

Cervical Cancer in Arkansas 2025 Data Update

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Disclaimer



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The views expressed in this presentation are those of the presenter and do not necessarily represent the official views of the Arkansas Department of Health, the CDC, or the US Department of Health and Human Services.

Purpose & Objectives



Purpose:

- To disseminate and communicate the latest available surveillance data for cervical cancer in the state of Arkansas.

Objectives:

- Describe screening recommendations and risk factors for cervical cancer.
- Analyze state-specific rates and trends for cervical cancer.
- Describe Human Papillomavirus (HPV)-cervical cancer progression and HPV vaccination rates in Arkansas.

Cervical Cancer Screening Guidelines

WHAT IS IT?

Cervical cancer screening may include Pap tests, testing for a virus called human papillomavirus (HPV), or both. In both tests, cells are taken from the cervix and sent to a lab for testing:

- A Pap test looks for abnormal cells.
- An HPV test looks for infection with the types of HPV that are linked to cervical cancer.

FOLLOW THESE GUIDELINES:

If you are younger than 21

You do not need screening.

If you are 21 to 29

Have a **Pap test alone every 3 years**. HPV testing alone can be considered for women who are 25 to 29, but Pap tests are preferred.

If you are 30 to 65

You can **choose one of three options:**

- Have a Pap test and an HPV test (co-testing) every 5 years
- Have a Pap test alone every 3 years
- Have an HPV test alone every 5 years

If you are 65 or older

You do not need screening if you have no history of cervical changes and either three negative Pap test results in a row, two negative HPV tests in a row, or two negative co-test results in a row within the past 10 years. The most recent test should have been performed within the past 3 or 5 years, depending on the type of test.

REMEMBER!

- You still need to have screening if you have been vaccinated against HPV.
- You may still need to have screening if you have had a hysterectomy and your cervix was not removed.

EXCEPTIONS TO THESE GUIDELINES:

If any of these apply to you:

- You have human immunodeficiency virus (HIV).
- You have a weakened immune system.
- You have a history of cervical cancer.
- You were exposed to diethylstilbestrol before birth.

You may need **more frequent screening**.

If you have had a hysterectomy in which your cervix was removed and...

- you have a history of cervical cancer or moderate to severe cervical changes
- you have no history of cervical cancer or cervical changes

- **Continue to have screening** for 20 years after your surgery.

- **You do not need screening.**



SEE YOUR OB-GYN REGULARLY FOR A ROUTINE VISIT.

Even if you are not due for cervical cancer screening, you should still see your ob-gyn regularly for birth control counseling, vaccinations, health screenings, prepregnancy care, and the latest information about your reproductive health.

Cervical Cancer Risk Factors



Cannot be modified:

1. **“Diethylstilbestrol (DES) Daughters”** (40x more likely to develop a rare cancer called clear cell adenocarcinoma of the vagina and cervix)
2. **Family history of cervical cancer** (mother and/or sister)

Can be modified:

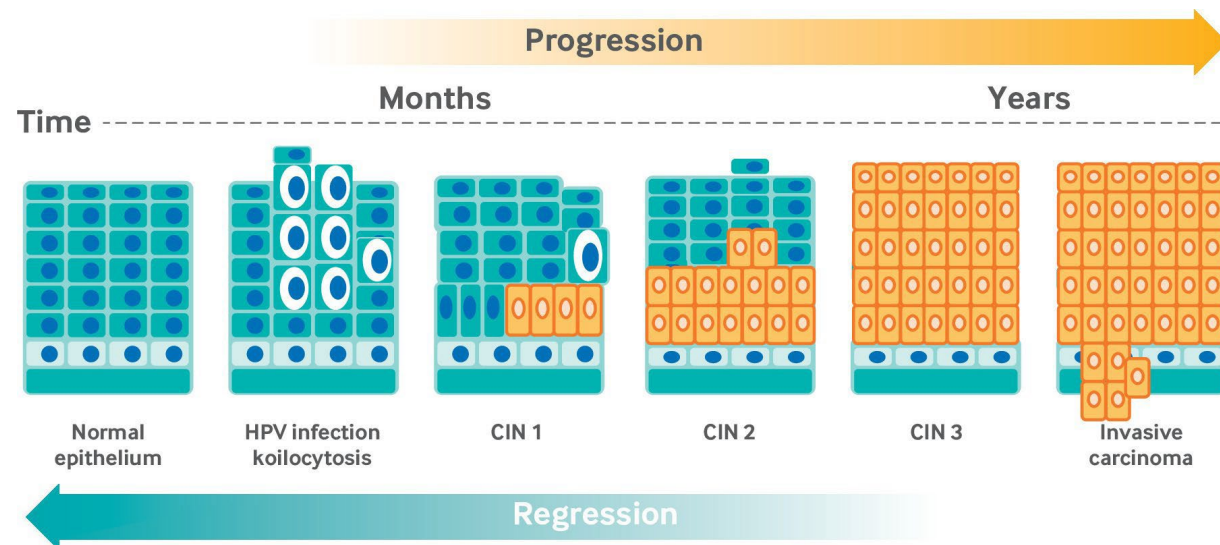
3. **Long-term use of oral contraceptives (OCs)** (ceasing use can decrease risk)
4. **Young age at 1st full-term pregnancy** (<20 years old)
5. **Smoking** (damages DNA of cervix cells)
6. **Chlamydia** (current or past infection)
7. **Multiple full-term pregnancies** (Females who have had 3 or more)
8. **Weakened immune system** (HIV, or drugs to treat autoimmune disease/organ transplant recipients)
9. **Economic status**: Limited access to care to cervical cancer screenings and cervical pre-cancer treatments
10. **Poor diet and nutrition** (low intake of fruits and vegetables *may* increase risk for cervical cancer)
11. **Human papillomavirus (HPV)** **Most common risk factor for cervical cancer (high-risk types, HPV16 and HPV18)**

■ HPV-associated cervical cancer risk factors

About HPV



- **HPV infection is common.** Nearly all sexually active people are infected with HPV within months to a few years of becoming sexually active. Around half of these infections are with a high-risk HPV type.
- **Most HPV infections go away on their own without causing cancer. Persistent high-risk HPV infections can cause cancer.** Sometimes HPV infections are not successfully controlled by your immune system. When a high-risk HPV infection (16*, 18*, 31, 33, 35, 39, 45, 51, 52, 56, 58, and 59) persists for many years, it can lead to cell changes that, if untreated, may get worse over time and become precancerous and then cancerous.



*HPV 16 and HPV 18 are responsible for most HPV-related cancers.

Sources:

<https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-and-cancer>

<https://www.bmj.com/content/379/bmj-2022-070115>

<https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-and-cancer>

About HPV (continued)



- **HPV can cause six types of cancer.** Based on a 2016 [CDC study](#) that used population-based data to genotype HPV types from cancer tissue, about **90% of cervical and anal cancers, 70% of oropharyngeal, vaginal, and vulvar cancers, and 60% of penile cancers** are attributable to HPV.
- **HPV vaccination can prevent cancer.** HPV vaccines can prevent infection with disease-causing HPV types, preventing many HPV-related cancers and cases of genital warts.

Reference: <https://pubmed.ncbi.nlm.nih.gov/27387669/>

About HPV (continued)



Number of HPV-Associated and Estimated Number of HPV-Attributable Cancer Cases per Year

Cancer site	Average number of cancers per year in sites where HPV is often found (HPV-associated cancers)	Percentage probably caused by any HPV type ^a	Estimated number probably caused by any HPV type ^a
Cervix	11,959	91%	10,800
Vagina	898	75%	700
Vulva	4,418	69%	3,000
Penis	1,381	63%	900
Anus ^b	7,854	91%	7,200
— Female	5,363	93%	5,000
— Male	2,491	89%	2,200
Oropharynx	21,474	70%	15,200
— Female	3,642	63%	2,300
— Male	17,832	72%	12,900
TOTAL	47,984	79%	37,800
— Female	26,280	84%	21,800
— Male	21,704	74%	16,000

^aHPV types detected in genotyping study; most were high-risk HPV types known to cause cancer (Saraiya M, et al. [U.S. assessment of HPV types in cancers: implications for current and 9-valent HPV vaccines](#). *J Natl Cancer Inst.* 2016;107:djv086. Estimates were rounded to the nearest 100. Estimated counts might not sum to total because of rounding.

^bIncludes anal and rectal squamous cell carcinomas.

Data are from population-based cancer registries participating in CDC's National Program of Cancer Registries (NPCR) and/or the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program for 2017 to 2021, covering 98% of the United States population.

Source: <https://www.cdc.gov/cancer/hpv/cases.html>

HPV Vaccine Facts



Why get vaccinated?

- Can prevent infection with some types of HPV.
- Can prevent over 90% of cancers caused by HPV. HPV infections can cause certain types of cancers, including,
 - **Cervical**, vaginal, and vulvar in females,
 - Penile cancer in males,
 - Anal cancers in females and males,
 - Oropharyngeal cancers (cancers of tonsils, base of tongue, and back of throat) in females and males.
- HPV infections are common; nearly all people will get at least one type of infection at some time in their lives.
- Most HPV infections go away on their own within 2 years. Sometimes HPV infections will last longer and can cause cancers later in life.

Recommendations

- HPV vaccine is routinely recommended for adolescents at 11 or 12 years of age to ensure they are protected before they are exposed to the virus.
- HPV vaccine may be given beginning at age 9 years and vaccination is recommended for everyone through 26 years of age.
- HPV vaccine may be given to adults 27 through 45 years of age, based on discussions between the patient and health care provider.
- Most children who get the first dose before 15 years of age need 2 doses of HPV vaccine. People who get the first dose at or after 15 years of age and younger people with certain immunocompromising conditions need 3 doses. Your health care provider can give you more information.
- HPV vaccine may be given at the same time as other vaccines.

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 kids faint after they get shots and they could be injured if they fall from fainting. We'll have your 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.	Can HPV vaccine cause infertility in my child?

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

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CS288453B
Last updated JULY 2019

Sources:

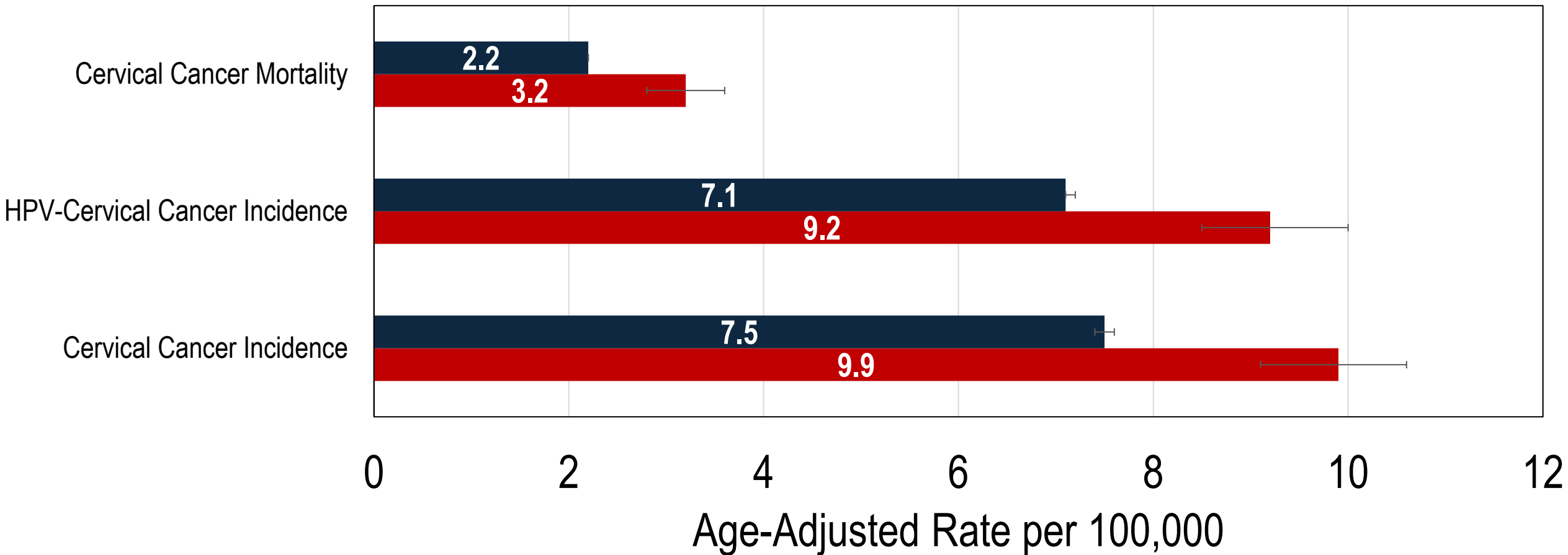
<https://www.cdc.gov/vaccines/hcp/vis/vis-statements/hpv.pdf>

https://www.cdc.gov/hpv/media/pdfs/2024/07/talking_to_parents_hpv.pdf?CDC_AAref_Val=https://www.cdc.gov/hpv/hcp/for-hcp-tipsheet-hpv.pdf

Comparison of cervical cancer incidence and mortality, US and Arkansas, 2018-2022



■ US ■ Arkansas



Sources:

-National Program of Cancer Registries and Surveillance, Epidemiology and End Results Program SEER*Stat Database: NPCR and SEER Incidence - U.S. Cancer Statistics Public Use Research Database, 2024 Submission (2001-2022). United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute. Released June 2025. Accessed at www.cdc.gov/cancer/uscs/public-use.

-Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Mortality - All COD, Aggregated With State, Total U.S. (1990-2022) <Katrina/Rita Population Adjustment>, National Cancer Institute, DCCPS, Surveillance Research Program, released April 2024. Underlying mortality data provided by NCHS (www.cdc.gov/nchs).

Data Update Section I: Cervical Cancer Incidence

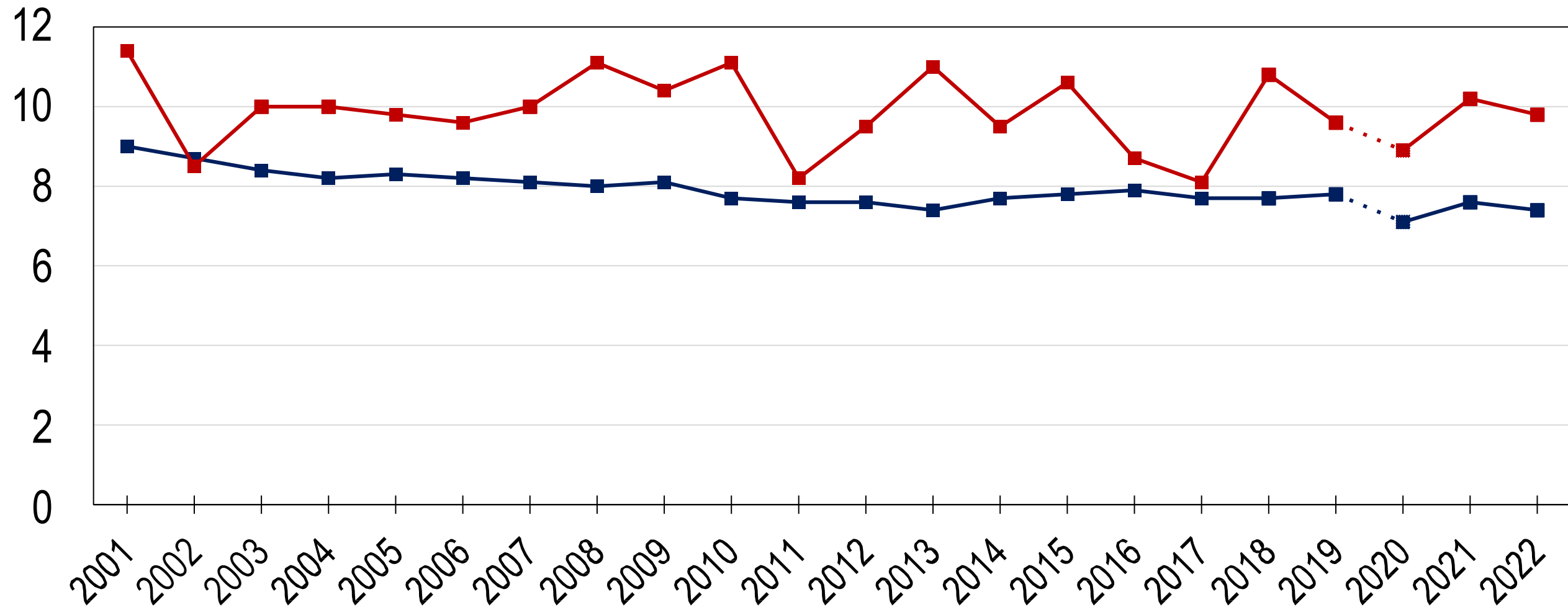
Cancer data based on 2023 Data Submission



Cervical Cancer Age-Adjusted Incidence Trend Rate, US and Arkansas, 2001 – 2022



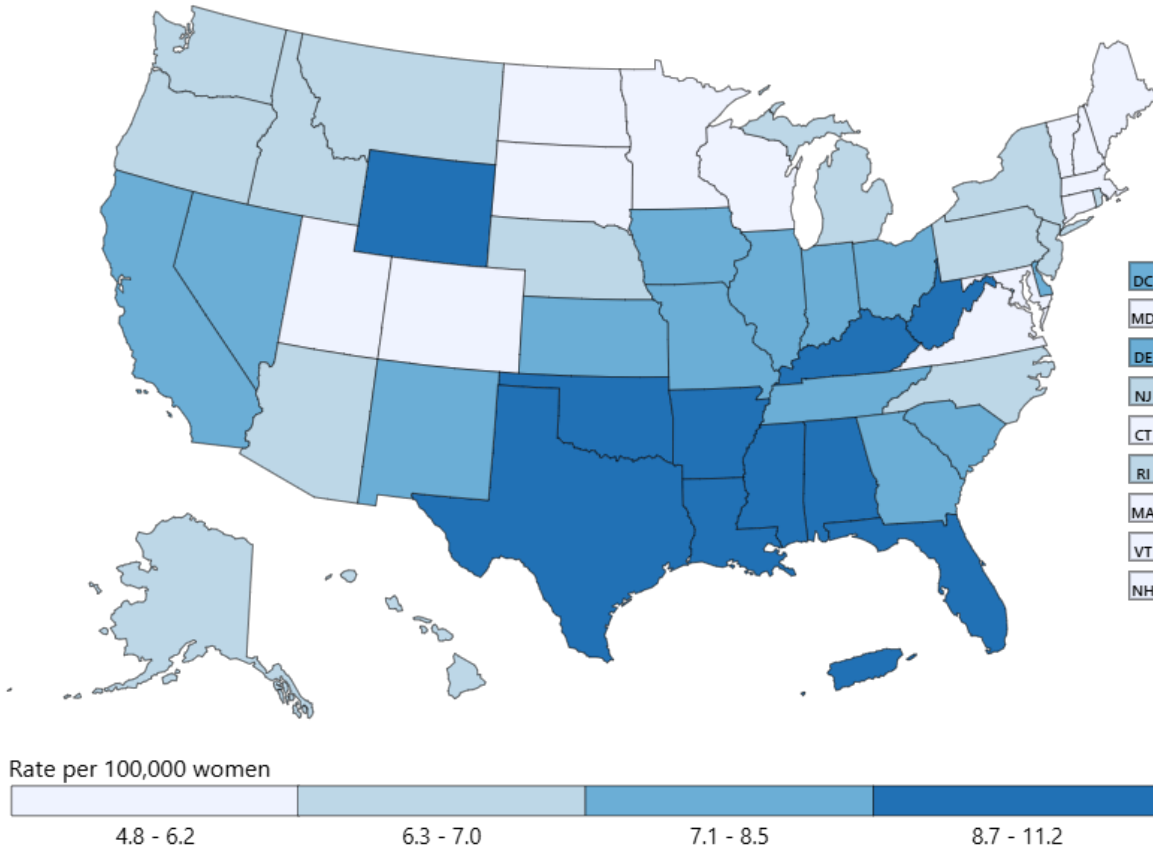
■ US ■ Arkansas



The COVID-19 pandemic disrupted health services, leading to delays and reductions in cancer screenings and diagnoses. This may have contributed to the decline in new cancer cases for many sites in 2020. The numbers of new cases diagnosed in 2021 and 2022 are still a little lower than expected for some cancer types but have returned to pre-pandemic counts for other cancer types.

Sources: National Program of Cancer Registries and Surveillance, Epidemiology and End Results Program SEER*Stat Database: NPCR and SEER Incidence - U.S. Cancer Statistics Public Use Research Database, 2024 Submission (2001-2022). United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute. Released June 2025. Accessed at www.cdc.gov/cancer/uscs/public-use.

Age-Adjusted Rate of New Cervical Cancers in the United States, 2018 - 2022

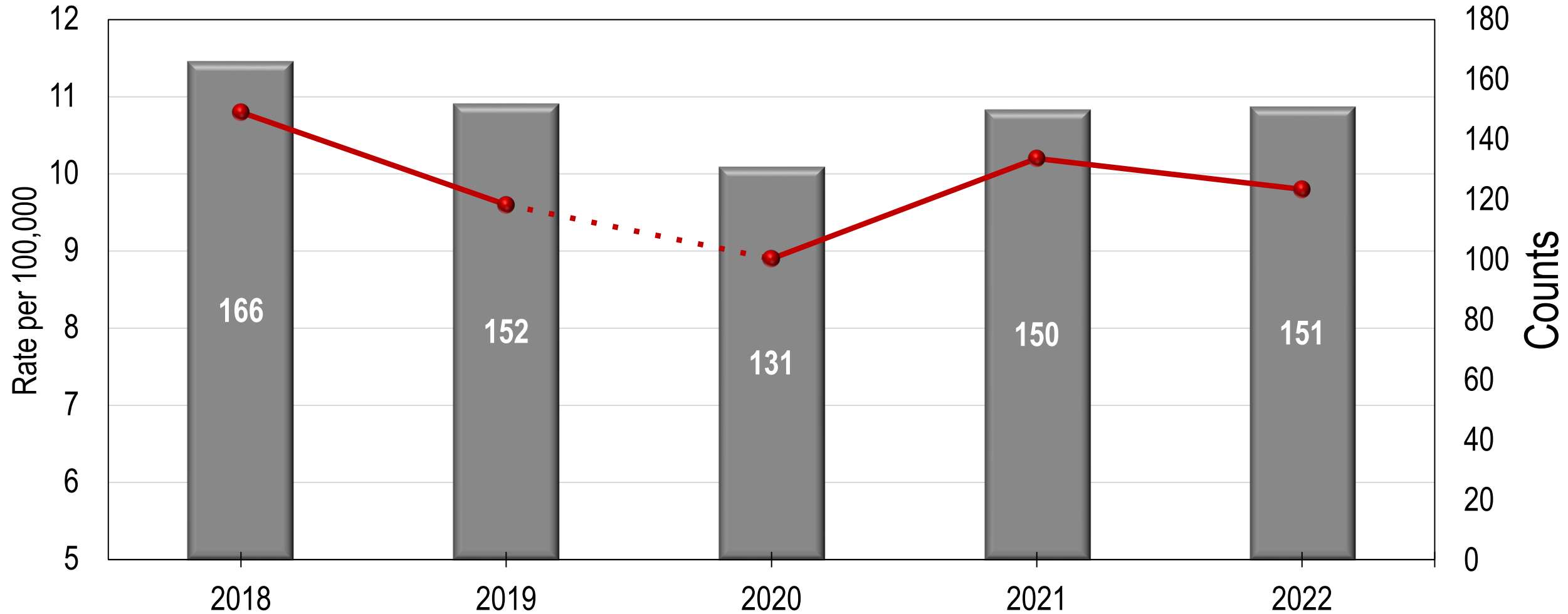


US Rate	Arkansas Rate
7.5 (95% CI: 7.4 - 7.6)	9.9 (95% CI: 9.1 - 10.6)

