Emory Cancer Prevention and Control Research Network

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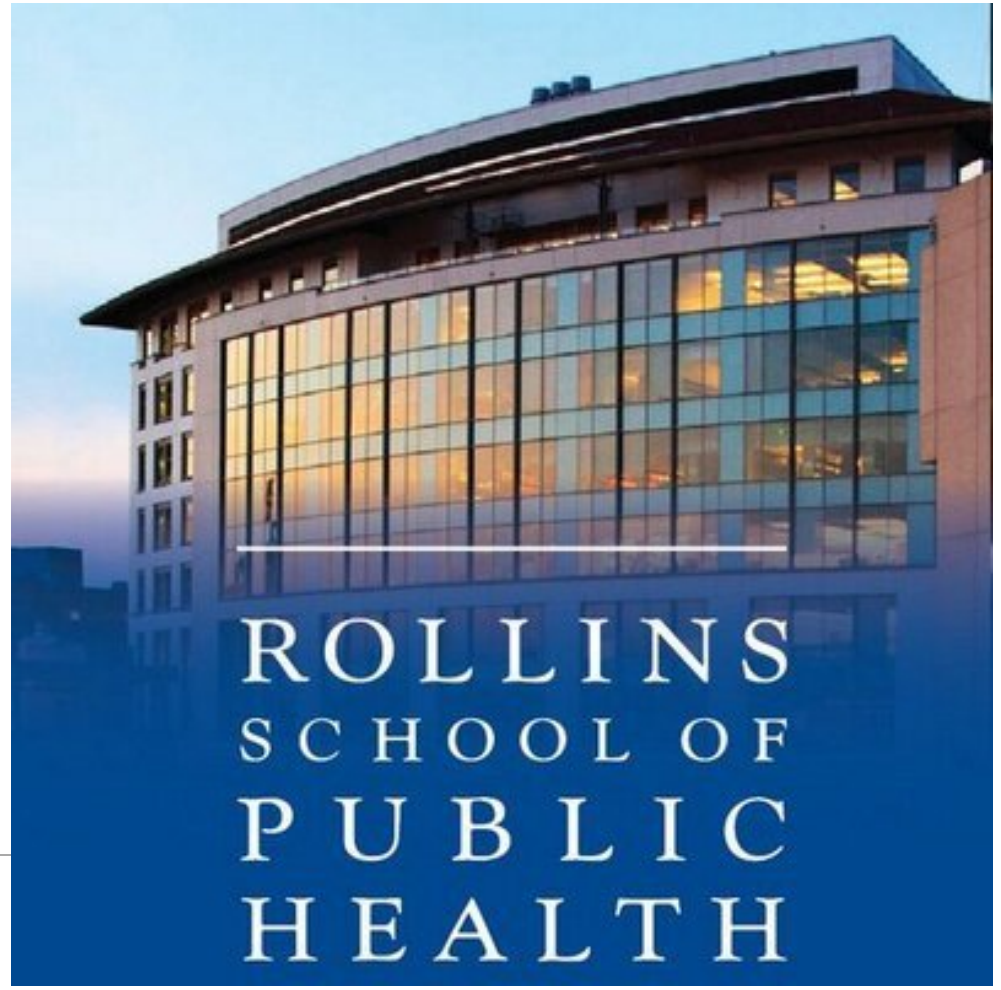


CPCRN
Cancer Prevention and Control Research Network

PRC
Prevention Research Centers

[6 REASONS TO GET HPV VACCINE FOR YOUR CHILD]

1 HPV is a common virus that infects men and women

80%

of people will get an HPV infection in their lifetime

Most HPV infections will go away on their own. Infections that don't go away can cause precancers and cancers.

2 HPV vaccination works

71%

Infections with HPV types that cause most HPV cancers and genital warts have dropped 71 percent among teen girls.

3 HPV vaccination prevents cancer

29,000

More than 29,000 cases of cancers each year could be prevented with HPV vaccination.

Same as the average attendance for a baseball game.

4 Preventing cancer is better than treating cancer

HPV infections can cause many types of cancer, but there is only cervical cancer screening.

