

We will begin shortly.

While you wait:

 Join in the discussion on Mentimeter.

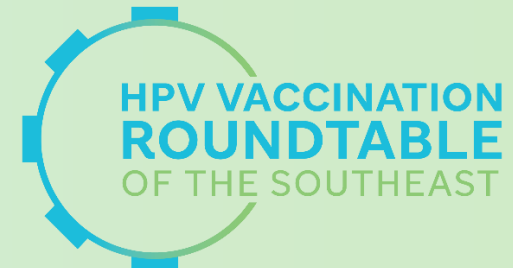
Three ways to join:

- Go to www.menti.com and use the code 6505 1719
- Go to <https://www.menti.com/alizfst661ig>
- Scan the QR code with your camera phone



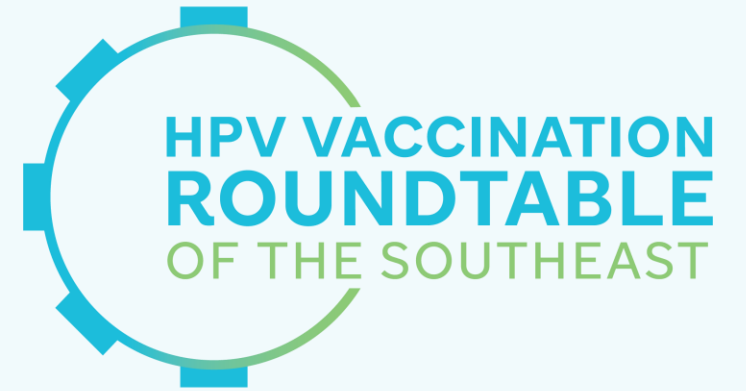
 Visit our new webpage at stjude.org/southeast-roundtable

- Sign up for the Southeast Roundtable listserv on the new webpage.



First Meeting of the HPV Vaccination Roundtable of the Southeast

March 30, 2023



AGENDA

Welcome and Introductions

Overview of HPV Vaccination and HPV Cancer Data in the Southeast

Southeastern State Updates: SC, MS, TN, and WV

Moderated Discussion

Action Steps

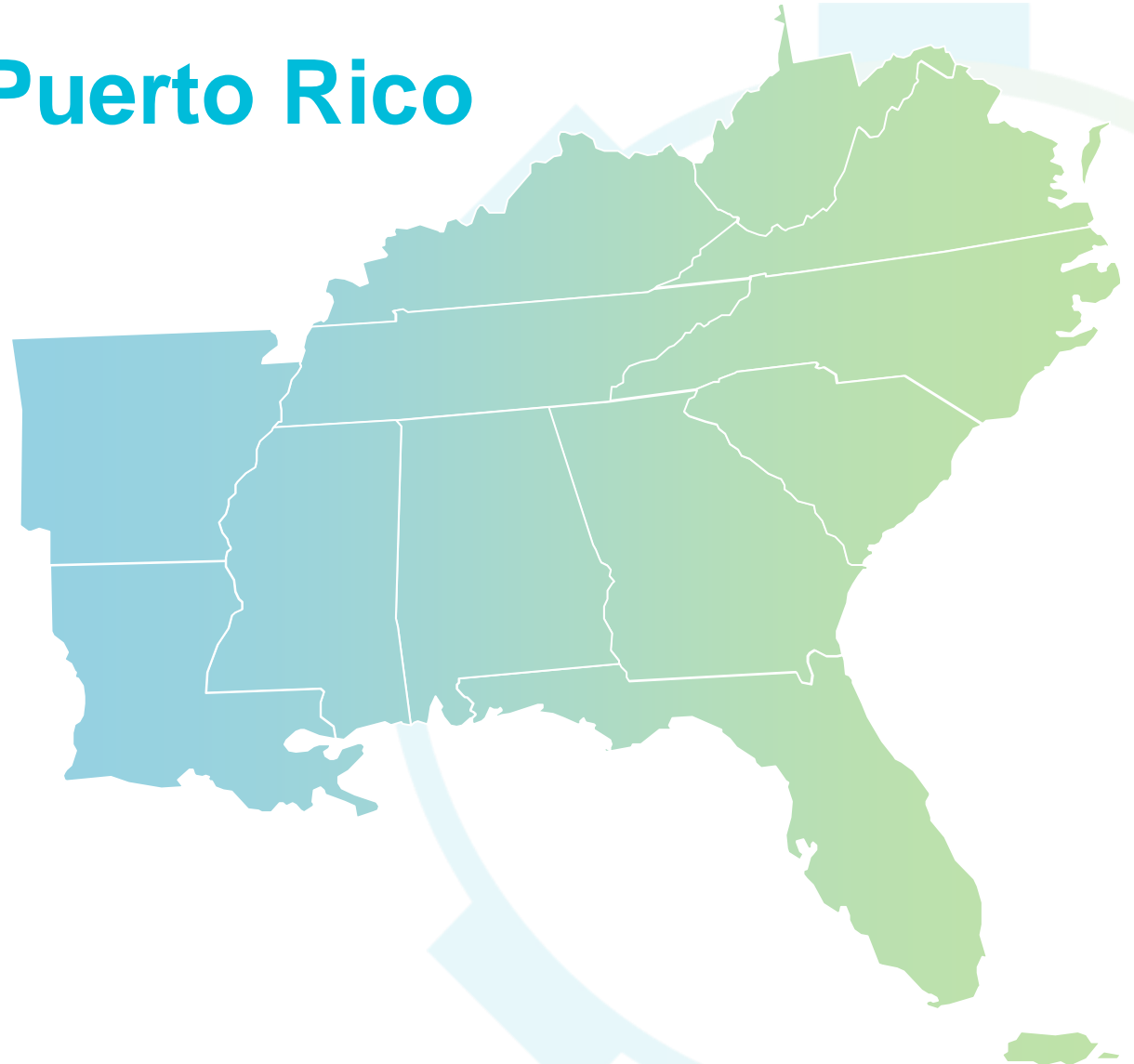
Closing Remarks and Evaluation



[Join Listserv](#)

Southeastern States + Puerto Rico

1. Alabama
2. Arkansas
3. Florida
4. Georgia
5. Kentucky
6. Louisiana
7. Mississippi
8. North Carolina
9. South Carolina
10. Tennessee
11. Virginia
12. West Virginia
13. Puerto Rico



Planning Committee Members

- Lindsay Barr, *West Virginia Center for Rural Health Development (West Virginia)*
- Bob Bednarczyk, *Emory University (Georgia)*
- Heather Brandt, *St. Jude Children's Research Hospital*
- Katie Crawford, *American Cancer Society*
- Elaine Darling, *West Virginia Center for Rural Health Development (West Virginia)*
- Gabby Darville-Sanders, *National HPV Vaccination Roundtable*
- Amy Ellis, *American Cancer Society (Mississippi)*
- Marcie Fisher-Borne, *American Cancer Society*
- Kim Hale, *American Cancer Society (South Carolina)*
- Sherrick Hill, *Massey Cancer Center, Virginia Commonwealth University (Virginia)*
- Duha Magzoub, *St. Jude Children's Research Hospital*
- Jennifer Nkonga, *American Cancer Society*
- Jill Pait, *American Cancer Society (North Carolina)*
- Dee Sinard, *ImmunizeTN (Tennessee)*
- Francine Walton, *O'Neal Comprehensive Cancer Center at the University of Alabama Birmingham (Alabama)*
- Shimeka Chretien-Bass, *American Cancer Society*
- Vivian Colon Lopez, *Puerto Rico Comprehensive Cancer Center, University of Puerto Rico (Puerto Rico)*
- Nikki Hayes, *Centers for Disease Control and Prevention*
- Pam Hull, *Markey Cancer Center, University of Kentucky (Kentucky)*
- Heather Mercer, *Arkansas Immunization Action Coalition (Arkansas)*
- Beth Poore, *South Carolina Department of Health & Environmental Control (South Carolina)*
- Vanessa Sheppard, *Massey Cancer Center, Virginia Commonwealth University (Virginia)*
- Letitia Thompson, *American Cancer Society (Southeast)*
- Susan Vadaparampil, *Moffitt Cancer Center (Florida)*
- Donna Williams, *Louisiana State University, Louisiana Cancer Prevention and Control Programs (Louisiana)*
- Jennifer Young Pierce, *Mitchell Cancer Institute, University of South Alabama (Alabama)*

Why reconvene southeastern states?

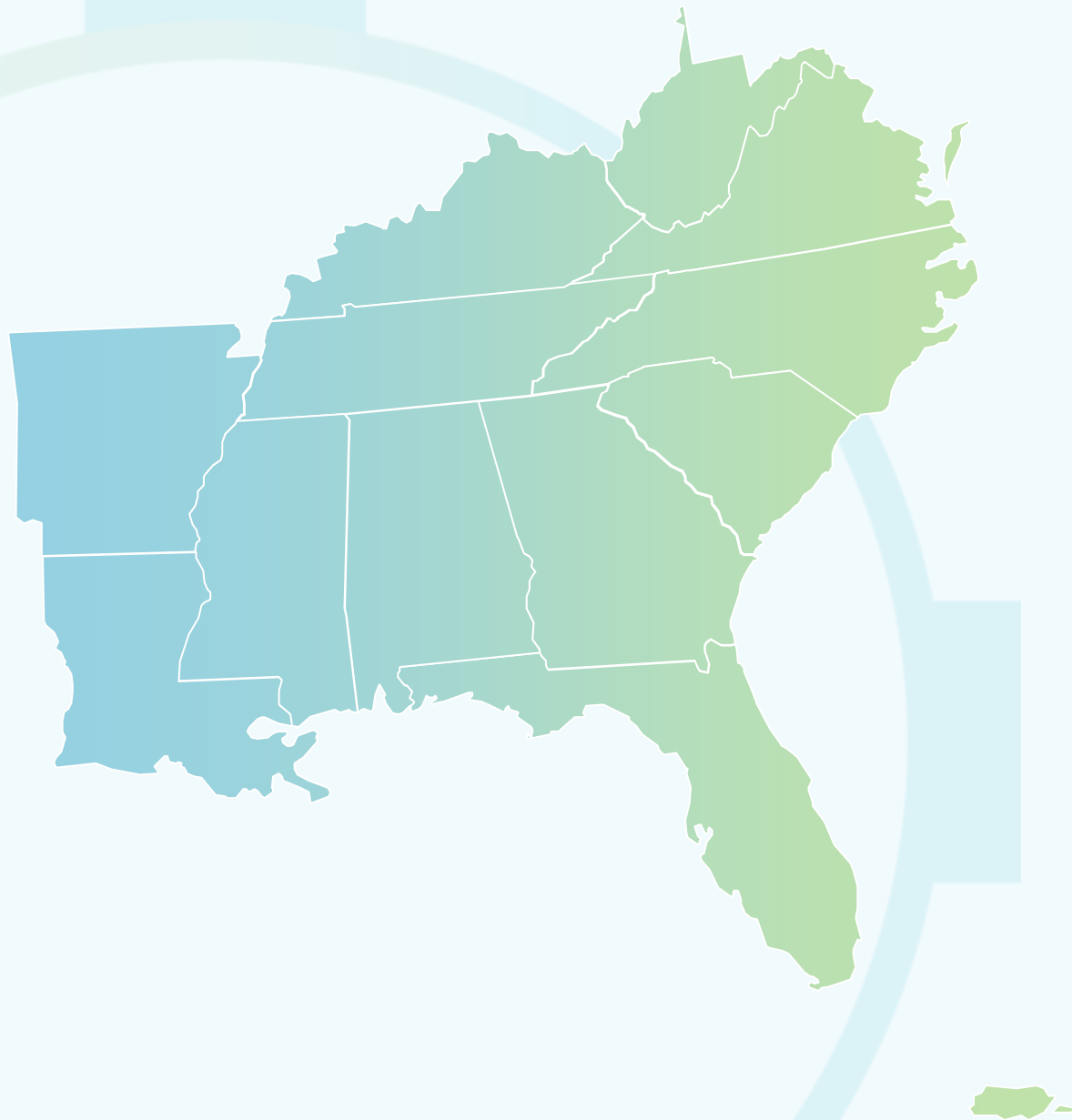
By coming together, we can discuss:

- Conditions surrounding HPV vaccination and HPV cancer prevention;
- HPV vaccination success stories – and how these may be leveraged and replicated in other areas of the southeast;
- Challenges facing HPV vaccination – and how we may support each other to overcome such barriers; and
- Opportunities to improve HPV vaccination coverage in each state and across the region.

Join in the conversation:

- Go to www.menti.com and use the code 6505 1719
- Go to <https://www.menti.com/alizfst661ig>
- Scan the QR code with your camera phone





Bob Bednarczyk, PhD

Associate Professor, Hubert
Department of Global Health,
Emory University Rollins School
of Public Health

