HIV Surveillance in Alabama with considerations for the Southern counties

Olubukola Alonge, MD, MPH
HIV Surveillance Coordinator
Alabama Department of Public Health
April 24, 2024

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Public Health Districts, Alabama

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Objectives

- Provide data on HIV surveillance including incidence and prevalence data both statewide and specific to the southern districts in Alabama.
- Discuss gaps in surveillance data and the importance of data completeness with the goal of increasing provider awareness and the overall health of Alabamians.
- Increase the statewide nucleotide sequence completion rate by discussing the importance of provider nucleotide testing.

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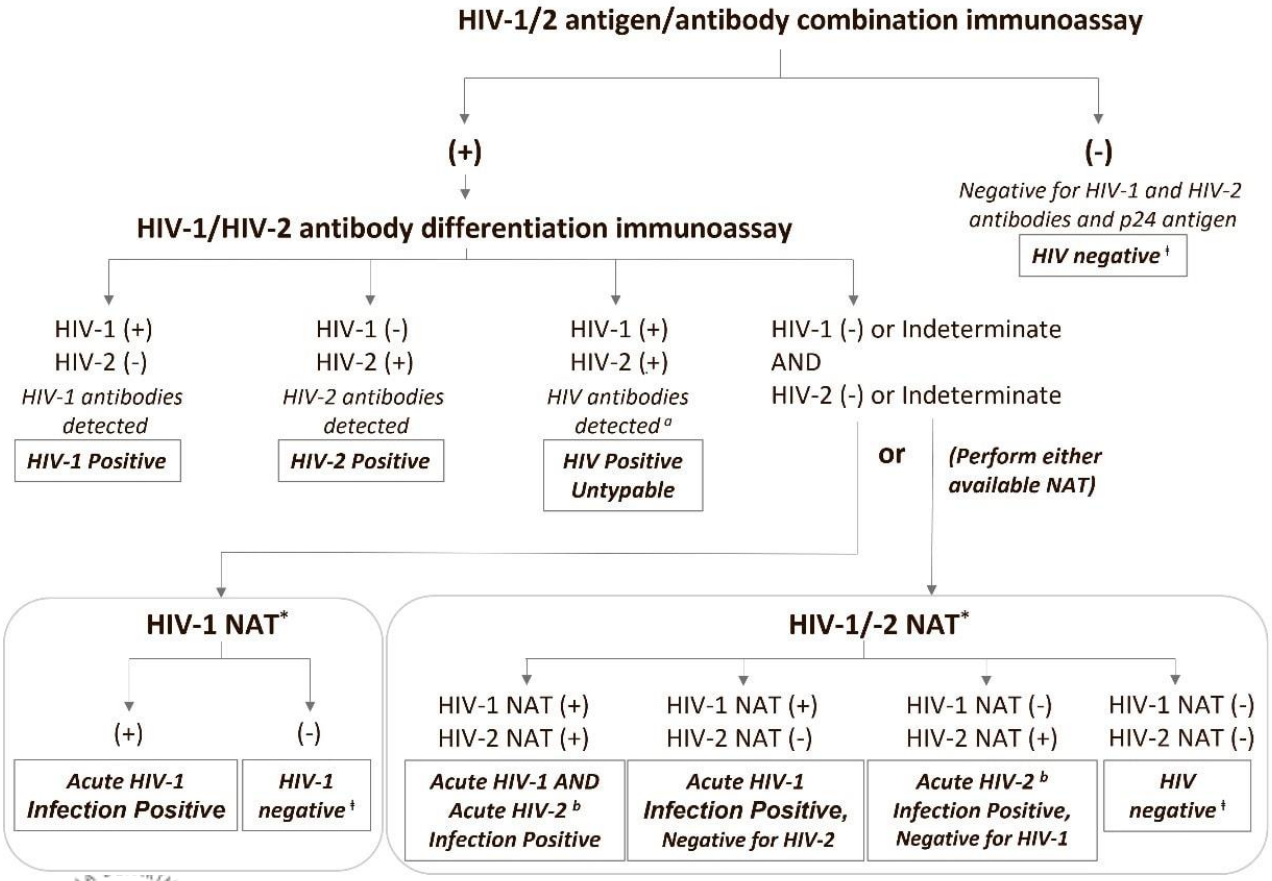
HIV Diagnosis Cascade



(+) indicates reactive test results
(-) indicates negative test results
NAT, nucleic acid test

* *NATs that have a diagnostic claim*

[a] *See package insert regarding interpretation of cross-reactivity*

[b] *Data on interpreting acute HIV-2 infection are limited and subject to test instructions for use*

ǂ *Consider individual's history in deciding whether follow-up testing is warranted*

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Alabama's Notifiable Disease Rules

2011 - All tests indicative of HIV infection, including CD4 results, and viral loads (detectable and undetectable) became reportable.

2014 - Mandatory reporting of all perinatal HIV exposures occurring among infants less than 18 months of age.

https://www.adph.org/epi/assets/final_nd_rules.pdf

To report, use the Communicable Disease Report Card

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Surveillance Methods

- **Passive surveillance** occurs when health care providers and testing laboratories report notifiable HIV tests/diagnoses and case reports to the HIV Surveillance Program. Most HIV cases reported in Alabama are identified through passive surveillance.
- **Active surveillance** requires local health departments to contact health care providers and laboratories requesting information on patients receiving care for HIV.