HPV vaccination is prevention for the other types of cancer caused by HPV infections.

5 Your child can get the HPV vaccine when they receive the other preteen vaccines

Three vaccines are recommended for 11-12 year olds to protect against the infections that can cause meningitis, HPV cancers, and whooping cough.

6 Preventing cancer is easier than ever before

Data now shows 2 doses of HPV vaccine provide similar protection to 3 doses, when given before the 15th birthday.

6 OUT OF 10 parents are choosing to get the HPV vaccine for their children.

[Talk to your child's doctor about HPV cancer prevention at ages 11-12]

Source: CDC Infographics

Rationale: HPV Vaccination in GA

- In 2017, data from National Immunization Survey-Teen survey found that only *48.6%* of adolescent ages 13-17 were up-to-date with all doses of the HPV vaccine, with females reporting higher completion rates than males (53.1% vs. 44.3%).[1]
- HPV vaccination rates are even lower in Georgia than they are nationally, with 1st and 3rd dose coverage respectively at 54% and 38% among girls and 51% and 28% among boys
- Only *45.7%* overall were up to date with their vaccinations
- The percentage of adolescents who received the 1st dose of the vaccine was ***11 percent lower*** in rural areas compared to urban areas in 2017 in the U.S., and was ***9 percent lower*** in a Non-metropolitan statistical area (MSA) then in MSAs in Georgia according to TeenVaxView.[2]

[1]Walker et al. National, regional, state, and selected local area vaccination coverage among adolescents aged 13-17 years – United States, 2017. *MMWR Morb Mortal Wkly Rep.* 2018;67(33):909-917. [2]CDC. TeenVaxView Interactive! 2019

CPCRN Aims (Collaborating Activities)

1

- Maintain and strengthen the Emory CPCRN infrastructure to **support and enhance capacity-building for cancer prevention and control and implementation science research and practice at Emory and in rural communities** across Georgia

2

- **Cultivate and strengthen partnerships** with communities, public health agencies, community-based organizations, and cancer control research and practice networks to promote community-based participatory approaches to preventing cancer and reducing health disparities

3

- **Conduct national and local trainings** to build capacity on adoption and implementation of evidence-based approaches in collaboration with our Southwest GA partners and regional cancer coalitions

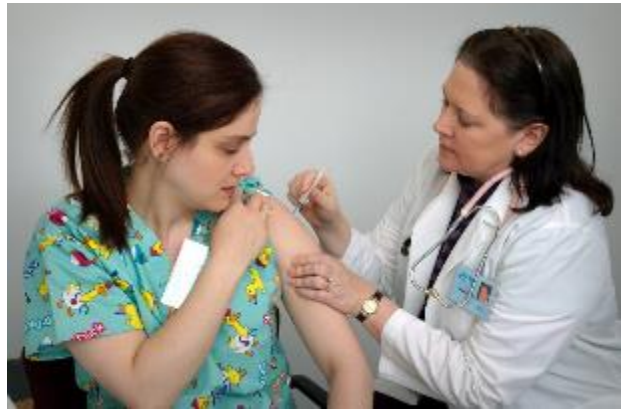
CPCRN Aims (Emory Research)

4	• **Assess factors related to HPV vaccination using the P3 (Practice, Provider, and Patient-Level) model** to inform intervention development through a qualitative study in SW Georgia
5a	• **Evaluate a multi-level intervention employing implementation strategies of mini-grants and technical assistance** on HPV vaccine series initiation and completion among clinical and community organizations in SW
5b	• **Assess implementation outcomes and factors related to implementation success** of the interventions using the Consolidated Framework for Implementation Research (CFIR) through a mixed-methods study

Qualitative Study about HPV Vaccine Uptake (Aim 4)

Purpose of Study:

- evaluate their knowledge level and to explore themes on perceived benefits, barriers, severity and susceptibility of their/their child's HPV vaccine uptake for parents, older adolescents or young adults (population)
- explore providers and system's assessment of patient-, provider- and systems-level facilitators and barriers in rural SW Georgia (provider and systems)



