FARMWORKER JUSTICE

Issue Brief

Farmworkers & HIV

Introduction

Agricultural workers face numerous barriers to health care access due to poverty, geographic isolation, language barriers, and immigration status. Those who have come to the U.S. from other countries often face difficulties navigating the complex U.S. health system. Insufficient access to care is therefore common among farmworkers, hindering efforts to reduce the burden of preventable conditions, including the Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS).

Data on HIV prevalence among farmworkers is scarce. Older estimates have ranged between 2.6% and 13%,[1] but were based on small samples from specific localities. Migrant Health Centers, health centers that serve migratory and seasonal agricultural workers and their families, track data on HIV diagnoses among their patient population. Of the 843,071 patients served by Migrant Health Centers in 2022, 1,106 (0.13%) had been diagnosed with HIV.[2] However, this data is not necessarily representative of the farmworker population at large. Only 25% of the farmworker population sought health care at a health center in 2022.[3] Further, U.S. Centers for Disease Control (CDC) data for the U.S. Latino population–to which 78% of farmworkers belong[4]–indicates an HIV prevalence of 625.8 per 100,000, or 0.63%, among persons 13 years or older in 2019.[5] This rate was 3.2 times higher than the rate for non-Latino Whites and nearly 1.5 times the rate for the general U.S. population.

Although the current HIV prevalence rate for farmworkers is unknown, we know that they experience many social determinants of health (SDOH) that increase their risk of contracting HIV. More than half of farmworkers (52%) lack health insurance, and 20% have incomes below the federal poverty line.[6] Therefore, they face difficulties accessing preventative care, including medication to prevent HIV (pre-exposure prophylaxis or PrEP), and education about HIV and other sexually-transmitted diseases. Studies with farmworkers have shown moderate or low levels of knowledge about HIV and HIV prevention.[7,8,9] Language barriers also prevent farmworkers from accessing information about HIV. Sixty-two percent (62%) of farmworkers feel most comfortable communicating in Spanish and at least 7% feel most comfortable in an indigenous or other non-English language. Twenty-nine percent (29%) cannot speak English at all.[10] Sometimes, even when information is available in languages other than English, it is not culturally appropriate or accessible to individuals with limited literacy (the average level of education among farmworkers is ninth grade; 35% have a sixth grade education or less and 4% have no formal schooling).[11]

Being a recent immigrant is also associated with certain risk factors that increase HIV risk. Ten percent (10%) of farmworkers have been in the U.S. less than five years.[12] Research has found that immigrants who have been in this country less than 5 years are less likely than more established immigrants to have a main

sex partner in the country, and more likely to use the services of commercial sex workers.[13] In addition, some farmworkers are migratory workers who travel long distances during the year following the crops. As a result, they spend long periods of time away from their families, and may have more than one sex partner as they move from one location to another.

Certain beliefs concerning gender roles are also associated with an increased risk of HIV. *Machismo,* an attitude that values dominant masculinity and which is still common in Latino culture, is associated with risk-taking behavior and having multiple sex partners.[14] Meanwhile, *marianismo*, a cultural belief that women should be passive and self-sacrificing, is associated with sexual submissiveness in relationships, which may lead women to accept risky sexual behavior from partners.[15] Stigma around substance use, sexual relations between men and transgender identities also keep some individuals who are at higher risk of HIV from discussing the subject with their health care providers or getting tested.

Increasing HIV education is crucial to reduce the incidence of HIV among farmworkers, as is improving their access to PrEP. Enhancing access to clinical care and other support for HIV-positive farmworkers is also essential to improve health outcomes among this population and to reduce the spread of the virus. This issue brief examines federal policies relevant to HIV prevention, testing and treatment, as well as barriers that limit farmworkers' access to HIV-related education and health services. It also explores promising practices employed by clinicians and community health workers (CHWs) to increase HIV testing and improve linkages to care.

Policy

HIV policy at the federal level requires the participation and cooperation of multiple federal agencies, many of which provide funding to state and local agencies for treatment and prevention programs. At the state level, measures that criminalize knowingly transmitting HIV to another person, or engaging in certain behaviors that pose a risk of transmission, make up the bulk of HIV public policy.

Federal Agency Coordination

Federal HIV prevention, testing, and treatment policies in the U.S. are accomplished through a coordination of efforts between the U.S. Department of Health and Human Services (HHS), Centers for Disease Control (CDC) and the Health Resources and Services Administration (HRSA). Most of CDC's HIV prevention efforts are the responsibility of the Office of Infectious Diseases' National Center for HIV, Viral Hepatitis, STD, and TB Prevention (NCHHSTP).[16] Within this Center is the Division of HIV Prevention (DHP), charged with the mission of preventing HIV infection and reducing HIV-related illness and death.

