Updates in HIV Care

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Disclosures

- Nothing to disclose financially
- I work with the AIDS Education Training Center

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Objectives

- Understand current demographics for HIV world-wide and initiatives to end the HIV epidemic
- Review recommended HIV treatment including long-acting injectables
- Discuss updated 2025 United States DHHS guidelines on perinatal HIV transmission

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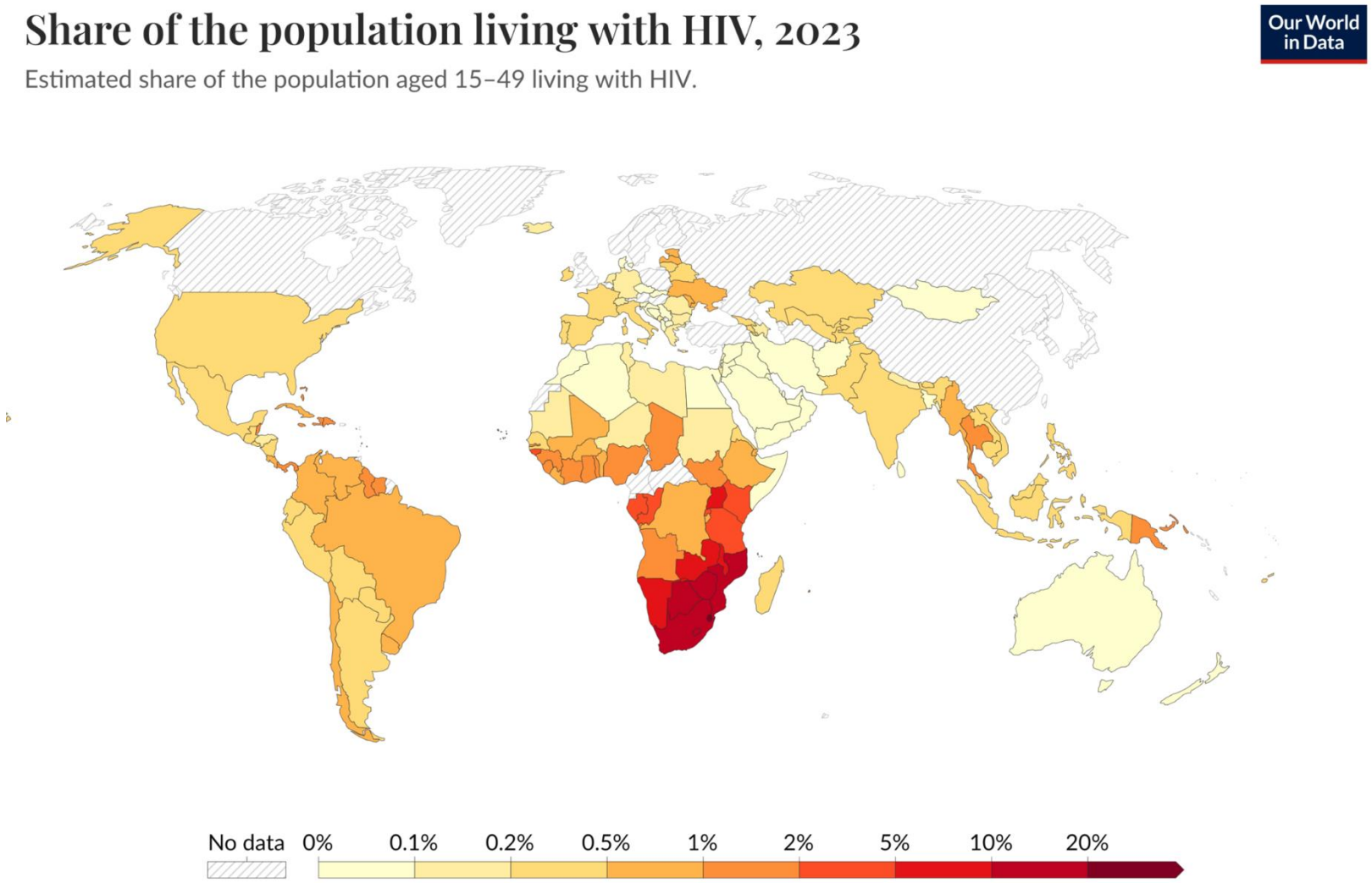
Summary of the global HIV epidemic, 2024

	People living with HIV	People acquiring HIV	People dying from HIV-related causes
Total	**40.8 million** [37.0–45.6 million]	**1.3 million** [1.0–1.7 million]	**630 000** [490 000–820 000]
Adults (15+ years)	**39.4 million** [35.7–44.0 million]	**1.2 million** [950 000–1.5 million]	**550 000** [430 000–720 000]
Women (15+ years)	21.0 million [19.0–23.5 million]	530 000 [410 000–710 000]	240 000 [180 000–320 000]
Men (15+ years)	18.5 million [16.5–20.7 million]	650 000 [530 000–830 000]	320 000 [240 000–410 000]
Children (<15 years)	**1.4 million** [1.1–1.8 million]	**120 000** [82 000–170 000]	**75 000** [50 000–110 000]

Source: UNAIDS/WHO estimates, 2025.



