




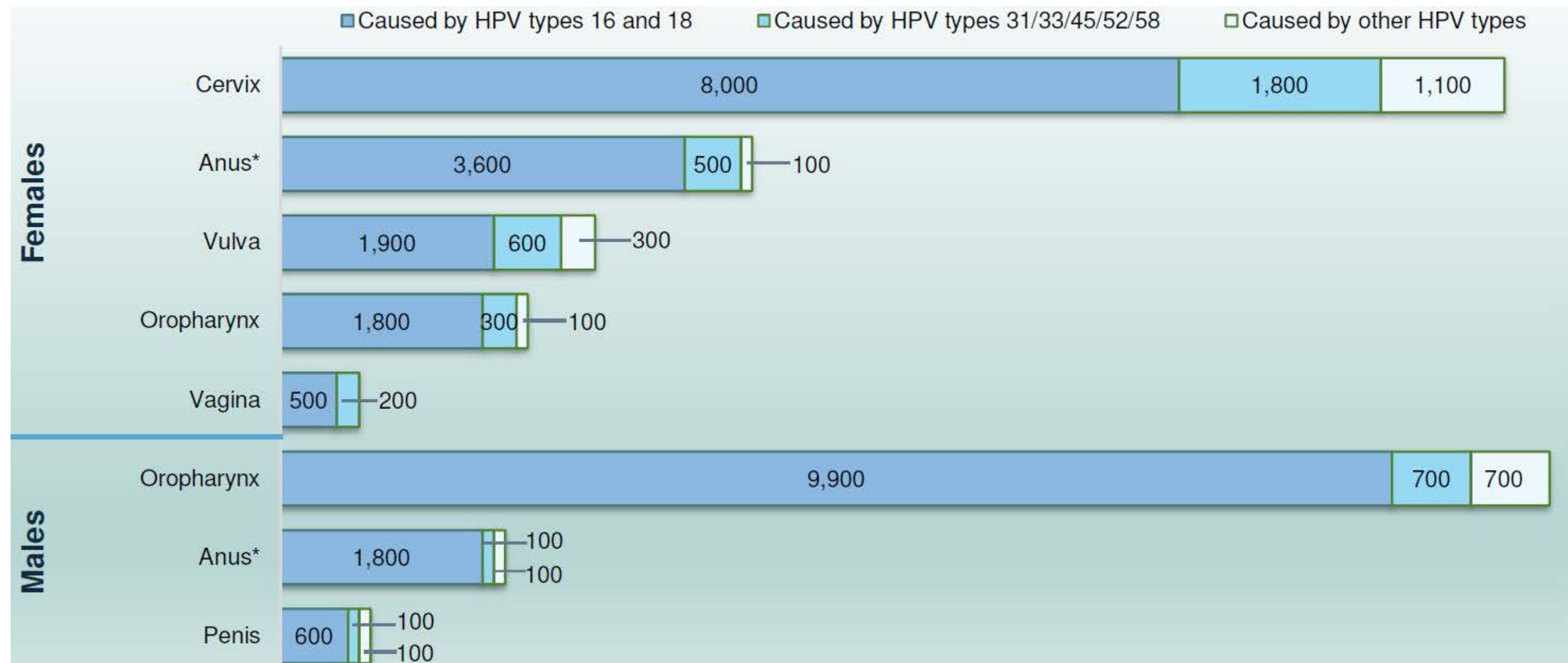
# Improving HPV Vaccination Coverage in the United States

Alabama Adolescent Vaccine Task Force  
Birmingham, Alabama  
October 22, 2019

In the U.S., 32,100 cancers a year are caused by the types of HPV in our current 9-valent vaccine.

A decorative horizontal bar at the bottom of the slide, composed of several colored rectangular segments: a long grey segment on the left, followed by purple, olive green, maroon, yellow, and blue segments on the right.