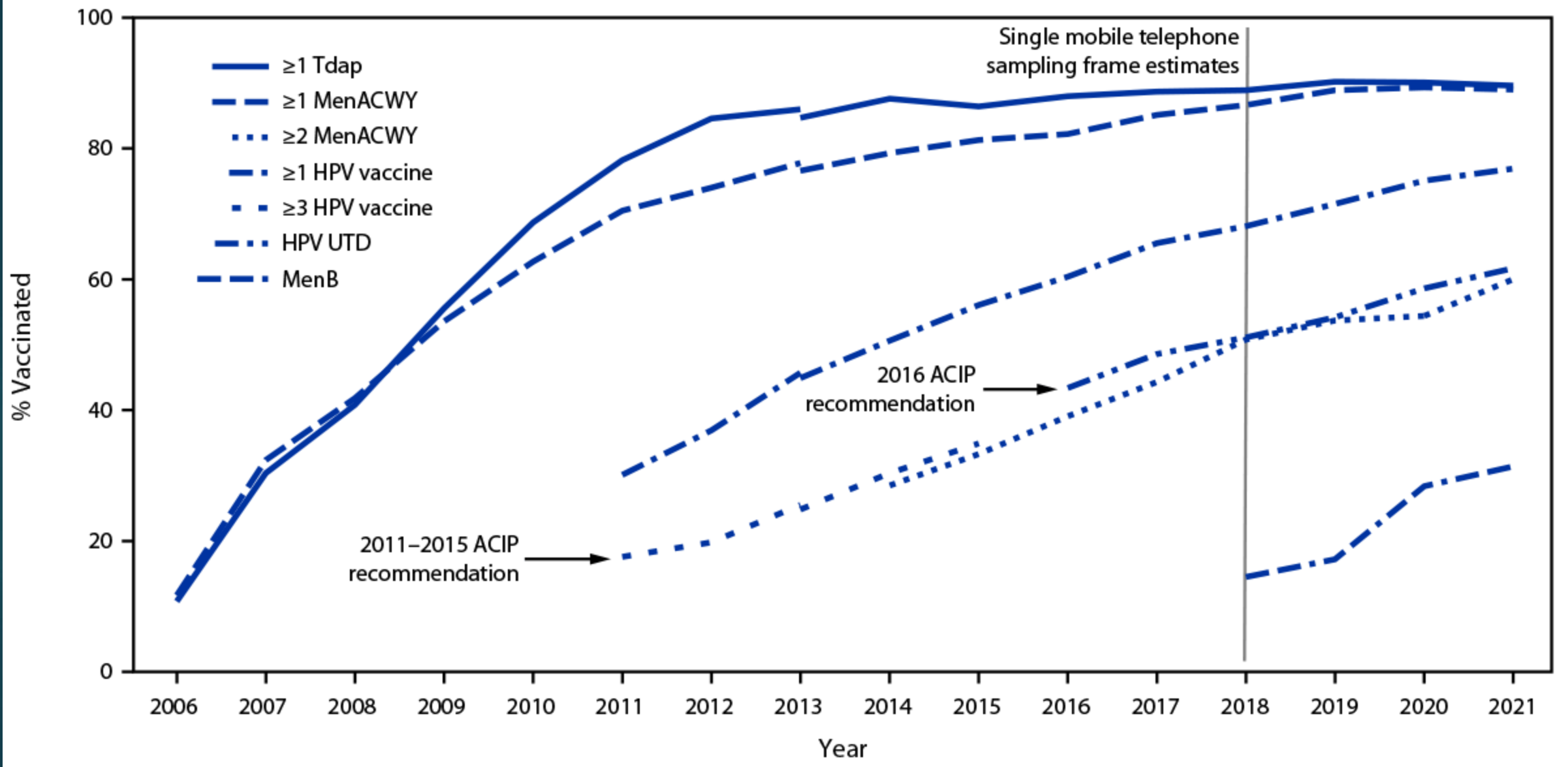




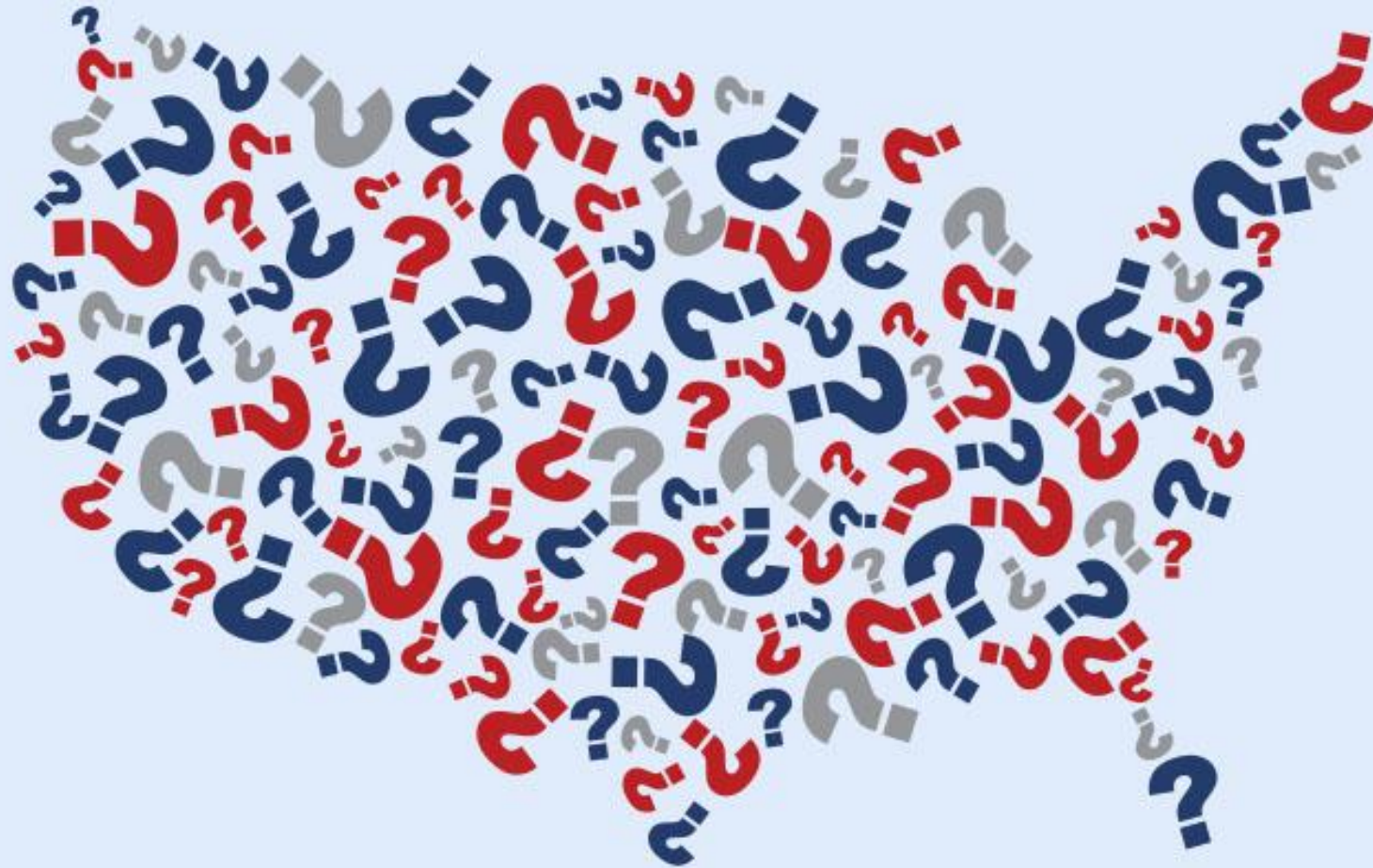
A deeper dive into HPV vaccine uptake data

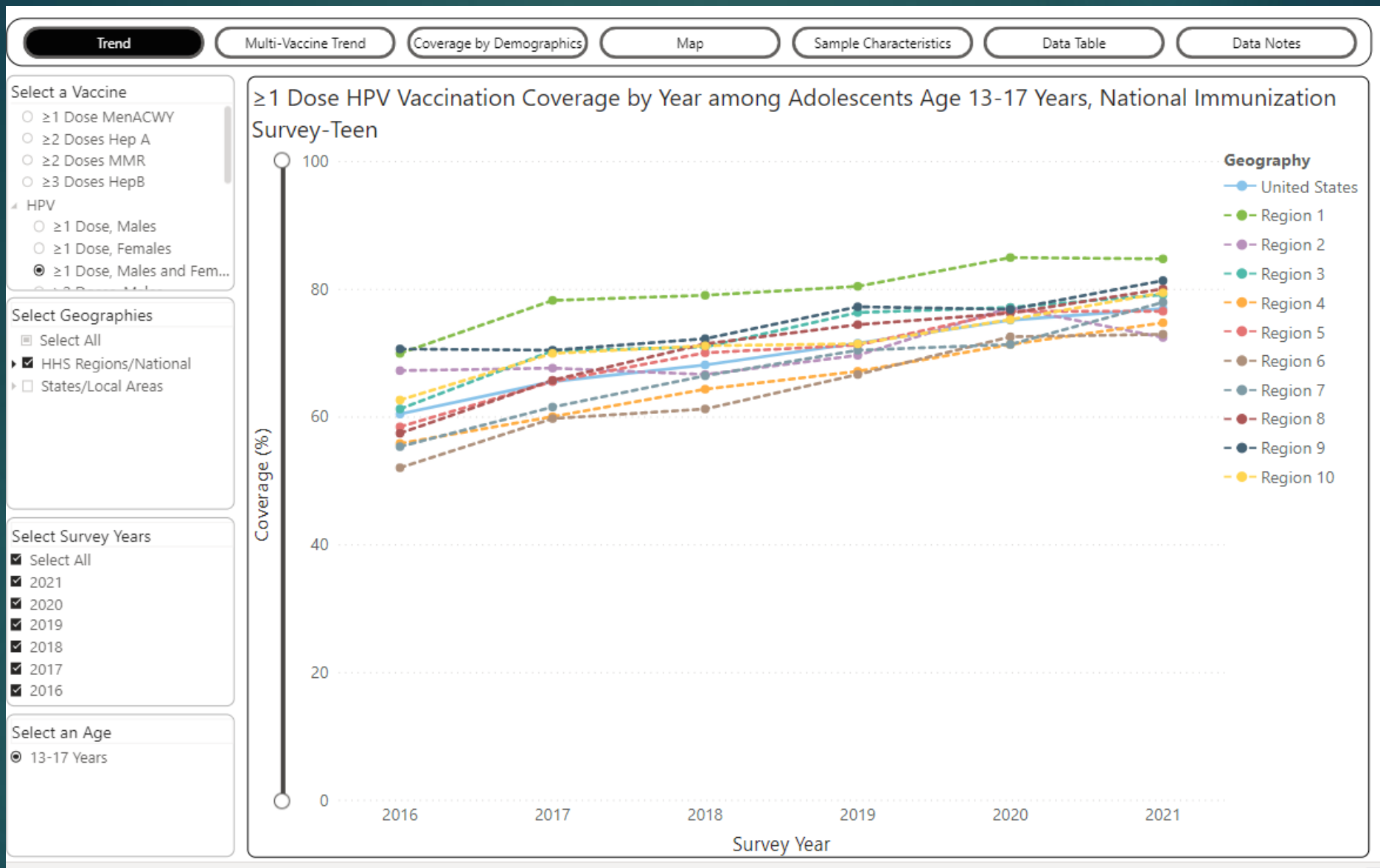
ROBERT A. BEDNARCZYK, PHD

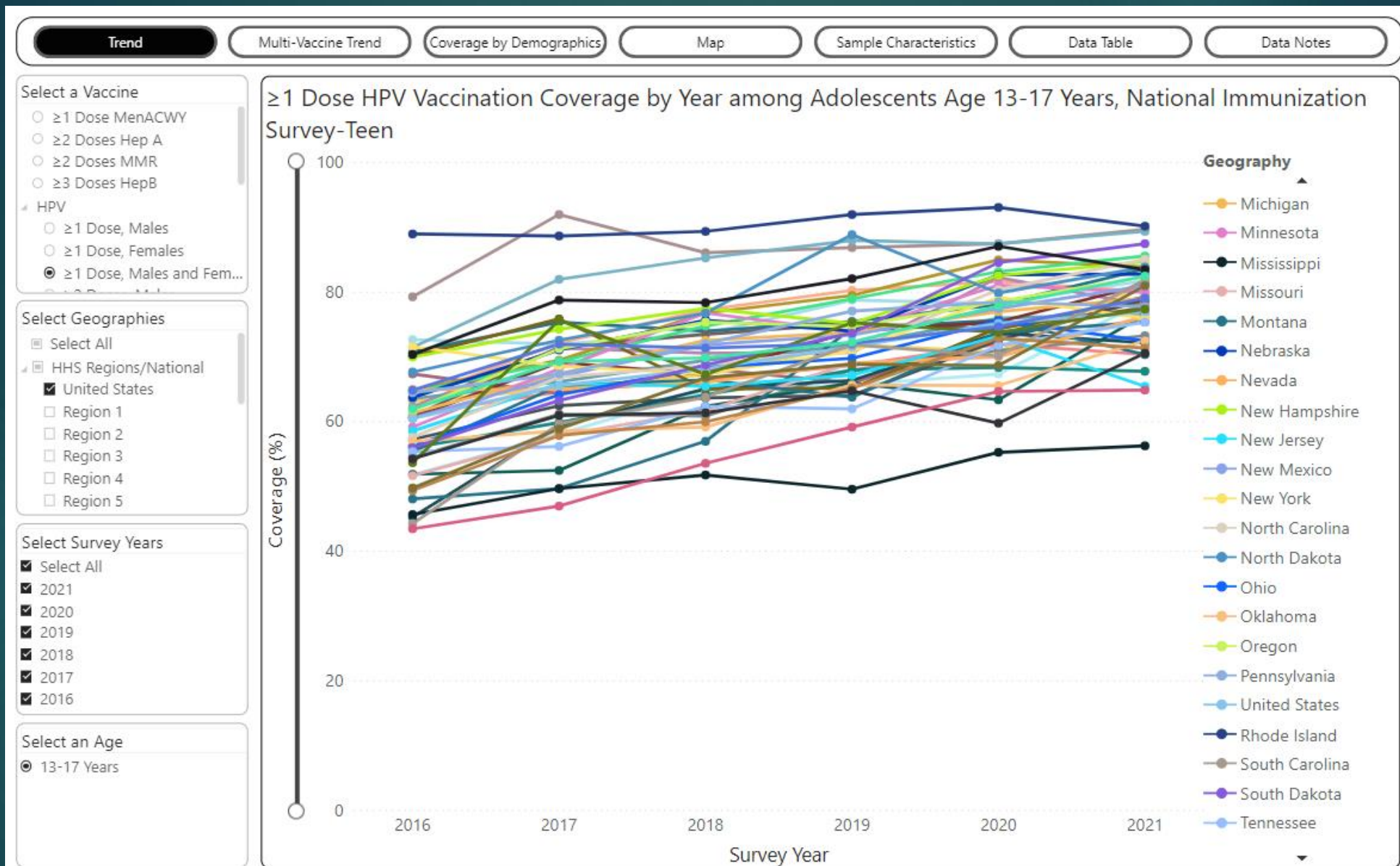
30 MARCH 2023



OK, so we have national coverage...







Making sense of state-level data

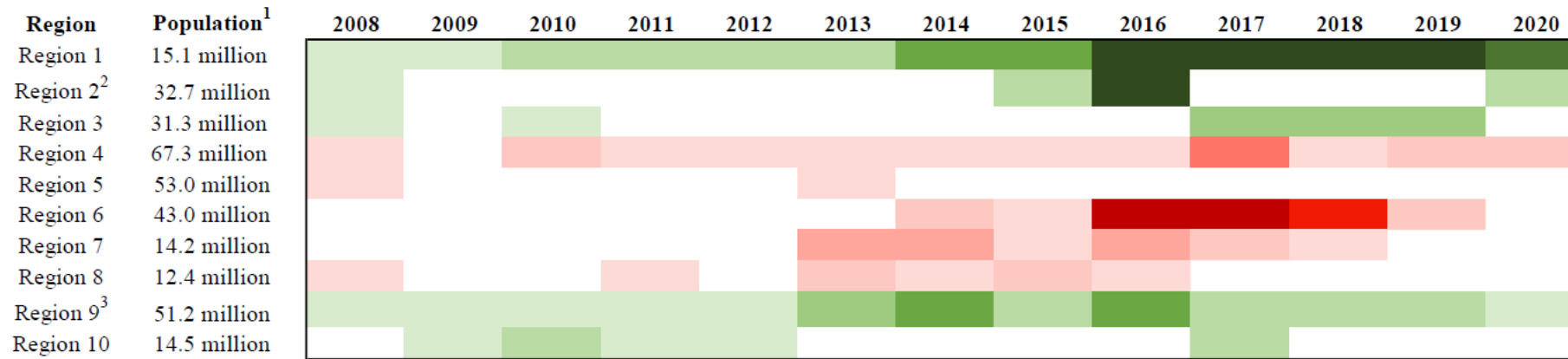
- ▶ 50 states + DC
- ▶ 10 HHS regions
- ▶ HPV vaccine series initiation, among males, females, and all adolescents
- ▶ HPV vaccine series completion, among males, females, and all adolescents
- ▶ Vaccine uptake data (+/- granular by vaccination metric and sex stratification) back to 2008

- ▶ ***How can we monitor trends and understand geographic variability?***

HPV vaccine historic uptake patterns

- ▶ Paper currently under review: Porter and Bednarczyk “Better, worse, or holding the course? Analysis of HPV vaccination patterns in the US, 2008-2020”
- ▶ Methods
 - ▶ Use all available metrics for each year
 - ▶ 1+ HPV dose, female: 2008-2020
 - ▶ 1+ HPV dose, male: 2012-2020
 - ▶ 3+/UTD HPV doses, female: 2010-2020
 - ▶ 3+/UTD HPV doses, male: 2012-2020
 - ▶ 1+ HPV dose, all adolescents: 2016-2020
 - ▶ 3+/UTD HPV doses, all adolescents: 2016-2020
 - ▶ Compare smaller geography to larger (HHS region versus national average; state versus HHS region)
 - ▶ Count number of times smaller geography has higher/lower (≥ 5 %age points) coverage than larger geography
 - ▶ Compute net difference (e.g. if 3 above and 3 below, net 0 difference; if 6 above and 0 below, net +6 difference)

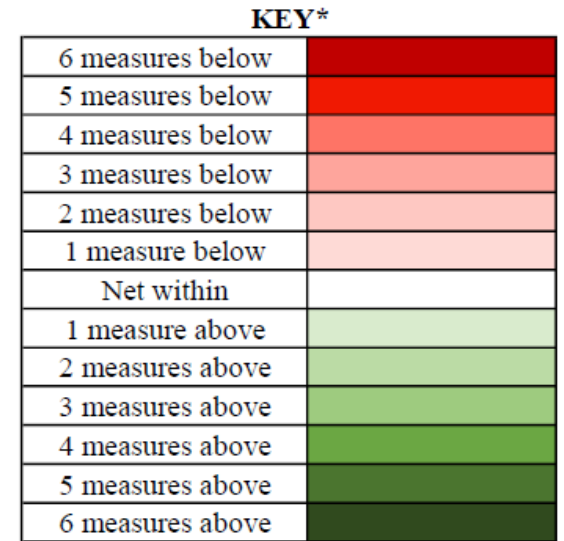
Figure 2. Heat Map comparing HHS Region-level HPV Vaccination to National-level HPV Vaccination, across 6 uptake measures, 2008-2020.



¹Data from United Census Bureau, updated for 2021.

