPV AFIX Intervention

Schedule clinics

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Conduct follow-up

- Interim progress reports to inform further QI effort
- Email coaching to maintain providers' focus

YOUR IMMUNIZATION REPORT CARD



1 REVIEW

your clinic's adolescent vaccine coverage.

ABC Pediatrics VFC 12345678 3/20/15

Your clinic has...	HPV		Meningococcal, ≥1 dose	Tdap
	Males, ≥1 dose	Females, ≥1 dose		
567 patients, age 11-12	20 %	45 %	68 %	73 %
756 patients, age 13-17	31 %	60 %	79 %	88 %

Coverage estimates are for patients in our state's immunization registry.

2 SET A GOAL

to improve HPV vaccine coverage in the next 6 months.

HPV Goal	Progress at 3 months	Progress at 6 months
57 patients, age 11-12		
76 patients, age 13-17		

Goals represent 10% of male and female patients in your clinic with records in our state's immunization registry. A typical clinic may give the first dose of HPV vaccine to 5% of their adolescent patients in 6 months. The goal is to double this rate.

3 RECOMMEND

HPV vaccination for adolescents, starting at age 11.

Offer HPV vaccine in the same direct way you recommend other vaccines. Try saying:

**"Your child needs three shots today:
meningitis, HPV, and Tdap vaccines."**

Your recommendation is the single biggest influence on parents' decisions to get HPV vaccine for their children. The vaccine produces a better immune response in younger adolescents. Vaccinating in the preteen years is best.

EARN FREE CMEs

on HPV vaccine communication: www.cdc.gov/vaccines/ed/hpv/

3-arm RCT w/ 224 clinics

In-person
visit



Webinar
visit



Control

No AFIX

Sample

	n	(%)
Clinic location		
Illinois	92	(41)
Michigan	43	(19)
Washington	89	(40)
Size (# of patients ages 13-17)		
500-1000	94	(42)
1001-1500	58	(26)
>1500	72	(32)
Clinic type		
Pediatrics	134	(60)
Family medicine	90	(40)