Cervical Cancer Age-Adjusted Incidence Rate and Counts, Arkansas, 2018 – 2022



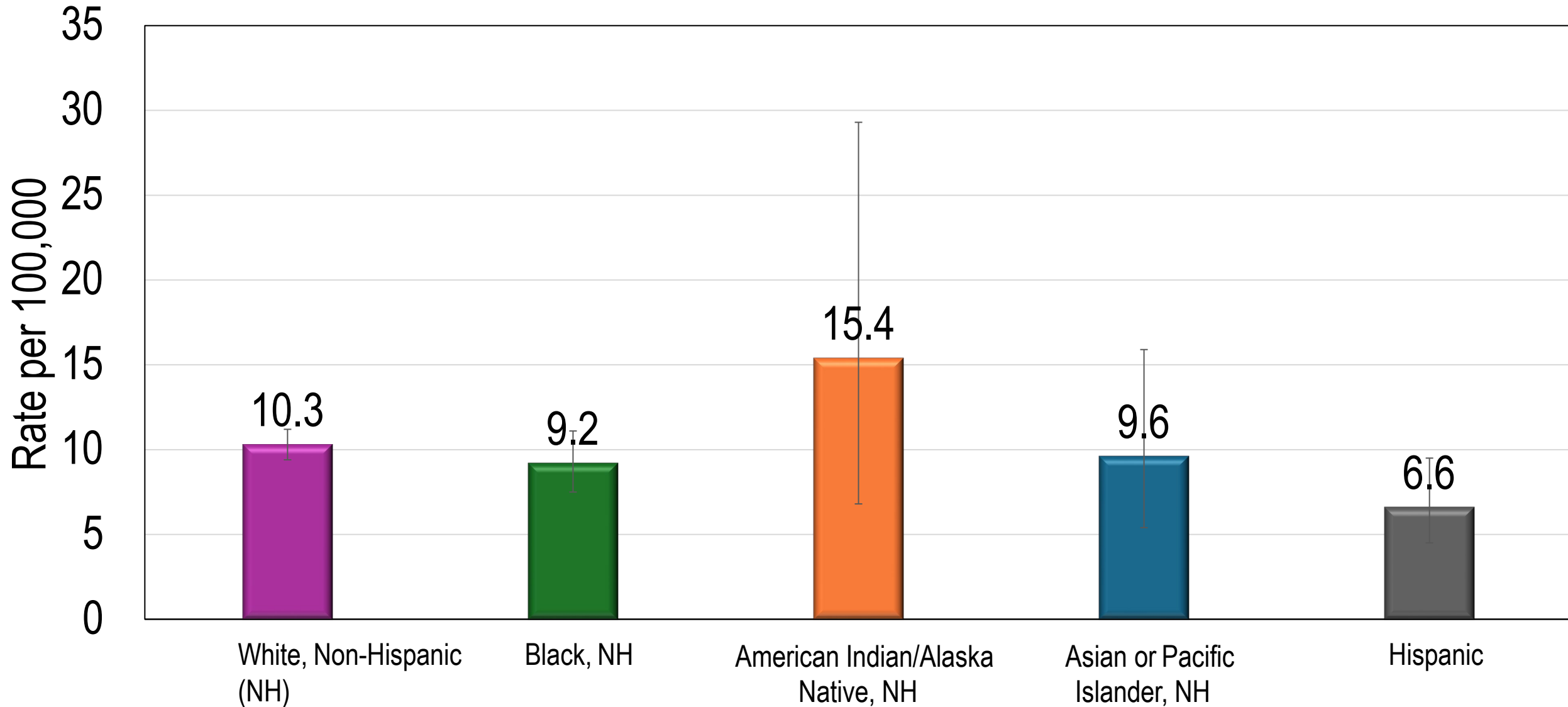
■ Counts ● Rate



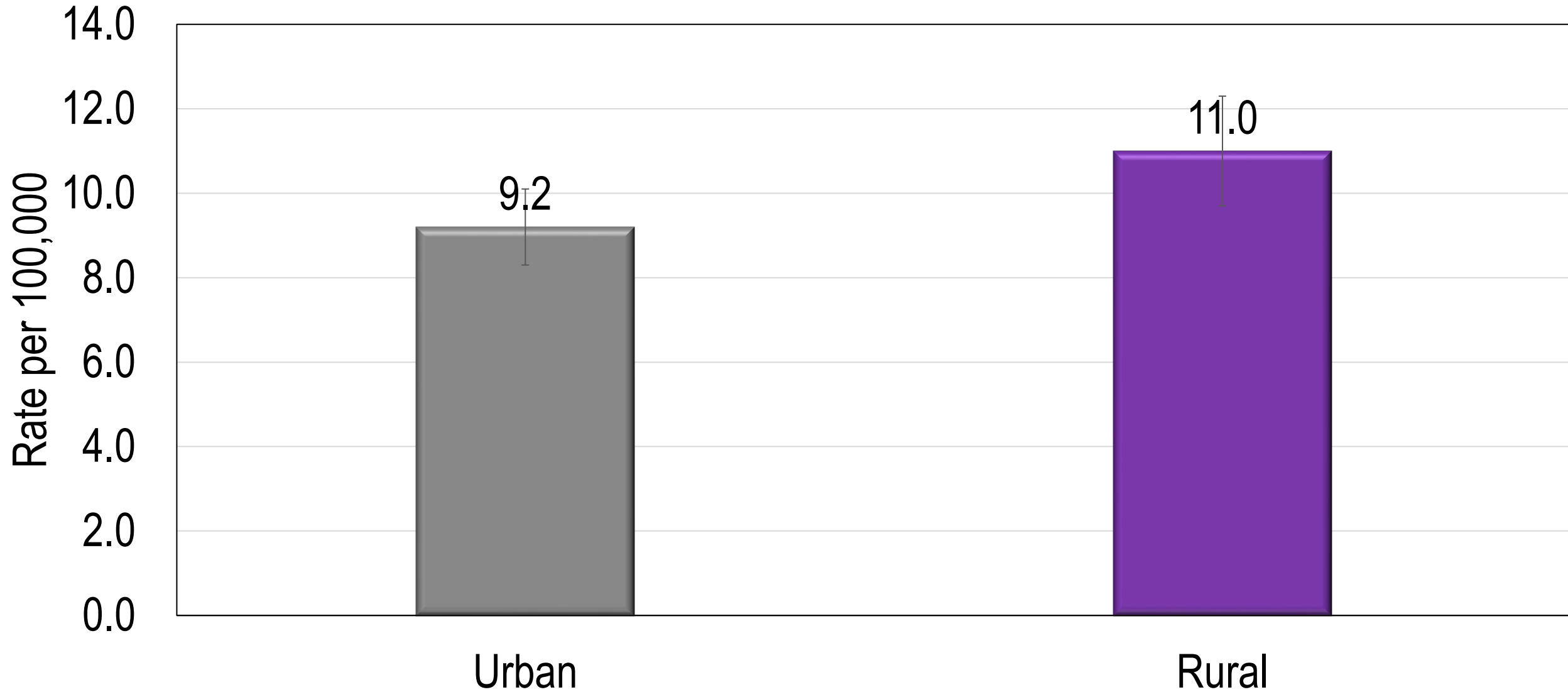
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Cervical Cancer Age-Adjusted Incidence Rate by Race and Ethnicity, Arkansas, 2018 - 2022



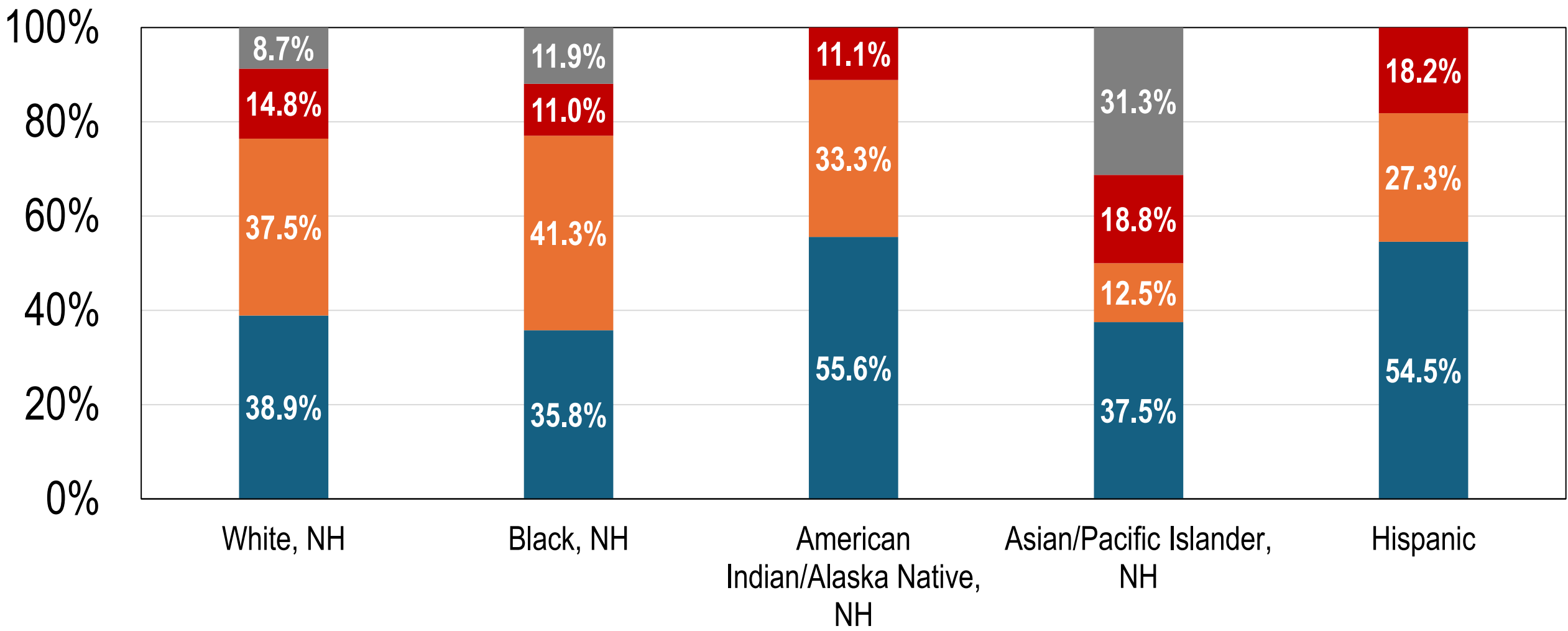
Cervical Cancer Age-Adjusted Incidence Rate by Urban vs Rural Counties, Arkansas, 2018 - 2022



Percentage of Cervical Cancer by Race, Ethnicity, and Stage at Diagnosis, Arkansas, 2018 - 2022

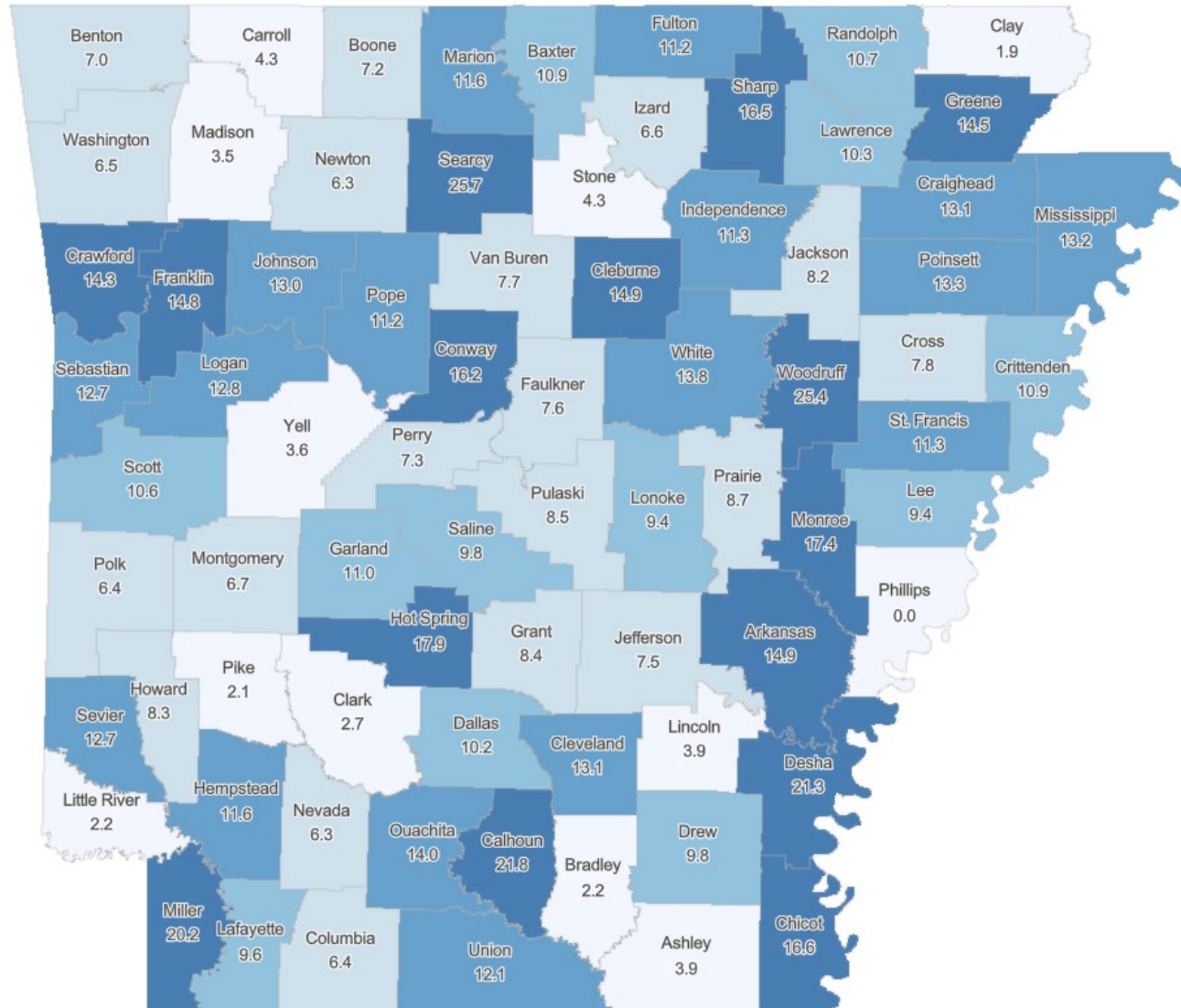


■ Localized
 ■ Regional
 ■ Distant
 ■ Unstaged/unknown



Sources: SEER*Stat Database: Arkansas Central Cancer Registry Imported Database (County-Level Population). Re-imported August 14, 2025. Data retrieved on 9/8/2025.