# Estimated Number of Cancer Cases Attributable to HPV by Sex, Cancer Type, and HPV Type, United States, 2012-2016



# HPV-Associated Cancer Rates by State, United States, 2012-2016



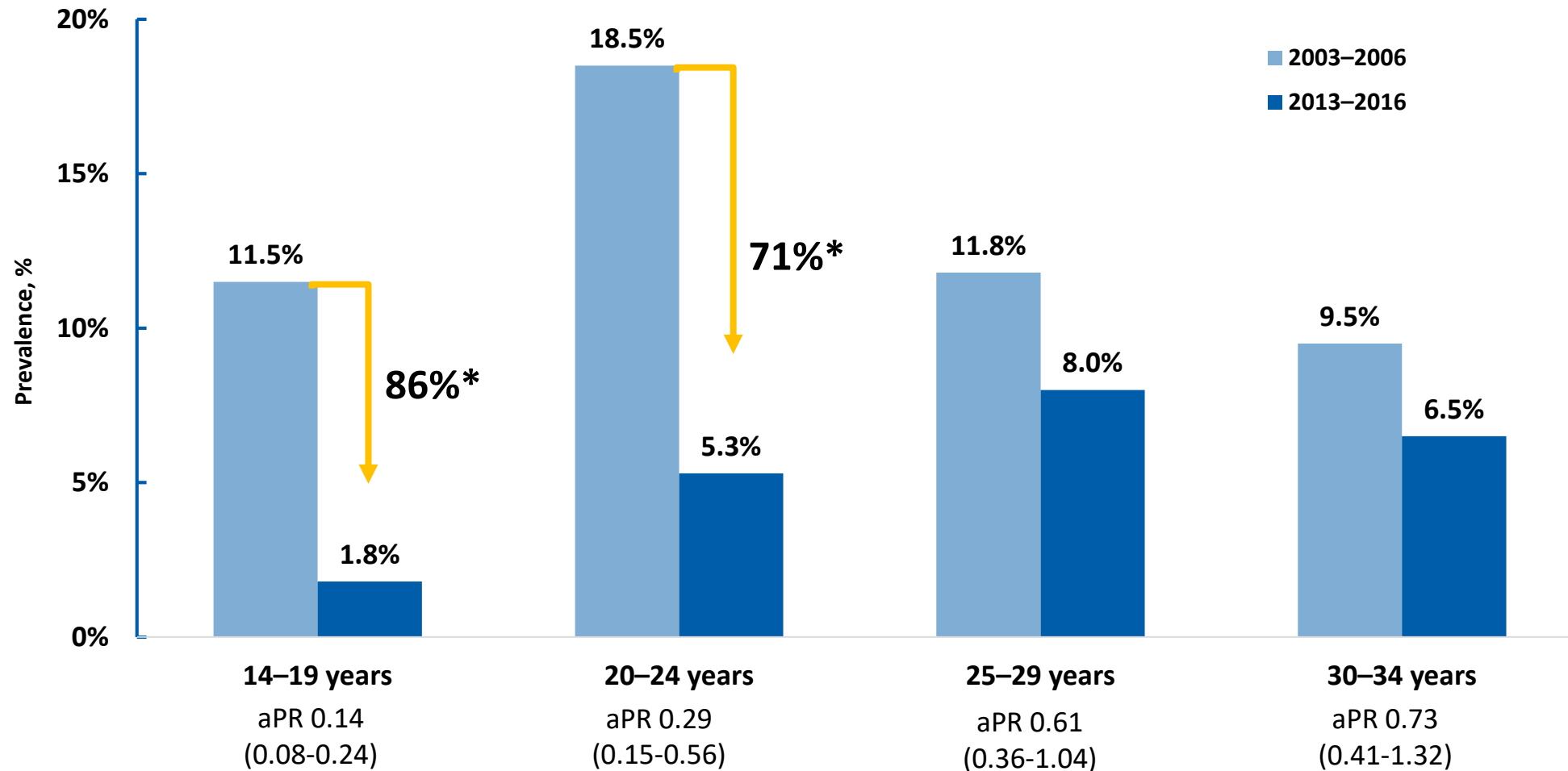
Rates per 100,000 population  
<https://www.cdc.gov/cancer/hpv/statistics/state/>

HPV vaccine is safe and effective.