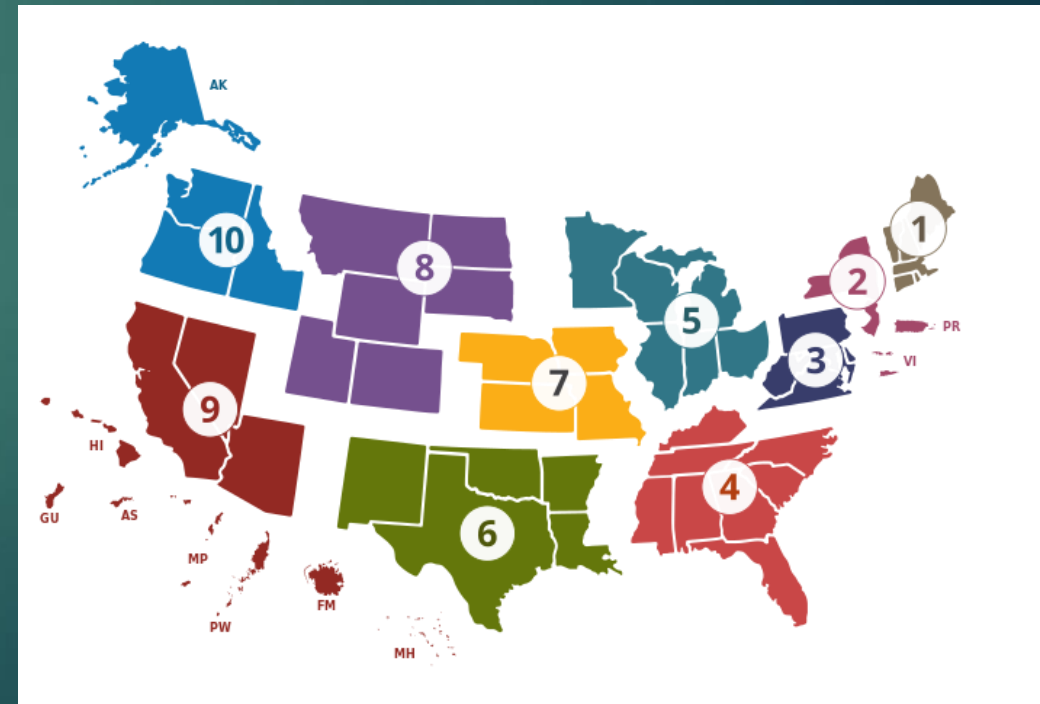
²Regional estimates include Puerto Rico and U.S. Virgin Islands, both are not included in this figure.

³Regional estimates include American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Marshall Islands, and Republic of Palau, all of which are not included in this figure.

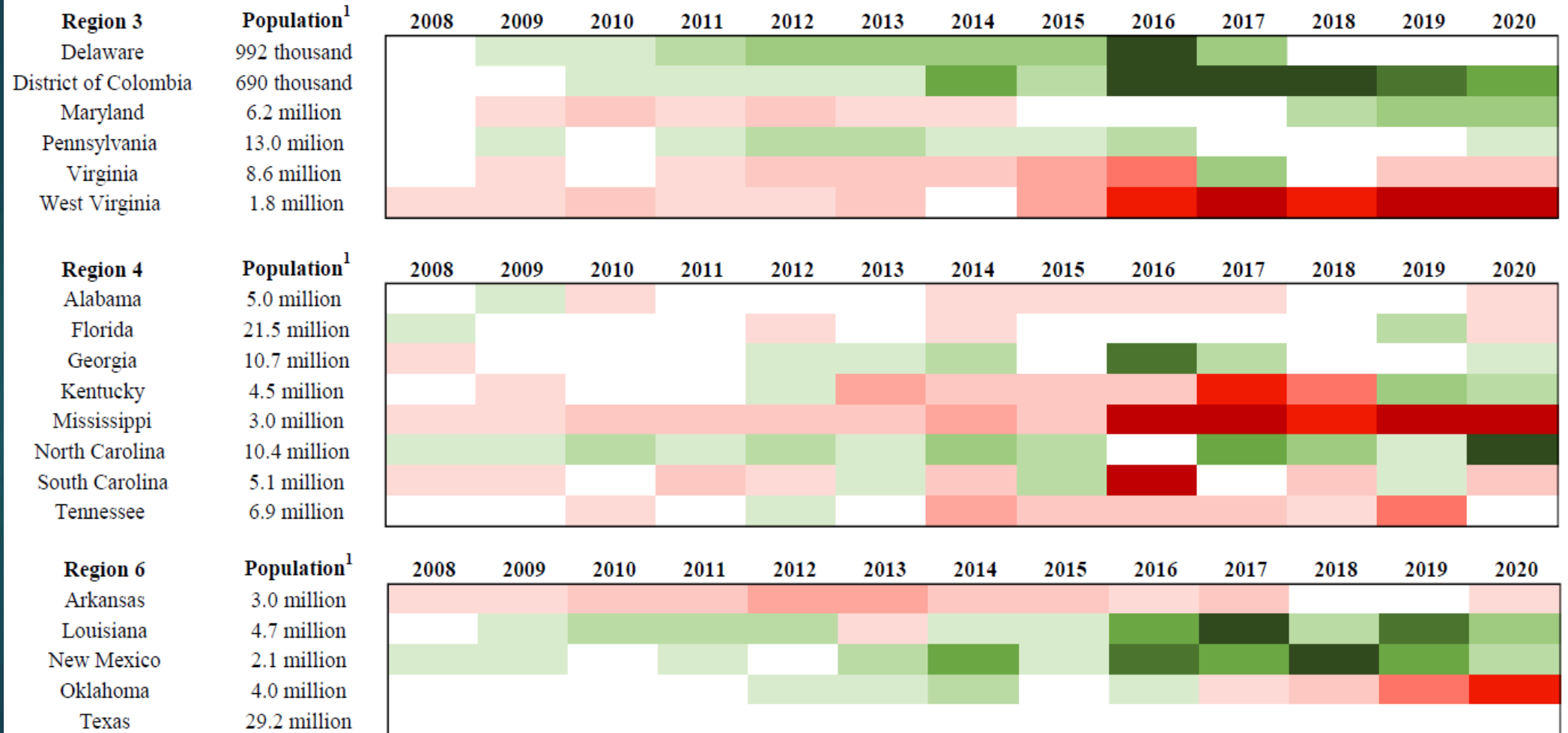


*5 percentage points was cutoff used for analysis

- ▶ This method allows for a quick comparison of HHS regions to national average, over multiple metrics, for each year's NIS-Teen
- ▶ Visually depicts consistently higher/lower coverage, considering all available data



State-to-HHS Region comparisons for states represented here



What about “complete adolescent vaccination”?

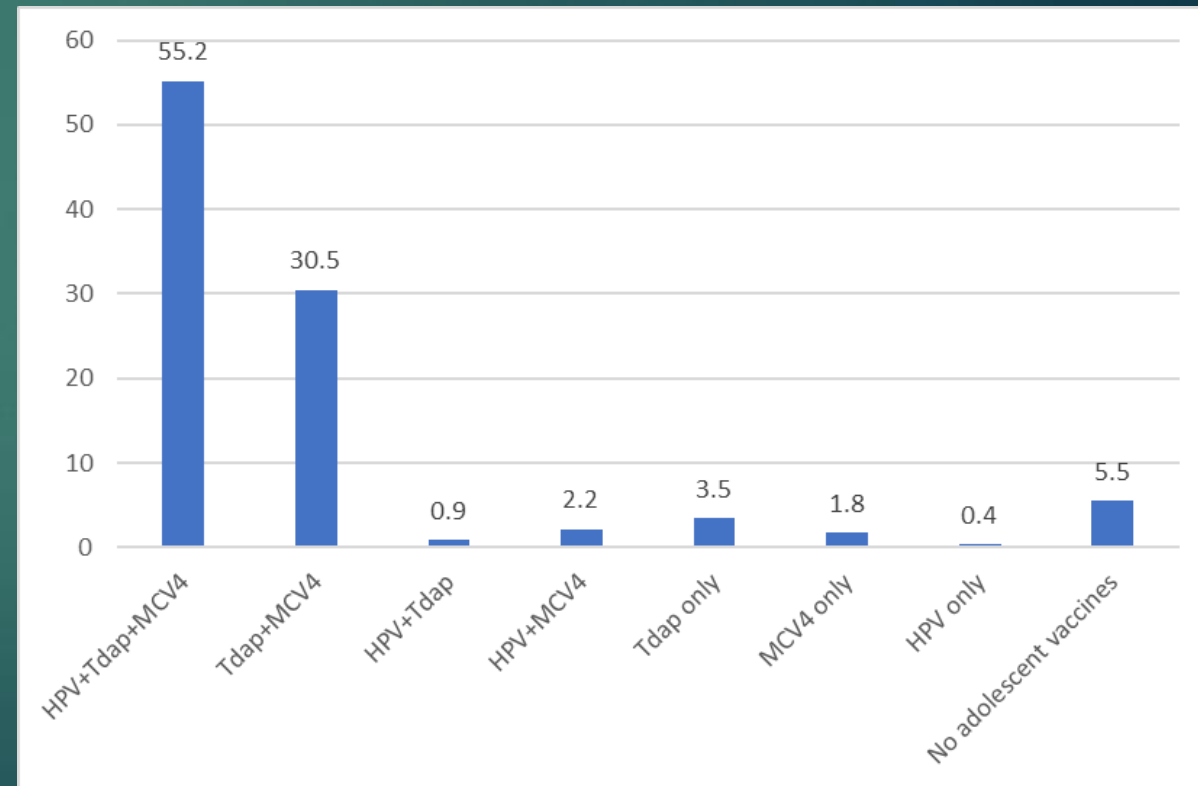
- ▶ For children in the NIS-Child, individual vaccines AND combined 7-vaccine series presented
- ▶ For adolescent vaccines, only individual vaccine uptake reported

TABLE 1. Estimated vaccination coverage among children aged 19–35 months, by selected vaccines and doses — National Immunization Survey-Child, United States, 2013–2017*

Vaccine/Dose	Survey year % (95% CI)				
	2013	2014	2015	2016	2017
DTaP†					
≥3 doses	94.1 (93.2–95.0)	94.7 (94.0–95.4)	95.0 (94.4–95.5)	93.7 (92.8–94.5) [§]	94.0 (93.3–94.7)
≥4 doses	83.1 (81.8–84.3)	84.2 (83.0–85.4)	84.6 (83.5–85.7)	83.4 (82.1–84.6)	83.2 (82.0–84.3)
Poliovirus (≥3 doses)	92.7 (91.6–93.6)	93.3 (92.5–94.1)	93.7 (93.0–94.3)	91.9 (90.9–92.9) [§]	92.7 (91.9–93.5)
MMR (≥1 dose)[¶]	91.9 (90.9–92.7)	91.5 (90.6–92.4)	91.9 (91.0–92.7)	91.1 (90.1–92.0)	91.5 (90.6–92.3)
Hib					
Primary series**	93.7 (92.7–94.5)	93.3 (92.5–94.1)	94.3 (93.7–94.9)	92.8 (91.8–93.6) [§]	92.8 (91.9–93.6)
Full series**	82.0 (80.7–83.3)	82.0 (80.7–83.2)	82.7 (81.5–83.8)	81.8 (80.5–83.0)	80.7 (79.4–82.0)
HepB					
≥3 doses	90.8 (89.7–91.7)	91.6 (90.7–92.4)	92.6 (91.9–93.3)	90.5 (89.3–91.5) [§]	91.4 (90.5–92.3)
Birth dose††	74.2 (72.8–75.7) [§]	72.4 (70.9–73.9)	72.4 (71.0–73.7)	71.1 (69.5–72.7)	73.6 (72.0–75.2) [§]
Varicella (≥1 dose)[¶]	91.2 (90.2–92.1)	91.0 (90.1–91.9)	91.8 (91.0–92.5)	90.6 (89.6–91.5)	91.0 (90.1–91.8)
PCV					
≥3 doses	92.4 (91.4–93.3)	92.6 (91.8–93.4)	93.3 (92.5–94.0)	91.8 (90.8–92.7) [§]	91.9 (90.9–92.8)
≥4 doses	82.0 (80.6–83.3)	82.9 (81.6–84.2)	84.1 (83.0–85.2)	81.8 (80.4–83.1) [§]	82.4 (81.1–83.6)
HepA					
≥1 dose	83.1 (81.9–84.3) [§]	85.1 (84.0–86.2) [§]	85.8 (84.7–86.8)	86.1 (84.9–87.2)	86.0 (84.8–87.1)
≥2 doses ^{§§}	54.7 (53.1–56.3)	57.5 (55.9–59.1) [§]	59.6 (58.1–61.0)	60.6 (59.1–62.2)	59.7 (58.2–61.3)
Rotavirus^{¶¶}	72.6 (71.1–74.0) [§]	71.7 (70.1–73.2)	73.2 (71.8–74.6)	74.1 (72.6–75.5)	73.2 (71.6–74.7)
Combined 7-vaccine series***	70.4 (68.8–71.9)	71.6 (70.2–73.1)	72.2 (70.9–73.6)	70.7 (69.2–72.2)	70.4 (68.9–71.9)
No vaccinations	0.7 (0.5–1.1)	0.8 (0.6–1.0)	0.8 (0.6–1.0)	0.8 (0.6–1.0)	1.1 (0.9–1.4) [§]

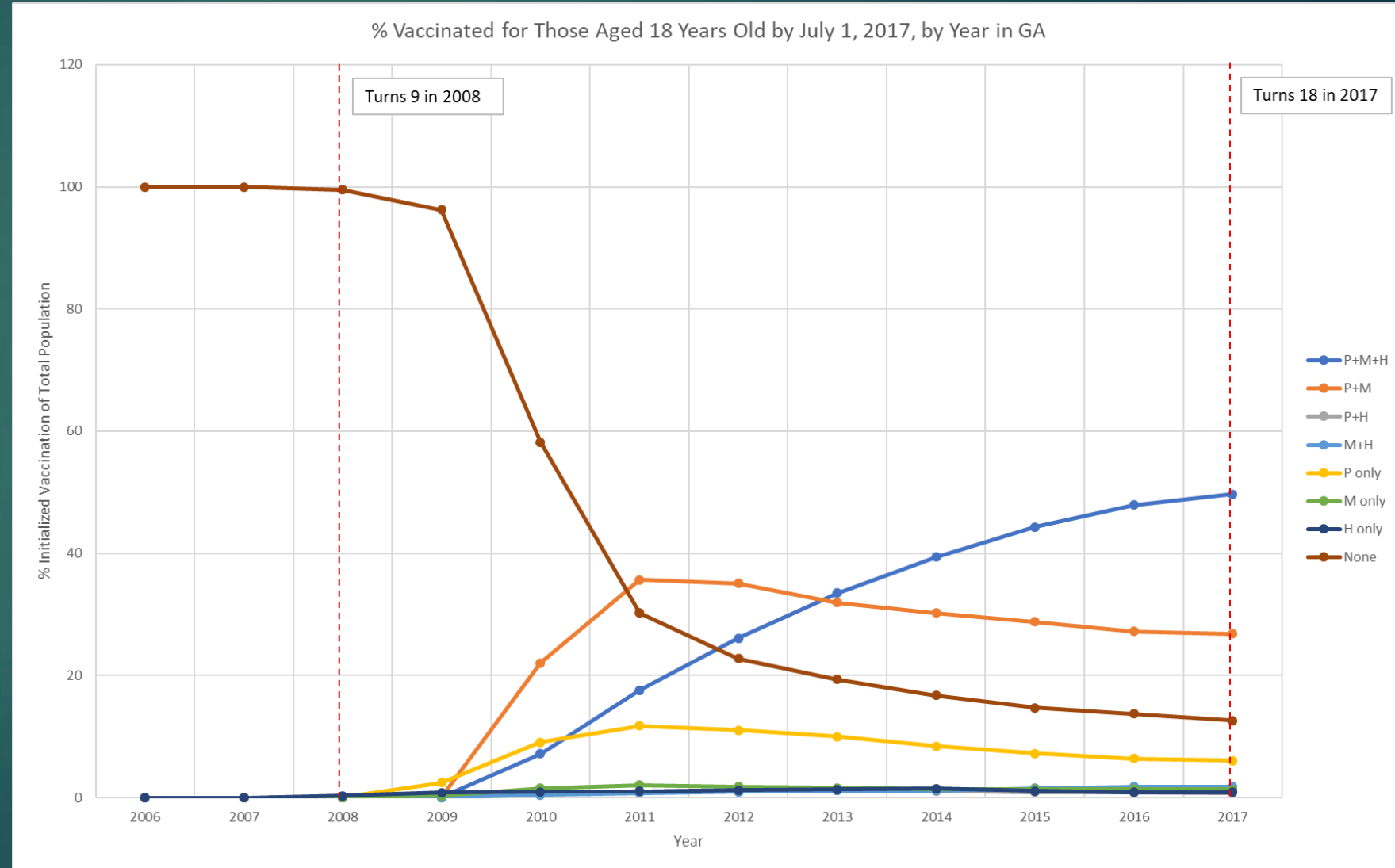
Combined adolescent vaccine uptake

- ▶ Manuscript preparation in progress (Kennicker and Bednarczyk)
 - ▶ NIS-Teen 2020 (last dataset available at time research commenced)
 - ▶ Assess proportion of adolescent population vaccinated with different combinations of adolescent vaccines
 - ▶ Upcoming analysis stratified by key socio-demographic characteristics to more clearly identify disparities in full adolescent vaccination
 - ▶ Not longitudinal, best we can do is serial cross-sectional analyses from NIS-Teen