Phase 1: Qualitative Methods

- A series of interviews will be conducted with parents, adolescents and young adults and public health/healthcare providers in SW Georgia
- Interview will last about 1 hour and will be recorded
- Participants will receive $25 for completion of the interview

Table 3. Interview Sample

Interview Group	Sample Number	Eligibility criteria
Parents with a vaccinated child	10	▪ A parent of a child aged 11-12 years ▪ Has a child who completed the 2-dose series
Parents with a non-vaccinated child	10	▪ A parent of a child aged 11-12 years ▪ Has a child who did not complete the 2-dose series
Adolescents	10	▪ An adolescent aged 15-18 years who has completed 2-dose HPV vaccination
Young adults	10	▪ An adult aged 19-30 years who has a completed 2-dose HPV vaccination
PCPs or providers at clinics	5	▪ Physicians, nurses, or other providers who work in a clinical setting
Health department or public health staff	5	▪ Physicians, nurses, or other provider who work in a health department or public health organization

Theoretical Framework for Data Collection: P3 Model

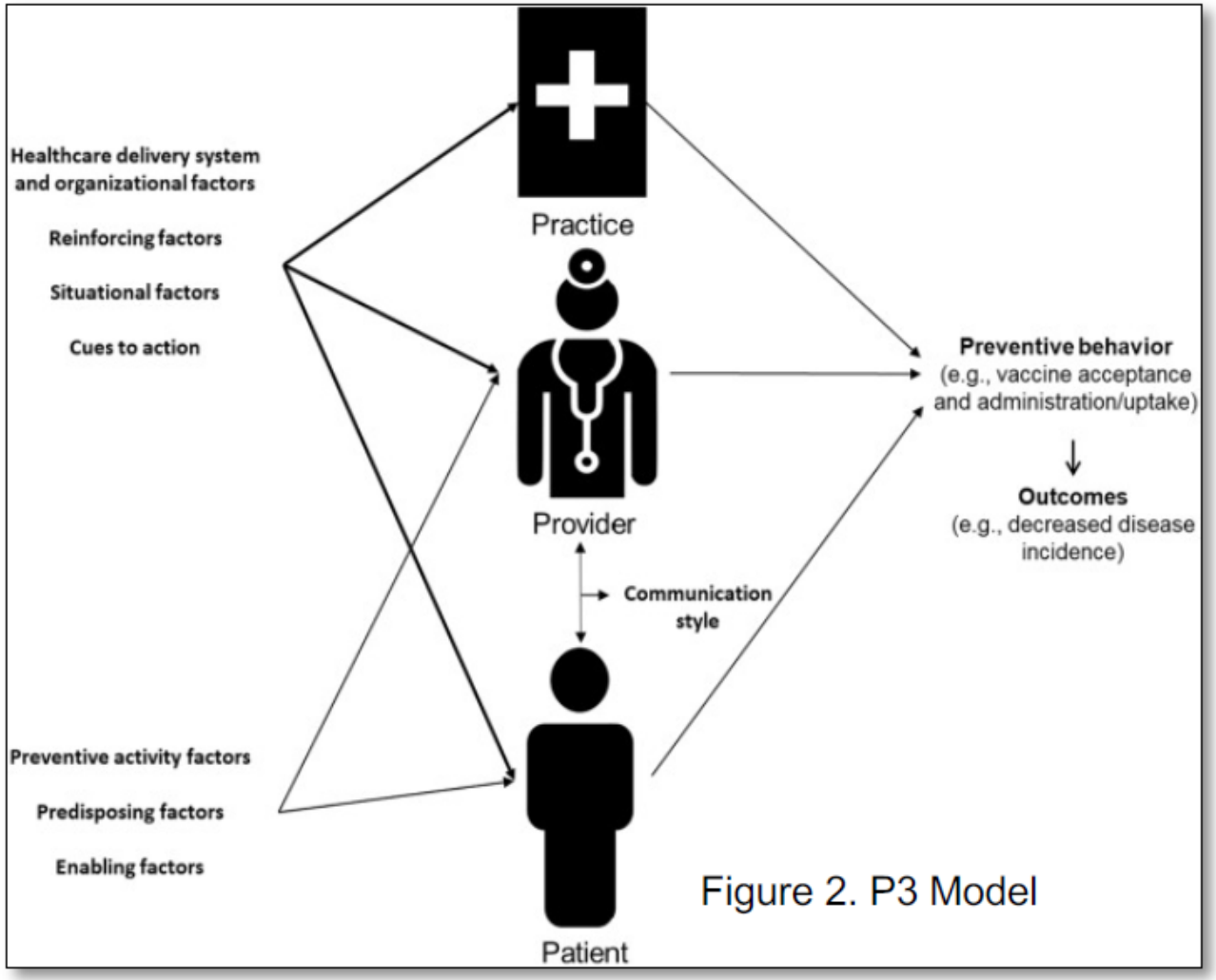


Figure 2. P3 Model

Table 4. Example of Interview Questions based on the P3 Model

Construct	Examples of interview questions and probes
Reasons for vaccine initiation (if applicable)	*Can you tell me some of the reasons why you/parents initiated the HPV vaccine for your child?* *For other parents like you or in your community, what do you think might be some of the reasons for why they choose to initiate the HPV vaccine for their children?*
	What are factors related to your pediatrician office or doctor's office that may help you/your clients get your/their child vaccinated? What factors get in the way? Probe on Practice-level factors: clinic availability of educational materials; cultural relevance and comprehensibility of materials
	Has your pediatrician or doctor ever told you to get your child vaccinated for HPV? If yes, what did s/he say and what you do? Probe on Provider-level factors: strength of recommendation, prevention message, urgency