# Initial Post-Licensure Monitoring of 9vHPV

- From December 2014 through December 2017, enhanced safety monitoring in VAERS found no unexpected or new safety concerns
  - Approximately 29 million doses distributed in the United States during this time
    - 7,244 total reports received in VAERS
    - 186 (3%) serious reports
    - Dizziness, syncope, headache were most frequently reported
  - Safety profile consistent with data from 9vHPV pre-licensure clinical trials and similar to post-licensure safety data from 4vHPV monitoring in VAERS
- Between October 4, 2015-October 3, 2017, the Vaccine Safety Datalink conducted weekly sequential monitoring among persons aged 9-26 who received 9vHPV
  - Approximately 900,000 doses administered and no concerning safety signals detected among pre-specified outcome monitored, which included:
    - GBS, appendicitis, injection site reaction, anaphylaxis, stroke, syncope, venous thromboembolism, allergic reaction, chronic inflammatory demyelinating polyneuropathy, pancreatitis, seizures

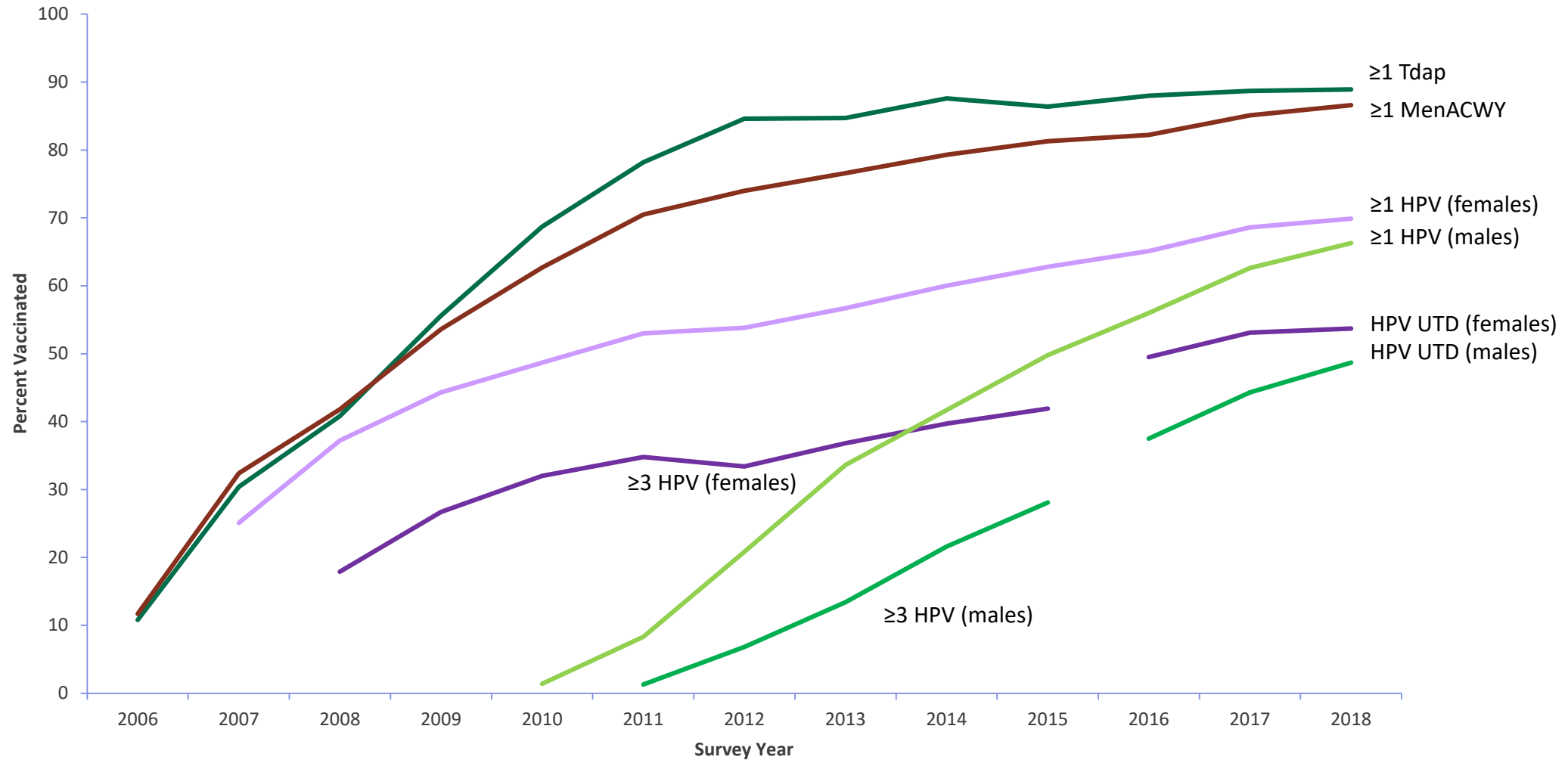
# Prevalence of Vaccine-type HPV (HPV 6,11,16,18) in Females, 2013-2016 Compared to Pre-vaccine Era



Although HPV vaccine coverage among adolescents has increased, it's still not where we need it to be.