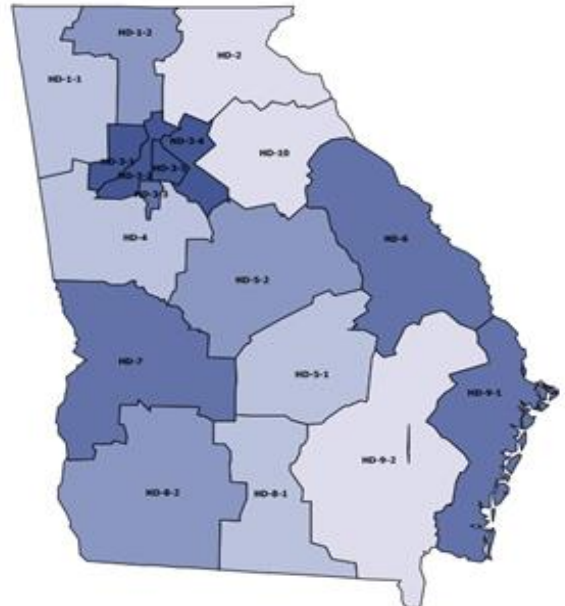


GA-specific longitudinal analysis

- ▶ Data obtained from GRITS, July 2006-Dec 2017, for anyone aged 9-17 years at any point during that period
- ▶ Analysis and manuscript preparation underway (Kettlitz and Bednarczyk)
- ▶ Birth cohort-level analysis of changes in combinations of vaccine uptake over time

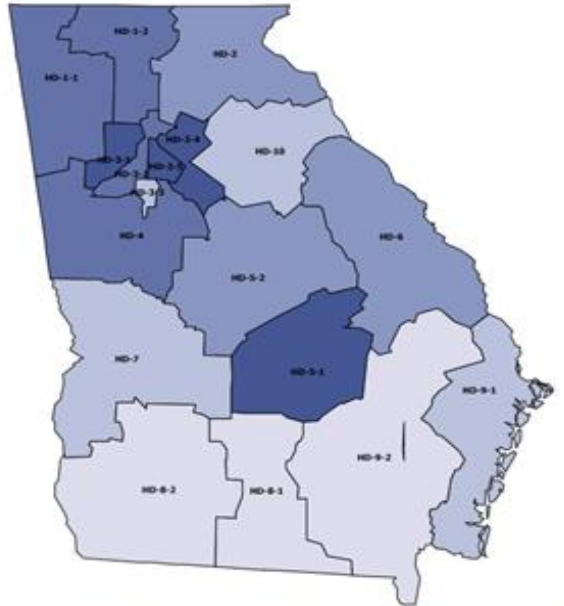


A



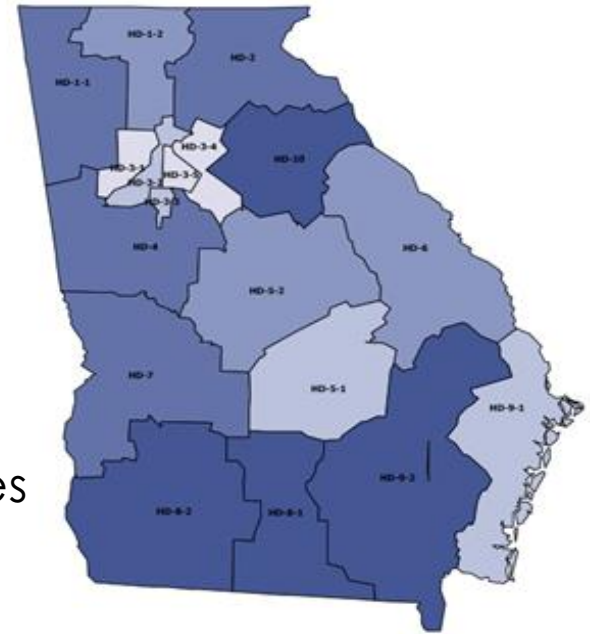
perc 25.50 - 28.02 29.50 - 32.14 33.58 - 36.75 37.07 - 39.41 40.54 - 50.44

B



perc 18.72 - 19.54 19.98 - 23.48 23.83 - 24.12 24.24 - 26.24 26.83 - 30.74

C

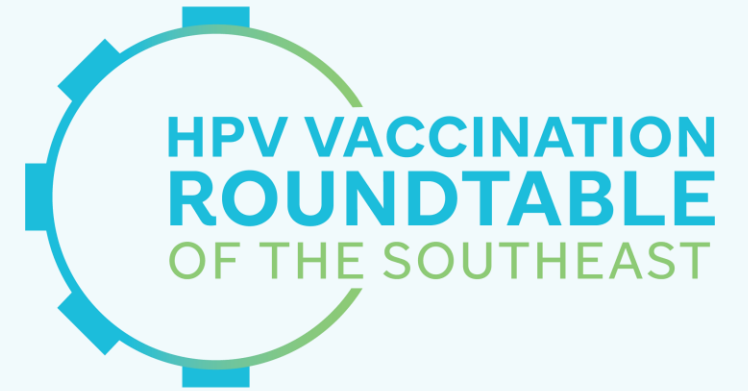


perc 12.59 - 23.33 25.75 - 29.98 30.96 - 33.10 33.71 - 42.22 42.30 - 48.54

A – Tdap/MCV4/HPV
 B – Tdap/MCV4
 C – No adolescent vaccines

Where do we go next?

- ▶ This presentation shows a number of different ways to evaluate adolescent HPV vaccine uptake to identify
 - ▶ Apples-to-apples geographic comparisons to find positive and negative outliers for further evaluation
 - ▶ Uptake of combinations of adolescent vaccines to help understand dynamics in adolescent vaccination
 - ▶ Vaccine delivery issue – high % with no adolescent vaccines
 - ▶ HPV hesitance issue – high % with Tdap/MCV4 but not HPV vaccine
- ▶ The more we know, the more we realize what we don't know!



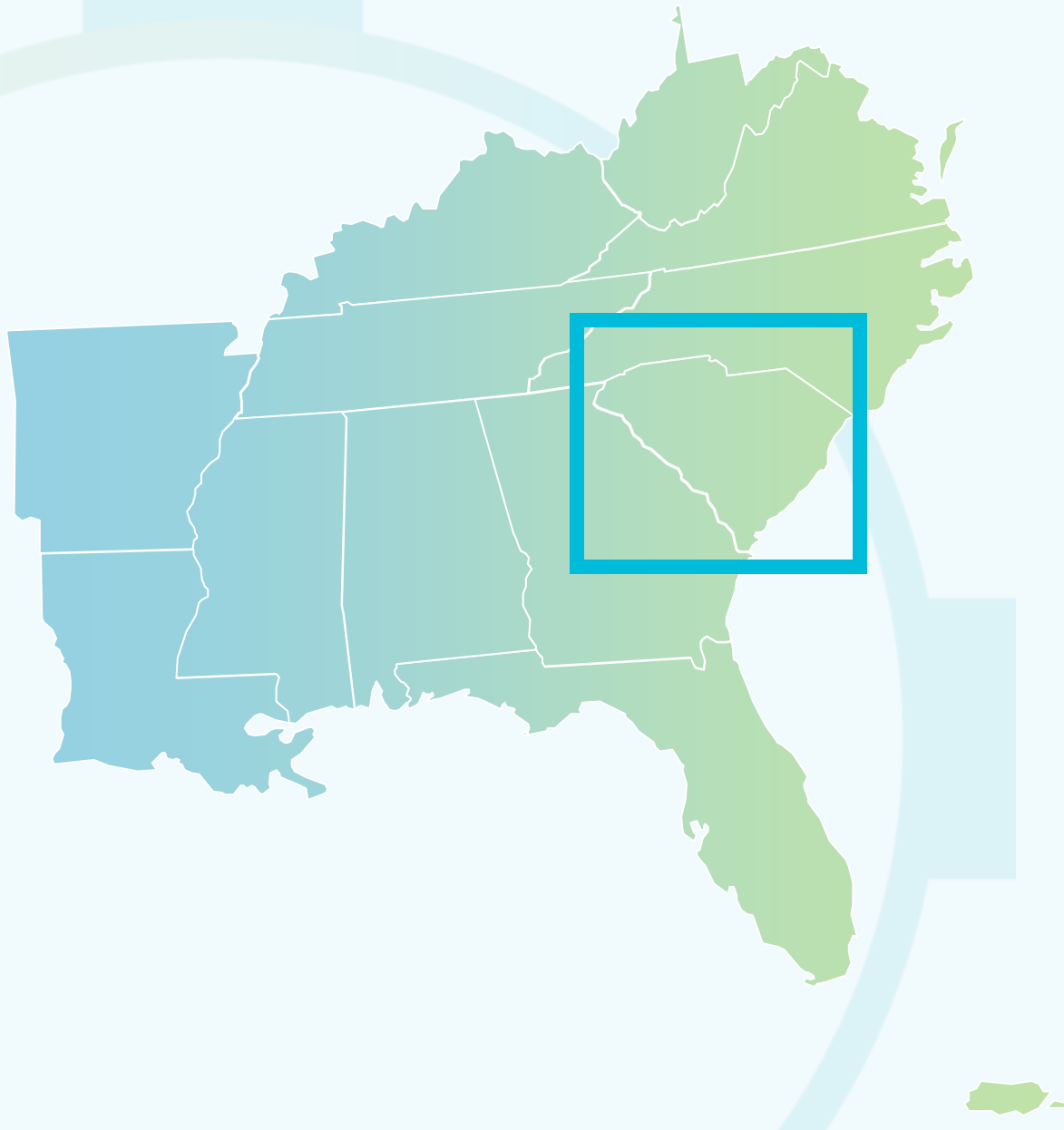
State Updates

Moderated by:

Nikki Hayes, MPH

Centers for Disease Control and Prevention





South Carolina

Beth Poore, MEd
South Carolina Department of
Health and Environmental
Control (SC DHEC)



Kim Hale
Associate Director of State
Partnerships, American
Cancer Society



South Carolina

Kim Hale, B.S., LSSGB
Associate Director of State Partnerships
American Cancer Society

Beth Poore, M.A.
Community Outreach/Health Educator
Immunization Division
SC Dept. of Health & Environmental Control



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Models used for illustrative purposes only.



Fun Fact About South Carolina:

Our state flag is often misunderstood! It is a gorget (crescent-shaped piece of armor worn across the throat) rather than a crescent moon in the top left corner of our state flag.



State cancer plan goals related to HPV cancer prevention:

2.1 Reduce HPV-related cancers across the state.

2.1 A. Increase the percentage of all people ages 13-17 in SC who are up-to-date on HPV vaccination.

Key partners
involved
in
HPV cancer
prevention
efforts:

American Cancer Society

SC DHEC Immunization Division

SC Cancer Alliance

MUSC, Hollings Cancer Center, Prisma, Gibbs Cancer Center & McLeod

USC, College of Charleston, Clemson, Presbyterian College

SC Hospital Association, SC Primary Health Care Association and SC FQHCs

Pharmaceutical & Health Plan Partners

SC DHHS, SC AAP, SCAFP, Head & Neck Alliance, Alliance for a Healthier SC, SCMA

Major
accomplishments
in the past
2-3 years
(pride points):

Getting out of last place in the nation (2016) and staying out!

Maintaining momentum during the pandemic averaging 50 participants on live zoom quarterly calls!

Est. of the SC Immunization Coalition & Adolescent Task Force as a non-profit

MUSC HPV Vax Van mobile efforts

Funding to work on HPV

Continued support from health department: staff and state immunization registry



Major challenge that was overcome in the past 2-3 years (lessons learned)

- Getting HPV offered on school grounds in coordination with school nurses!
- Obtaining non-profit status for SCIC to allow more grant and funding opportunities.



Remaining challenges and potential opportunities

- Medicaid coverage is new!
- Choosing appropriate statewide partners that are all inclusive
- Mobile efforts for adolescents through grants
- EV3 social media toolkit <https://www.scicvax.org/ev3>

Every Visit is a Vaccine Visit



What is EV3?

EV3 is a social media campaign developed by the South Carolina Immunization Coalition to protect people of all ages in South Carolina from common and serious vaccine-preventable diseases by building confidence in immunization and increasing awareness of vaccine availability at every healthcare visit.

Call to Action: Vaccination helps us live safe, healthy, and happy lives by protecting people of all ages from common and serious diseases. Be vaccine confident. Ask your healthcare provider which vaccinations you and your family need at your next visit. Every visit is a vaccine visit.
#AskAboutVaccines #VaxAnyVisit

How to use this toolkit

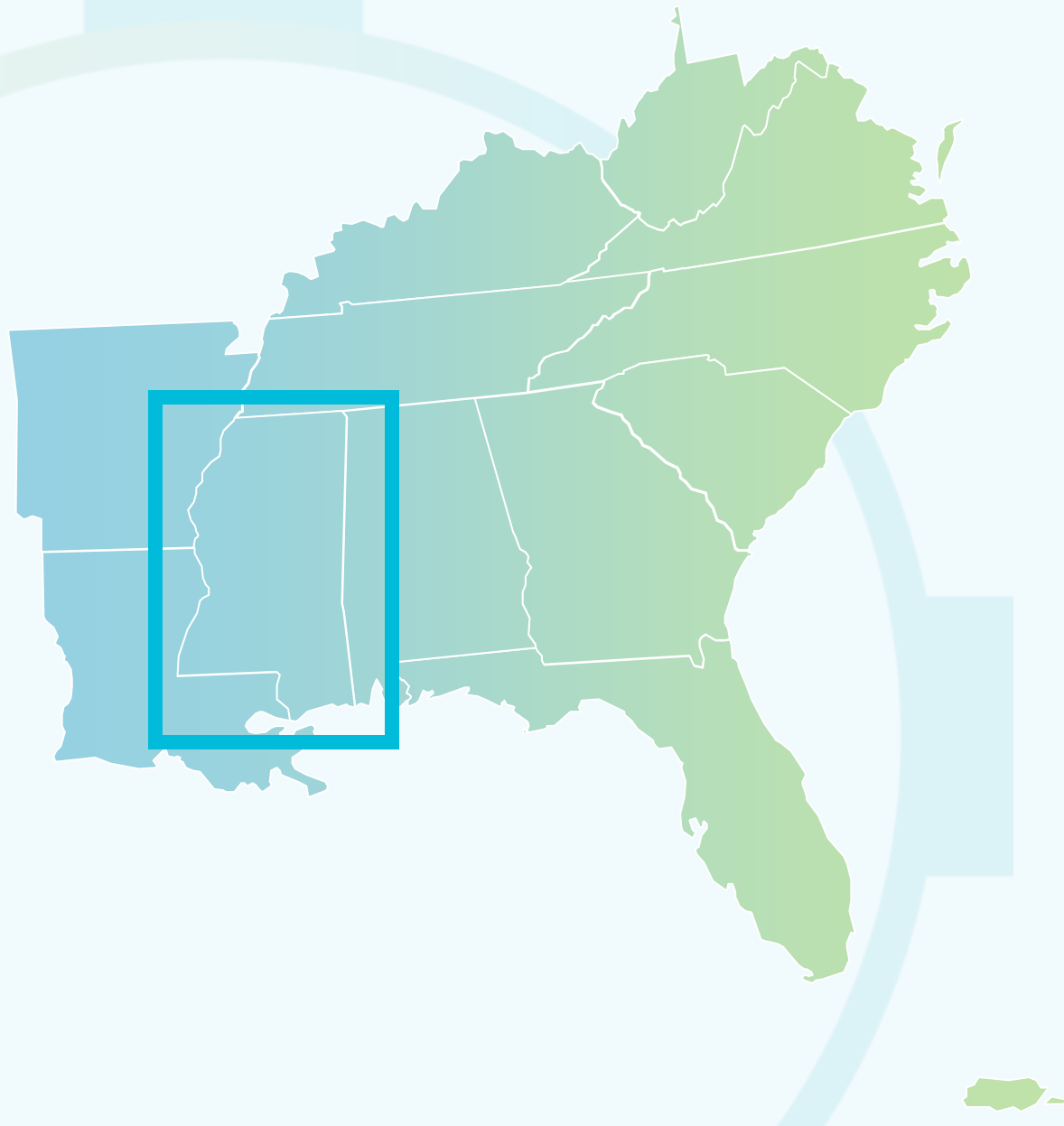
- ◆ In this toolkit, we provide 10 weeks of daily (Monday through Friday) social media posts for Facebook and Twitter. Partners are encouraged to adapt the frequency based on their capacity (e.g., weekly).
- ◆ You will find graphics you can use as posts or ads on social media platforms. Please use the campaign's hashtags if you use the graphics to strengthen our impact.
- ◆ This toolkit includes a conversation guide for healthcare staff to use to talk with patients about their families' vaccination statuses.
- ◆ Follow and like the social media accounts of partner organizations. Engaging with individuals and organizations on social media by sharing, commenting, and retweeting is an important component of raising awareness.