Hontelez JAC et al. EClinicalMedicine. 2025; https://pepfar.impactcounter.com/;
Nichols BE et al. J Int AIDS Soc. 2025.

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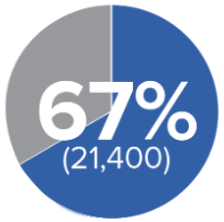
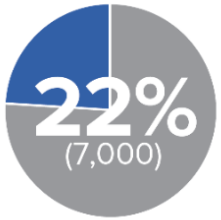
Estimated HIV infections in the US by transmission category, 2022

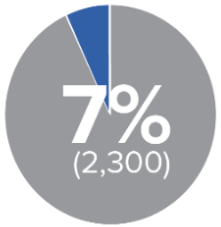
There were **31,800 estimated new HIV infections** in the US in 2022. Of those:



were among gay, bisexual, and other men who reported male-to-male sexual contact*



were among people who reported heterosexual contact



were among people who inject drugs

* Includes infections attributed to male-to-male sexual contact *and* injection drug use (men who reported both risk factors).

Source: CDC. Estimated HIV incidence and prevalence in the United States, 2018–2022. *HIV Surveillance Supplemental Report*, 2024; 29(1).

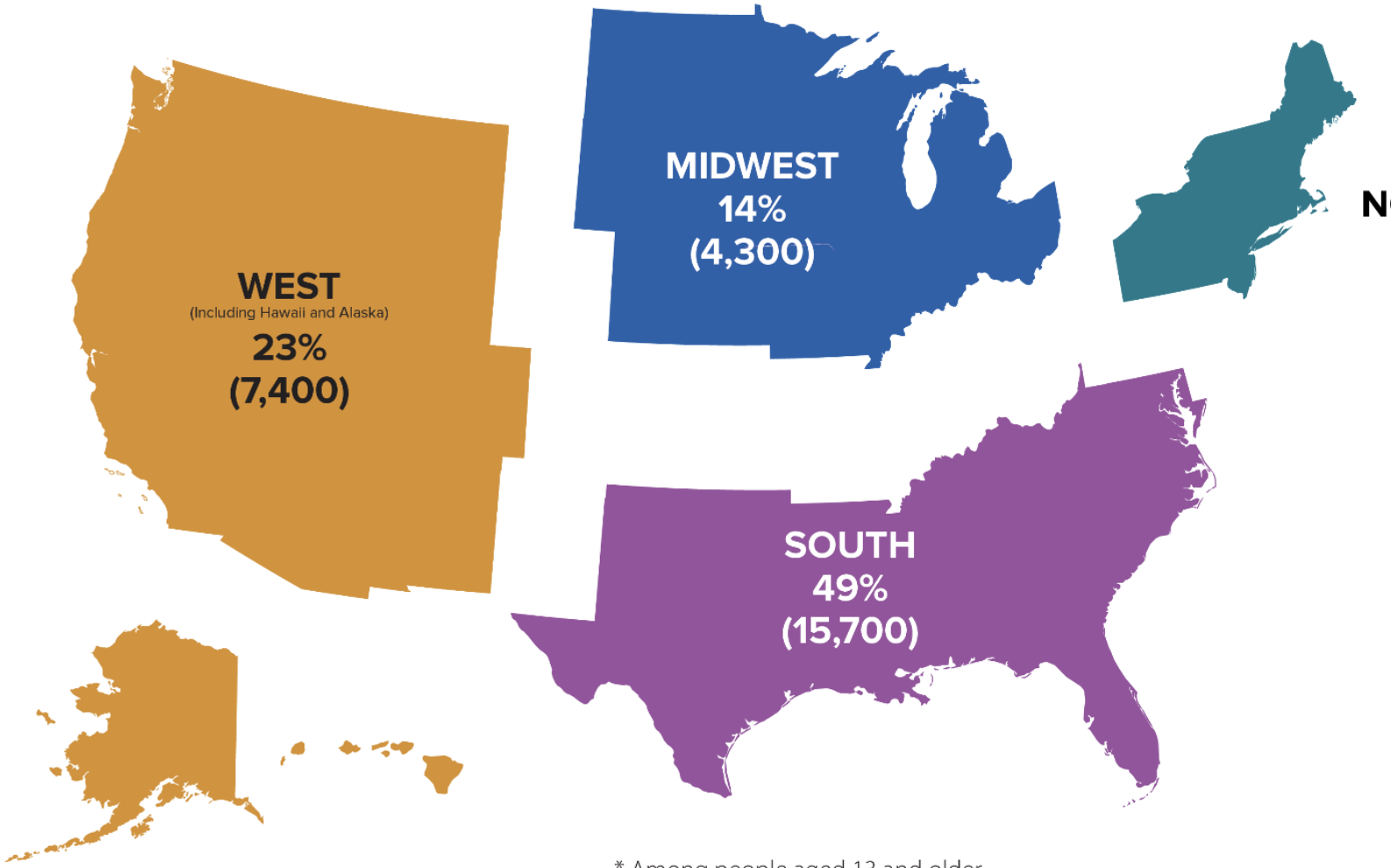
Ending the HIV Epidemic

Overall Goal: Decrease the estimated number of new HIV infections to 9,300 by 2025 and 3,000 by 2030.