	What do you know about the HPV vaccine?, Do you think the vaccine is effective? What are reasons why/why not?, Do other parents that you know get their adolescent vaccinated for this vaccine? Probe on Patient-level factors: familial influences; social influences; community acceptance of vaccine; perceived vaccine effectiveness
Reasons for vaccine delay or refusal (if applicable)	Can you tell me some of the reasons why you/parents have not gotten the HPV vaccine for your child? For other parents like you or in your community, what do you think might be some of the reasons for why they delay or refuse the HPV vaccine for their children? *Probe on Practice (lack of educational materials, hours of operations), Provider (lack of education and/or counseling), and Patient level factors (family/social influences, logistics or structural barriers, stigma)*

Bednarczyk, et al. Practice-, Provider-, and Patient-level interventions to improve preventive care: Development of the P3 Model. *Prev Med Rep.* 2018;11:131-138

Phase 2: Multi-level Intervention

Aim 5a. Evaluate a multi-level intervention employing implementation strategies of mini-grants and technical assistance on HPV vaccine series initiation and completion.

- Under the new mini-grants program, two cohorts (n=3) of mini-grant recipients in SW GA will be funded for a year at $3,000 (cycles beginning in Year 2/3)
- Eligibility: Recipients have to:
  - 1) offer the HPV vaccine
  - 2) be a health department, health systems, clinics, student health center or community organization

Evaluation Methods

- They will be selected and receive training and technical assistance to implement a multi-level intervention
- **Design:** Pragmatic pretest-posttest trial
- **Intervention:** Choose 2 of the 3 levels for the multi-level intervention (i.e., individual, provider, practice)
- **Primary outcome:** initiation and completion rates of the 2/3-dose HPV vaccine series within 12 months of initiation (yes/no) among clinic/site patients from EHR/program records
- **Secondary outcome:** time between doses