Demographics in AL vs southern districts

	Mobile	Southeastern	Southwestern	AL
Population	411,411	385,236	429,358	5,074,296
White only	58.3%	70.1%	71.1%	68.9%
Black only	36.7%	25.3%	24.8%	26.8%
Hispanic or Latino	3.2%	4.7%	3.8%	4.9%
Females	52.1%	51.2%	51.5%	51.4%
Ages 20-29	13.4%	13.0%	11.1%	13.3%
Ages 30-39	13.3%	12.3%	11.5%	12.8%

https://www.census.gov/data/tables/time-series/demo/popest/2020s-counties-detail.html retrieved 4/16/24

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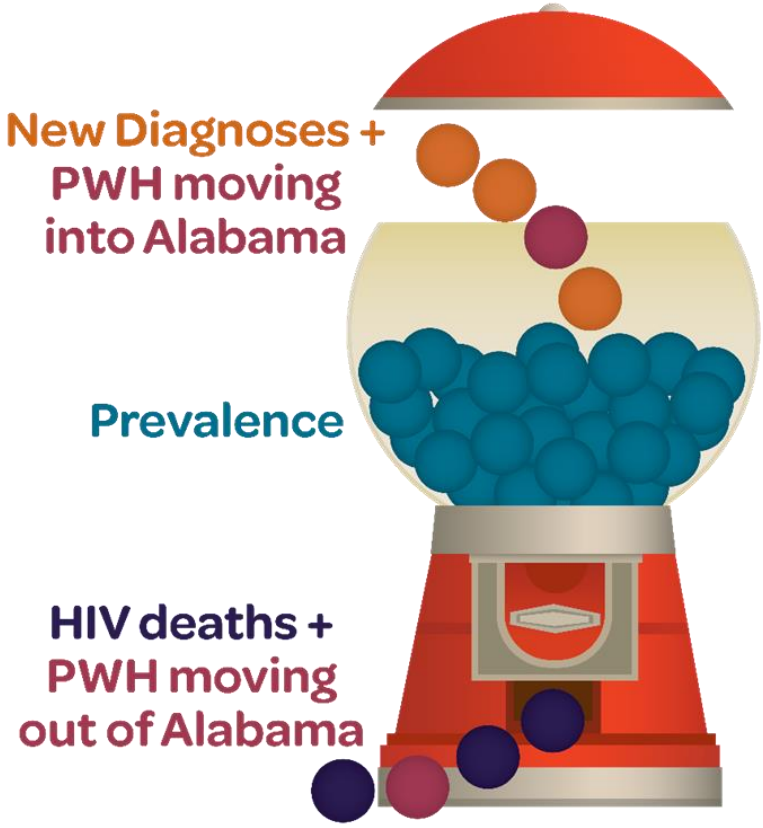
HIV Surveillance Data in Alabama



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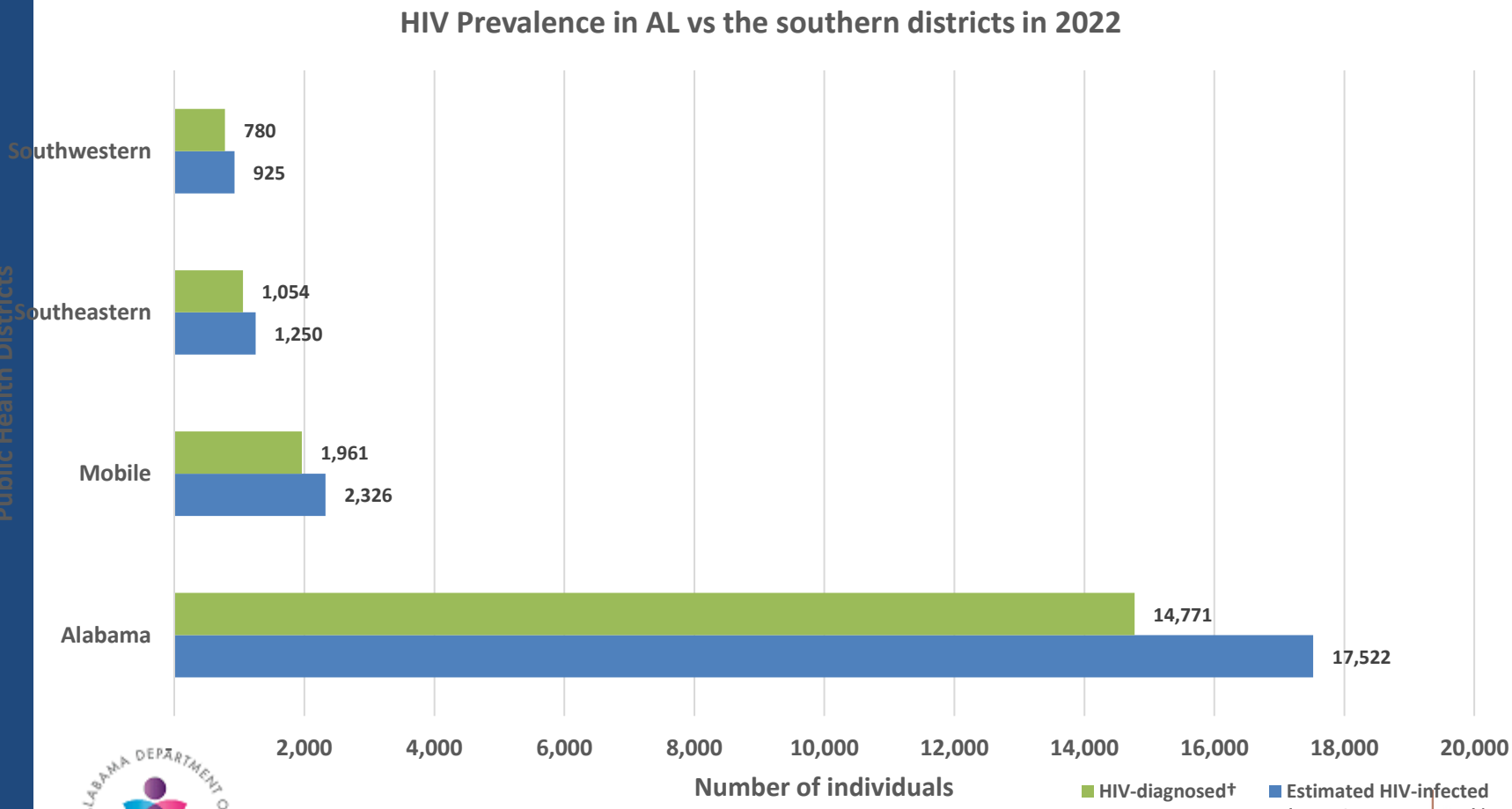
Overall HIV Prevalence