Map of Cervical Cancer Age-Adjusted Incidence Rate by County, Arkansas, 2018 - 2022



State Rate: 9.9

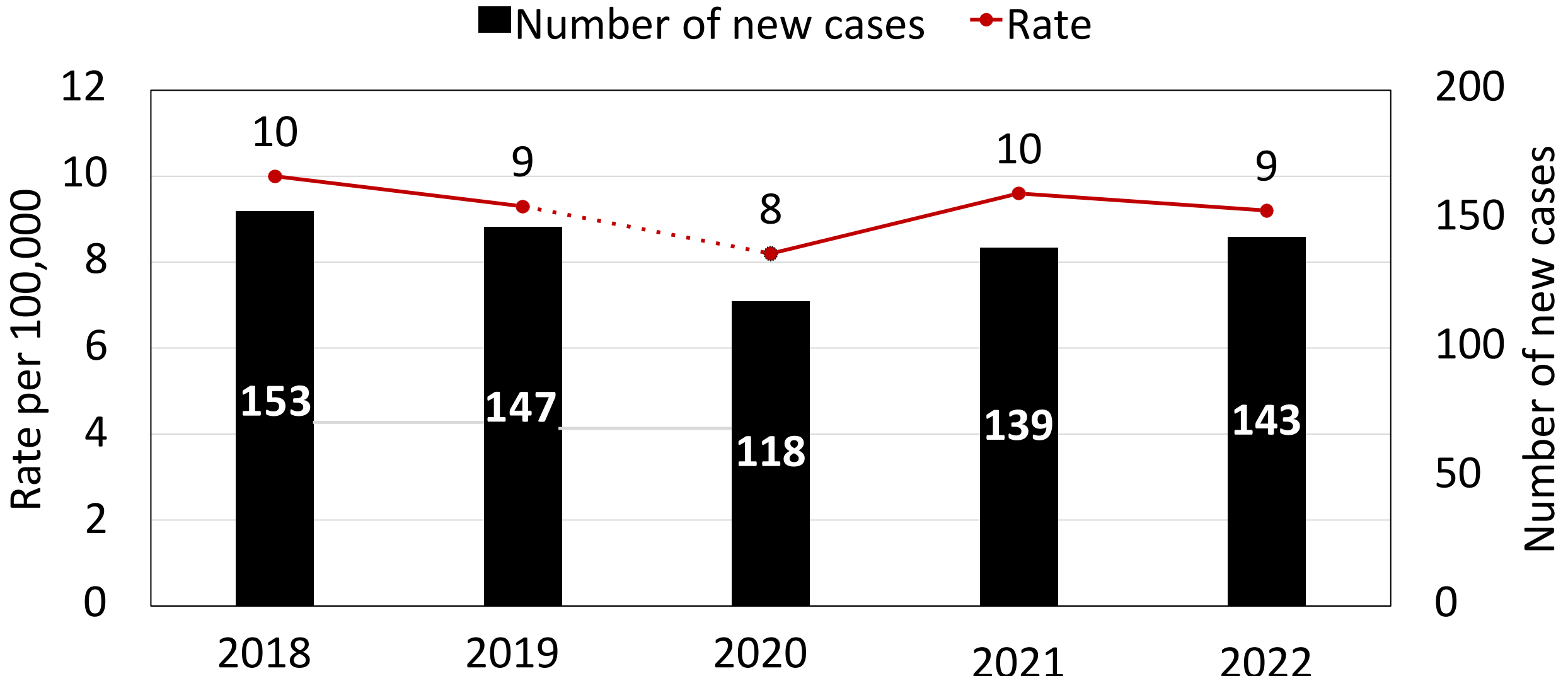
Legend	
	0 – 5.0
	5.1 – 9.0
	9.1 – 11.0
	11.1 – 14.0
	14.1 – 26.0

Map created by Daniela Ramirez Aguliar
 Sources: SEER*Stat Database: Arkansas Central Cancer Registry Imported Database (County-Level Population). Re-imported August 14, 2025. Data retrieved on 9/8/2025.

Section II: HPV-Associated Incidence



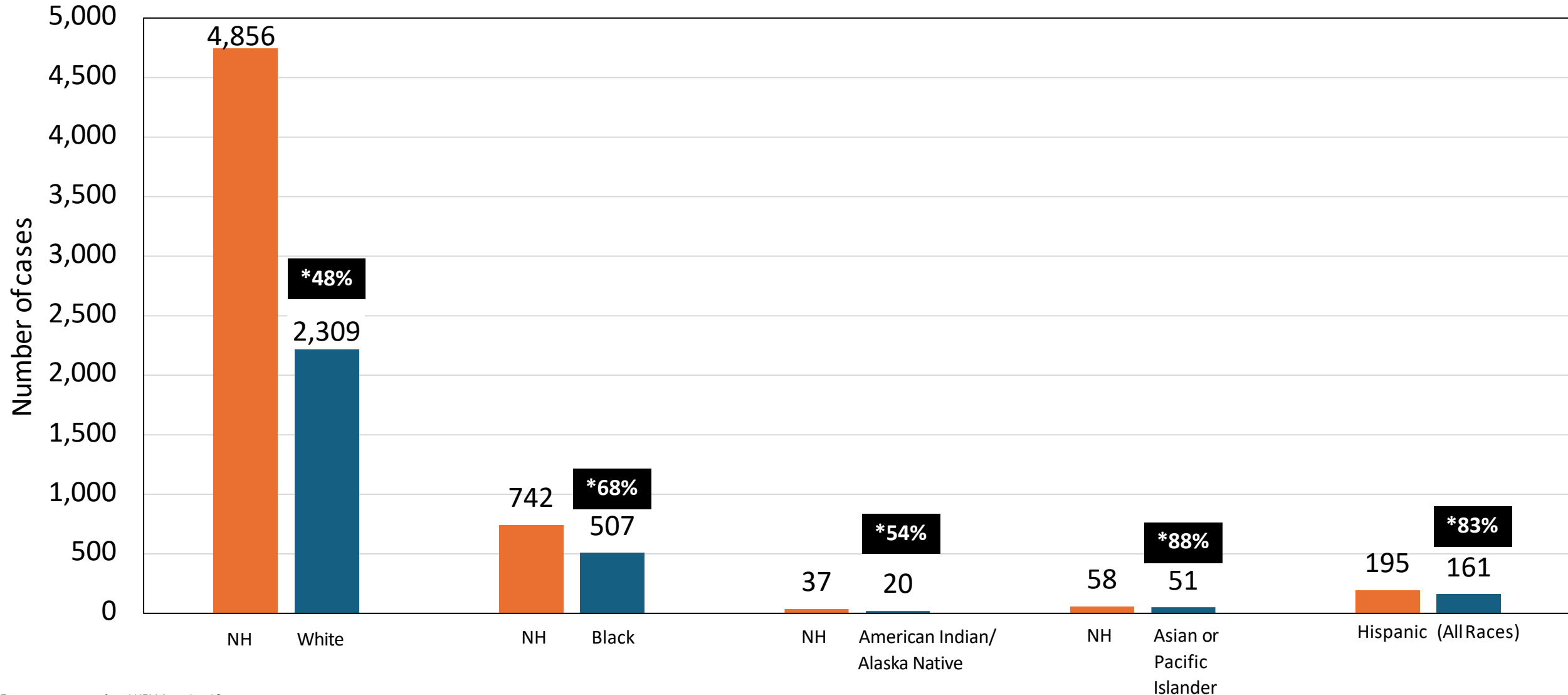
Age-Adjusted Incidence Rates and Number of New Cases of HPV-Associated Cervical Carcinoma, Arkansas, by Year of Diagnosis, 2018 – 2022



The COVID-19 pandemic disrupted health services, leading to delays and reductions in cancer screenings and diagnoses. This may have contributed to the decline in new cancer cases for many sites in 2020. The numbers of new cases diagnosed in 2021 and 2022 are still a little lower than expected for some cancer types but have returned to pre-pandemic counts for other cancer types.

Sources: SEER*Stat Database: Arkansas Central Cancer Registry Imported Database (County-Level Population). Re-imported August 14, 2025. Data retrieved on 9/8/2025.

Number of Cases of HPV-Associated Cancers and HPV-Associated Cervical Carcinoma by Race and Ethnicity, Arkansas, 2001 - 2022



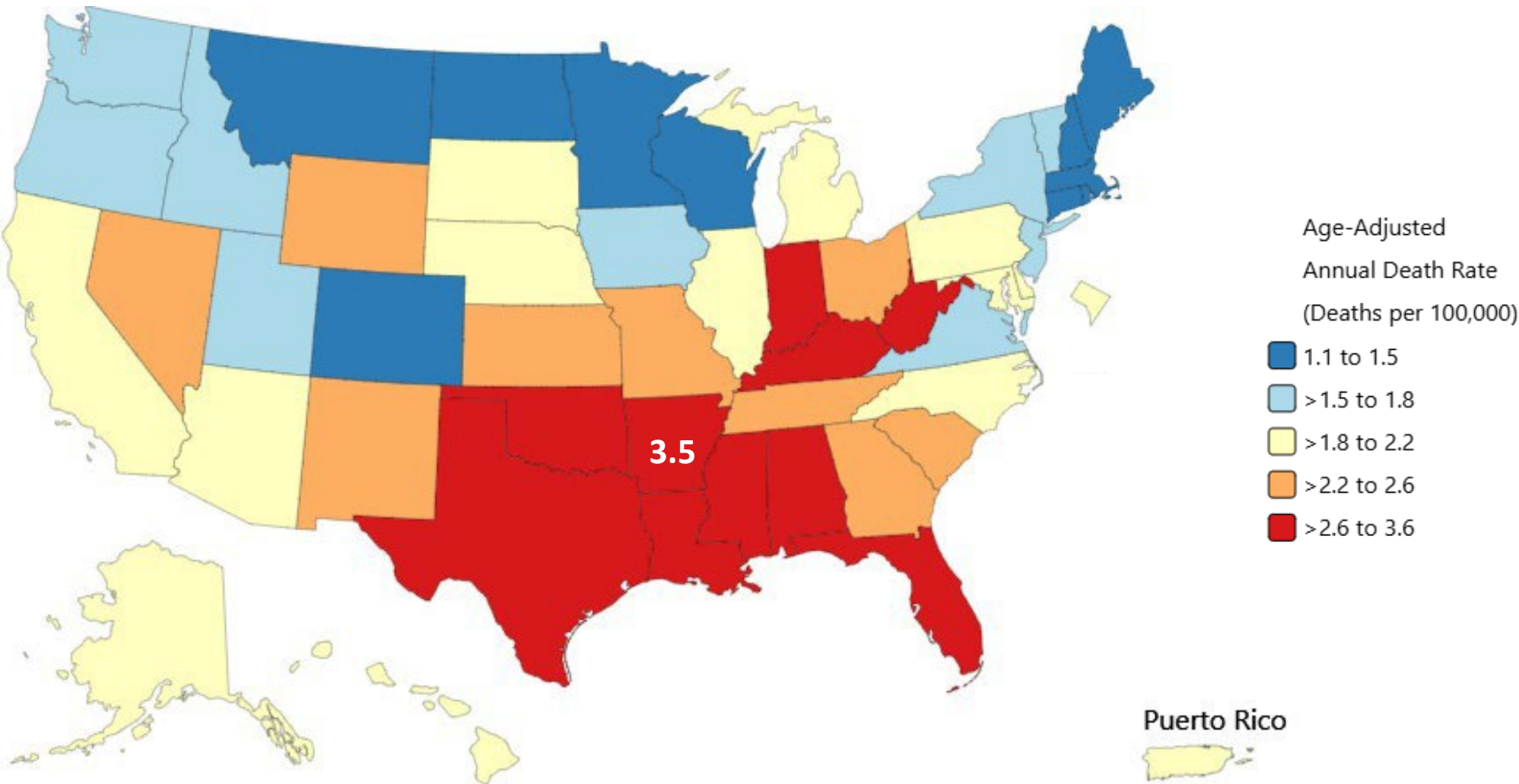
*Represents percent of total HPV-Associated Cancers

Sources: National Program of Cancer Registries and Surveillance, Epidemiology and End Results Program SEER*Stat Database: NPCR and SEER Incidence - U.S. Cancer Statistics Public Use Research Database, 2024 Submission (2001-2022). United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute. Released June 2025. Accessed at www.cdc.gov/cancer/uscs/public-use.