Table 5. Interventions to Promote HPV Vaccination Menu

Individual Level	Small media (print materials)	Print educational materials
	Client reminders[1]	Methods (letter, email, text message) to remind members of a target population that vaccinations are due (reminders) or late (recall).
	Client incentives[1]	Rewards used to motivate clients or family to get recommended vaccinations in exchange for keeping an appointment, getting a vaccination, returning for a vaccination series
Provider Level	Provider training	Methods (written materials, lectures, videos, CMEs) to increase providers' knowledge and change their attitudes about vaccinations.
	Provider recommendation	Methods to educate and counsel parents and adolescent to get the vaccine
	Provider assessment and feedback[1] (also can be at the practice level)	Assessment of providers' delivery of one or more vaccinations to a client population and present providers with feedback on their performance
Practice Level	Standing orders[1]	Orders that authorize nurses, pharmacists, and other healthcare providers to assess a client's immunization status and administer vaccinations according to a protocol approved by an institution
	Provider reminders[1]	Methods (notes in charts, EMR alerts, letters/emails) to let providers know when clients are due for vaccinations
	Reducing client costs[1]	Program/policy changes that make vaccinations or their administration more affordable
	Immunization information system[1]	Confidential, population-based, computerized databases that record all immunization doses given by providers to people who live within a certain geopolitical area
	Vaccination programs: school or childcare setting centers[1]	Multicomponent interventions delivered on-site to improve immunization rates in children and adolescents
	[illegible]	[illegible]

Evaluation of Multi-level Intervention (Aim 5)

Aim 5b. Assess implementation outcomes and factors related to implementation success using the

Consolidated Framework for Implementation Research (CFIR) through a mixed-methods study.

Research Questions:

1) To what extent is the intervention acceptable, appropriate, and feasible from the perspective of providers/implementers and patients/participants?
2) To what extent is the intervention delivered with fidelity?
3) What are implementation barriers and facilitators and factors leading to implementation success?
4) What is the penetration of the intervention into each clinic/site?
5) How likely are various aspects of the intervention to be sustained?

Data collection

- **Quantitative Data Collection:**
  - Obtain data from all key implementers and providers in each of the intervention FQHCs, clinical health department or organization staff members (n=50 estimated) and a random sample of parents who were seen in each site (n=30)
  - For providers and staff, we will distribute an online survey after 6 months of program initiation and then at 12 months. Inclusion criteria for providers are: 1) be a healthcare provider and 2) in a participating mini-grant site

- **Qualitative data collection:**
  - We will conduct interviews on implementation, using CFIR constructs, with 18 staff members (i.e., coordinator, director, provider) from each site after 12 months
  - We will map salient constructs related to implementation and examine them stratified by levels of vaccination

Emory Strengths

Measurement and Exploration of IS Constructs

Measurement of CFIR Inner Setting

Adaptation Guidance Scoping Review

Outer Setting Scoping Review

Qualitative/Mixed Methods

ACS HPV VACS program

ACS Colorectal Cancer program (FQHCs)

CDC's Colorectal Cancer Control Program Qualitative Studies

Training and TA

Putting Prevention into Practice Curriculum

National trainings on using evidence

Mini grants project

(2009-2014)

Program adaptation

(2014-2019)

Multi-Site Funded Grants

Smoke-free Homes
(Wash U, UNC, Texas)

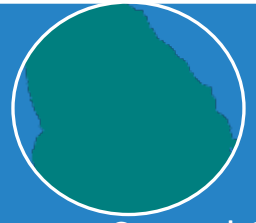
IM Adapt

(TX, CPCRNs)

CDC's Colorectal Cancer Control Program Use of EBIS

(U Wash, UCLA)

Impact and Local Connections



Georgia Cancer Control Consortium

Active in many workgroups (HPV, CRC Roundtable, Cancer Screening, Prevention, Survivorship)

Winship Cancer Institute (CPC Program)

Cancer Supplements (HPV, Smoking Cessation)

Intervention Development , Dissemination and Implementation Core with IS focus

(Kegler)

Network for Evaluation and Implementation Science (NEISE)

Emory Prevention Research Center trainings

Local health department

(PHAB Accreditation)

GA Health Professionals

Cancer and IS Expertise

CDC Cancer Special Interest Projects

(Blake, Escoffery)

2 D&I NIH Grants

Smoke-Free Homes

SURVIVORLINK

Emory CPCRN Investigators

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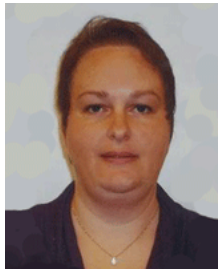

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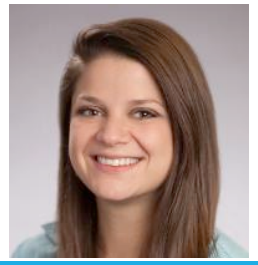