Ideas for priority
action steps and
needs to support
these action
steps:

Health education with the
immunization division

Deep dive of the data and
triangulating

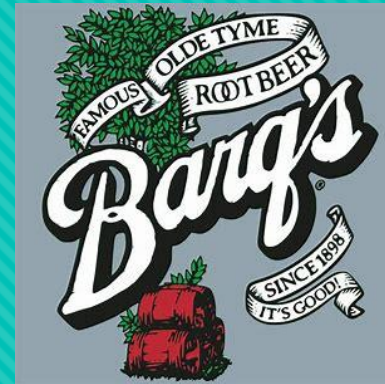
Working with partners at a
variety of levels



Mississippi

Amy Ellis
American Cancer Society



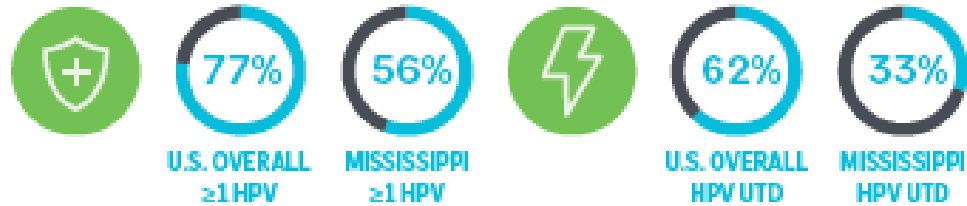


Mississippi:

- The Magnolia State
- Known as the birthplace of Elvis (Tupelo, MS) and Oprah (Kosciusko, MS)
- The University of Mississippi Medical Center was the site of the world's first human lung transplant in 1963, followed by the world's first heart transplant a year later.

- Barq's Root Beer was created in Biloxi
- Mississippi is the birthplace of the Blues
- Home of the Mississippi River, the largest in the US and fourth-longest river in the world.

HPV VACCINATION RATES FOR 13-17 YEAR-OLDS AS OF 2021:



A PATH TO PREVENTION: →

State Profile: Mississippi



HPV CANCERS:

HPV is a common virus linked to six types of cancer. The two most common HPV-associated cancers are oropharyngeal and cervical cancers. **Incidence rates of HPV cancers overall and for oropharyngeal and cervical cancers are higher in Mississippi compared to the U.S. averages.**

New Cases

	All HPV Cancers	Oropharyngeal Cancer	Cervical Cancer
United States Overall	12.5	5.2	7.2
Mississippi Overall	14.0	5.6	8.6
United States	Male: 11.2, Female: 13.9	Male: 9.1, Female: 1.7	Mississippi ranks in the Top 10 Nationally in cervical cancer incidence rates.
Mississippi	Male: 12.2, Female: 15.8	Male: 9.8, Female: 1.8	

Incidence rates shown are cases per 100,000 persons.



MISSISSIPPI HPV ROUNDTABLE

1. For HPV-related cancers, MS ranks
 - 3rd in the U.S. for cervical cancer incidence;
 - 3rd in the U.S. for cervical cancer mortality;
 - 10th in the U.S. for oropharyngeal cancer incidence; and
 - 1st in the U.S. for oropharyngeal mortality.
2. In 2020, for youth aged 13-17 years,
 - MS was ranked last in the U.S. for HPV vaccination. Unfortunately, MS has been last in the nation for several years.
 - Fewer than 1 in 3 (31.9%) of MS youth were up to date. By comparison, the U.S. up-to-date HPV vaccination rate was 58.6%.

3 Active Workgroups:

- Provider Education
- Systems Change
- Parent/Community

MS HPV ROUNDTABLE began in February 2020. 148 members

MSHPVRT Website:
www.mshpvrroundtable.org

*Funded by SE LA AHEC

MS Partnership for Comprehensive Cancer Coalition State Plan Goal:

Increase HPV
vaccination in MS
through education and
community outreach

5 MP3C Coalitions in MS

Approximately 325 total
members statewide

Statewide Partners

- **Associations** (AAP, MS Pharmacy Assoc, MAFP, MNA, SE LA AHEC, Community Health Center Association of MS)
- **Non-Profits** (American Cancer Society, St. Jude, Teen Health, Plan A Health)
- **Health Systems** (Baptist, UMMC, St. Dominic, Singing River, Forrest General, Mary Bird Perkins)
- **FQHC's** (Coastal Family Health, SEMHRI, GA Carmichael, Jackson Hinds)
- **Health Plans** (Humana, UHC, Magnolia Health, Molina, Medicaid, BCBS)
- Merck
- MS Department of Health
- University of Mississippi- School of Pharmacy
- UMMC School of Dentistry
- Dept of Education/School Nurses



MISSISSIPPI
HPV
ROUNDTABLE

Accomplishments,
Opportunities, Challenges,
Lessons Learned



Mississippi Chapter
INCORPORATED IN MISSISSIPPI
 American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN

MOC-2 and CEU
 credits available

HPV SUMMIT

A webinar for pediatricians and nurses in Mississippi to discuss trends in prevention and treatment of HPV. Participants will learn more about HPV vaccination, HPV related data specific to Mississippi, and how pediatricians can play a part in preventing HPV related cancers.



Anita Henderson, MD
 PEDIATRICIAN
 HATTIESBURG, MS



Laurin Kasehagen, PhD
 EPIDEMIOLOGIST
 CDC ASSIGNEE TO MSDH



Christy Haygood, MD
 GYN ONCOLOGIST
 ST. DOMINIC'S HOSPITAL



Gina Jefferson, MD
 ENT ONCOLOGIST
 UMMC



Tuesday, March 29
 11:00am - 1:00pm

Register at

www.ganms.org/Events

- First HPV Summit in MS provided in partnership with the MS AAP Chapter (Recording is on YouTube)

- Over 210 registered (36 NP, 34 MD/DO, 68 RN/LPN, 3 DMD, 69 other (PharmD, RDH, SW, etc.)

- MOC-2 and RN CE credit provided

FIRST MISSISSIPPI HPV SUMMIT

March 29, 2022 from
 11am-1pm.



THE UNIVERSITY OF MISSISSIPPI®

The University of Mississippi- School of Pharmacy started an HPV Free Campus Project in 2021 to encourage students to visit the on campus pharmacy to get vaccinated.

In 2022, they received funding to create a toolkit to help other MS colleges implement an HPV campus campaign. They are now actively working with several MS college campuses to implement similar initiatives.

They also developed 5 HPV slides that were added to the EDHE curriculum, which is a required course for ALL freshman students.

UUM
HPV free

MSDH Office of Oral Health and University of Mississippi- School of Dentistry Partnership

Dentist are now able to give the HPV vaccine in MS. The MSDH Oral Health Division provided a CE event on 4-22-22 to educate oral health providers on HPV and how they can play a role in increasing vaccination in MS.

As a result, the UMMC School of Dentistry is now engaged in roundtable and is working to become a VFC provider. Their dental students will provide vaccines to students in MS South Delta Schools.

The School of Dentistry is also hosting an ECHO session on HPV on March 24th. It is open to oral health providers, nurses, and physicians and CE will be provided.

Mississippi State Department of Health- Key Player

MSDH has updated their standing orders to engage with patients over age 26. They plan to offer education with clinicians about this age group since gynecologic oncologists feel is it better to give the vaccine than not. They are also instituting a “No Wrong Door” policy to ensure that HPV vaccination is free for everyone who comes in the door of the health dept.



The health dept staff just completed follow up with about 65,000 patients who either received an abnormal pap during the covid pandemic or were behind on their annual gynecological exams.



MSDH is also working on changing the MIIX system to forecast HPV vaccination for all children beginning at age 9. This will alert physicians to consider offering the HPV vaccination to their patients starting at 9 yrs. old.

Other Roundtable Activities

In 2022, The University of Mississippi Medical Center- Pediatric Clinic participated in the ACS Quality Improvement Project where they began offering the vaccine at age 9 and saw great improvements in their vaccination rates.

The Community Health Center Association of MS hosted their annual conference for all FQHC providers on August 10th, 2022. Dr. Henderson with the MSAAP spoke about the importance of HPV vaccination.

Magnolia Health and United Healthcare (2 MS Medicaid Coordinated Care Organizations) participated in the 2022 ACS Payor Learning Collaborative. Magnolia Health is participating again in 2023. UHC was a part of the 2021 pilot.

MS HPV Call to Action

Lead Partners:

ACS, MSHPVRT, ACOG, MAFP, MS-AAP, MSDH, and St. Jude

Dr. Dobbs (Former MS State Health Officer) Supports the HPV Call to Action with a sign on letter

52 Organizations signed on to the call to action and many shared to social media



A call for urgent action to protect Mississippi children from HPV-related cancers.

Safeguarding the health of Mississippi children should be a leading priority in our region. Currently, human papillomavirus (HPV) related cancers and extremely low HPV vaccination rates, are a growing concern among Mississippi (MS) vaccination providers—and we have the power to protect our children.

For HPV-related cancers, MS ranks 3rd in the U.S. for cervical cancer incidence; 3rd in the U.S. for cervical cancer mortality; 10th in the U.S. for oropharyngeal cancer incidence; and 1st in the U.S. for oropharyngeal mortality. Fortunately, there is a vaccine available to help prevent HPV-related cancers.

In 2020, for youth aged 13-17 years, MS was ranked last in the U.S. for HPV vaccination. Fewer than 1 in 3 (31.9%) of MS youth were up to date. By comparison, the U.S. up-to-date HPV vaccination rate was 58.6%.

The COVID-19 pandemic caused disruption to routine vaccinations and well visits. In response, National Cancer Institute (NCI)-Designated Cancer Centers and other organizations issued a joint statement in May 2021 urging the nation's health care systems, health care providers, parents and children, and young adults to get back on track.

The MS HPV Roundtable (MSHPVRT)— including members such as the Mississippi State Department of Health, the American Cancer Society, the Mississippi Chapter - American Academy of Pediatrics (AAP), the Mississippi Section American College of Obstetricians and Gynecologists (ACOG), the Mississippi Academy of Family Physicians (MAFP) and St. Jude Children's Research Hospital— has collaboratively developed an urgent call for action. **Today, MS health care providers, public health professionals and community stakeholders have partnered to address the low HPV vaccination rates in MS and protect children from disease and cancer.**

Mississippians must get up to date on missed doses of recommended vaccines to stay ahead of possible outbreaks and preserve the health of families, schools and communities across the state. To get there, it will take the concerted effort and support of MS health care systems and providers, public health professionals, parents, and caregivers, and all of us to get back on track. Acting now is critical to support the recommended vaccinations for MS adolescents.

Advocacy Events



2021: HPV International Awareness Day Resolution was signed by the governor.

2022: Cervical Cancer and HPV information was provided to the House and Senate in January. Senator Blackwell and Senator Boyd later introduced a resolution for cervical cancer awareness month!

2023: The American Cancer Society and MS HPV Roundtable representatives joined ACS CAN at the MS State Capitol on March 1 to share information about the importance of the HPV Vaccine and how it can prevent 6 cancers.

Manuscript: “Opening New Pathways to HPV Cancer Prevention through Changes in Practice, Policy, and Partnerships” will be published in the Special Edition of the Journal of MS Academy of Science.

Carolann Risley, Ph.D., NP
Associate Professor, School of Nursing
Associate Professor, School of
Medicine, Department of Cell and
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Member, Cancer Center and Research
Institute
PI – STRIDES Studying Risk to Improve
Disparities
University of Mississippi Medical
Center

Opening New Pathways to HPV Cancer Prevention through Changes in Practice, Policy, and Partnerships

Carolann Risley¹, Angela F. Filzen², Amy Ellis³, Sarah M. Jones⁴, Laura Tucker², Katherine Farrington², Rebecca Shipp², Eric Pittman⁵, Dennis R. Smith⁶, Rasheda J. Williams⁷, Michael Todaro⁸, Sandor Feldman², and Thomas Dobbs^{9,2}.

¹ University of Mississippi Medical Center, School of Nursing, ² Mississippi State Department of Health, ³ American Cancer Society, ⁴ University of Mississippi Medical Center, School of Medicine, Department of Pediatrics, ⁵ University of Mississippi, ⁶ Office of the Governor, Mississippi Division of Medicaid, ⁷ United Healthcare, ⁸ Magnolia Health, ⁹ University of Mississippi Medical Center, School of Population Health

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Doi: <https://doi.org/10.31753/DHRH6664396>

ABSTRACT

Introduction: In the U.S., an estimated 46,143 Human Papillomavirus (HPV)-associated cancers occur each year. (CDC, 2021;). HPV vaccination and cancer disparities exist geographically and by race and ethnicity. Cancer sites include the cervix, vulva, vagina, penis, anus, and oropharynx. HPV vaccination may prevent 90% of cervical cancers if vaccinated at the recommended ages of 9-12, even without screening. Of the HPV infections that persist and evolve to cervical cancer, 80% were acquired before age 26. In 2018, across the U.S., HPV vaccination completion rates for girls and boys were the lowest in