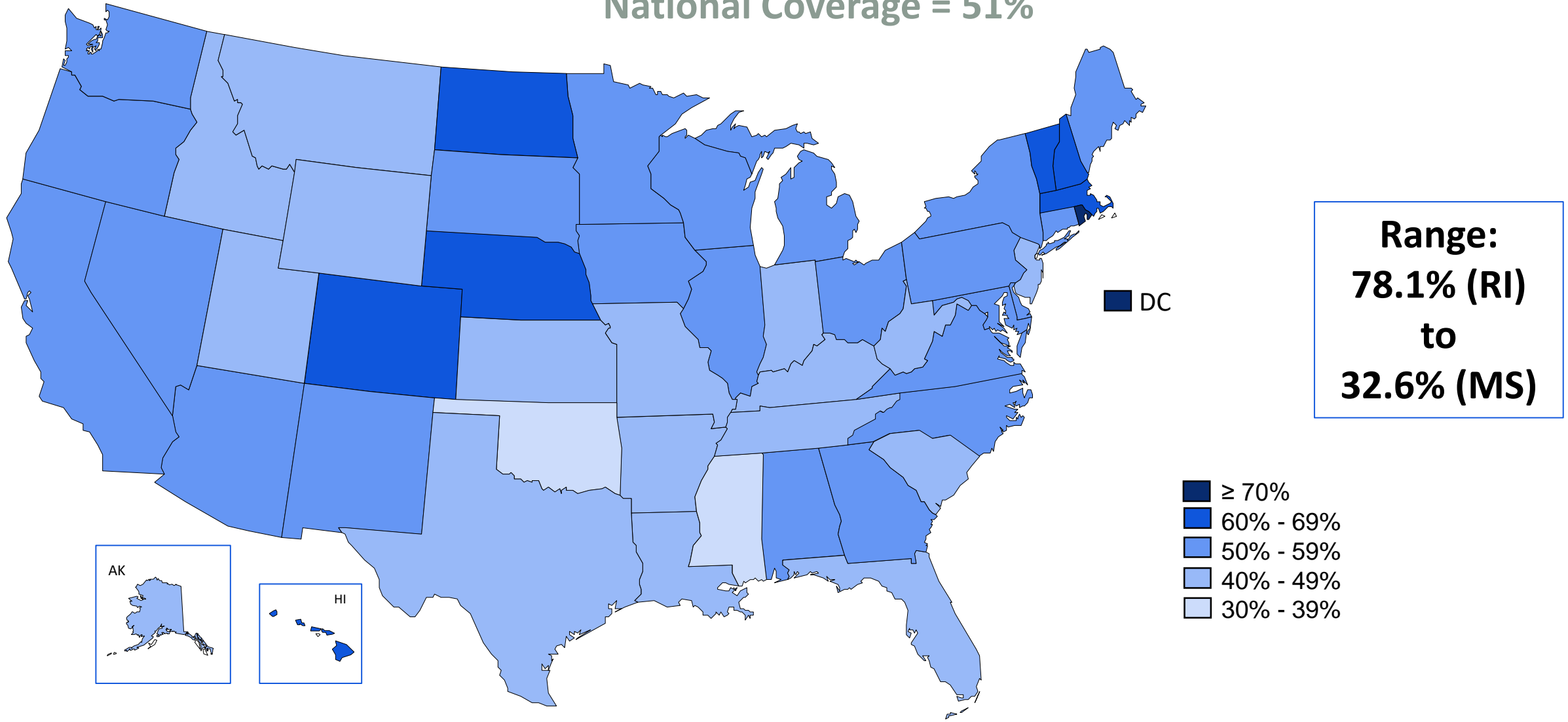
# Estimated Vaccination Coverage among Adolescents Aged 13-17 Years, National Immunization Survey-Teen, United States, 2006-2018



Walker et al., MMWR 2019. UTD: up-to-date. Revised definition of adequate provider data in 2013.

# Estimated Up-to-Date HPV Vaccination Coverage among Adolescents, 2018

National Coverage = 51%



The provider recommendation for HPV vaccination  
really matters.