Section III: Cervical Cancer Mortality

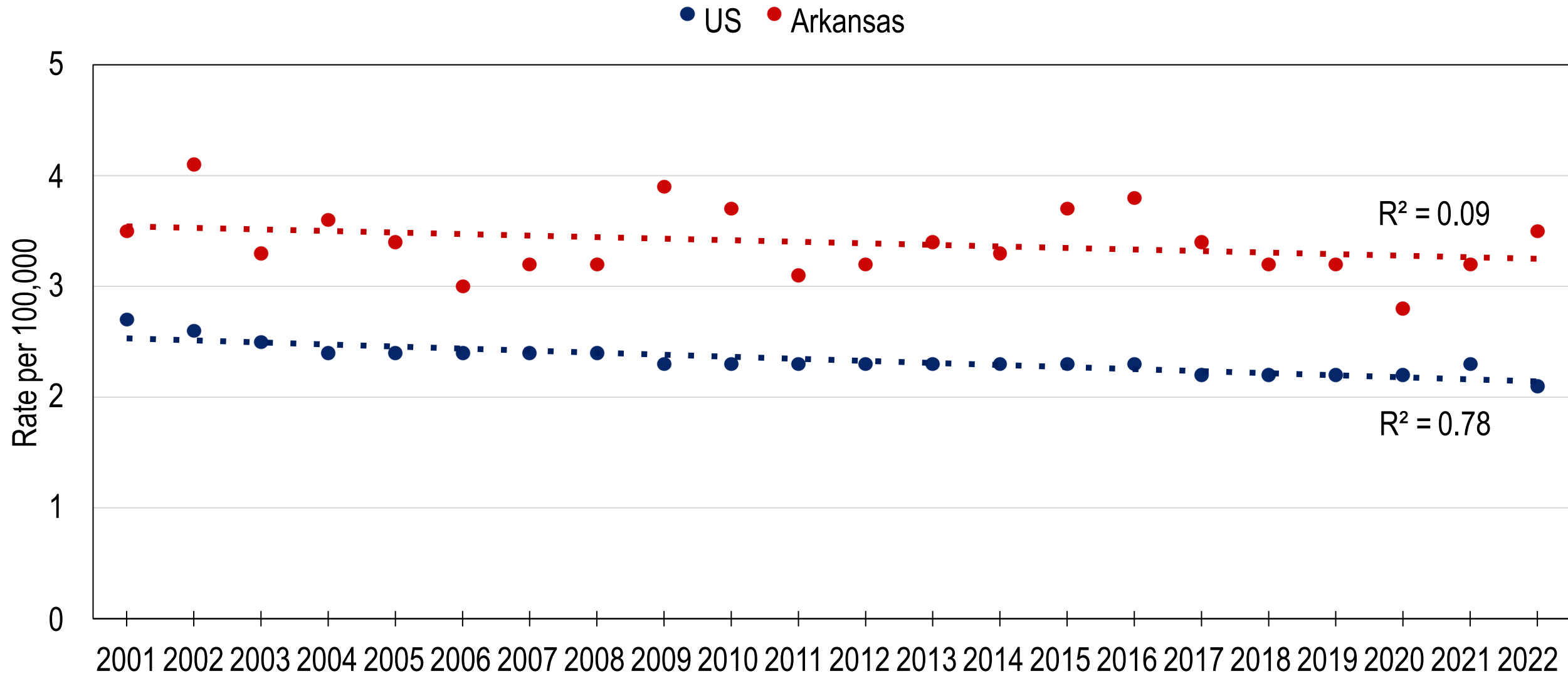


Cervical Cancer Mortality Rate Among Females, US, 2018-2022

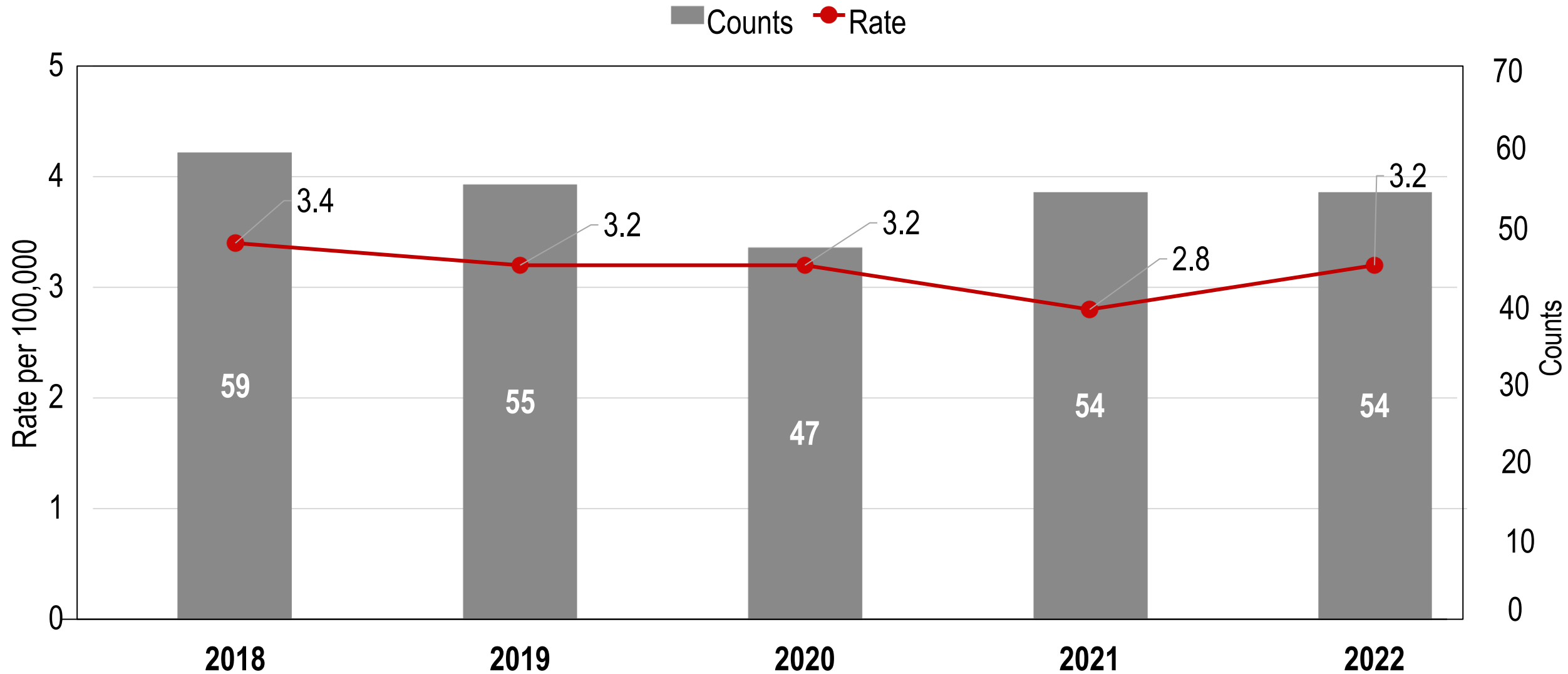


Source: Death data provided by the [National Vital Statistics System](#) public use data file. Death rates calculated by the National Cancer Institute using [SEER*Stat](#). Death rates are age-adjusted to the [2000 US standard population](#) (19 age groups: <1, 1-4, 5-9, ... , 80-84, 85+). Population counts for denominators are based on Census populations as modified by NCI. Created by [statecancerprofiles.cancer.gov](#) on 09/11/2025 2:24 pm.

Cervical Cancer Age-Adjusted Mortality Trend Rate, US and Arkansas, 2001 – 2022



Cervical Cancer Age-Adjusted Incidence Rate and Counts, Arkansas, 2018 - 2022



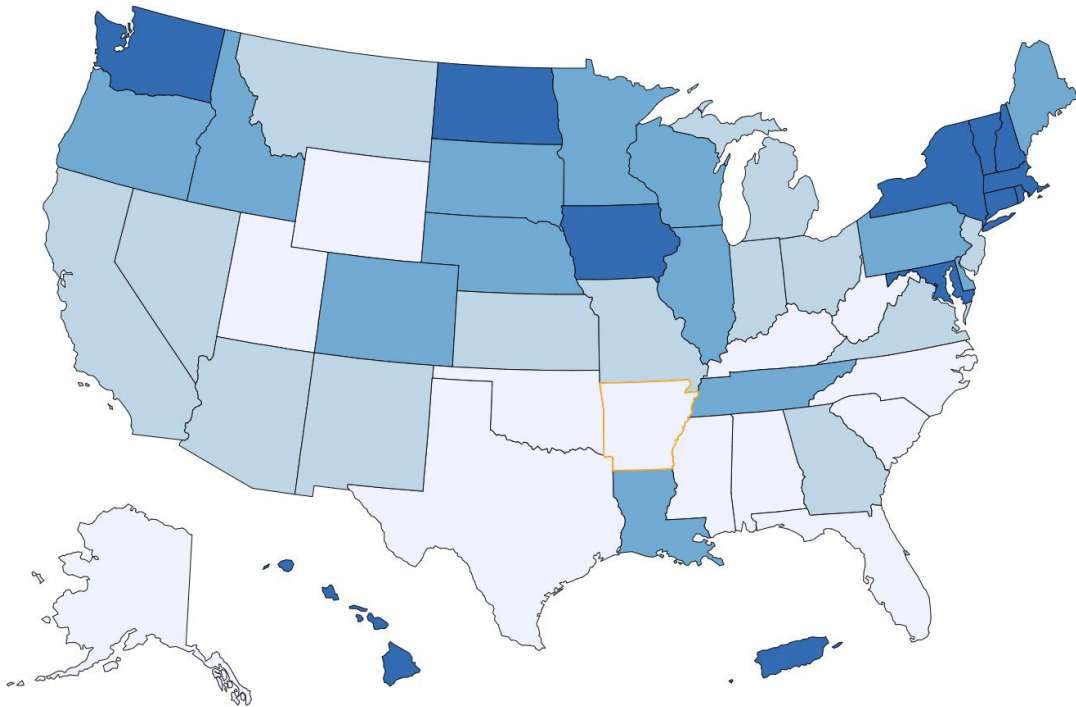
Section IV: HPV Vaccine





Percentage of Male and Female Adolescents (Aged 13-17 Years) Who Were Reported Being Up-To-Date With HPV Vaccinations, US, 2022 and 2023