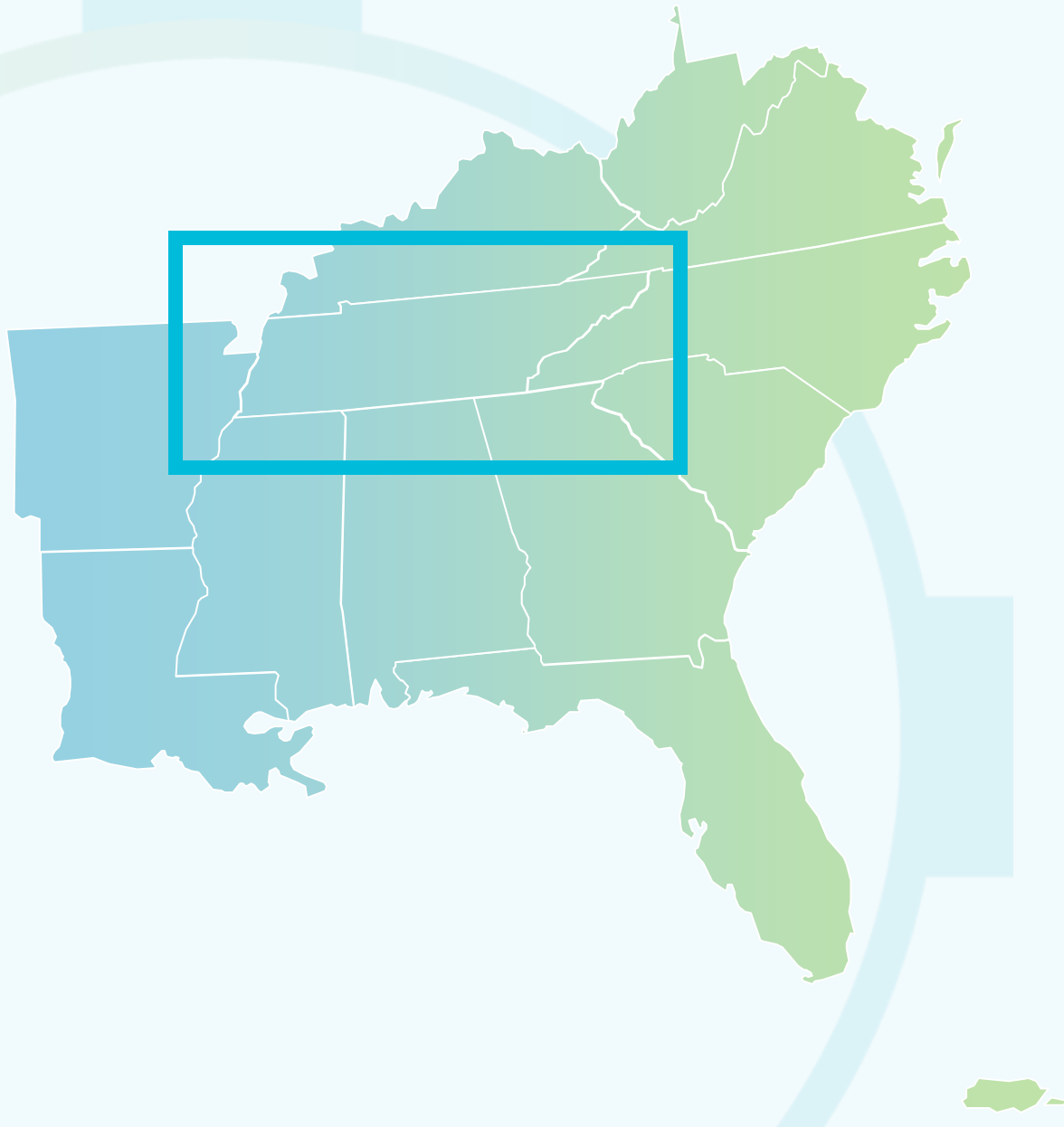
ACTION STEPS:

Identify and engage key stakeholders in HPV vaccination efforts through vaccination and cancer prevention stakeholders in Mississippi to develop, implement, and evaluate an action plan for increasing HPV vaccination coverage:

- Align with existing efforts to promote vaccinations to optimize impact.
- Increase on-time HPV vaccination overall and specifically focus on completion rates among adolescents who have initiated the HPV vaccination series and adolescents living in rural areas.
- Monitor and mitigate the ongoing effects of the COVID-19 pandemic on HPV vaccination and consider co-administration of HPV vaccination with other recommended vaccinations.

Implement priority evidence-based interventions in clinical and community settings, such as:

- Promote strong health care provider recommendations, integrate quality improvement approaches to build supportive clinical systems, use reminder and recall approaches, and reduce missed opportunities.
- Build HPV vaccination confidence in the public, especially among parents and caregivers, to increase HPV vaccination.



Tennessee

**Dorothy (Dee) Sinard, MD,
FAAP**

ImmunizeTN





Dorothy (Dee) Sinard, MD, FAAP
President, ImmunizeTN





Did you know...

- ... the ladybug is one of the official state insects of Tennessee since 1975.
- ... a swarm of ladybugs is called “a loveliness of ladybugs.”



Did you know...

- ... the ladybug is one of the official state insects of Tennessee since 1975.
- ... a swarm of ladybugs is called “a loveliness of ladybugs.”
- ... the University of Tennessee was one of four NCAA colleges with both the men’s and women’s basketball teams in the Sweet Sixteen?





HPV Vaccination and HPV Cancers in Tennessee

Up-to-Date HPV Vaccination Coverage among Adolescents Age 13-17 Years, 2021, National Immunization Survey-Teen

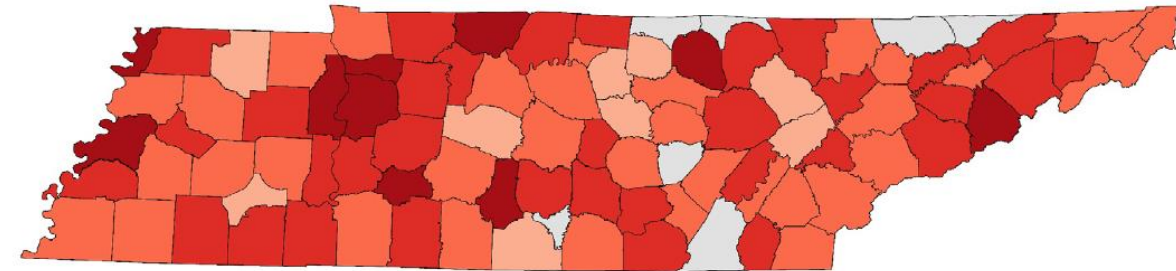


Legend - Coverage (%)

32.7 - 56.5

HPV UTD = 56.5% (95% CI: 49.4-63.3%)
Tennessee ranks 42nd in HPV UTD

HPV-Associated Cancer -- All Sites
Tennessee, 2009-2018



Incidence Rate per 100,000

8.2-11.2 11.3-14.3 14.4-17.3 17.4-21.7
Data Suppressed

Tennessee Rate: 13.6/100,000

^ Data not shown due to fewer than 11 cases.

HPV cancer incidence = 13.6 per 100,000
Tennessee ranks 6th highest in HPV cancers



State Cancer Plan Goals

HPV Vaccination Objectives:

Objective 1: Increase the number of female adolescents aged 13 – 17 years who are up-to-date with the HPV vaccine series from 47 percent in 2017 to 57 percent by 2022.

Objective 2: Increase the number of male adolescents aged 13 – 17 years who are up-to-date with the HPV vaccine series from 31 percent in 2017 to 41 percent by 2022.

Strategies:



Policy, Systems and
Environmental
Changes



Provider Training and
Professional
Development



Patient Access,
Education and
Programming



Progress and
Evaluation

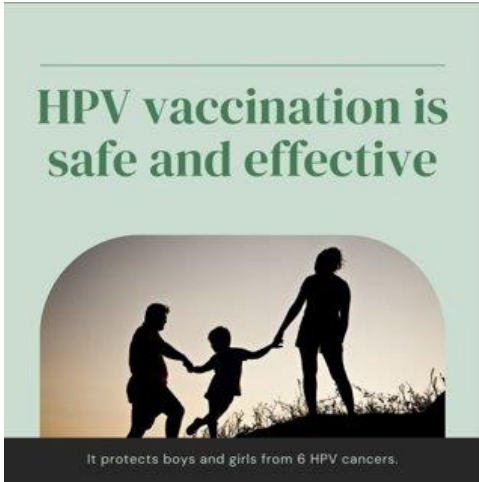


Key Partners (Selected)

- American Cancer Society
- Cumberland Pediatric Foundation
- HPV Cancer Free Tennessee
- ImmunizeTN
- Meharry Medical College
- St. Jude Children’s Research Hospital
- Tennessee Cancer Coalition (TC2)
- Tennessee Chapter of the American Academy of Pediatrics
- Tennessee Department of Health
- Tennessee Families for Vaccines
- University of Memphis
- University of Tennessee
- University of Tennessee Health Science Center
- Vanderbilt-Ingram Cancer Center



Major Accomplishments



Formation of the first statewide immunization coalition – ImmunizeTN – and social media campaign in summer 2022 for rural Tennesseans

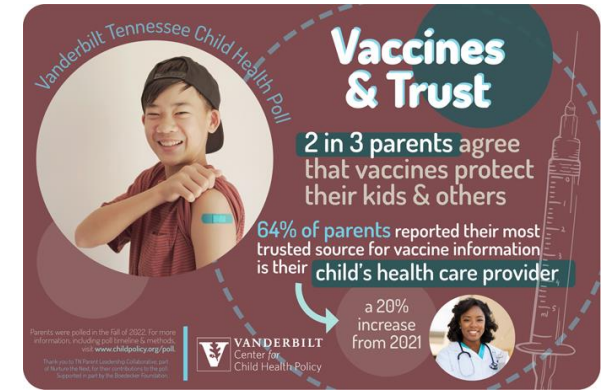


Release of “Tennessee Vaccinates” animated video



HPV Cancer Prevention Program

St. Jude HPV Cancer Prevention Program launched to invest resources into improved HPV vaccination coverage to reduce HPV cancers



Important information on what people in Tennessee think about vaccines from the Vanderbilt Child Health Poll: 2 in 3 parents agree that vaccines protect their kids and others



Exciting Stuff Happening Now and Coming Soon



Tennessee Chapter of the AAP is hosting immunization ECHO sessions for clinicians starting in January through June



Tennessee Families for Vaccines was recently formed as an advocacy group in the state to promote evidence-based public policy and vaccinations



Tennessee Department of Health conducting a four-city/area “roadshow” in April 2023 to promote vaccination across the state



Memphis and Shelby County HPV Cancer Prevention Roundtable holding a motivational interviewing training for clinicians in May



Major Challenges and Possible Solutions

Challenges

- Politicization of vaccinations and persistent legislative threats to vaccinations
- Vaccination hesitancy
- Access to HPV vaccination for catchup population

Possible Solutions

- Develop relationships with legislators and key advocacy groups
- Public awareness campaigns to address and build confidence
- Expand Medicaid



Remaining Challenges and Potential Opportunities

Misinformation

unintentionally
distributing incorrect
information

Disinformation

knowingly
developing and
disseminating
incorrect information
intended to deceive

Mal-information

disturbing
information such as
personal information
or “shock-value”
information intended
to harm



Ideas for Priority Actions

- Emphasize HPV vaccination starting at age 9
- Revisit determinants of HPV vaccination
- Look at vaccination providers other than primary care providers, such as pharmacists and oral health providers



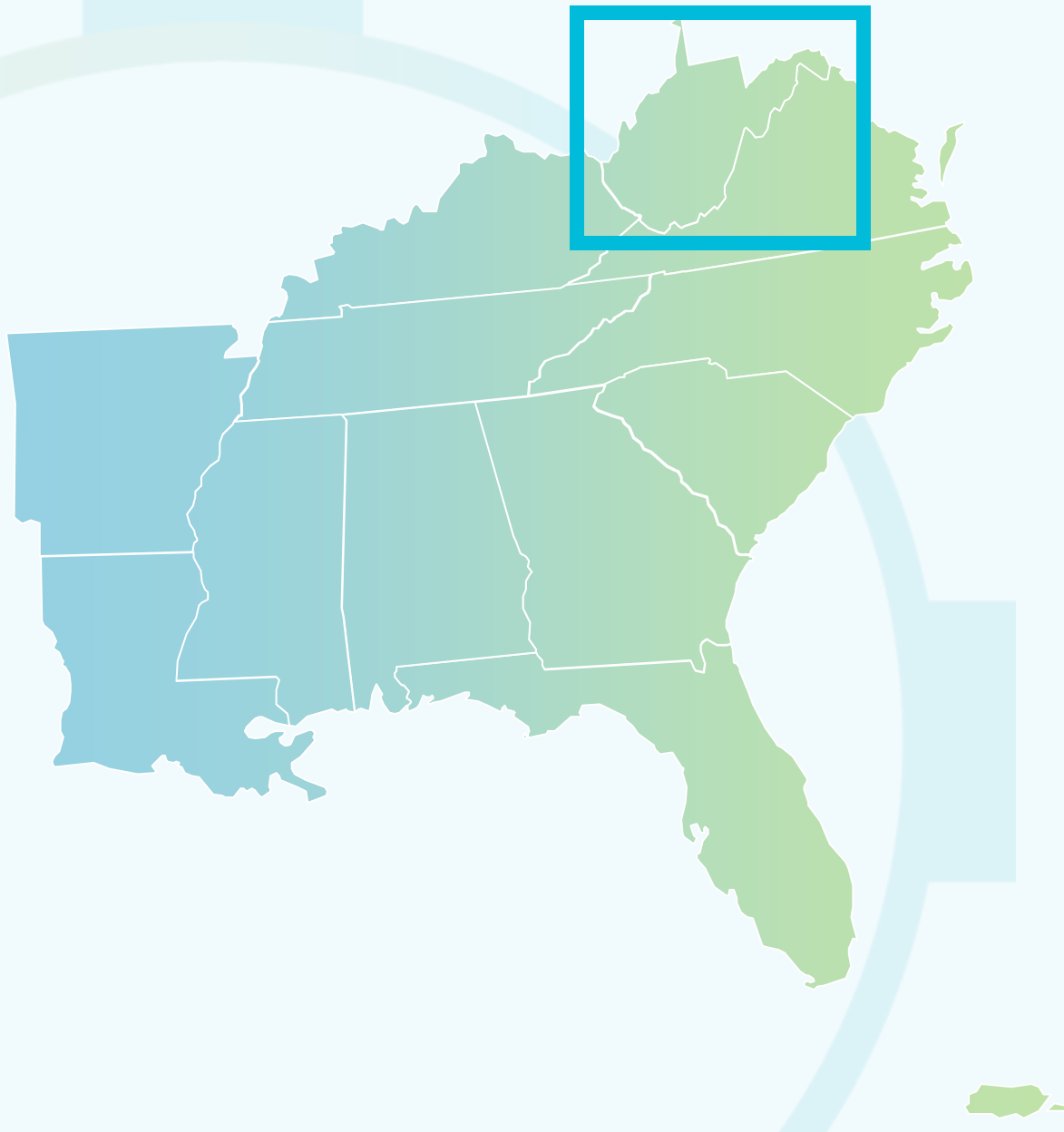


Questions for Other Southeastern States

We have a couple of initial questions for our colleagues working in other southeastern states:

- What efforts have been undertaken to facilitate offering **HPV vaccination at age 9**? IIS strategies? Education and training programs? How can we learn from what has been done and replicate?
- How are other states **addressing policy and legislative threats** that are increasingly partisan and threaten HPV vaccination (and all vaccinations)? For example, including COVID-19 vaccination in “all vaccination” efforts has resulted in scrutiny of routinely recommended vaccinations (pre-COVID-19 vaccines). Should we make it clear that COVID-19 vaccines should be treated differently? What are the short- and long-term risks of such an approach?





West Virginia

**Lindsay Barr, West Virginia
Immunization Network and The
Center for Rural Health
Development, Inc.**



**Elaine Darling, MPH, The
Center for Rural Health
Development, Inc.**



West Virginia Immunization Network

Improving HPV Vaccination Rates – West Virginia Update

HPV Vaccination Roundtable of the Southeast

March 30, 2023

**Elaine Darling, MPH, Senior Program Director
Lindsay Barr, BS, WIN Program Manager
The Center for Rural Health Development, Inc.**



THE Center FOR Rural Health DEVELOPMENT

OUR PROGRAMS INCLUDE:



*Financing rural health
throughout West Virginia.*



**West Virginia
Immunization
Network**

*Improving immunization
rates across the lifespan.*



*Leadership for improved
health care.*



*Healthy communities build
healthy economies.*



West Virginia Immunization Network

A PROGRAM OF **The Center for Rural Health Development**

WIN: A statewide coalition that envisions a future in which all West Virginians, from the newly born to adolescents to seniors will be protected from vaccine-preventable diseases, thus improving the quality of life for all West Virginians.

West Virginia: “Almost Heaven”

Fun Fact:

West Virginia hosts one of the world’s oldest rivers, which meanders through the state heading towards Virginia before reaching North Carolina. The New River takes the number two spot after the world-famous River Nile.

Base jumpers in West Virginia are privileged to have the longest steel-span bridge in the western hemisphere in their state. The New River Gorge Bridge, which is situated in Fayette County measures 3,030 feet long and is home to Bridge Day, an annual base-jumping and rappelling extravaganza.

This area is also home to our nation’s newest national park: New River Gorge National Park and Preserve.