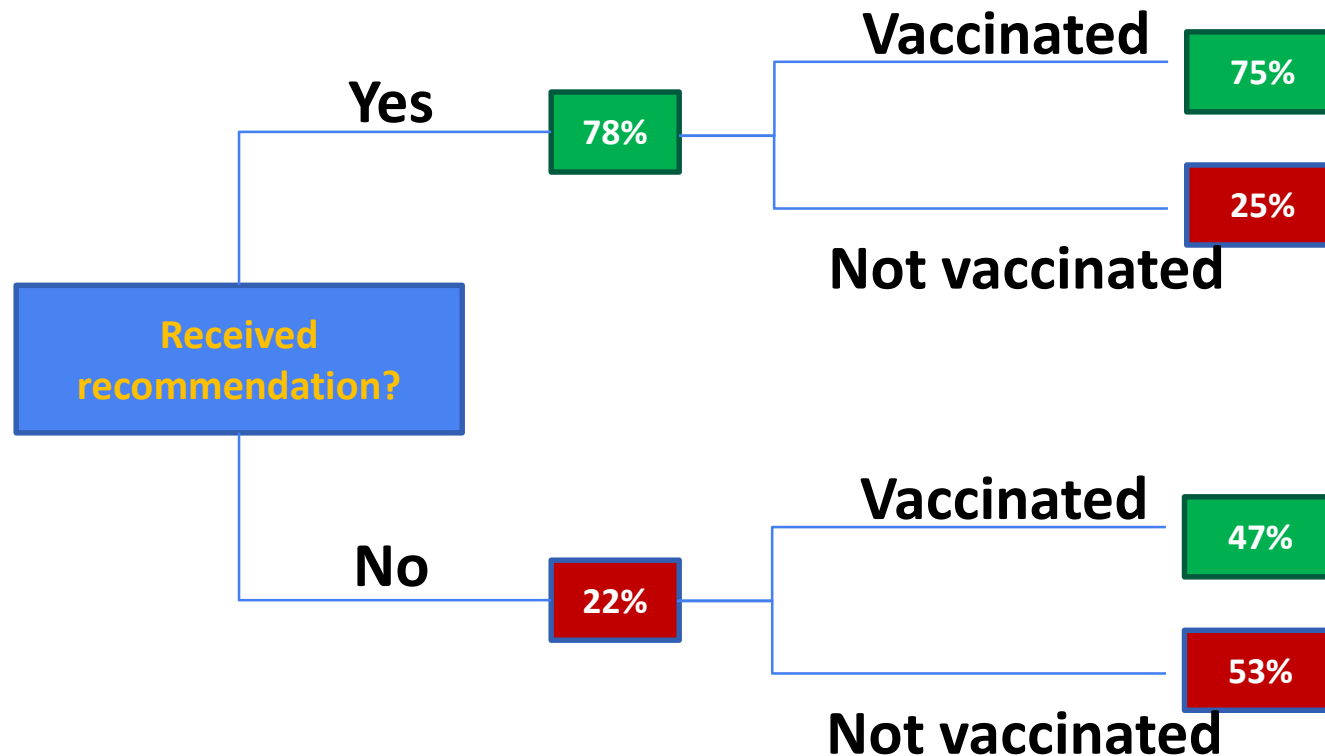
A decorative horizontal bar at the bottom of the slide, composed of several colored rectangular segments: a wide grey segment on the left, followed by purple, olive green, maroon, yellow, and blue segments on the right.