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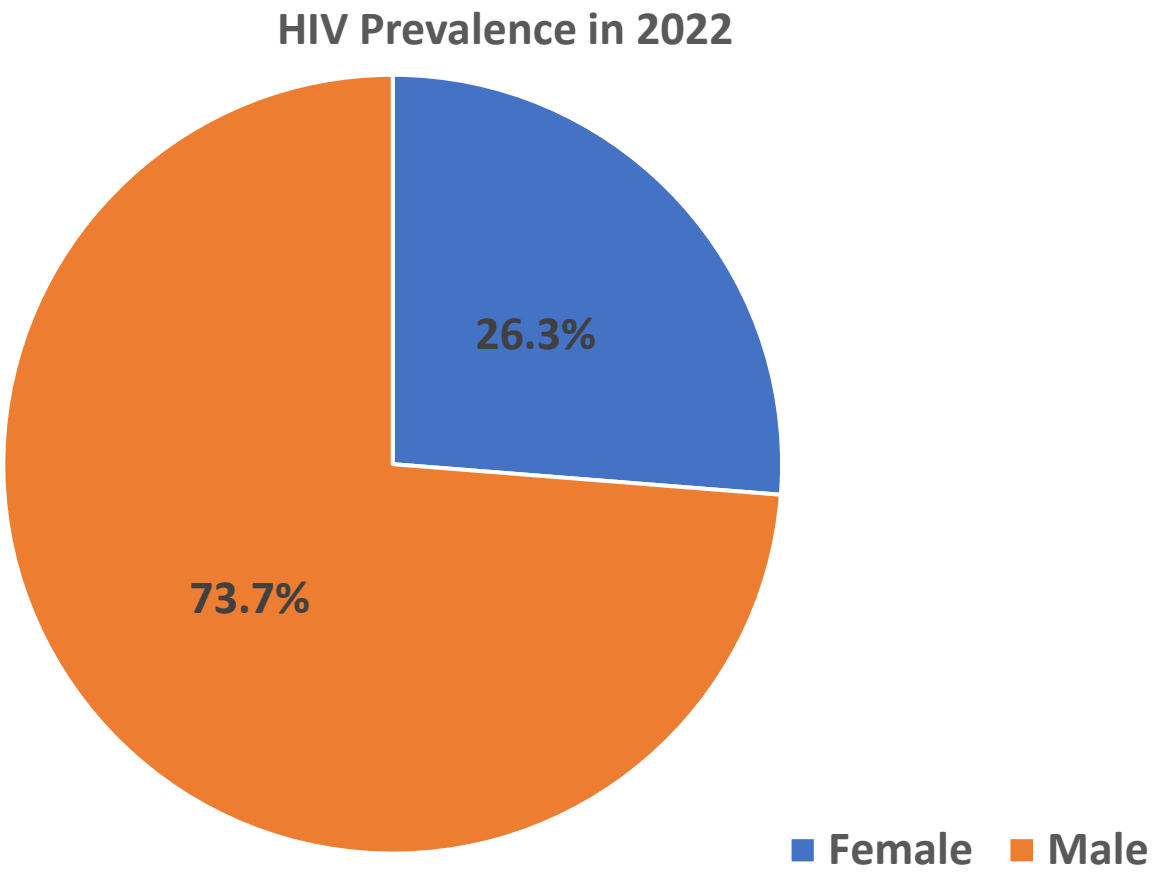
Prevalence by Birth Sex