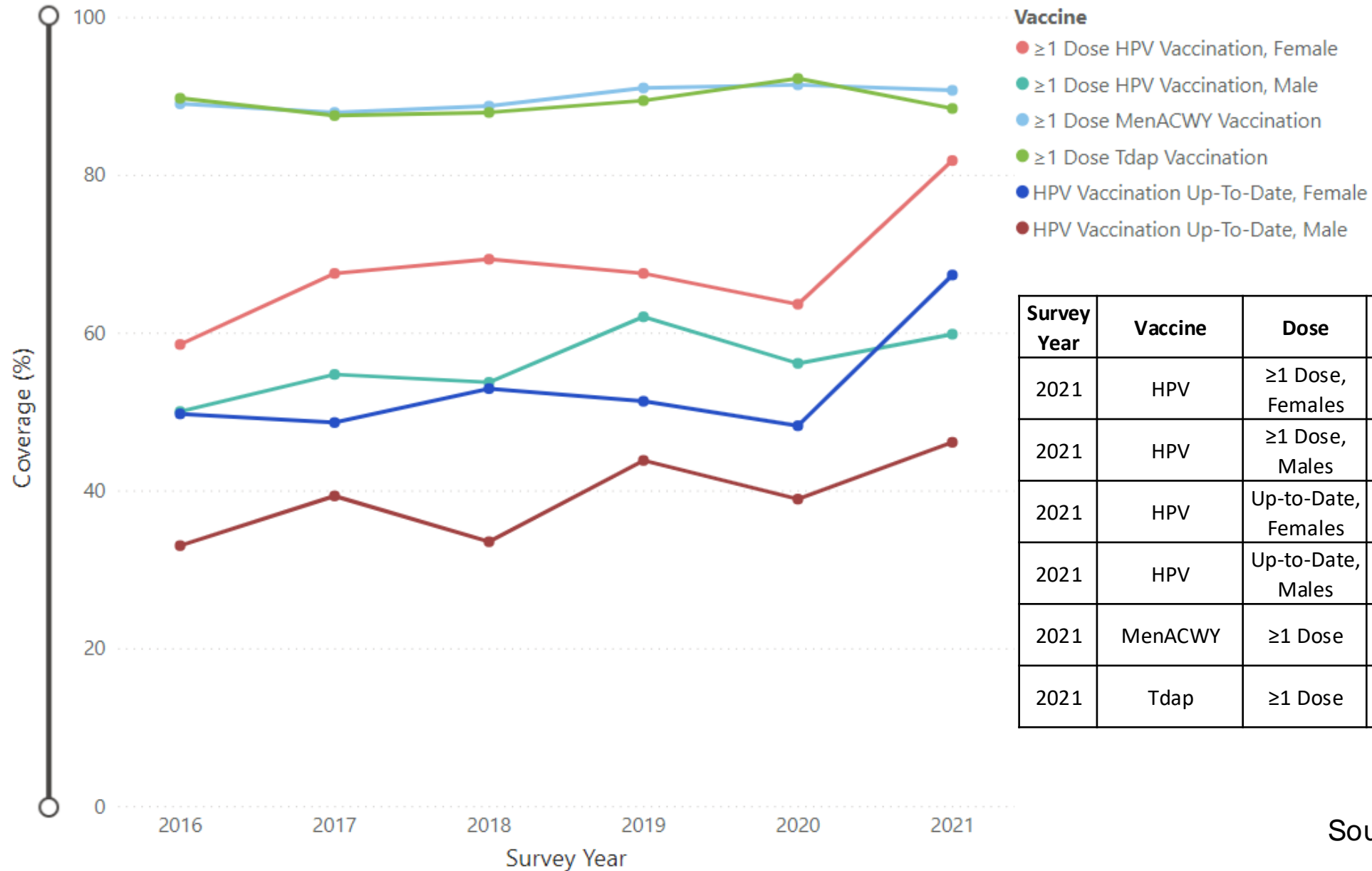
West Virginia Cancer Plan (2021-2025):



OBJECTIVE: Increase initiation and completion rates for vaccines that prevent cancer

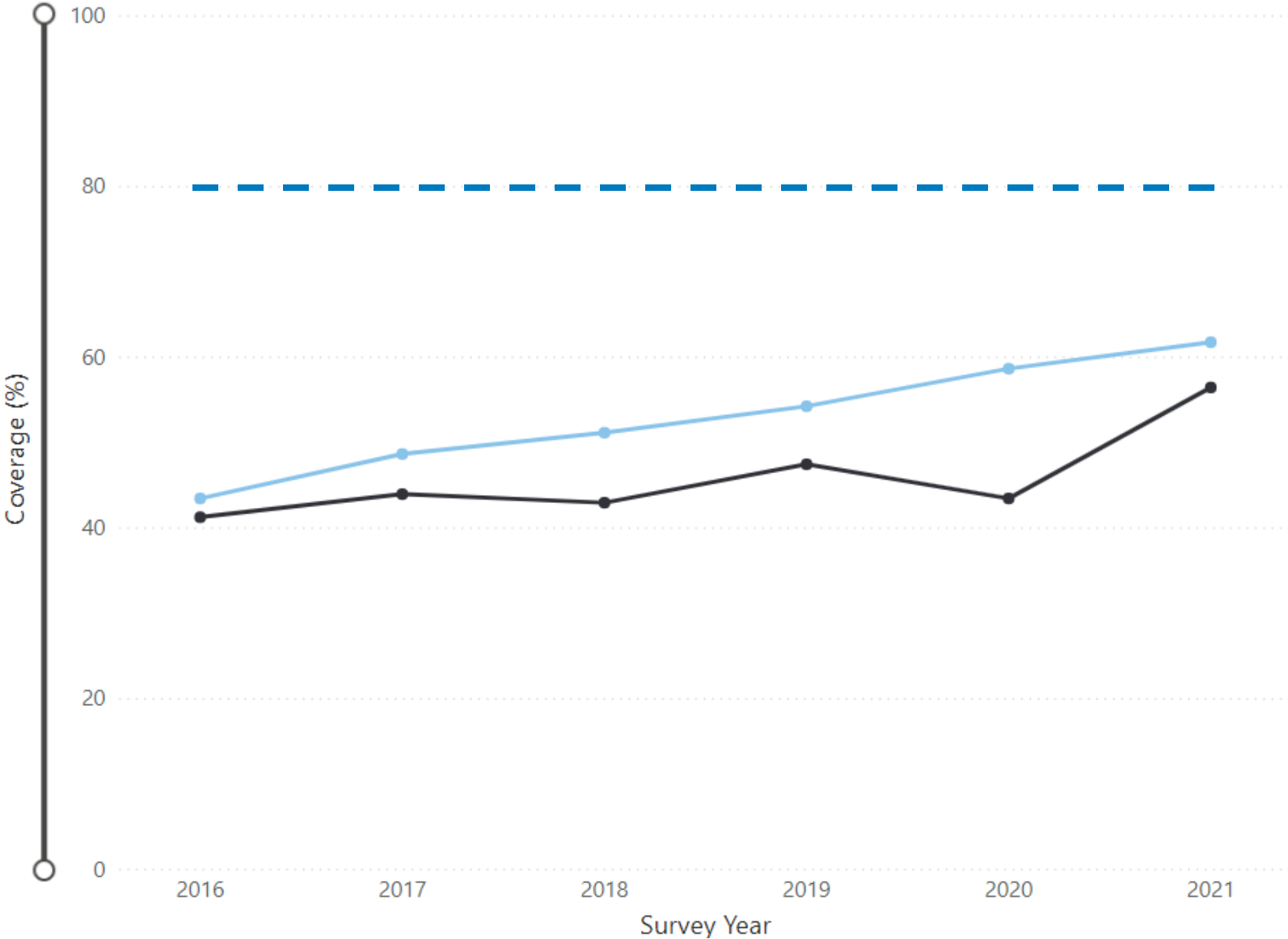
- Increase the percentage of females, age 13-17, who begin the HPV vaccine series from 69.3% to 71.8%
- Increase the percentage of females, age 13-17, who are up to date on their HPV vaccine series from 52.9% to 55.4%
- Increase the percentage of males, age 13-17, who begin the HPV vaccine series from 53.7% to 56.2%
- Increase the percentage of males, age 13-17, who are up to date on their HPV vaccine series from 33.5% to 36.0%
- Encourage catch-up HPV vaccination of adults ages 18-45 who have not completed the series through education and reduction of barriers.

Vaccination Coverage by Year among Adolescents Age 13-17 Years, West Virginia, National Immunization Survey-Teen



Source: TeenVaxView

Up-to-Date HPV Vaccination Coverage by Year among Adolescents Age 13-17 Years, National Immunization Survey-Teen



Geography

- United States
- West Virginia

Healthy People 2030 Objective:
Adolescents aged 13 through 15 years received recommended doses of the HPV vaccine

Survey Year	Vaccine	Dose	Geography	Coverage Estimate (%)	Sample Size	95% CI (%)
2021	HPV	Up-to-Date, Males & Females	United States	61.7	18,002	60.2 to 63.2
2021	HPV	Up-to-Date, Males & Females	West Virginia	56.4	267	49.2 to 63.3

Source: TeenVaxView

West Virginia Cancer Plan Prevention Strategies:



West Virginians:

- Complete recommended vaccines on schedule for yourself and your children
- Address vaccine misinformation in the community

Health Care Providers and Organizations:

- Address parent/caregiver concerns and fears
- Implement client reminder/recall systems and standing orders

Businesses and Employers:

- Provide incentives for employees and their families who complete recommended vaccines
- Adopt vaccination policies and offer work site vaccination clinics

Government:

- Support vaccination requirements for childcare, school, and college attendance
- Expand free or low-cost access to vaccines for uninsured or underinsured adults

Community and Faith-Based Organizations:

- Address vaccine misinformation in the community
- Encourage members to complete the recommended vaccines for themselves and their families

WIN Strategies to Improve HPV Vaccination Rates

Take Your Best Shot:

- Implementation of evidence-based strategies to improve immunization rates for adolescent vaccines not required for school.

Communication Materials:

- *Faces of Vaccine-Preventable Diseases* videos: Cervical Cancer and Oropharyngeal Cancer
- *1-2-3 Pap* video in partnership with the University of Kentucky Rural Cancer Prevention Center
- Oral HPV brochure
- 2021-2023 HPV vaccination campaign

Training Opportunities:

- *You Are the Key*
- HPV Trainings for Dental Provider
- National speakers for WV Immunization Summit and WV partner conferences
- HPV vaccination webinars
- Motivational Interviewing trainings to improve HPV vaccination rates.

West Virginia HPV Key Partnerships



West Virginia Immunization Network works to increase HPV Vaccination rates through partnership with:

- ***WV Division of Immunization Services***
- ***WV Chapter of AAP***
- ***WV State Medical Association***
- ***Association of Local Health Departments***
- ***WV Primary Care Association***
- ***American Cancer Society***
- ***Mountains of Hope Cancer Coalition***
- ***WV Oral Health Program***
- ***WV Oral Health Coalition***

... and many others.

Accomplishments: HPV Vaccination Training Opportunities for Dental Providers



- To date 302 WV dentists, dental hygienists, and dental assistants have been trained at 5 regional trainings conducted throughout WV.
- Additional trainings also offered at State Dental Assoc. Conference.
- In a follow-up survey a year after the regional trainings:
 - 87% of the oral health providers reported that they recommend HPV vaccination to their adolescent and young adult patients for cancer prevention.
- Some dental providers at FQHCs have reported that they ask about HPV vaccination status and refer unvaccinated patients to other area of FQHC for vaccination following their dental appointment.

WV Immunization Network HPV Projects:



- **Conducted 2021-2022 WV Rural HPV Vaccination Campaign (AAP):**
- **Conducted qualitative and quantitative data collection (in partnership with WVU Public Interest Communication Research Lab) to determine HPV vaccine-relevant knowledge, perceptions, attitudes, and behaviors as well as trusted and preferred information sources.**
 - **Survey of 116 parents/caregivers of children ages 5-17 residing in rural WV counties.**
 - **11 in-depth interviews with rural county residents: rural parents/guardians and caregivers, and a rural pediatric medical professional.**
 - **Focus group for concept testing materials.**

AAP Rural HPV Vaccination Project



- Themes Related to HPV Vaccination Intention:
 - **The more severe parents/guardians think outcomes are (or more knowledgeable they are about the specific possible disease outcomes), the more likely they are to intend to vaccinate their children.**
 - **Parents with experience of HPV or any STI are more likely to intend to vaccinate their children, as are those who have somebody close to them who experienced negative health outcomes from HPV or STI.**
 - **Vague familiarity with HPV, what HPV vaccine does.**
 - **Little to no knowledge about negative health outcomes associated with HPV.**
 - **Perception the vaccine is only for females.**

HPV Vaccination Communication Materials

- Convey safety and benefit of HPV vaccination, especially benefit to males.
- Communicate effectiveness of HPV vaccination.
- Convey healthcare provider recommendation.
- Communicate vaccination recommendation for ages 9+
- Emphasize “HPV Vaccination is Cancer Prevention”

HPV Vaccination: Protecting Preteens and Teens from Future Cancer

Human papillomavirus (HPV) can lead to certain types of cancers. Infections from HPV often do not have any immediate symptoms or warning signs. Here's why it's so important to get your preteen or teen vaccinated against HPV.

HPV vaccination is cancer prevention.

HPV causes almost all cervical cancer in women. The HPV vaccine is effective at preventing the types of HPV that can lead to cancer. Infections with HPV types that cause most HPV cancers have dropped 80% among teen girls since the HPV vaccine became available.

Anyone can get cancer from HPV infection.

HPV causes almost all cervical cancer in women. More than 4 out of every 10 cases of cancer caused by HPV occur among men.

Vaccinating preteens and teens against HPV now prevents cancer later.

The HPV Vaccine is Cancer Prevention

For more information about HPV vaccination, talk to a health care provider.

The HPV Vaccine is Cancer Prevention

For more information about HPV vaccination, talk to a health care provider.

The HPV Vaccine is Cancer Prevention

For more information about HPV vaccination, talk to a health care provider.

West Virginia Immunization Network
A PARTNER OF The Center for Rural Health Development

This project is in partnership with the WV Association of Local Health Departments, the WV Division of Immunization Services, the WV Chapter of the American Academy of Pediatrics, the WV Primary Care Association, the WV State Medical Association and the WV Immunization Network.
wvruralhealth.org/hpv

HPV Vaccination Remaining Challenges:

- **Mis/disinformation about HPV vaccine and vaccines in general;**
- **Vaccine fatigue;**
- **Distrust in public health; and**
- **Access to vaccines.**

HPV Vaccination Opportunities:

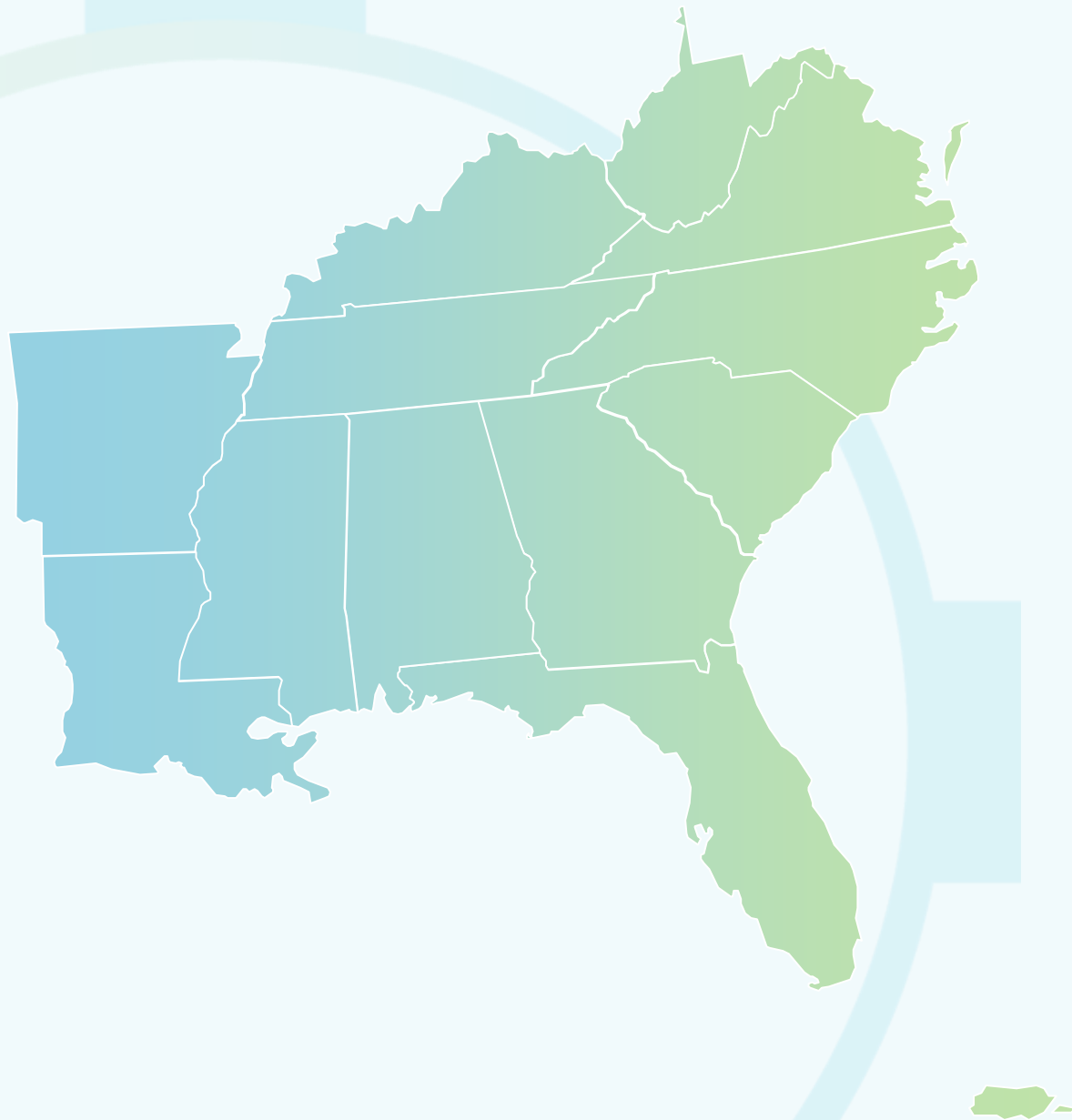
- **Continued communication campaign.**
- **Integration with Back-to-School messaging.**
- **Codification of Prep Act: IZs administered in pharmacies.**
- **Expanded recommendation to 9+.**

An aerial photograph of a town nestled in a valley. A wide river flows through the left side of the town. The town is densely packed with buildings, mostly brick and multi-story. A road with a stop sign is visible in the center. The surrounding hills are covered in lush green trees. In the top right corner, there is a decorative graphic with diagonal stripes in green, blue, and red.