“

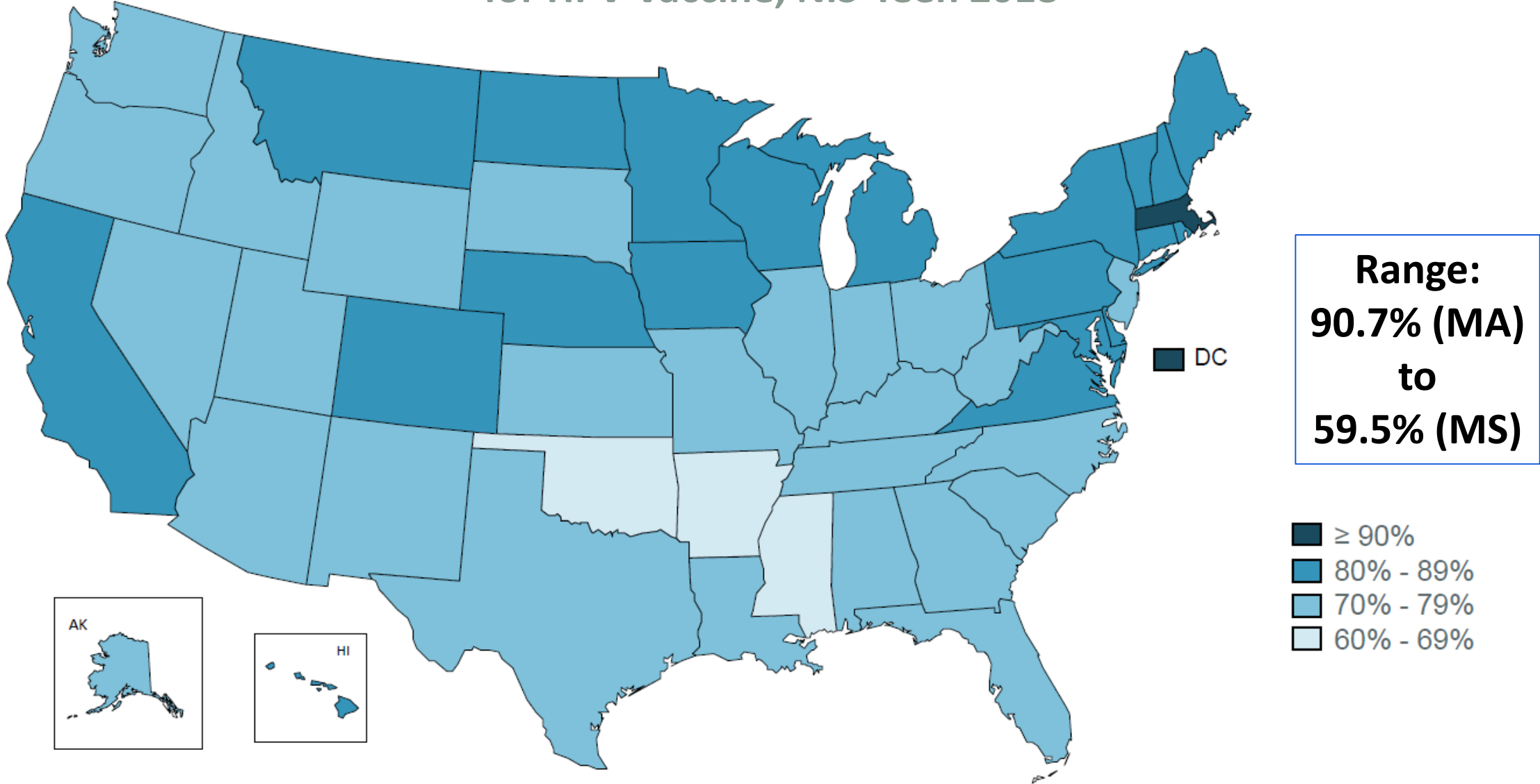
Now that Sophia is 11, she is due for vaccinations today to help protect her from meningitis, HPV cancers, and pertussis.

”

# HPV Vaccination Initiation Coverage by Provider Recommendation, National Immunization Survey-Teen, 2018



# Percentage of Parents who Reported Receiving a Provider Recommendation for HPV Vaccine, NIS-Teen 2018



Parents who were missing a response, refused to respond, or responded, “don’t know” (n=1,448) were not included in the estimates.  
<https://stacks.cdc.gov/view/cdc/80682>

The systems and workflow that support vaccine delivery in the clinic matter too.

## What can healthcare providers do?

- Make an effective recommendation for HPV vaccination as cancer prevention for every 11- or 12-year-old patient
- Assess HPV vaccine coverage for each provider in your practice and develop an office-wide strategy to improve it
- Engage the entire practice – not just the healthcare providers – in committing to improve HPV vaccine coverage
- Implement systems strategies to improve HPV vaccine coverage



# Systems Strategies to Improve HPV Vaccine Coverage

- Establish standing orders for HPV vaccination beginning at age 11-12 years in your practice
- Conduct reminder/recall beginning at 11-12 years of age
- Assess HPV vaccine coverage at every visit and prompt clinical staff to give HPV vaccine at that visit
- Schedule return visit for next dose before the patient leaves the office
- Document each dose in the child's medical record and the state's immunization information system

Providers need to be prepared to answer  
parents' questions.