Estimated HIV infections in the US by region, 2022*

Nearly half (49%) of new HIV infections were in the South.

N=31,800



* Among people aged 13 and older.

Source: CDC. Estimated HIV incidence and prevalence in the United States, 2018–2022. *HIV Surveillance Supplemental Report*, 2024; 29(1).

Ending the HIV Epidemic (EHE) by 2030

- Initiative by DHHS
- Reducing new HIV infections in the United States by 75% by 2025 and by 90% by 2030
  - Baseline in 2017 of 37,000
- Working with Community Based Organizations
  - Housing and employment support
  - Mental health services
  - Substance use disorder treatment
  - Comprehensive sexual health services

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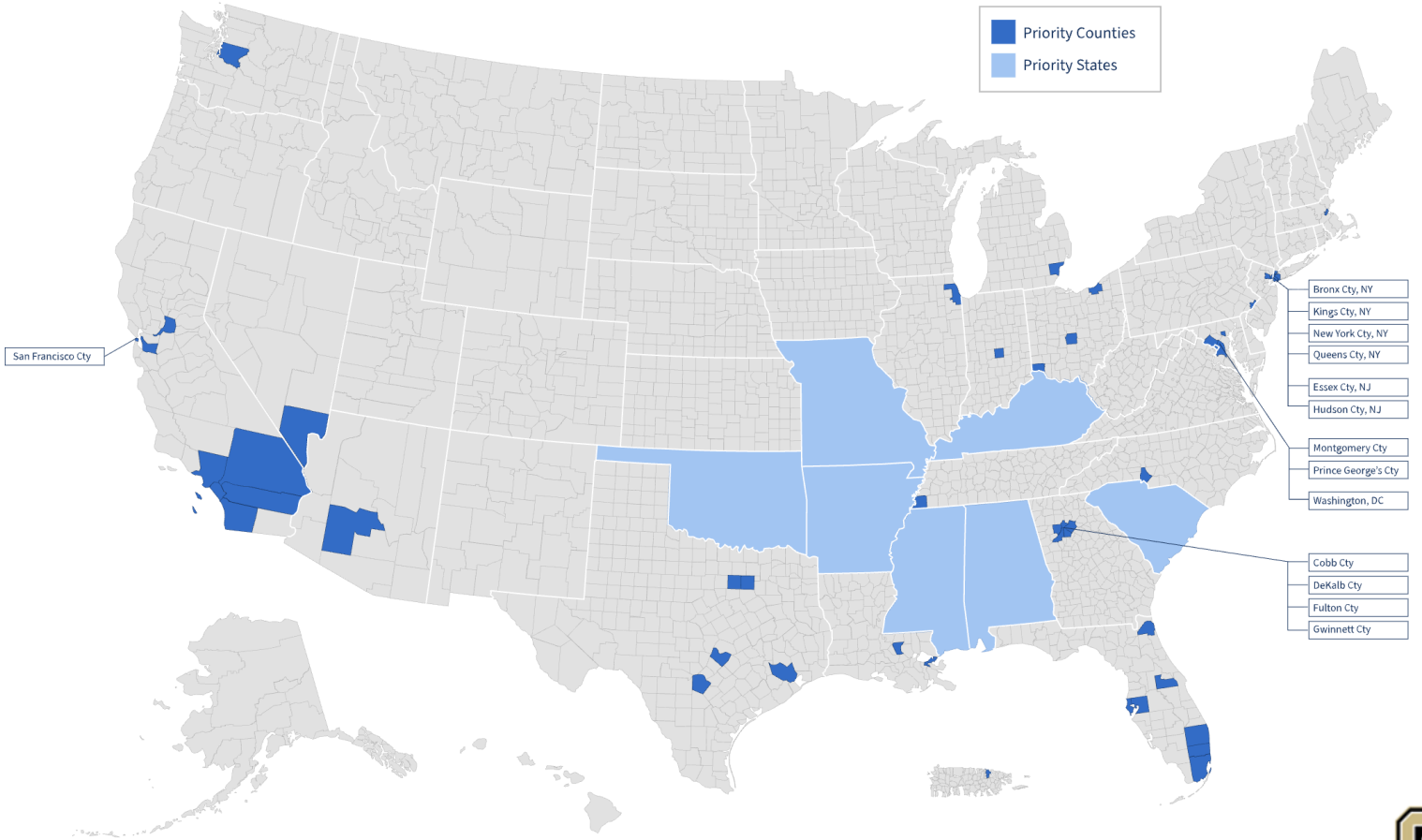
CDC Ending the HIV epidemic US