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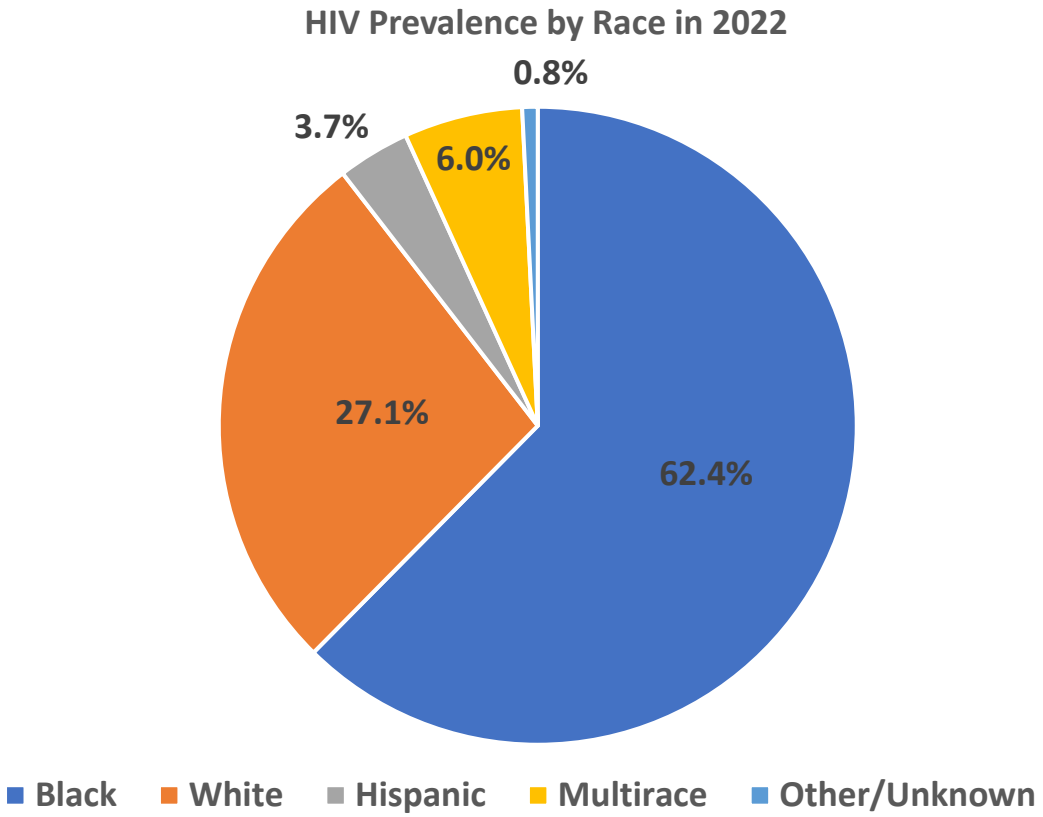
Prevalence by Race



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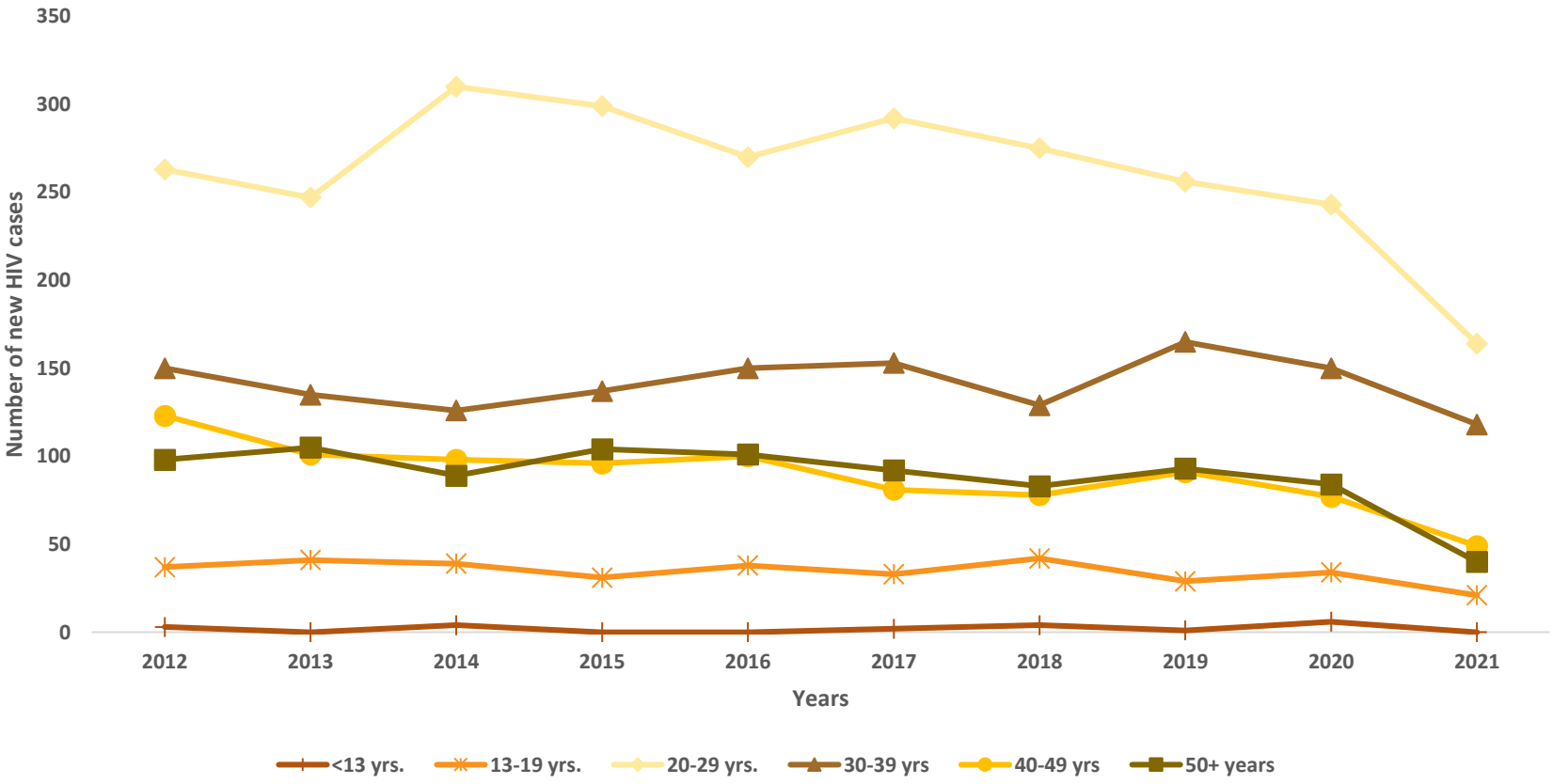
HIV Incidence by Year and Age