## Reasons for Not Vaccinating Adolescents with HPV Vaccine, Unvaccinated Adolescents\* Aged 13-17 Years, NIS-Teen, United States, 2018

| Parents of Girls             |     | Parents of Boys              |     |
|------------------------------|-----|------------------------------|-----|
| Safety concerns/side effects | 30% | Safety concerns/side effects | 22% |
| Not needed/not necessary     | 16% | Not needed/not necessary     | 16% |
| Not sexually active          | 12% | Not recommended              | 11% |
| Not recommended              | 7%  | Lack of knowledge            | 8%  |
| Lack of knowledge            | 4%  | Not sexually active          | 7%  |

# Talking to Parents about HPV Vaccine



**HPV VACCINE**  
IS CANCER PREVENTION

Recommend HPV vaccination in the **same way** and on the **same day** as all adolescent vaccines. You can say, "Now that your son is 11, he is due for vaccinations today to help protect him from meningitis, HPV cancers, and whooping cough. Do you have any questions?" Taking the time to listen and understand parents' concerns can help you respond to their concerns more effectively.

Why does my child need HPV vaccine?

HPV vaccine is important because it prevents infections that can cause cancer. That's why we need to start the shot series today.

Some HPV infections can cause cancer—like cancer of the cervix or in the back of the throat—but we can protect your child from these cancers in the future by getting the first HPV shot today.

What diseases are caused by HPV?

How do you know the vaccine works?

Studies continue to prove HPV vaccination works extremely well, decreasing the number of infections and HPV precancers in young people since it has been available.

HPV is a very common infection in women and men that can cause cancer. Starting the vaccine series today will help protect your child from the cancers and diseases caused by HPV.

Is my child really at risk for HPV?

Why do they need HPV vaccine at such a young age?

Vaccines protect your child before they are exposed to a disease. That's why we give the HPV vaccine earlier rather than later, to protect them long before they are ever exposed. Also, if your child gets the shot now, they will only need two doses. If you wait until your child is older, they may end up needing three shots.

Studies tell us that getting HPV vaccine doesn't make kids more likely to start having sex. I made sure my child (or grandchild, etc.) got HPV vaccine, and I recommend we give your child her first HPV shot today.

I'm worried my child will think that getting this vaccine makes it OK to have sex.

Why do boys need the HPV vaccine?

HPV vaccination can help prevent future infections that can lead to cancers of the penis, anus, and back of the throat in men.

Yes, HPV vaccination is very safe. Like any medication, vaccines can cause side effects, including pain, swelling, or redness where the shot was given. That's normal for HPV vaccine too and should go away in a day or two. Sometimes I faint after they get shots and they could be injured if they faint from fainting. We'll have you child stay seated after the shot to help protect him/her.

I'm worried about the safety of HPV vaccine. Do you think it's safe?

Are all of these vaccines actually required?

I strongly recommend each of these vaccines and so do experts at the CDC and major medical organizations. School entry requirements are developed for public health and safety, but don't always reflect the most current medical recommendations for your child's health.

There is no evidence available to suggest that getting HPV vaccine will have an effect on future fertility. However, women who develop an HPV precancer or cancer could require treatment that would limit their ability to have children.

PH000190

C22894338

Last updated JULY 2019

For more information, visit  
[cdc.gov/vaccines/conversations](https://www.cdc.gov/vaccines/conversations)