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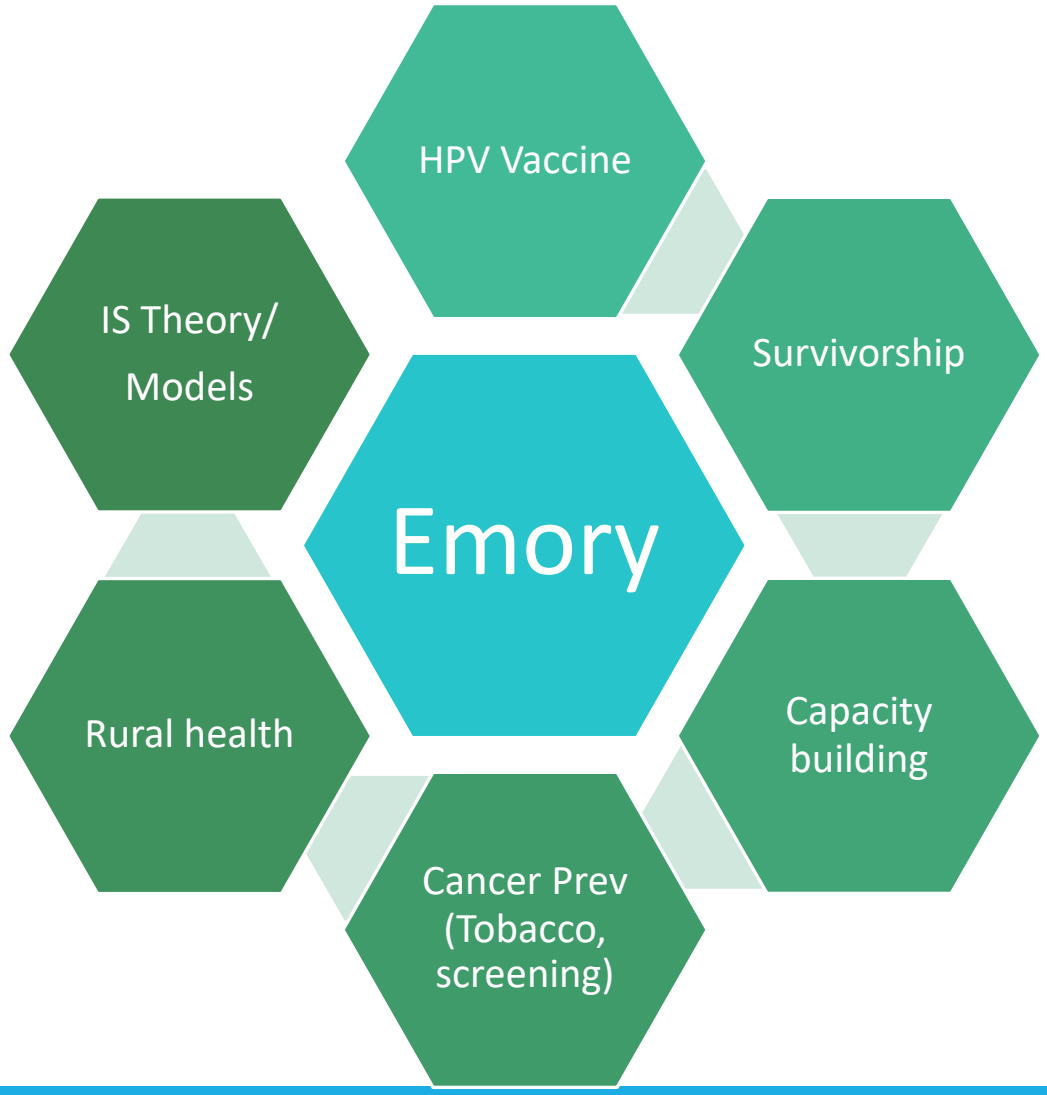
Melissa Gilkey, PhD
UNC Consultant

Possible Workgroups



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ACS Evidence Training with UNC

EPRC Community Advisory Board

Minigrant Recipients