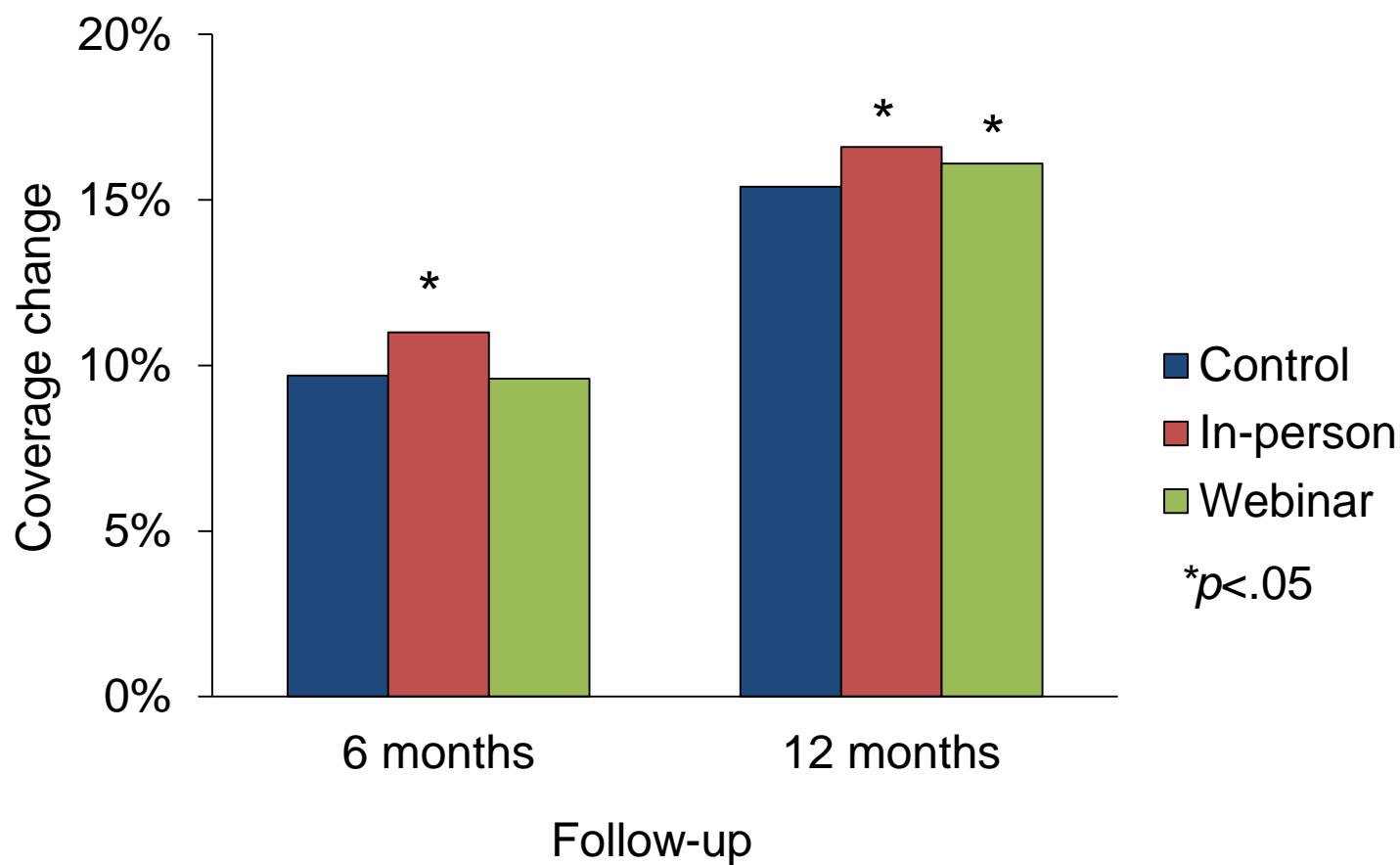
Assessments

Evaluation component	Data source
1. HPV vaccination coverage at 0-, 6-, 12-months	State immunization information systems