Areas of focus for Ending the HIV Epidemic



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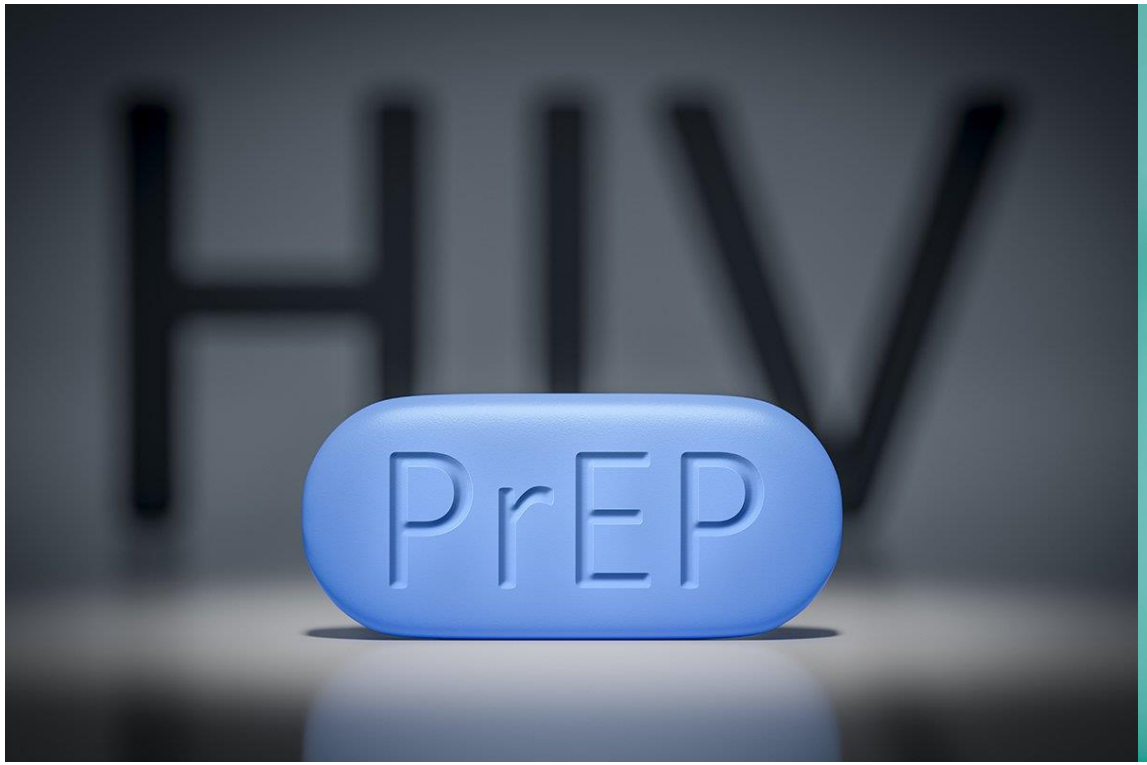
Prevention of HIV



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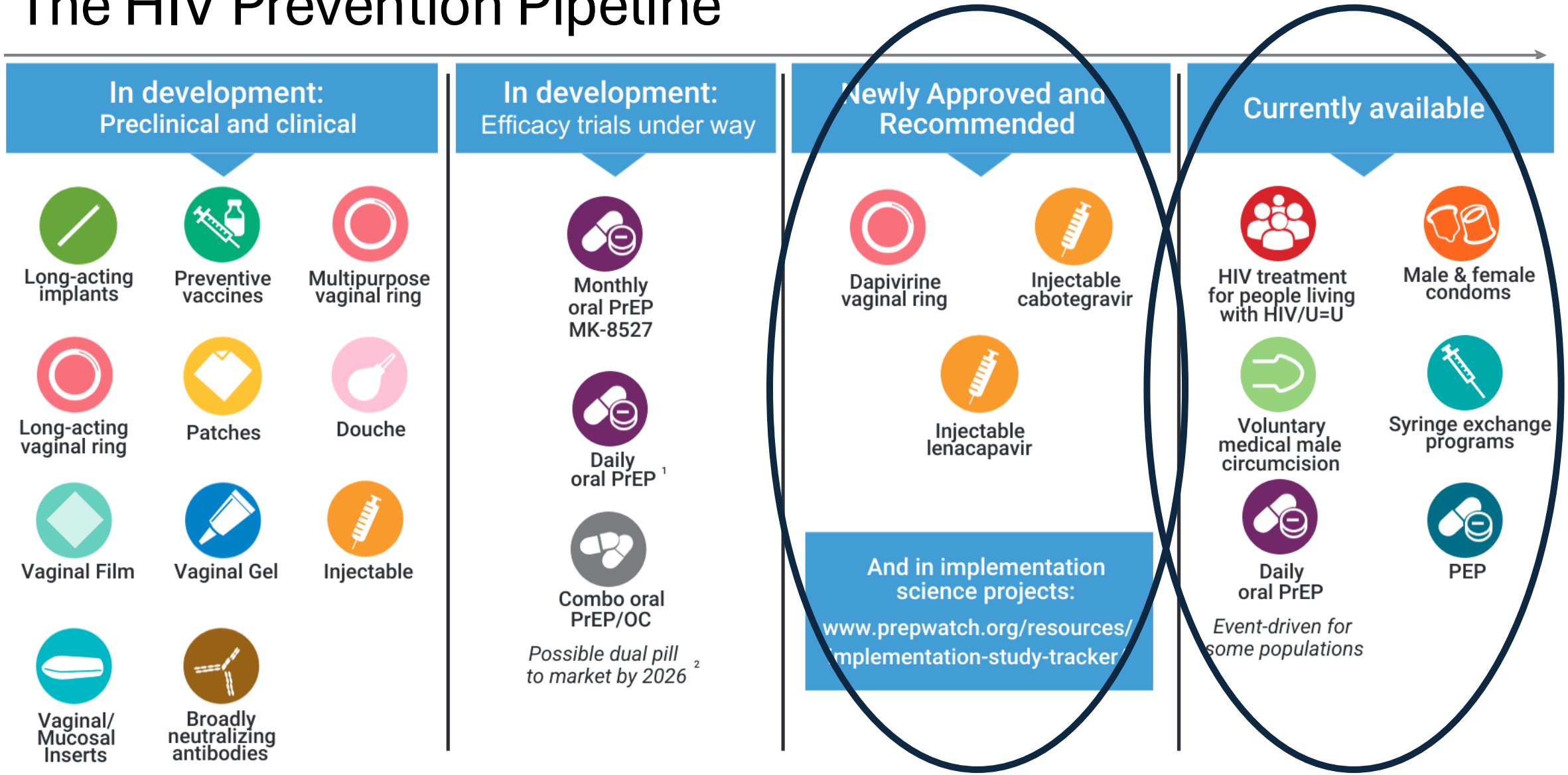
The HIV Prevention Pipeline