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*** Sharp decline from 2020 to 2021 is likely due to the impact of the COVID pandemic.**

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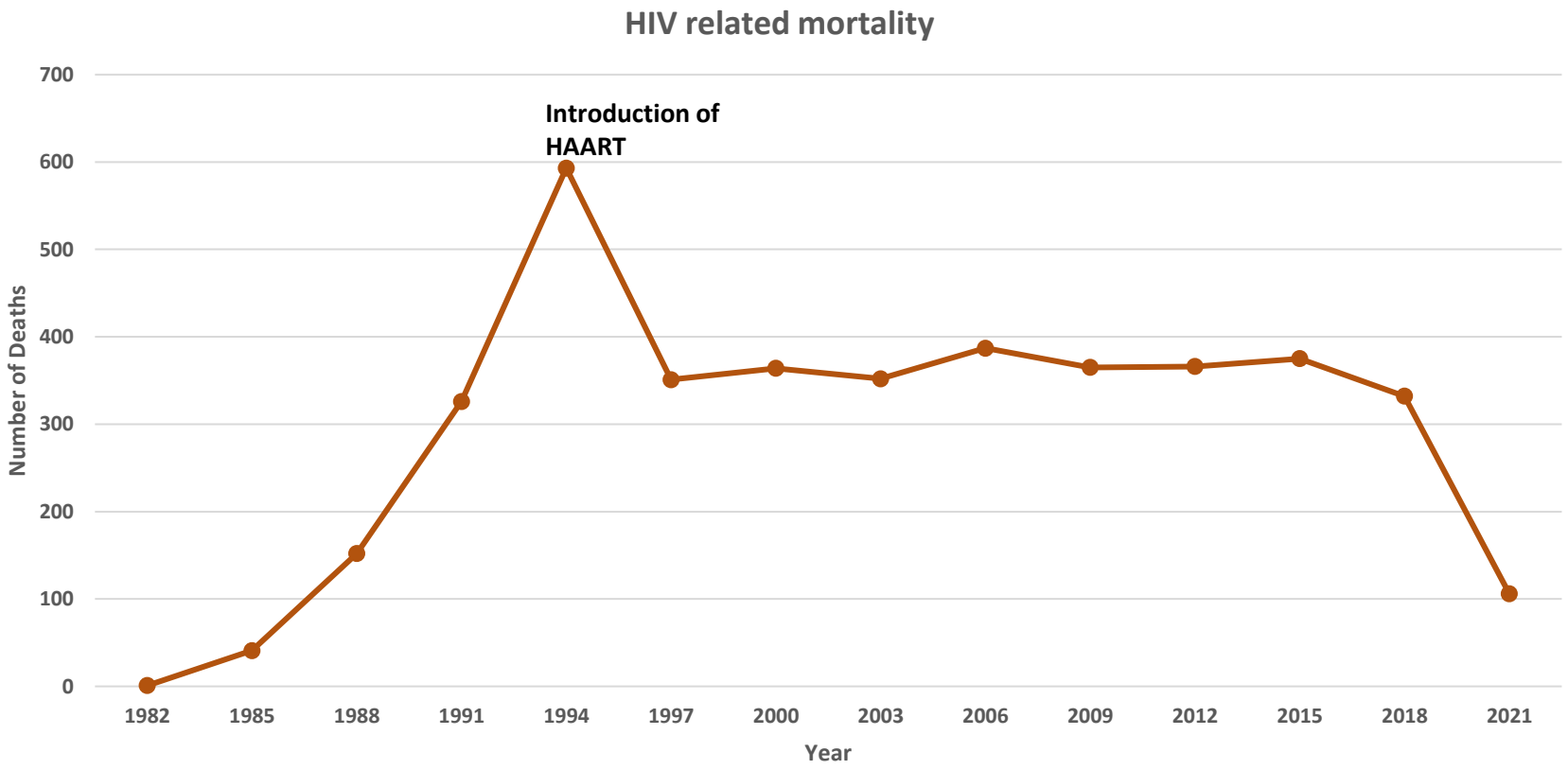
Mortality