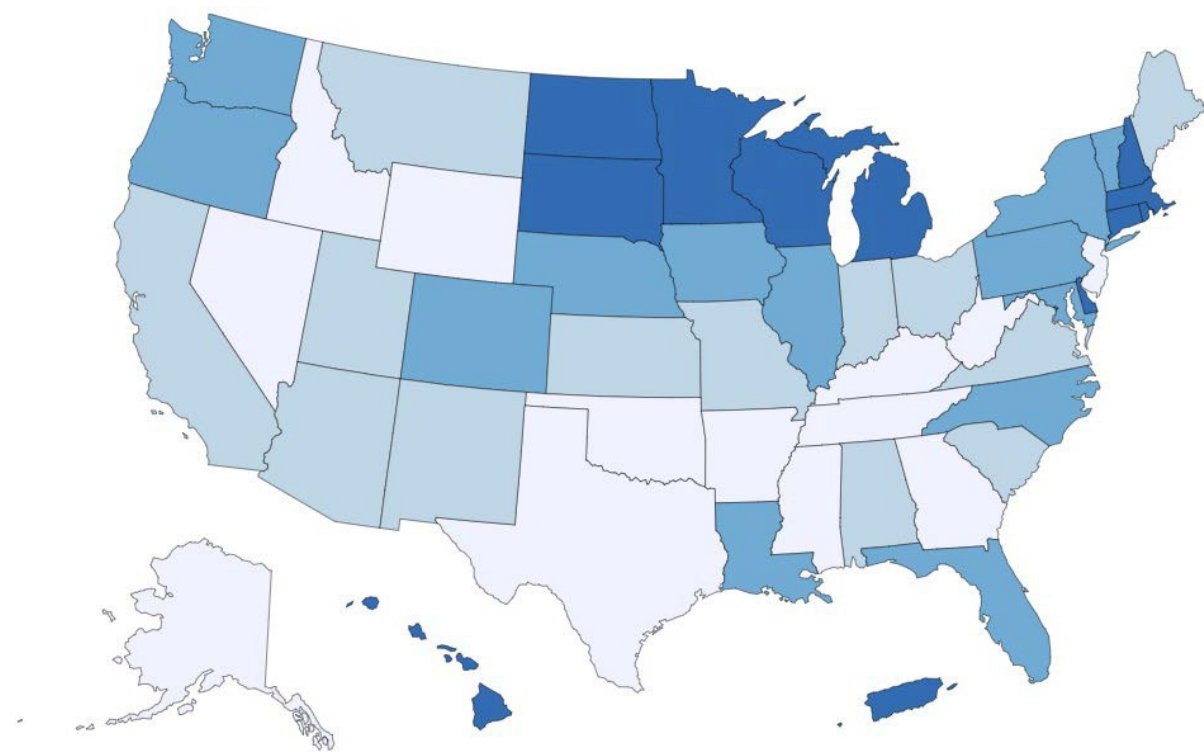
2022



Legend	
Lightest Blue	38.5 – 59.2
Light Blue	59.5 – 63.7
Medium Blue	64.4 – 69.0
Dark Blue	70.3 – 85.2

US: 62.6%
AR: 55.7%

2023



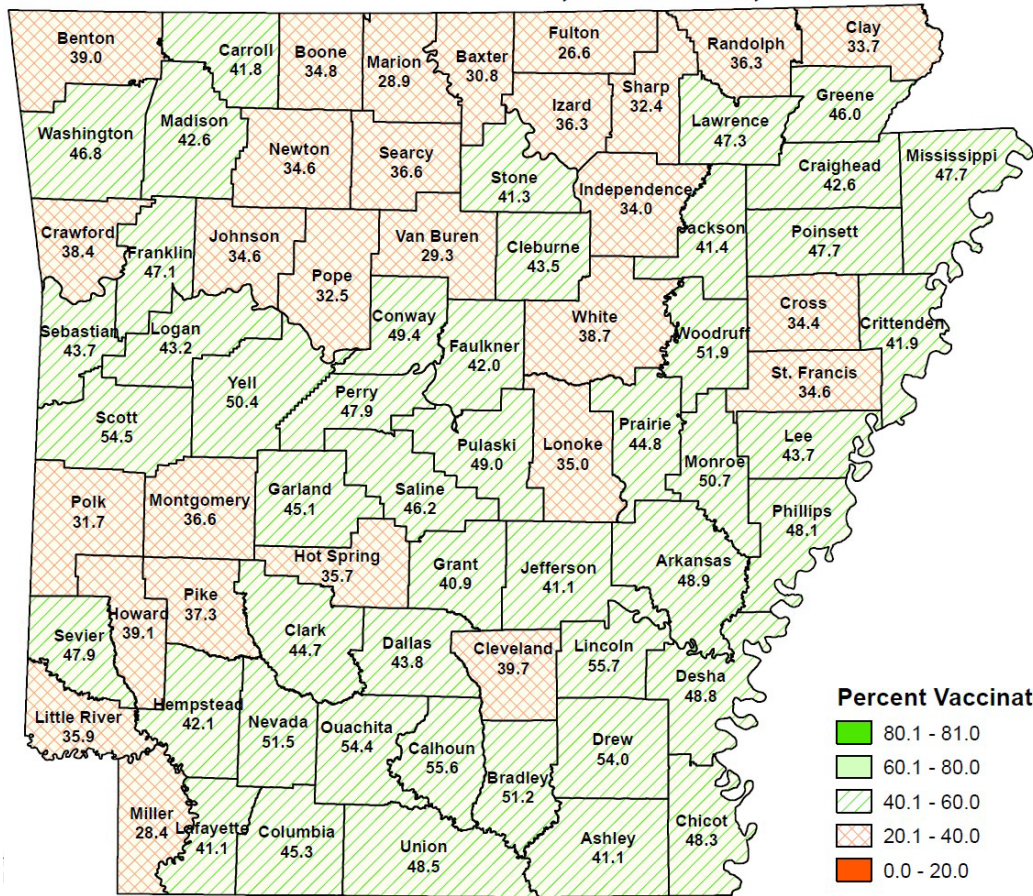
Legend	
Lightest Blue	38.4 – 57.5
Light Blue	57.6 – 63.7
Medium Blue	63.5 – 69.1
Dark Blue	69.2 – 84.2

US: 61.4%
AR: 52.9%

At Least 1 or More HPV Vaccine For Children, Ages 11-14 Years, Arkansas, 2024 and 2025



2024



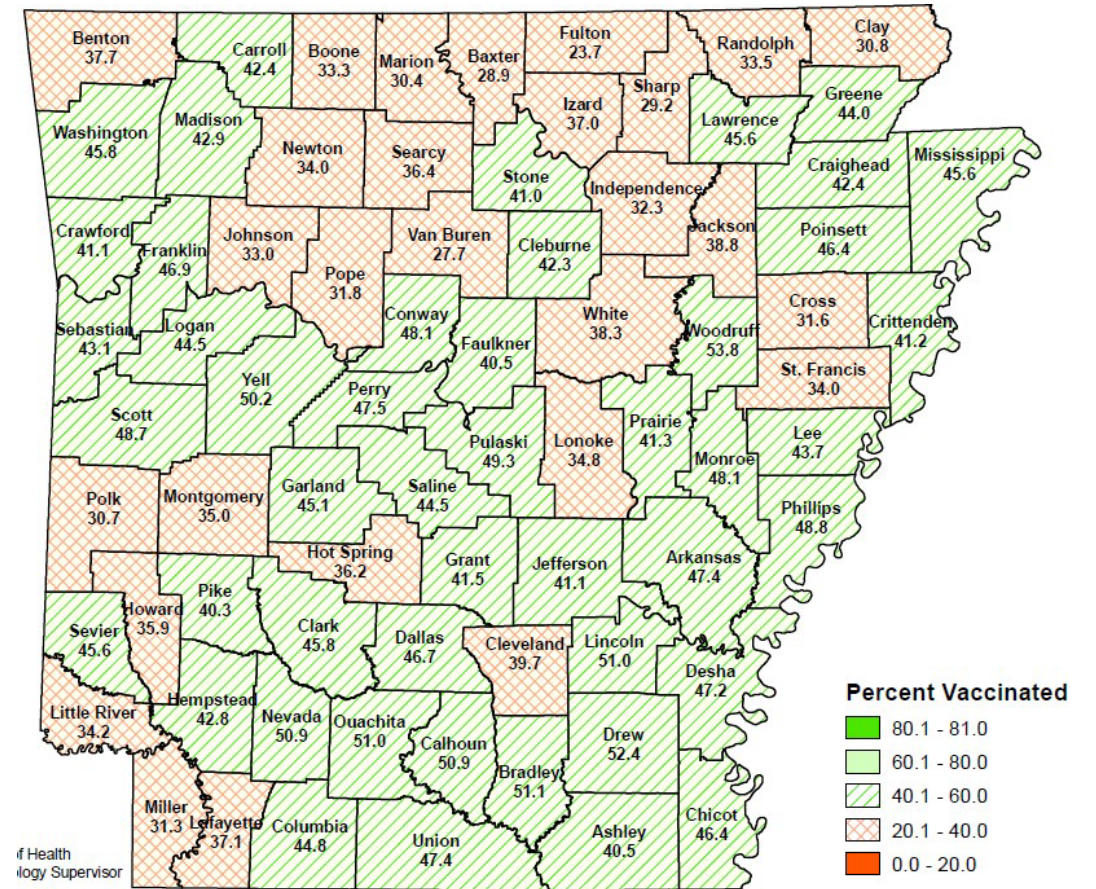
Vaccination coverage in this map are for all adolescents as of September 9, 2024

Date: September 9, 2024

Source: Arkansas Department of Health Author:

Haytham Safi, Epidemiology Supervisor

2025



Vaccination coverage in this map are for all adolescents as of April 23, 2025

Date: April 30, 2025

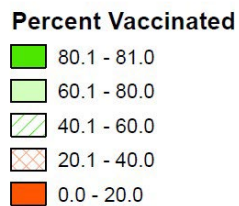
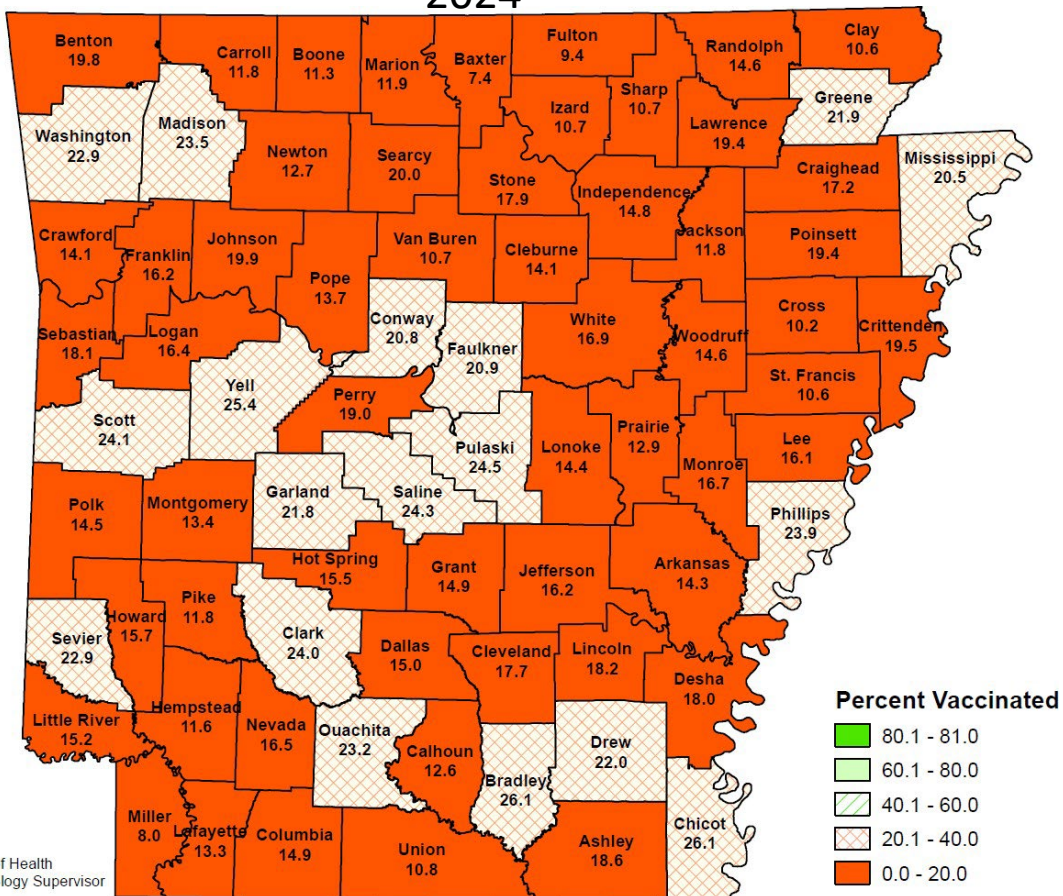
Source: Arkansas Department of Health Author:

Haytham Safi, Epidemiology Supervisor

At Least 2 or More HPV Vaccine for Children, Ages 11-14 years, Arkansas, 2024 and 2025