[1] In Oct 2019, US FDA approved F/TAF for adults and adolescents who have no HIV risk from receptive vaginal sex; still in development for [redacted] women.

[2] Efficacy trials not required; bioequivalency of the two approved products when dosed together may be all that is required.

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Pre-exposure Prophylaxis

- iPrex – TDF/FTC daily pill in MSM
  - 44% reduction in HIV acquisition (90% with adherence)
- TDF2 in heterosexual men and women in Botswana
  - Reduced acquisition by 63%
- Partners PrEP- sero-discordant couples in Kenya and Uganda
  - Decreased acquisition 67% (86%) with TDF alone and 75% (90%) with TDF/FTC
- DISCOVER - MSM
  - TAF/FTC is non-inferior to TDF/FTC (53% fewer infections in TAF)

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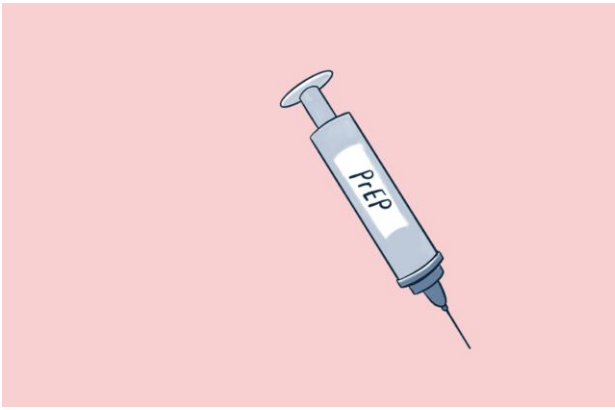
Grant R, et al. NEJM. 2010; Thigpen MC, et al. NEJM 2012 ; Baeten JM, et al. NEJM 2012; Ogbuagu O, et al. Lancet HIV

Injectable Pre-Exposure Prophylaxis



- Cabotegravir injectable every 2 months
  - HPTN 083 (MSM)
    - 66% greater reduction in HIV risk compared to daily oral Truvada.
  - HPTN 084 (Women)
    - 88% greater reduction in HIV risk compared to daily oral Truvada, with near-zero incidence.
- Lenacapavir injectable every 6 months
  - PURPOSE 1: women, zero infections
  - PURPOSE 2: MSM

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Landovitz RJ et al. NEJM 2021; Delany-Moretlwe S et al. The Lancet 2022;
Bekker LG et al. NEJM 2024; Kelley CF et al. NEJM 2024

PrEP in pregnancy

- Discuss PrEP with any sexually active person during preconception, pregnancy, post-partum or BF (AII)
  - importance of daily PrEP
  - side effects including renal injury and bone demineralization
- TDF-FTC daily pill recommended during pregnancy
  - HIV (and STI) testing every 3 months
- If pregnancy occurs on another form of PrEP, discuss unknown risks of continuing
  - Register pregnancy with Antiretroviral Pregnancy Registry

DHHS Treatment of HIV During Pregnancy and Prevention of Perinatal Transmission. 2024
Full Efficacy and Safety Results AIDS 2024

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Treatment as Prevention

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Cohen MS et al. NEJM 2016

HIV treatment

- Daily pill
- Injectable Cabotegravir and Rilpivirine

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Risk of HIV transmission with undetectable viral load by transmission category