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2022 Finalized Continuum of Care Data

https://files.hiv.gov/s3fs-public/NHAS-2022-At-A-Glance.pdf

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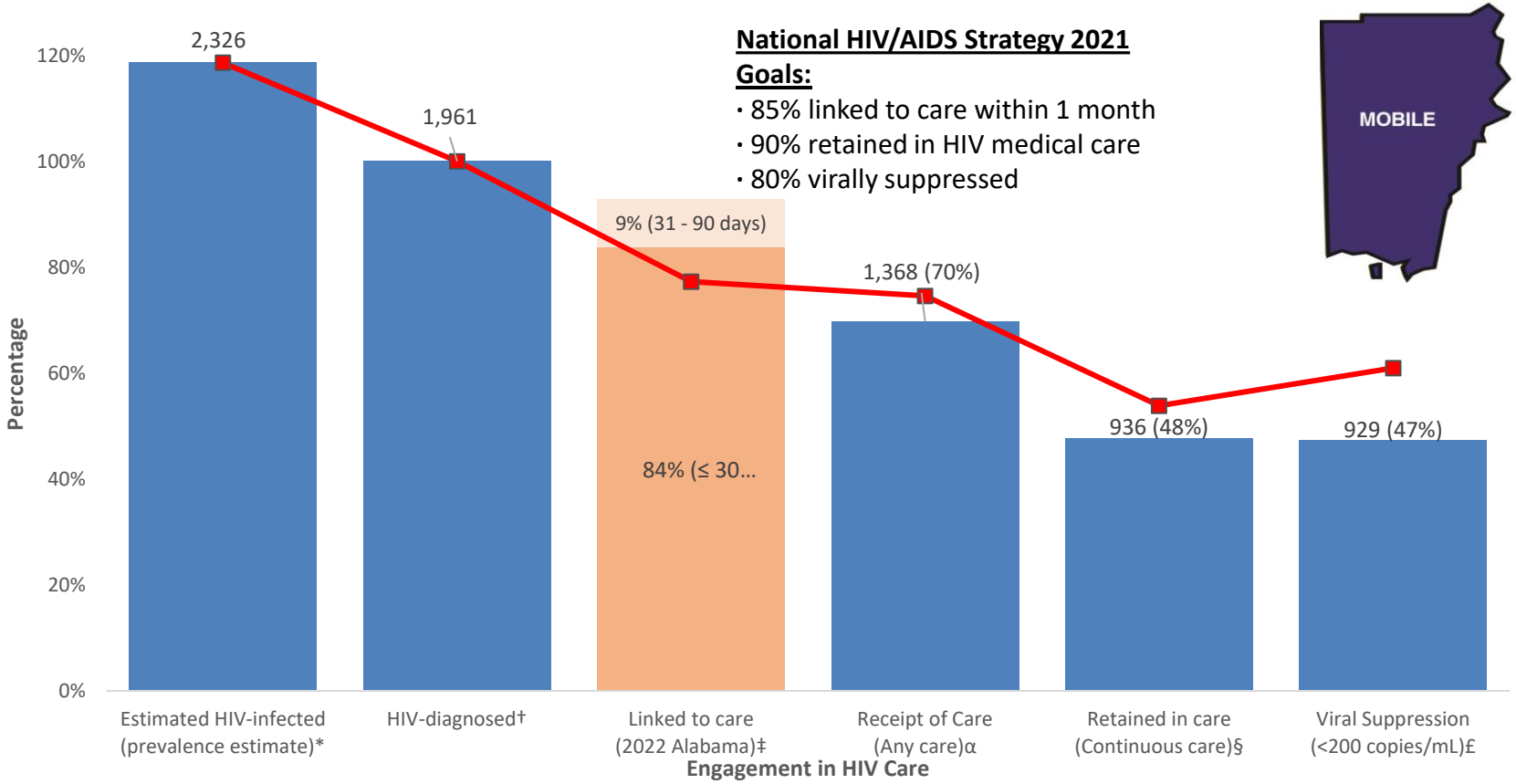
Continuum of Care Metrics (Mobile)



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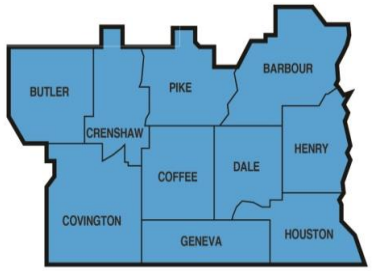
Continuum of Care Metrics (SE District)

National HIV/AIDS Strategy 2021 Goals:

- 85% linked to care within 1 month
- 90% retained in HIV medical care
- 80% virally suppressed



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Continuum of Care Metrics (SW District)

National HIV/AIDS Strategy 2021 Goals:

- 85% linked to care within 1 month
- 90% retained in HIV medical care
- 80% virally suppressed