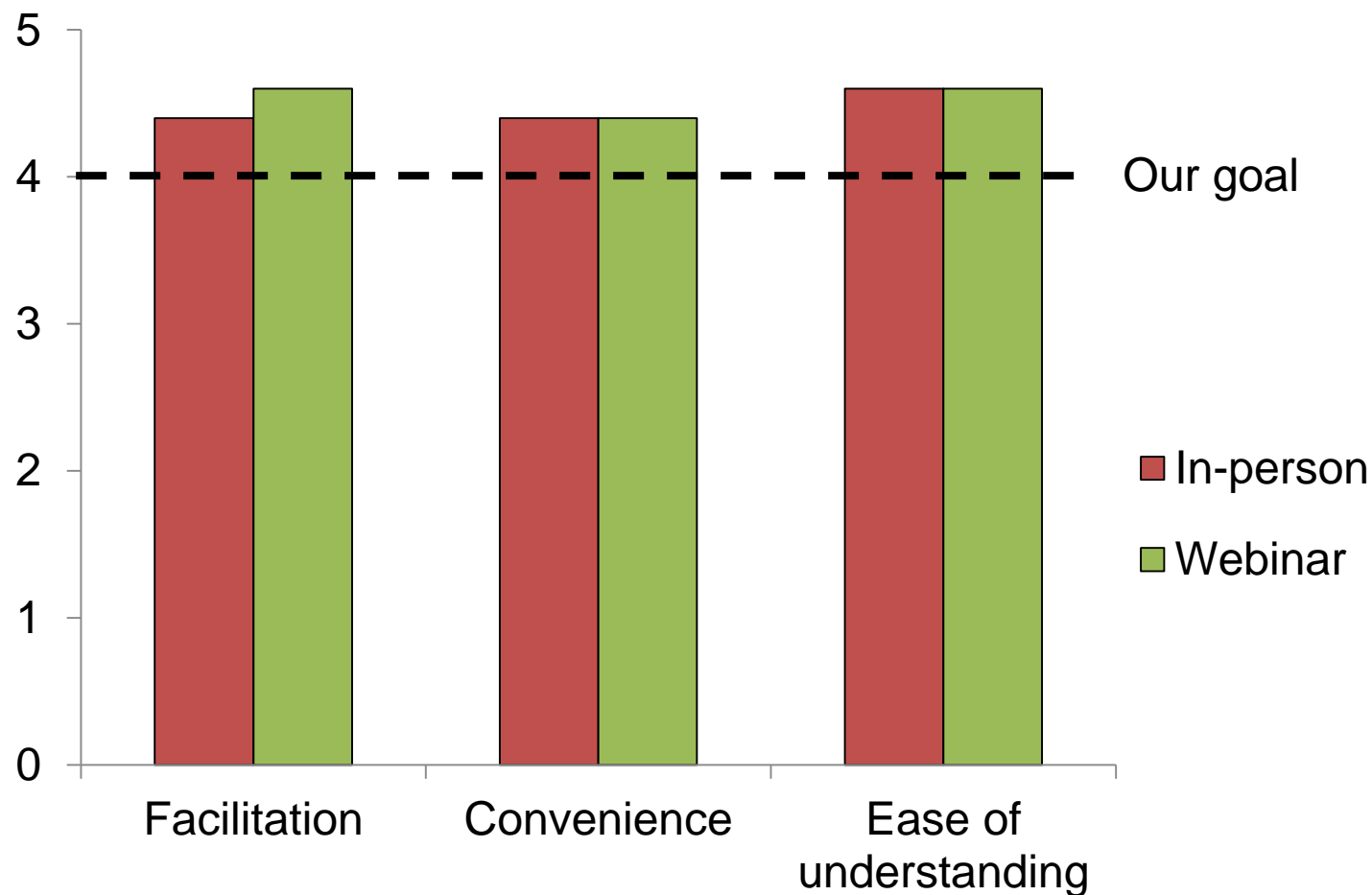
Assessments

Evaluation component	Data source
1. HPV vaccination coverage at 0-, 6-, 12-months	State immunization information systems
2. Fidelity	Observation of AFIX visits
3. Provider satisfaction, self-efficacy, engagement	Online surveys of healthcare providers
4. Delivery cost	State partner time logs and invoices
5. State partner feedback	Weekly calls