Transmission category	Risk for people who keep an undetectable viral load
Sex (oral, anal, or vaginal)	Studies have shown no risk of transmission
Pregnancy, labor, and delivery	1% or less*
Sharing syringes or other drug injection equipment	Unknown, but likely reduced risk
Nursing (breastfeeding)	Less than 1%, but not zero†

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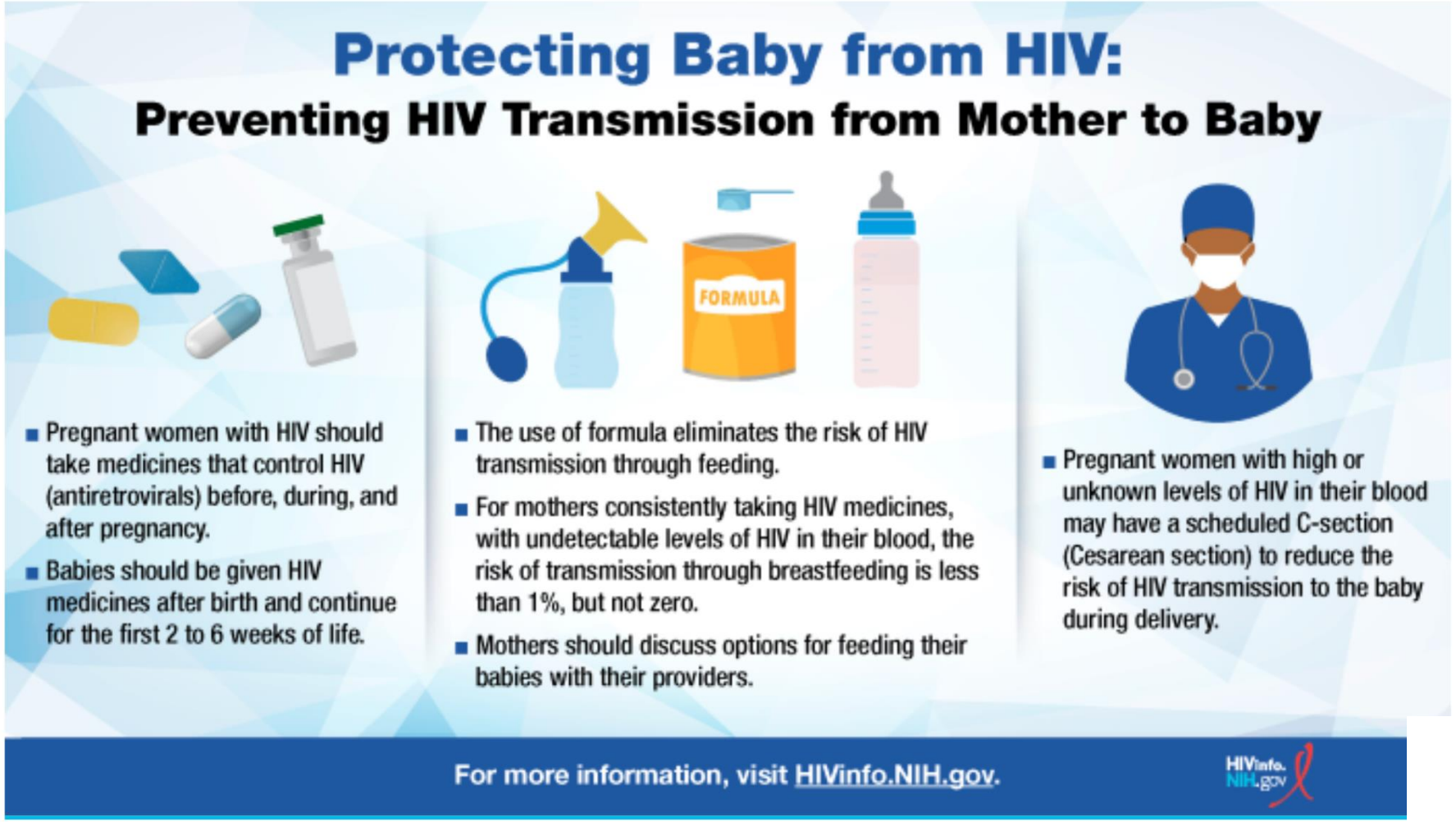
DHHS Perinatal Guidelines https://clinicalinfo.hiv.gov/en/guidelines/perinatal.2026

HIV RNA at time of delivery

	<50 copies/mL and on ART With No Concerns About Adherence[a]	≥50 to ≤1,000 copies/mL	>1,000 copies/mL	Unknown HIV RNA ART Adherence Concerns[a] Not Receiving ART HIV Diagnosis in Labor
Intrapartum ART	Prescribed ART should be taken on schedule during labor and before scheduled cesarean birth **(CIII).** In general, ARV regimens are initiated postpartum when HIV is diagnosed during labor.			
Intrapartum IV ZDV	Not required **(BII)**	Not required but may be considered **(CII);** some experts recommend.	Yes, recommended **(AI)**[b] IV ZDV: 1-hour loading dose at 2 mg/kg followed by a continuous ZDV infusion of 1 mg/kg for 2 hours (at least 3 hours total) **(AII)**	
Mode of Delivery	Vaginal birth[c] **(AII)**	Vaginal birth[c] **(AII)**	Scheduled cesarean birth at 38 weeks gestation[d] **(AII)**	Individualized care[d]
Artificial Rupture of Membranes[e]	Per standard obstetric indications **(BII)**	Avoid if possible **(BIII).**	Not applicable; cesarean birth recommended.	Avoid, if possible, when viral load is detectable or unknown and a cesarean birth is not being performed **(BIII).**
Induction of Labor	Per standard obstetric indications, including use of oxytocin. When HIV RNA levels are ≤1,000 copies/mL, routine induction at 38 weeks gestation should NOT be performed.		Not applicable; scheduled cesarean birth at 38 weeks is recommended.	Avoid if possible **(BIII).**