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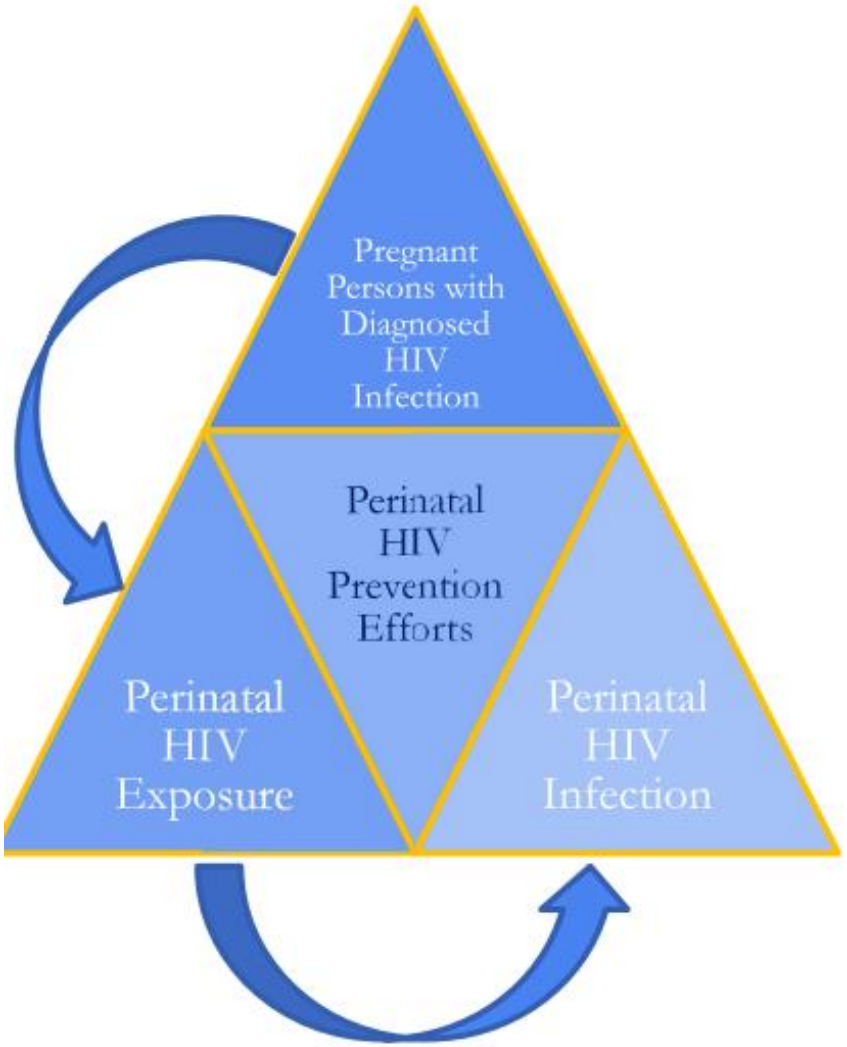
Preventing perinatal HIV transmission

Starts and ends with surveillance.

01/2020 – 1/2022: 8 cases of perinatal HIV infection in AL.



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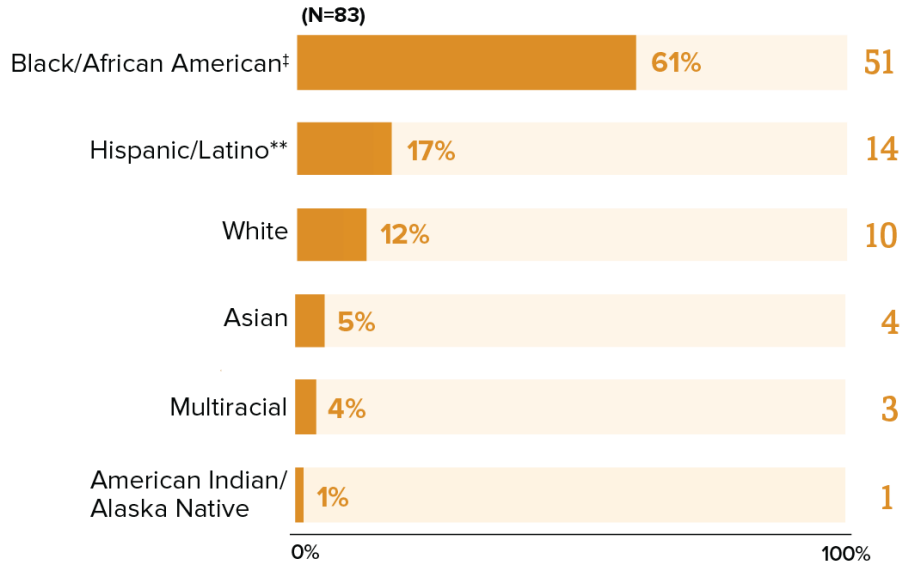
Perinatal HIV by Race

New Perinatal HIV Diagnoses in the US and Dependent Areas by Race and Ethnicity, 2019*†

New perinatal HIV diagnoses disproportionately affect certain racial and ethnic groups.



* In 2019, there were no cases of perinatal HIV among Native Hawaiian and other Pacific Islander people.
† Includes HIV diagnoses attributed to perinatal transmission among adults, adolescents, and children. Data have been statistically adjusted to account for missing transmission category.
‡ *Black* refers to people having origins in any of the Black racial groups of Africa. *African American* is a term often used for people of African descent with ancestry in North America.
** Hispanic/Latino people can be of any race.
Source: CDC. Diagnoses of HIV infection in the United States and dependent areas, 2019. *HIV Surveillance Report* 2021;32.

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Preventing perinatal HIV transmission

- All pregnant women in Alabama should receive both first trimester and third trimester HIV screening which should occur at between 28 and 32 weeks of gestation to allow time to intervene.
- If maternal HIV status is unknown at the time of labor, a rapid HIV test should be performed immediately. Women who were not tested for HIV before or during labor should undergo expedited HIV antibody testing in the immediate postpartum period.