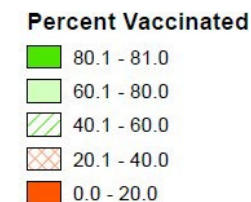
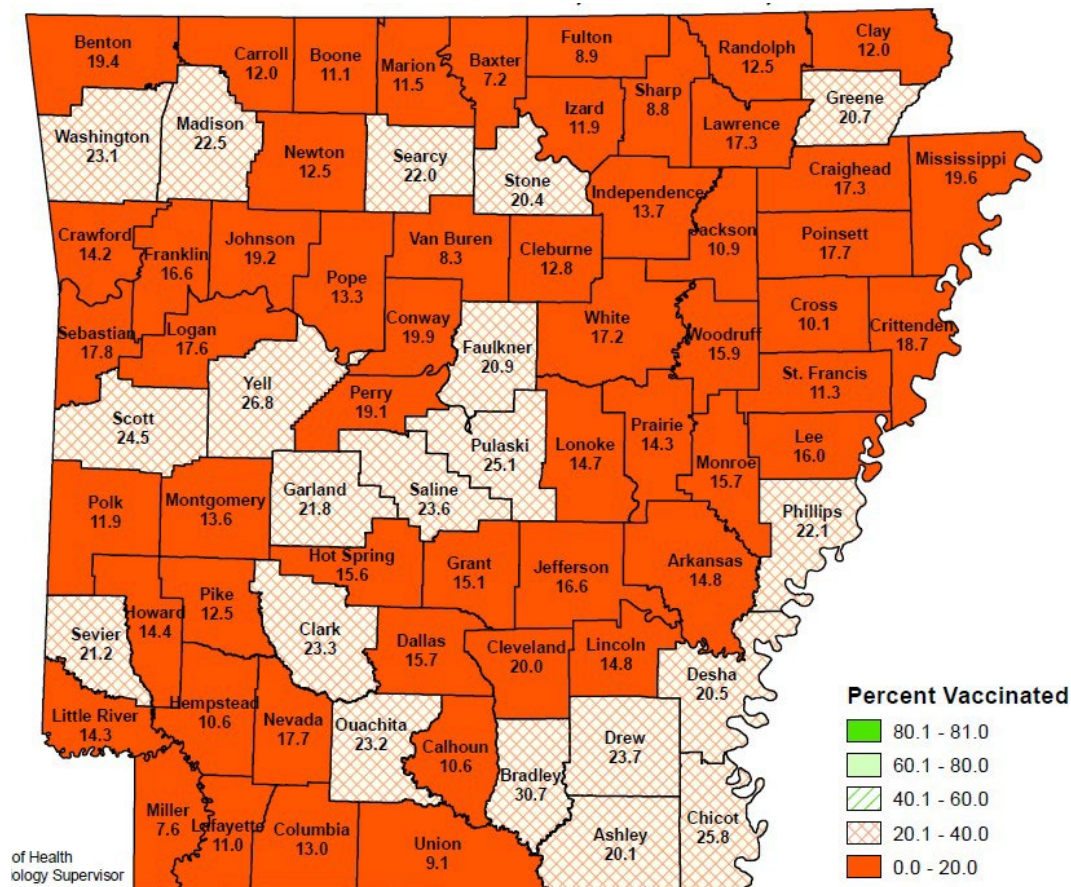


2024



of Health
logy Supervisor

2025



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Vaccination coverage in this map are for all adolescents as of September 9, 2024

Date: September 9, 2024

Source: Arkansas Department of Health Author:

Haytham Safi, Epidemiology Supervisor

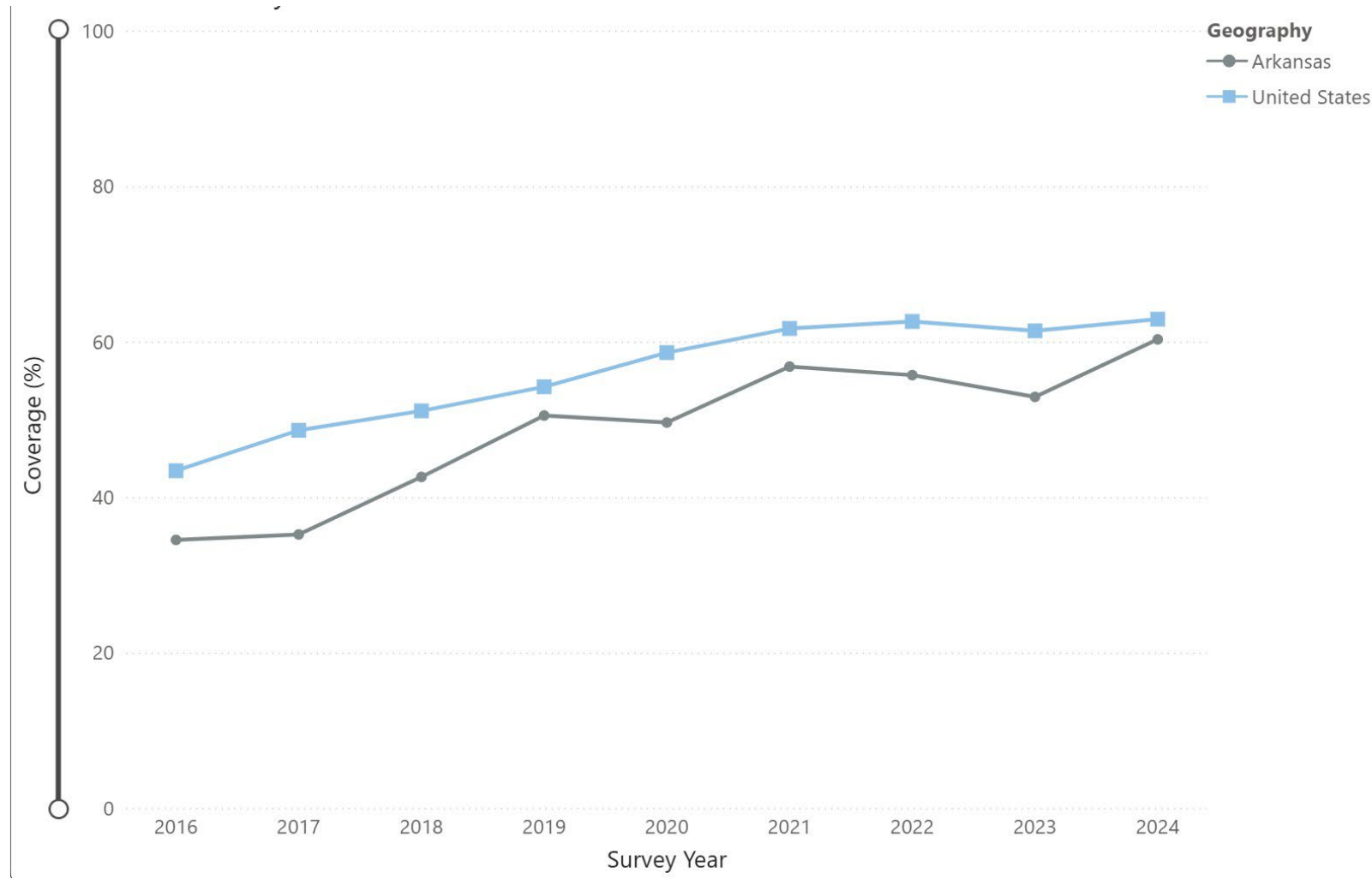
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Date: April 30, 2025

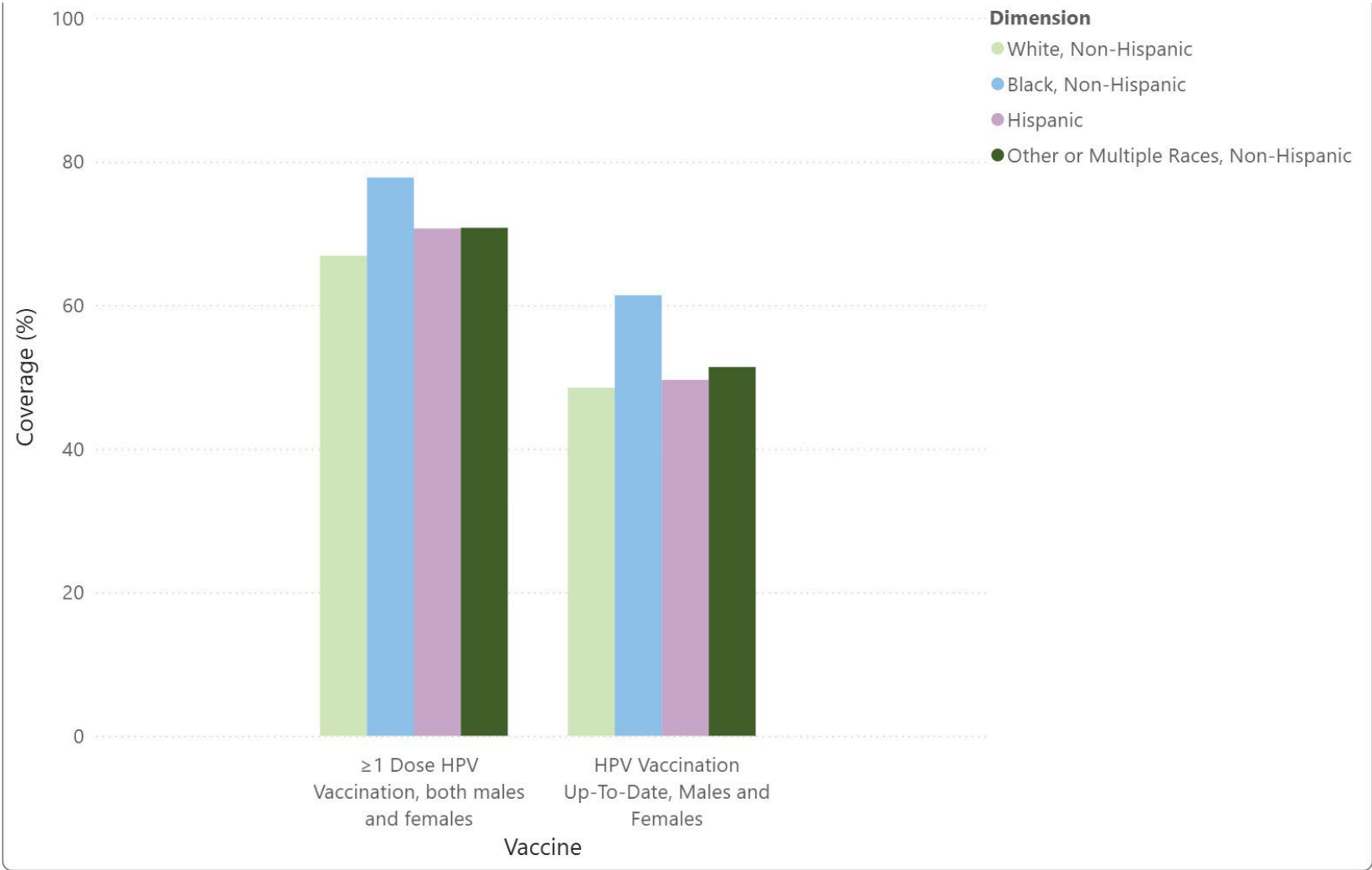
Source: Arkansas Department of Health Author:

Haytham Safi, Epidemiology Supervisor

Estimated Coverage of Up-to-Date HPV Vaccination Among Males And Females (ages 13-17) By Year, US And Arkansas, 2016-2024