Prevention of Vertical Transmission



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DHHS Guidelines for HIV testing in Pregnancy

- Opt-out HIV testing done as early as possible during pregnancy
  - Repeat HIV testing in the third trimester if:
    - Facility with HIV incidence of >1 case per 1000 patients with pregnancy per year
    - Jurisdiction with elevated HIV incidence >17/100,000 females ages 15-45
    - Reside in state/territories with required third-trimester testing
  - Repeat testing with ongoing exposure
  - Repeat if signs and symptoms of acute HIV or any STI

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DHHS Guidelines for HIV testing in Pregnancy

- Partners should be referred for HIV testing when their status is unknown
- Expedited HIV testing when unknown during delivery
- If HIV Ab/Ag test is positive, check HIV 1 and 2 differentiation test and HIV RNA
  - HIV NAT on infant (DNA or RNA) at birth
  - Initiation of ART for infant
- HIV testing for children in foster care and adoptees

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HIV treatment during pregnancy

- BIC/TAF/FTC – once daily pill with integrase inhibitor, two nucleoside reverse transcriptase inhibitors
- If exposed to CAB-LA
  - Protease inhibitor Darunavir/ritonavir

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Table 4. HIV-Related Antepartum Screenings and Assessments During Pregnancy[a]

Antepartum Screenings and Assessments	At Entry into Antenatal Care	At Each Visit	As Clinically Indicated
Assessment of ART adherence, adherence challenges, and facilitators	✓	✓	✓
Assessment of the need for prophylaxis against opportunistic infections, e.g., *Pneumocystis jirovecii* pneumonia[b]	✓		✓
Screening for HAV, HBV, and HCV and assessment of vaccination or treatment needs[c]	✓		
Assessment and provision of other vaccination needs, e.g., influenza, pneumococcus, Tdap, SARS-CoV-2 (including boosters)[d]	✓		✓
Tuberculosis screening[e]	✓		✓
STI screening, e.g., syphilis, *Chlamydia trachomatis*, *Trichomonas vaginalis*, and *Neisseria gonorrhea*	✓		✓[f]
Screening for depression and anxiety	✓		✓
Screening for IPV	✓		✓
Assessment of the need for supportive care, e.g., social services, mental health services, substance use disorder treatment services, smoking cessation	✓	✓	✓

DHHS Panel on Treatment of HIV During Pregnancy and Prevention of Perinatal Transmission. 2024

Breastfeeding with HIV

- Counseling about infant feeding early
- Replacement feeding or donor milk eliminate risk of HIV transmission
- ART during pregnancy with viral suppression, reduces BF transmission <1% but not zero
- With detectable VL during BF, rec to stop temporarily
  - Experts recommend permanent discontinuation of BF when HIV RNA is >/= 200 copies/mL
- National Perinatal HIV/AIDS Hotline 1-888-448-8765 for questions

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Infant Management During Breastfeeding

- 2-week zidovudine prophylaxis in infants with low risk of transmission (option up to 4-6 weeks)
  - Consider adding NVP, 3TC 6 weeks if ever VL >50 copies/mL
- Some experts recommend ART prophylaxis until 6 weeks after exposure to breast milk
- If breastfeeding mother is viremic >200 copies/mL, stop
  - Recommend 3 drug if maternal VL >200 copies/mL
    - ZDV, 3TC, DTG and if <4 weeks ZDV, 3TC, NPV (or RAL)
    - Perform HIV NAT

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HIV testing in infant during BF

- Birth
- 14–21 days
- 1–2 months (see note below)
- If high risk, can add 2-3 months
- 4–6 months
- At 4-6 weeks after cessation and then 4-6 months after cessation of breastfeeding