Questions?

Lindsay Barr, WIN Program Manager
Lindsay.barr@wvruralhealth.org

Elaine Darling, Senior Program Director
Elaine.darling@wvruralhealth.org



Questions & Answers

Please use the chat to ask questions – or raise hand function to come off mute and ask directly.



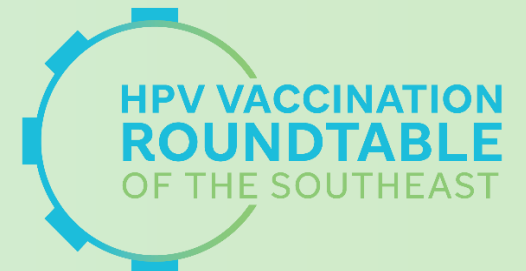
Moderated Discussion

Heather M. Brandt, PhD
St. Jude Children's
Research Hospital



Join in the conversation:

- Go to www.menti.com and use the code 6505 1719
- Go to <https://www.menti.com/alizfst661ig>
- Scan the QR code with your camera phone



Discussion

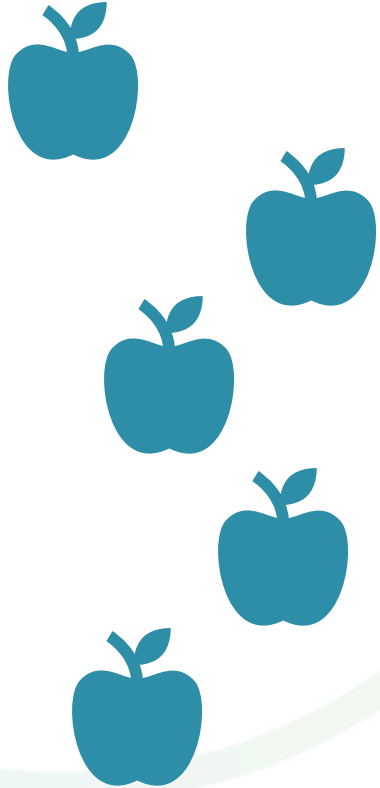
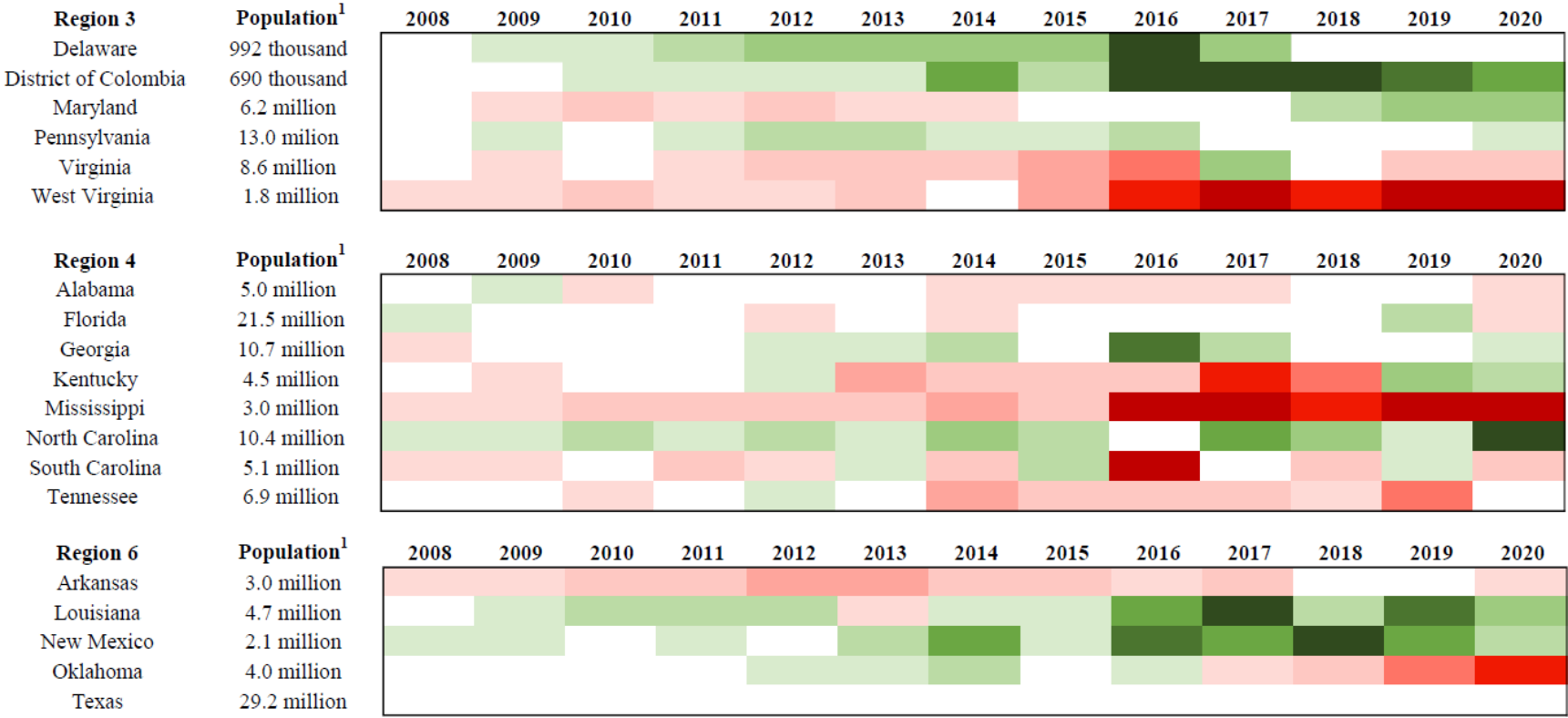
- High HPV disease burden; Low HPV vaccination coverage in the southeastern U.S.

Summary			
	HPV-Associated Incidence	Specific Cancer Incidence	HPV Vaccination
SE states and PR	12 out of 13 in 20 worst (esp. KY, WV, AR, FL, LA) VA among best	Male Oropharyngeal: 10 out of 13 SE states/PR in 20 worst (esp. FL, AR, WV, KY, TN) VA close to average; PR among best Female Cervical: 11 out of 13 SE states/PR in 20 worst (esp. PR, KY, WV, AR, MS) NC close to average; VA among best	7 out of 13 SE states/PR in 20 worst (MS stable low, FL getting worse) VA and LA close to average; NC and PR among 20 best
Race/ethnicity	Worst for White M and F	Female Cervical: Worse for Hispanic, Black and Amer Indian/AN Other: Disparities for anal (Black M), penile (Hispanic M), vaginal (Black F)	US: Black, Asian, Amer Indian/AN better than White Individual SE states: Hispanic and Black are equal to or higher than White
Rural/urban	Worse for rural vs urban	Worse for rural vs urban: all except for anal cancer	Worse for rural and suburban vs urban (esp. for above poverty)
Insurance	---	---	5 SE states with Medicaid expansion US: Lower for uninsured Individual SE states: Medicaid similar or higher than private insurance

From presentation by Dr. Pam Hull, February 27, 2023

Discussion

- "How can we monitor trends and understand geographic variability?" - Dr. Bednarczyk



Discussion

- State updates:
 - Collaboration and engagement are key ingredients.
 - It takes time... it could take a long time.
 - Progress is possible.
- State challenges:
 - Misinformation is pervasive.
 - Access challenges persist.
 - Pandemic.
- State opportunities:
 - Capitalizing on back-to-school period.
 - Promoting HPV vaccination starting at age 9.
 - Medicaid expansion.





Action Steps

Jennifer Nkonga, MS, American Cancer Society

Gabrielle Darville-Sanders, PhD, National HPV Vaccination Roundtable

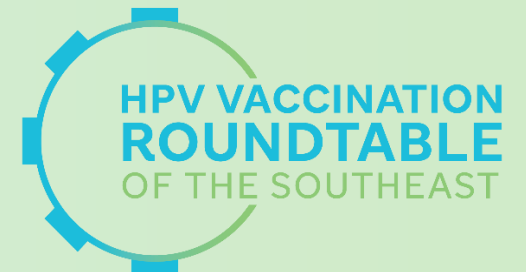


Action Steps

- What are the priority action steps needed to improve HPV vaccination coverage in the southeast?
- What resources are needed to support these actions?
- Who else needs to be involved?

Join in the conversation:

- Go to www.menti.com and use the code 6505 1719
- Go to <https://www.menti.com/alizfst661ig>
- Scan the QR code with your camera phone





Closing Remarks and Evaluation

Duha Magzoub, MPH
**St. Jude Children's
Research Hospital**

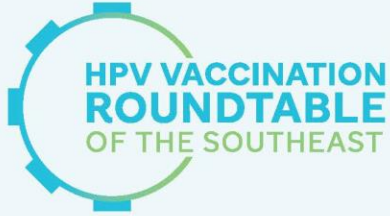


Thank you for joining us!

- Please take a few moments to complete the evaluation for today's event. The link is available in the chat. You also can scan the QR code to access the evaluation or use the vanity URL.
- **LINK:** https://stjudepreventhpv.quattrics.com/jfe/form/SV_6M5OUo_dPaf1gaea



Scan to access the evaluation
for today's meeting



Join us for an introductory series of three virtual meetings to reconvene southeastern states and improve HPV vaccination coverage.

Beginning in September 2022, select representatives of **southeastern states** (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia) and Puerto Rico—where the rate of HPV vaccination coverage has historically been the lowest—united with **St. Jude Children's Research Hospital**, the **American Cancer Society**, and the **National HPV Vaccination Roundtable** to discuss improving HPV vaccination in these regions.

Building on the National HPV Vaccination Roundtable's efforts, the newly formed **HPV Vaccination Roundtable of the Southeast** creates a platform for idea sharing and strategic action planning. This meeting series will explore how to prevent HPV cancers in this region for years to come.

By coming together, we can discuss:

- Current conditions surrounding HPV vaccination and HPV cancer prevention;
- Replicating HPV vaccination success stories across the Southeast;
- Overcoming challenges facing HPV vaccination; and
- Opportunities to improve HPV vaccination coverage in each state and the whole region.

Register for the VIRTUAL meetings to learn more and get involved.

MARCH 30

10 a.m.-Noon ET
9-11 a.m. CT (virtual)

REGISTER

APRIL 27

10 a.m.-Noon ET
9-11 a.m. CT (virtual)

REGISTER

MAY 25

10 a.m.-Noon ET
9-11 a.m. CT (virtual)

REGISTER

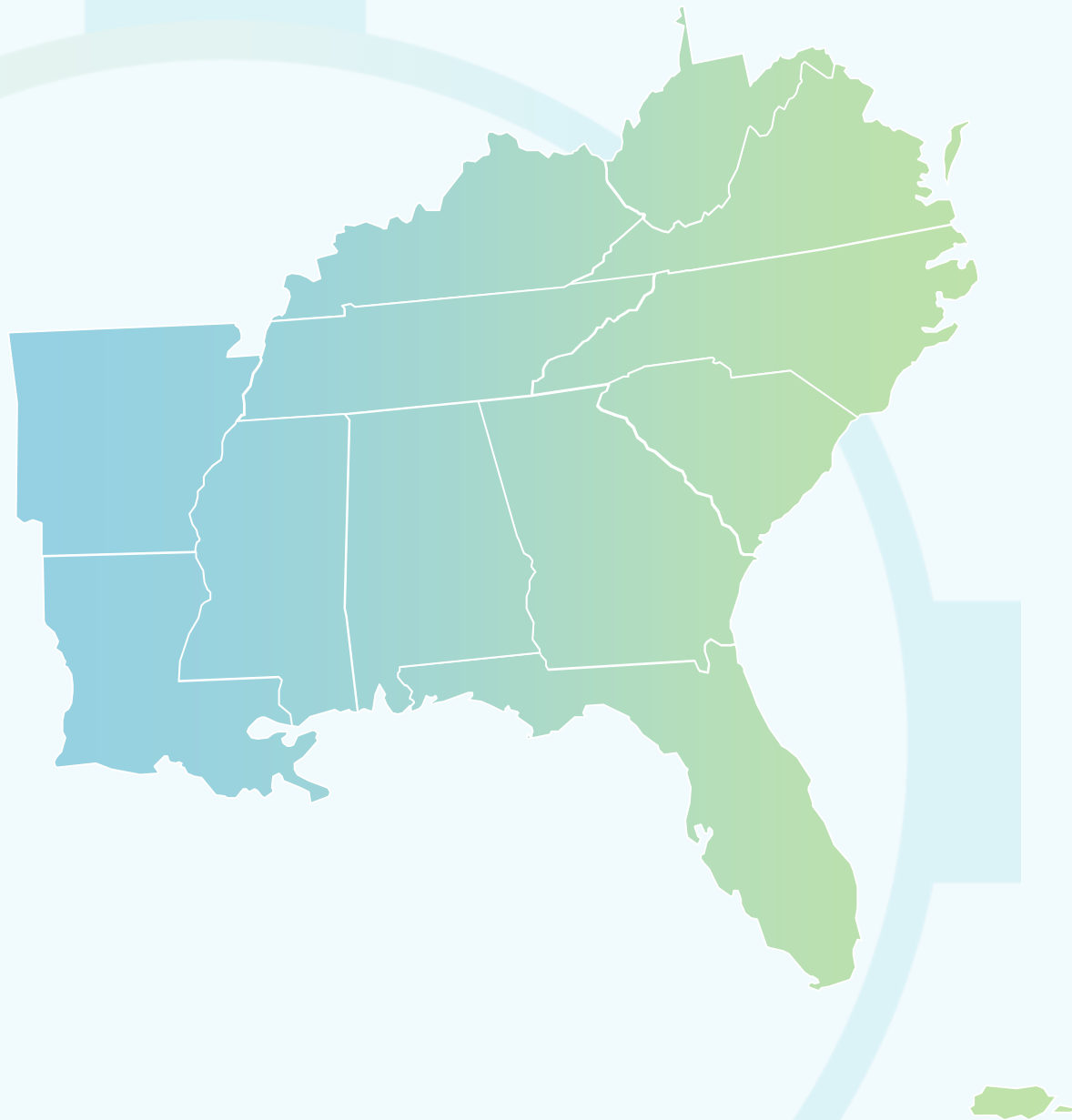
We will provide an agenda and supplemental materials in advance of each meeting. These meetings are open to anyone interested and will be recorded for anyone unable to attend.

Email PreventHPV@stjude.org with questions

Join us at our next meetings:

April 27: State updates from AL, AR, LA, VA

May 25: State updates from FL, GA, KY, NC, PR



Thank you!