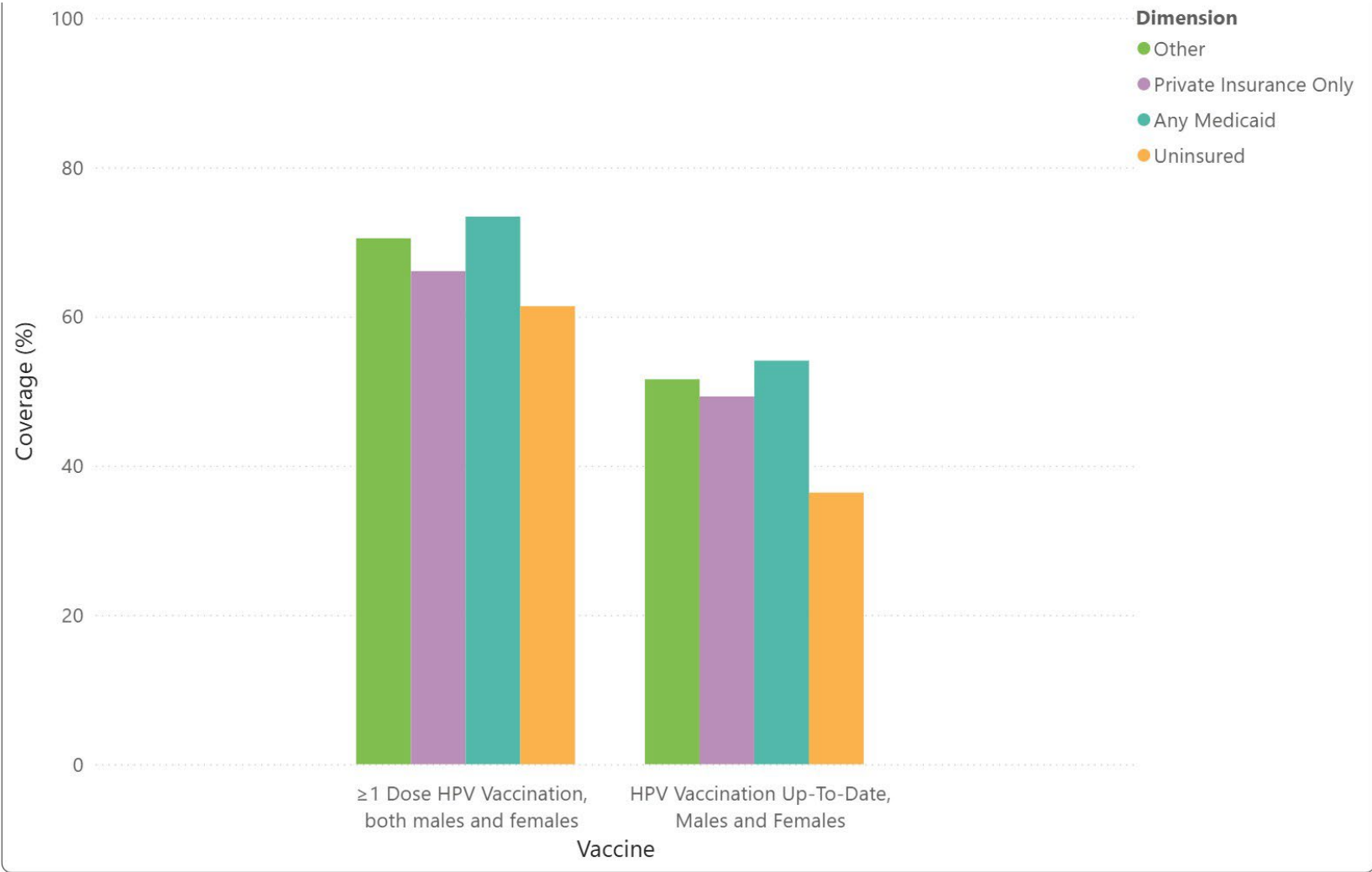


Estimated Coverage of HPV Vaccination Among Males And Females (Ages 13-17) By Dose And Insurance Coverage, Arkansas, 2018-2022



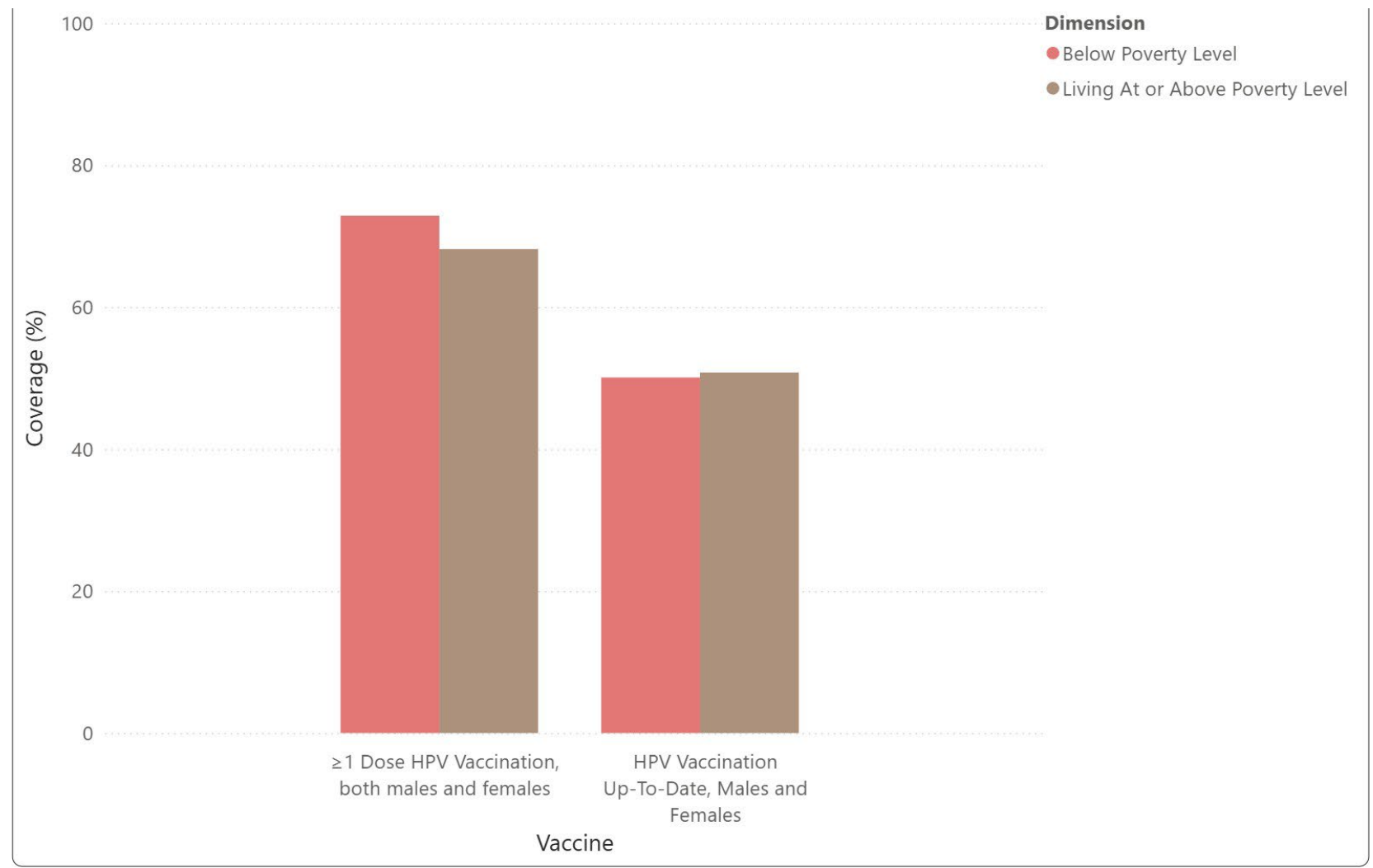
Source: <https://www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/index.html>

Estimated Coverage of HPV Vaccination Among Males And Females (Ages 13-17) By Dose And Insurance Coverage, Arkansas, 2018-2022



Source: <https://www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/index.html>

Estimated Coverage Percent of HPV Vaccination Among Males And Females (ages 13-17) By Dose and Poverty Level, Arkansas, 2018-2022



Section V: ACCR Investigates



Cervical Cancer Demographics of HPV-Associated SCC and ADC, 2001-2022



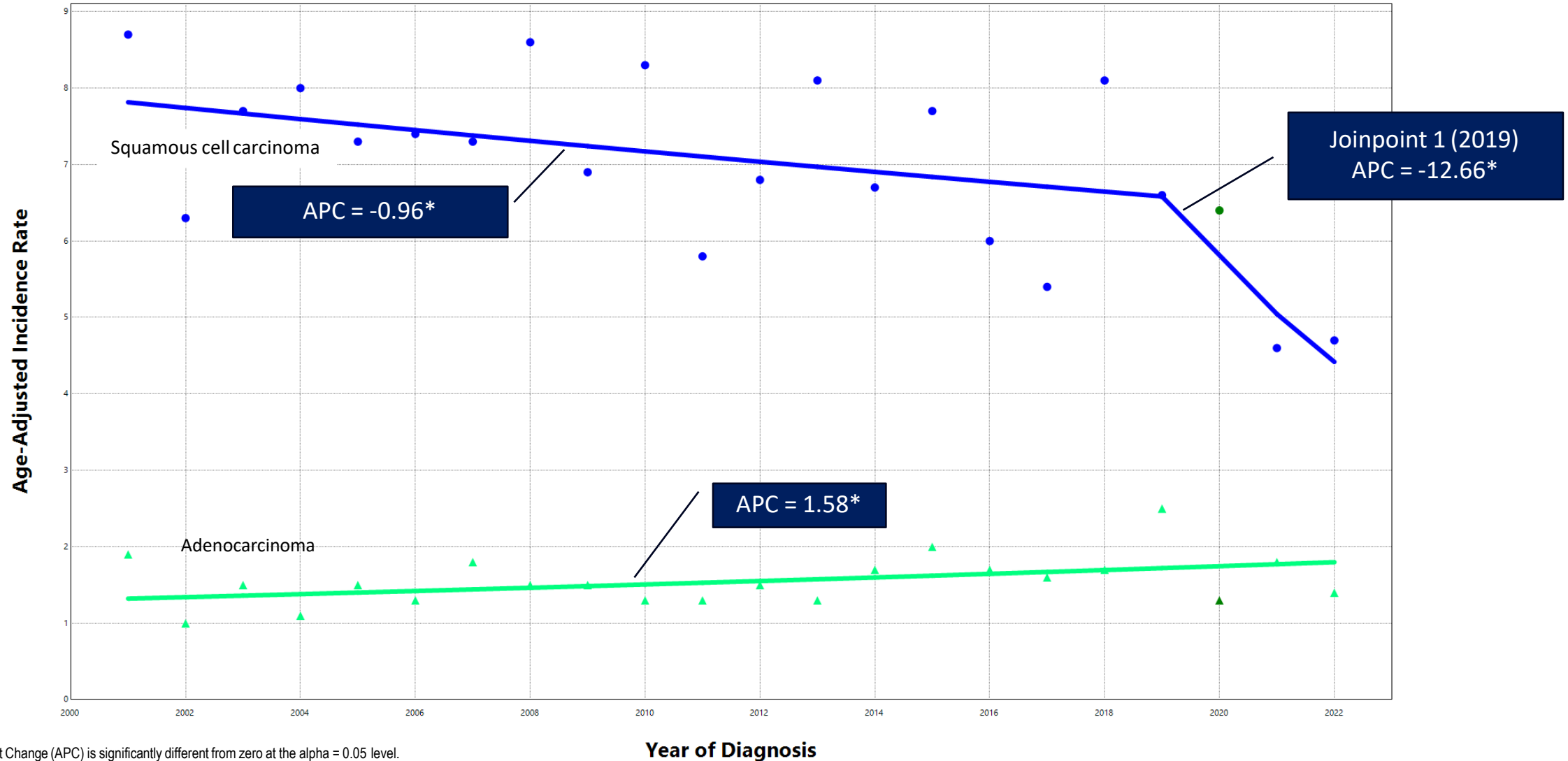
	SCC		ADC	
	Rate	Count	Rate	Count
Geographic area				
Urban	3.7	1,211	0.9	281
Rural	3.1	1,026	0.6	187
Race and ethnicity				
White, NH	6.5	1,644	1.5	376
Black, NH	8.6	418	1.1	50
American Indian/Alaska Native, NH	5.4	13	0.5	Less than 10 cases
Asian/Pacific Islander, NH	6.7	34	1.6	Less than 10 cases
Hispanic	8.3	108	2.1	27
Age group				
<35 years	2.2	318	0.5	72
35-39 years	12.7	261	2.6	54
40-44 years	14.2	297	3.5	74
45-49 years	14	298	2.6	55
50-54 years	11.4	241	1.8	38
55-59 years	11.8	244	1.9	39
60-64 years	9.1	170	2.2	41
65-69 years	8.4	135	1.9	30
70-74 years	7.8	102	2.1	27
75-79 years	7.3	74	2.0	20
80-84 years	5.8	43	1.7	13
85+ years	7.4	56	0.9	Less than 10 cases

SCC = Squamous cell carcinoma

ADC = Adenocarcinoma

Sources: SEER*Stat Database: Arkansas Central Cancer Registry Imported Database (County-Level Population). Re-imported August 14, 2025. Data retrieved on 9/8/2025.

Trends of HPV-Associated Cervical Cancers by Primary Histologic Subtype, Arkansas, 2001-2022



*Indicates that the Annual Percent Change (APC) is significantly different from zero at the alpha = 0.05 level.

Age-adjusted incidence rate reflects per 100,000 population

Green dot represents diagnosis year 2020 which was excluded from analysis due to lower cancer cases reported affected by the pandemic.

Sources: SEER*Stat Database: Arkansas Central Cancer Registry Imported Database (County-Level Population). Re-imported August 14, 2025. Data retrieved on 9/8/2025.

Questions?

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