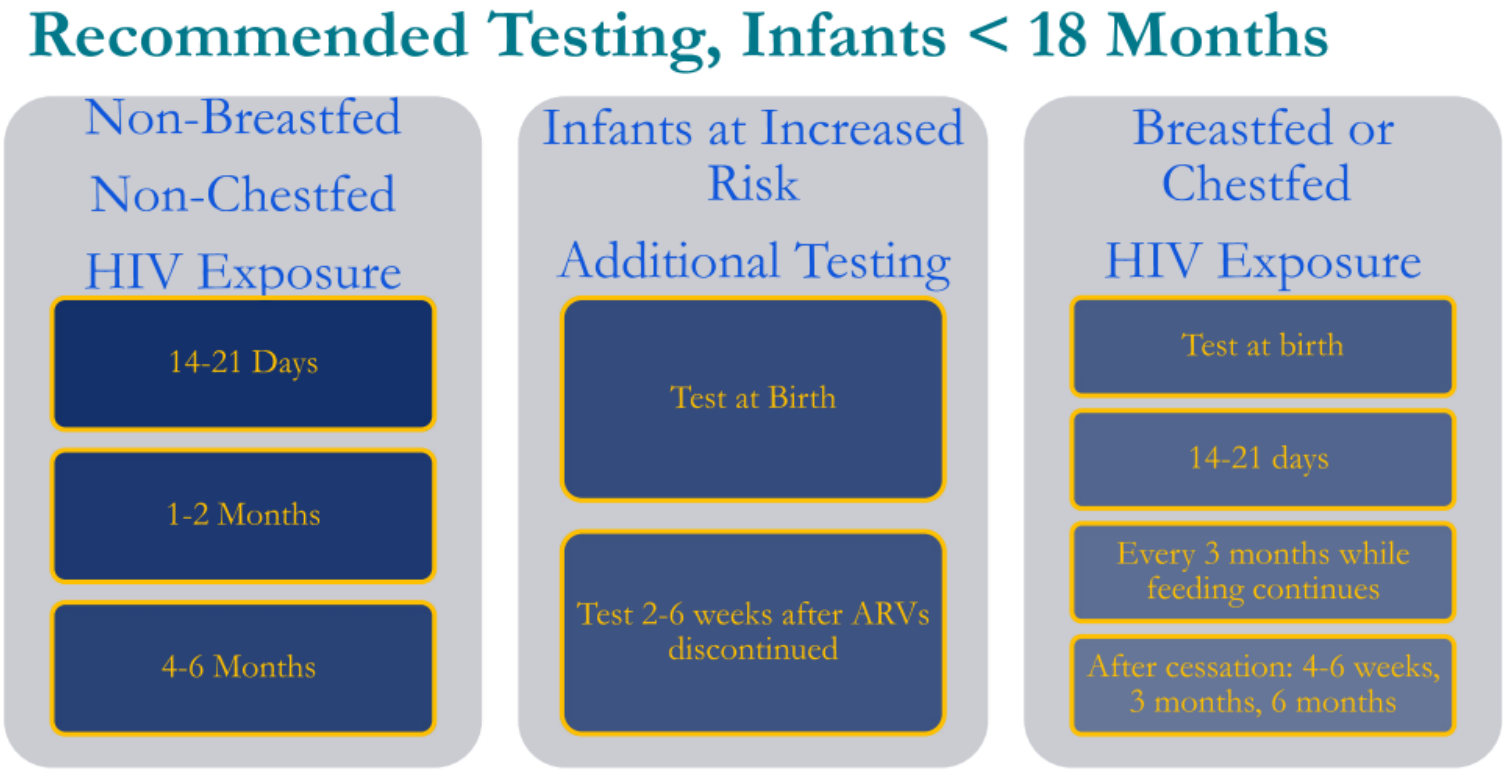
https://clinicalinfo.hiv.gov/en/guidelines/perinatal/whats-new

https://www.alabamapublichealth.gov/alphtn/assets/091923handouts.pdf

Diagnosing HIV Infection in Children <13 Years

- HIV RNA and HIV DNA nucleic acid tests (NATs) are recommended as preferred virologic assays in children younger than 18 months with perinatal HIV exposure.
- In children >18 months of age, standard immunoglobulin G (lgG) antibody tests can be used to diagnose HIV infection. This same testing should not be used in infants under 18 months due to the passive transfer of birthing person HIV lgG antibody across the placenta to the fetus, which may persist as long as 18 months (rarely up to 24 months).

Perinatal Exposure HIV Testing



Panel on Treatment of HIV During Pregnancy and Prevention of Perinatal Transmission. Recommendations for the use of antiretroviral drugs during pregnancy and interventions to reduce perinatal HIV transmission in the United States.

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Perinatal Exposure HIV Testing

- Definitive exclusion of HIV infection in non-breastfed/chestfed infants is based on 2 or more negative virologic tests, with 1 obtained at age >1 month and 1 at age >4 months **OR** 2 negative HIV antibody tests from separate specimens obtained at age >6 months.
- Infants with potential HIV exposure after birth (e.g., breastfeeding/chestfeeding, premasticated feeding, sexual abuse, contaminated blood products, percutaneous exposure} who are aged <18 months require additional testing.

HIV Nucleotide Sequence Testing

Benefits:

- Routine drug resistance testing
- Most effective for elucidating transmission patterns and
- Identifying outbreaks if ordered promptly and sequences are reported completely

HIV Nucleotide Sequence Testing in AL

- Target CDC HIV nucleotide sequence completeness rate between 2020-2022 = ≥ 45% of all HIV diagnoses reported
- AL nucleotide sequence completeness rate = 34 %
- Number of molecular clusters in 2023 = 1
- Number of time space alerts in 2023 = 4

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Questions?

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Thank you!

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Questions

Contacts

Olubukola Alonge MD MPH
HIV Surveillance Coordinator
Office of HIV Prevention and Care
Olubukola.alonge@adph.state.al.us

Tiffany Wilson MPH
Data Management Director
Office of HIV Prevention and Care
tiffany.wilson@adph.state.al.us