- Breastfeeding woman – every 1-2 months during BF

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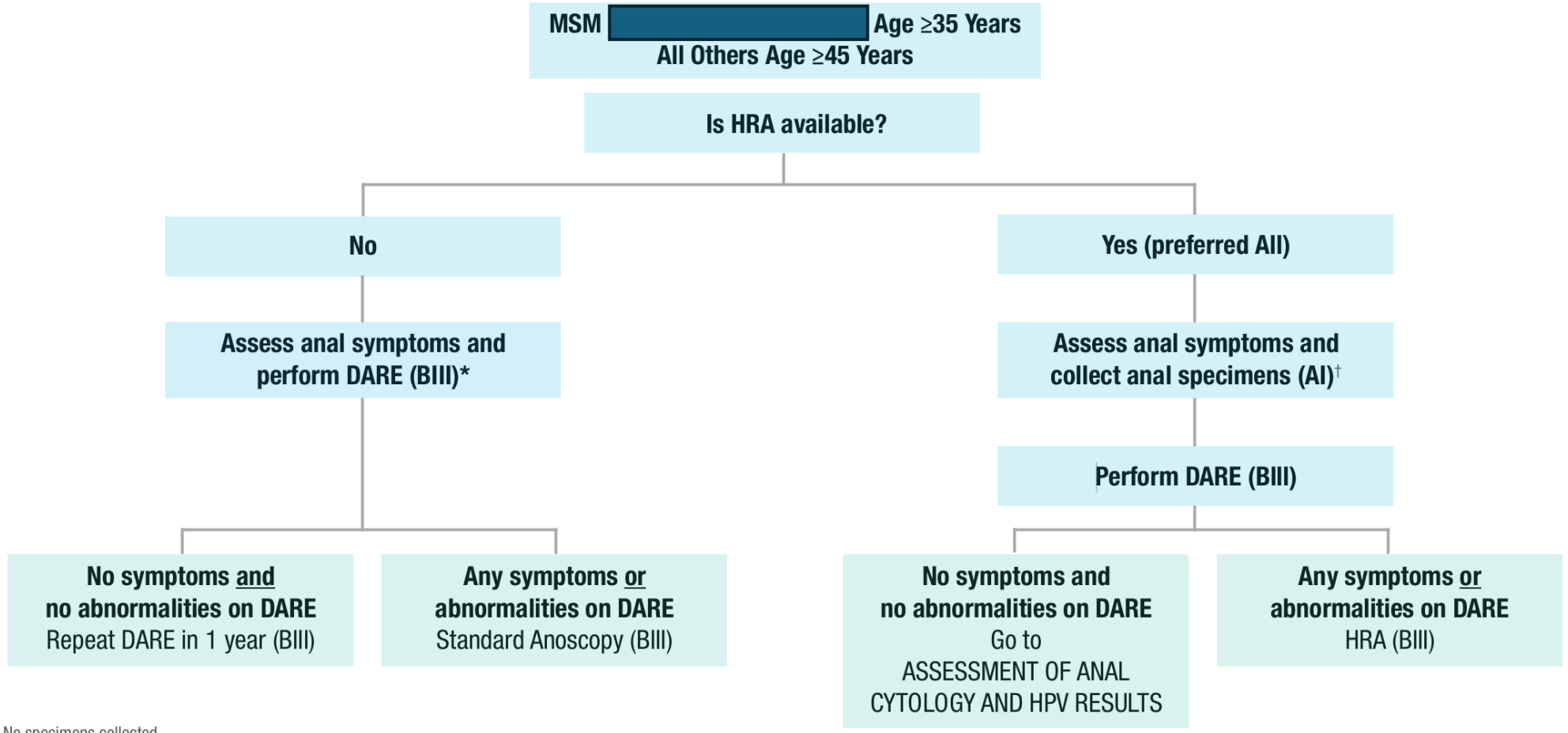
Anal cancer screening

SCREENING ALGORITHM FOR ANAL CANCER IN ASYMPTOMATIC PEOPLE WITH HIV



* No specimens collected

† Collect any specimens either for cytology or for cytology with HPV co-testing prior to DARE. HPV testing without cytology is not recommended (BIII)

Key: DARE = digital anorectal exam; HPV = human papillomavirus; hr-HPV = high-risk HPV; HRA = high-resolution anoscopy; MSM = men who have sex with men

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ASSESSMENT OF ANAL CYTOLOGY AND HPV RESULTS IN PEOPLE WITH HIV

Was hr-HPV co-testing performed?

No

Cytology Normal
Repeat cytology in 1 year (BIII)

Normal x 3 consecutive years
Repeat cytology in 3 years (BIII)

Cytology ≥ ASC-US
HRA (BIII)

Yes

Cytology Normal
Assess hr-HPV results

hr-HPV Negative	Repeat cytology and hr-HPV in 3 years (BIII)
hr-HPV Positive, No HPV typing	Repeat cytology and hr-HPV in 6 months† (BIII)
hr-HPV Positive, HPV 16 and 18 negative	Repeat cytology and hr-HPV in 1 year† (BIII)
hr-HPV Positive, HPV 16 or 18 positive	HRA (BIII)

Cytology ASC-US
Assess hr-HPV results

hr-HPV Negative	Repeat cytology and hr-HPV in 1 year† (BIII)
hr-HPV Positive	HRA (BIII)

Cytology ≥ LSIL
HRA (BIII)

† If at repeat testing either cytology is ≥ ASC-US or any hr-HPV is detected, refer for HRA (BIII)

Key: ASC-US = atypical squamous cells of undetermined significance; HPV = human papillomavirus; hr-HPV = high-risk HPV; HRA = high-resolution anoscopy; LSIL = low-grade squamous intraepithelial lesion

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Thank you