

Actionable sexual health education for HIV and STI prevention among LGBTQ+ youth in the USA

In the USA, there is a substantial number of LGBTQ+ youth at risk for, and living with, HIV. In 2022, youth aged 13–24 years accounted for 20% (6400) of the estimated 31800 new HIV infections, with sexual or gender minorities disproportionately represented.¹ Through our HIV prevention initiatives at the UCLA Center for LGBTQ+ Advocacy, Research & Health (C-LARAH), we have interacted with many LGBTQ+ youth in Los Angeles who had no knowledge of HIV. This lack of knowledge prompted reflection on gaps between scientific literacy and lay understanding among adolescents and raised concerns about the effectiveness of sexual health education in conveying HIV and sexually transmitted infection (STI) prevention information to LGBTQ+ youth.

Across 41 states and the District of Columbia, sexual health education is required, and in California, the California Healthy Youth Act mandates comprehensive HIV and sexual health education in middle and high school (age 11–18 years).² These requirements reflect an expectation that students acquire foundational knowledge about HIV, including transmission, treatment, and prevention. However, policy-level provisions do not automatically translate into retained knowledge. Through informal conversations with many queer, sexually active youth in Los Angeles, we found low knowledge of HIV prevention, particularly biomedical strategies; none of the LGBTQ+ youth ages 15–18 years that we spoke with had heard of pre-exposure prophylaxis (PrEP). This aligns with research showing that only 16% of similar

youth report PrEP awareness.³ This gap is especially concerning given that minors in California can consent to HIV prevention services, including PrEP, without parental involvement.

The discrepancy between intended educational outcomes and retained understanding raises important questions about curriculum effectiveness, instructional methods, and student engagement. Several factors contribute to this gap. Sexual health information presented in school often lacks sustained reinforcement, and inaccurate information spreads through peers and social media. Educational materials frequently fail to address biomedical prevention options such as PrEP, post-exposure prophylaxis (PEP), and doxycycline PEP. Without clear information on efficacy, adherence, side-effects, and access, youth cannot make informed decisions or compare prevention strategies.

Additionally, effective prevention depends on the ability to communicate with health-care providers, yet barriers persist, including provider knowledge gaps, discomfort discussing LGBTQ+ health, and time constraints.⁴ The way STI content is presented also contributes to disparities, as instruction often emphasises pregnancy prevention and abstinence-based approaches, minimising STI risk and excluding LGBTQ+ experiences.

By contrast, countries such as the UK, Canada, and the Netherlands implement comprehensive, inclusive sexual health education that explicitly addresses HIV prevention and LGBTQ+ health, resulting in stronger knowledge outcomes among LGBTQ+ youth. Research suggests that earlier education, improved teacher training, and greater community involvement could strengthen US outcomes.⁵

Reducing HIV disparities among LGBTQ+ youth requires moving beyond compliance with mandates towards educational approaches that foster understanding and retained knowledge.⁵ This approach includes

integrating biomedical prevention into curricula, using culturally responsive teaching, and creating environments where LGBTQ+ students can ask questions, address misconceptions, and access reliable, age-appropriate LGBTQ+ specific resources.

Part of the investigator (MJM) time for this manuscript was supported by the UCLA-CDU Center for AIDS Research (P30 AI152501). The authors declare no competing interests. JS and MJM contributed equally.

Jonah Segil, *Matthew J Mimiaga
mmimiaga@ph.ucla.edu

UCLA Center for LGBTQ+ Advocacy, Research & Health, Los Angeles, CA, USA (JS, MJM); Department of Epidemiology, UCLA Fielding School of Public Health, Los Angeles 90095, CA, USA (MJM); Department of Psychiatry and Biobehavioral Sciences, UCLA Geffen School of Medicine, Los Angeles, CA, USA (MJM)

- 1 US Centers for Disease Control and Prevention. (2024). Estimated HIV incidence and prevalence. Feb 7, 2025. <https://www.cdc.gov/hiv-data/nhss/estimated-hiv-incidence-and-prevalence.html> (accessed April 12, 2026).
- 2 California Department of Education. FAQ for sexual education, HIV/AIDS, and STDs. July 3, 2025. <https://www.cde.ca.gov/ls/he/se/faq.asp> (accessed April 12, 2026).
- 3 Matson M, Nery-Hurwit M, Crosby S, Greene GJ, Macapagal K. Awareness and knowledge of pre-exposure prophylaxis among sexual and gender minority adolescents assigned male at birth in the united states. *Arch Sex Behav* 2021; **50**: 1701–11.
- 4 Rosencrance A, Rosebush J, Mannheim J. Barriers to adolescent pre-exposure prophylaxis and sexual health care in pediatric versus family medicine providers. *AIDS Patient Care STDs* 2025; **39**: 515–24.
- 5 Goldfarb ES, Lieberman LD, Conklin K. Three decades of evidence: promising approaches to effective comprehensive sex education. *J Adolesc Health* 2026; **78**: 19–34.



Lancet Infect Dis 2026

Published Online

May 12, 2026

[https://doi.org/10.1016/S1473-3099\(26\)00225-2](https://doi.org/10.1016/S1473-3099(26)00225-2)