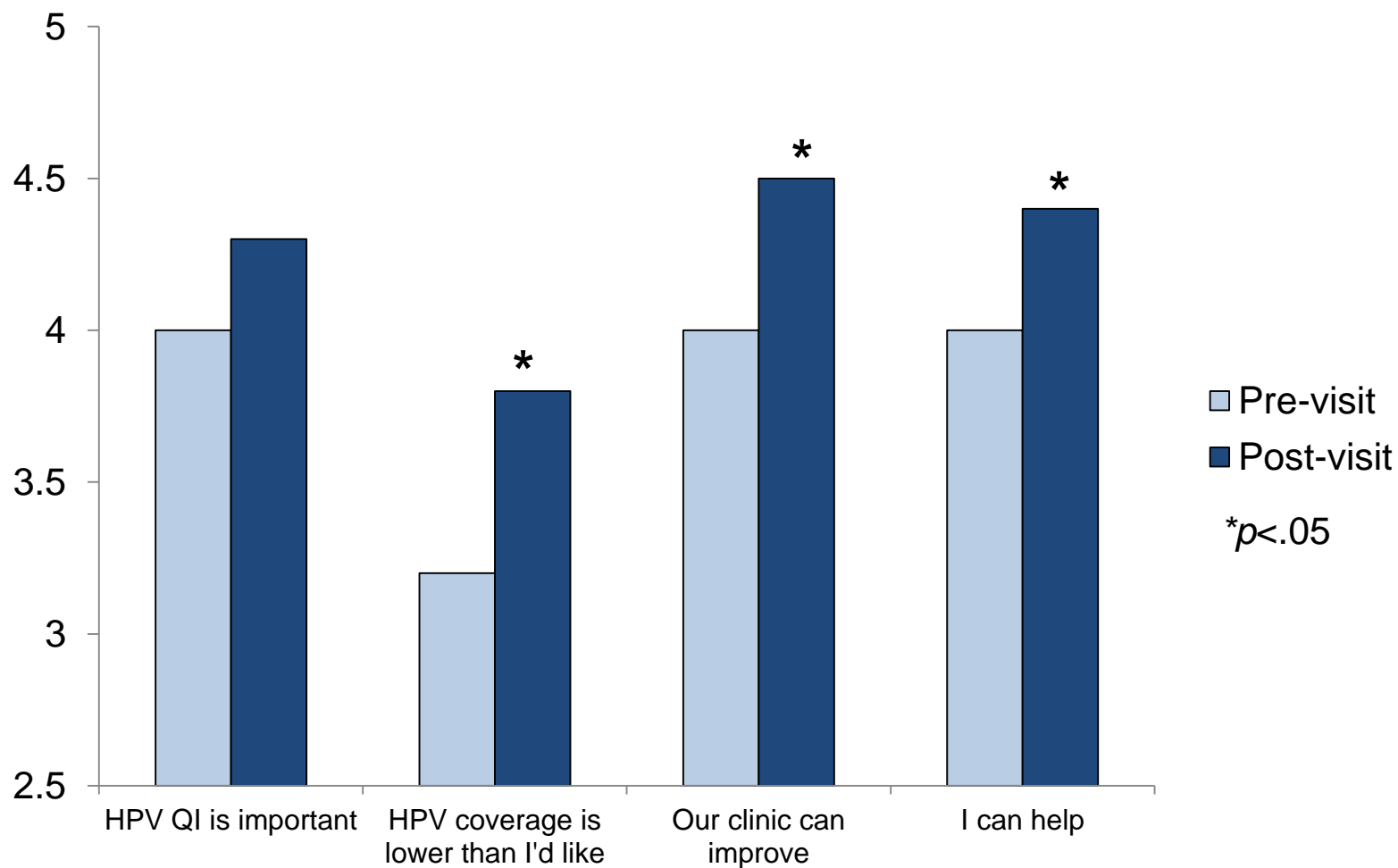
HPV vaccine coverage changes (≥ 1 dose), ages 11-12



Provider satisfaction



Intermediate outcomes



Other delivery mode findings (average/clinic)

In-person

- Reached 9 providers
- Cost \$733 to deliver
- Required 12.6 staff hours

Webinar

- Reached 5 providers
- Cost \$461 to deliver
- Required 9.0 staff hours

Discussion

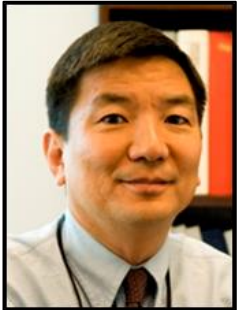
- In-person HPV AFIX had a modest, but sustained impact on HPV vaccination coverage
- Webinar delivery demonstrated lower effectiveness, perhaps due to more limited reach
- More research is needed to understand which clinics benefit most from AFIX as well as dose needed

Next steps

- Disseminate findings and resources (HPV IQ.org)
- Assess strategies to efficiently increase AFIX impact



Commentary



Phil Huang, MD, MPH

Systems for Action National Advisory Committee Member
Medical Director and Health Authority, Austin/Travis
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Chrystal Averette, MPH

AFIX and Quality Improvement Coordinator, Office of
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Questions and Discussion