Answering parents' questions

<https://www.cdc.gov/hpv/hcp/answering-questions.html>

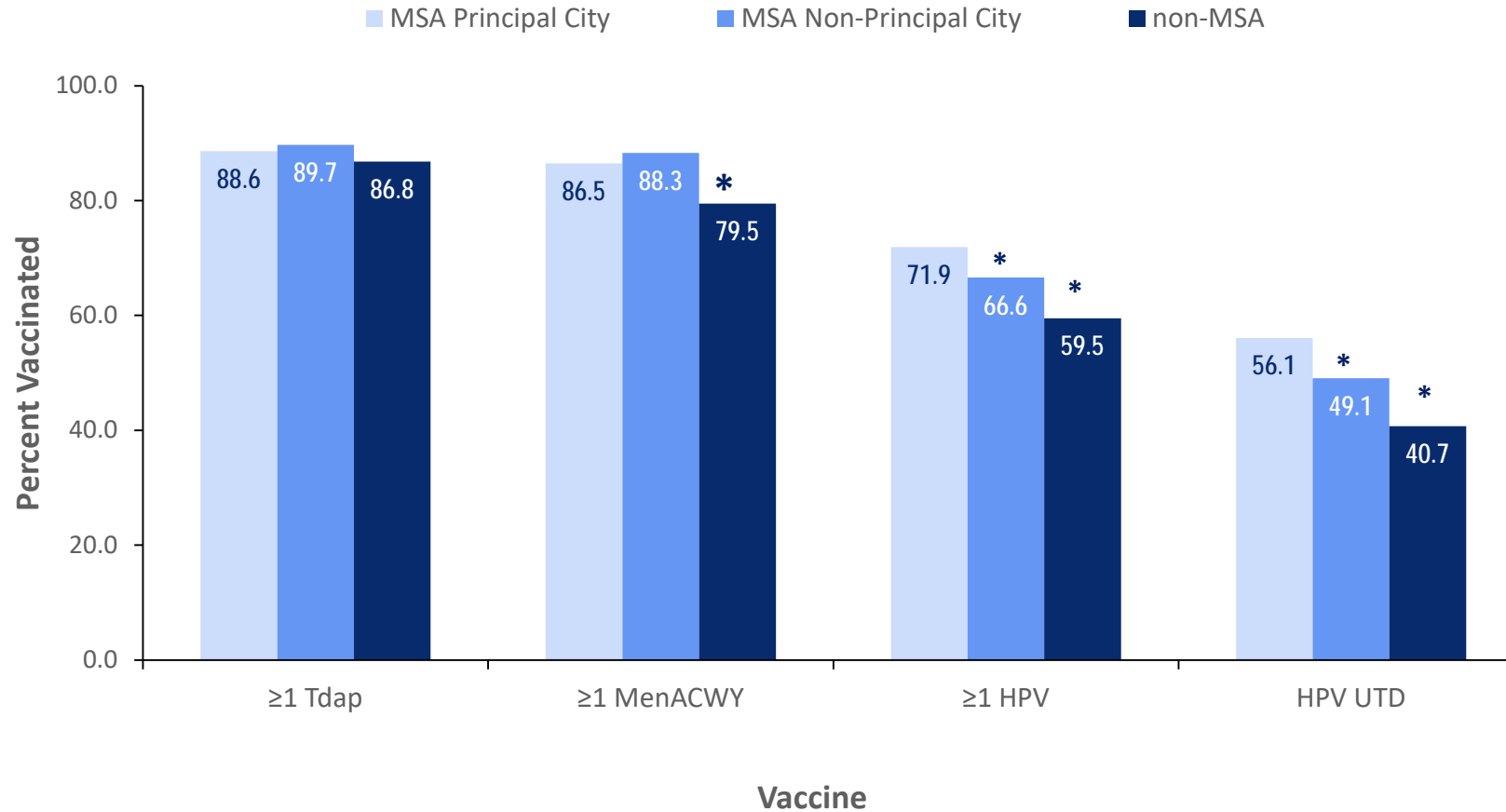
Frequently asked questions about HPV vaccine safety

<https://www.cdc.gov/vaccinesafety/vaccines/hpv/hpv-safety-faqs.html>

# Frequently Asked Questions about HPV Vaccine Safety

Rural areas need special attention.

# Vaccination Coverage Estimates among Adolescents Aged 13-17 Years by MSA status, NIS-Teen, United States, 2018



MSA = Metropolitan statistical area

\* Statistically different from adolescents living in MSA principal cities ( $p < 0.05$ ).

# What does this mean for our work today?

- **CDC has been encouraging development of state-level coalitions to support HPV vaccination, but meetings don't get anyone vaccinated – the key is effective action**
  - Effective provider recommendation
  - Implementing clinic- and health system-level strategies to improve immunization coverage
  - Equipping providers to address parents' questions and concerns
  - Addressing disparities in rural areas – which means access, in addition to all of the above
- **The question for today: *What can you and your organization do that will make a difference?***

# Thank you

[www.cdc.gov/vaccines](http://www.cdc.gov/vaccines)

[www.cdc.gov/hpv](http://www.cdc.gov/hpv)

[www.cdc.gov/vaccinesafety](http://www.cdc.gov/vaccinesafety)

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