Webinar Archives

<http://systemsforaction.org/research-progress-webinars>

Upcoming Webinars

Wednesday, October 11, 12-1pm ET/ 9-10am PT

THE COMPREHENSIVE CARE, COMMUNITY, AND CULTURE PROGRAM

David Meltzer, MD, PhD, Center for Health and the Social Sciences, and Harold Pollack, PhD, School of Social Service Administration, The University of Chicago,

Wednesday, October 18, 12-1pm ET/ 9-10am PT

FINANCING AND SERVICE DELIVERY INTEGRATION FOR MENTAL ILLNESS & SUBSTANCE ABUSE

William Riley, PhD, College of Health Solutions, and Michael Shafer, PhD, College of Public Service and Community Solutions, Arizona State University

Thursday, November 2, 12-1pm ET/ 9-10am PT

TESTING A COMMUNITY COMPLEX CARE RESPONSE TEAM TO IMPROVE GERIATRIC PUBLIC HEALTH OUTCOMES

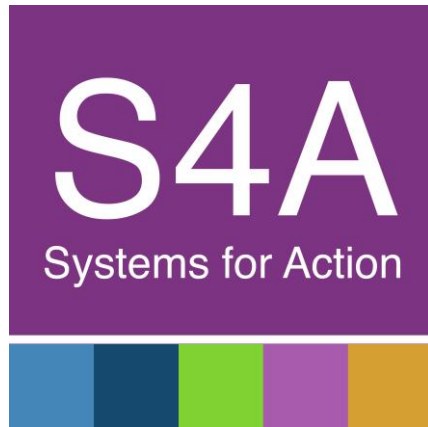
Carolyn E. Ziminski Pickering, PhD, MSN, BSN, University of Texas Health Science Center, San Antonio; and Christopher Maxwell, PhD, School of Criminal Justice, Michigan State University

Wednesday, November 15, 12-1pm ET/ 9-10am PT

IMPLEMENTING A CULTURE OF HEALTH AMONG DELAWARE'S PROBATION POPULATION

Daniel J. O'Connell, PhD, and Christy Visser, PhD, Department of Criminal Justice, Center for Drug & Health Studies, University of Delaware

Thank you for participating in today's webinar!



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For more information about the webinars, contact:

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Acknowledgements

Systems for Action is a National Program Office of the Robert Wood Johnson Foundation and a collaborative effort of the Center for Public Health Systems and Services Research in the College of Public Health, and the Center for Poverty Research in the Gatton College of Business and Economics, administered by the University of Kentucky, Lexington, Ky.



Speaker Bios

Melissa Gilkey, PhD, is an Assistant Professor in the Department of Health Behavior at the University of North Carolina Gillings School of Global Public Health. With research interests in adolescent health, cancer prevention, and health services research, Dr. Gilkey studies individual and organizational approaches to improving the delivery of adolescent vaccines, with a special focus on human papillomavirus (HPV) vaccine.

Jennifer Heisler-MacKinnon, MPH, is a Project Manager at the UNC Gillings School of Global Public Health with a focus on health communications and cancer prevention and control.

Chrystal Averette, MPH, is the AFIX and Quality Improvement Coordinator in the Washington State Department of Health, Office of Immunization and Child Profile. Ms. Averette coordinates all aspects of the early childhood and adolescent immunization quality improvement efforts across the state, including training staff, developing materials, and coordinating AFIX visits.

Philip Huang, MD, MPH, has served as the Medical Director and Health Authority for Austin Public Health since April 2008. He formerly served as Medical Director for Chronic Disease Prevention at the Texas Department of State Health Services for more than 15 years. Dr. Huang served two years as a CDC Epidemic Intelligence Service (EIS) officer assigned to the Illinois Department of Public Health, where he conducted infectious disease outbreak investigations and epidemiologic studies in chronic disease. He is Board Certified in Family Medicine, and is an author or co-author of numerous publications related to public health, chronic disease, and tobacco use prevention.