HHS, HRSA, and the HIV/AIDS Bureau (HAB) coordinate the administration of the Ryan White HIV/AIDS Program (RWHAP). The RWHAP is the largest federal program focused on HIV. The RWHAP funds HIV/AIDS care and treatment services for low-income people and the program serves approximately half of all Americans diagnosed with HIV. Many people who receive services through the RWHAP are uninsured or underserved. RWHAP authorization expired in 2013, but as a discretionary grant program, the legislation continues so long as Congress appropriates funds. There are five parts of RWHAP and each has a different funding purpose.[17] RWHAP services offer helpful resources online like

state-specific hotlines,[18] databases of RWHAP-funded programs,[19] and interactive maps of RWHAP medical providers.[20] In 2022, the RWHAP served more than 550,000 people with HIV, 89.6% of which were virally suppressed, exceeding the national viral suppression average of 65.9%.[21]

The HHS Office of the Assistant Secretary for Health (OASH) coordinates the Ending the HIV Epidemic in the U.S. (EHE) initiative.[22] The EHE is a cross-agency initiative that includes efforts by OASH, CDC, HRSA, Indian Health Service (IHS), National Institutes of Health (NIH), and Substance Abuse and Mental Health Services Administration (SAMHSA). Announced in 2019, the initiative aims to end the HIV epidemic in the United States by 2030.

Recent Federal Policy Developments

The Biden-Harris Administration has been committed to supporting and funding HIV prevention and treatment policies throughout the past few years. On December 1, 2021, the Biden-Harris Administration commemorated World AIDS Day by releasing and highlighting current and future policies aimed at ending the HIV pandemic.[23] These policies included reestablishing the White House Office of National AIDS Policy, and hosting the Global Fund to Fight AIDS, Tuberculosis, and Malaria Replenishment Conference in 2022, among others.

That same day, the Administration published the National HIV/AIDS Strategy for the United States (2022–2025) through the White House Office of National AIDS Policy (ONAP).[24] The ONAP, part of the Domestic Policy Council, facilitated development of the Strategy, which builds on the 2021 HIV National Strategic Plan and the two prior National HIV/AIDS Strategies (2010, 2015). The 2022-2025 Strategy sets targets for ending the HIV epidemic in the United States by 2030, including a 75% reduction in new HIV infections by 2025 and a 90% reduction by 2030. The Strategy focuses on four goals: 1) Prevent new HIV infections; 2) Improve HIV-related health outcomes of people with HIV; 3) Reduce HIV-related disparities and health inequities; 4) Achieve integrated, coordinated efforts that address the HIV epidemic among all partners and stakeholders. The Strategy also designates five priority populations disproportionately impacted by HIV including gay, bisexual, and other men who have sex with men, in particular Black, Latino, and American Indian/Alaska Native men; Black women; transgender women; youth aged 13–24 years; and people who inject drugs. The White House also published the National HIV/AIDS Strategy 2023 Interim Action Report on December 1, 2023, highlighting actions taken by federal partners during FY22 and FY23.[25]

Federal Funding Developments

In October 2021, HHS announced approximately $2.21 billion in Ryan White HIV/AIDS Program funding to support a system of HIV primary medical care, medication, and essential support services.[26] On March 9, 2023, the White House published President Biden's Fiscal Year (FY) 2024 budget proposal, which includes $850 million in funding across CDC, HRSA, IHS, and NIH to support continued scale-up and implementation of the EHE Initiative.[27] This represents a $277 million (48%) increase over the FY23 enacted funding level.

A large part of funding for HIV prevention and treatment is primarily available through the federal EHE initiative. Over the past three years, HRSA:

- awarded $99 million to 61 HRSA HIV/AIDS Bureau EHE recipients to expand access to HIV care, treatment, medication and essential support services in March 2021;[28]
- awarded over $48 million to 271 health centers in September 2021;
- awarded nearly $115 million to 60 HRSA HIV/AIDS Bureau (HAB) EHE recipients in June 2022;
- awarded more than $20 million in funding to expand HIV prevention, testing, and treatment services at health centers nationwide in August 2022; and
- awarded more than $147 million to 49 HRSA HIV/AIDS Bureau EHE recipients in April 2023.

In February 2024, the CDC announced the availability of funds to implement a capacity building assistance (CBA) program to strengthen the capacity and improve the performance of the nation's HIV workforce,[29] as well as funds for a cooperative agreement for health departments to implement high-impact HIV prevention and surveillance programs.[30]

State Policies

A main feature of state regulatory programs aimed at HIV is criminalization. Criminalization of potential HIV exposure is almost entirely a matter of state law, with few exceptions. As of 2023, 34 states have laws that criminalize HIV exposure.[31] These criminalization measures are mostly aimed at deterring exposure to others. For example, thirteen states have laws requiring people with HIV who are aware of their status to disclose their status to sex partners, and 4 states require disclosure to needle-sharing partners.[32] Other states have general STI/STD laws that include HIV.[33]

Research on the efficacy of criminalization policies has shown little evidence of reduction in the spread of HIV. In 2022, The Sero Project in collaboration with The Elizabeth Taylor AIDS Foundation and other grassroots organizers created "HIV Is Not a Crime Awareness Day."[34] Also in 2022, the CDC released the HIV Criminalization Legal and Policy Assessment Tool to "assist jurisdictions in evaluating their laws to ensure they align with current scientific and medical evidence."[35]

HIV Screening and the Continuum of Prevention and Care

The CDC recommends that all patients between the ages of 13 and 64 years old receive HIV screening as part of their routine care at least once, and more often if they have certain risk factors. The agency recommends that the following patients be tested at least annually:

- People who inject drugs and their sex partners
- People who exchange sex for money or drugs
- Sex partners of people with HIV
- Sexually active gay, bisexual, and other men who have sex with men (more frequent testing may be beneficial [e.g., every 3–6 months])
- Heterosexuals who themselves or whose sex partners have had ≥1 sex partner since their most recent HIV test
- People receiving treatment for hepatitis, tuberculosis, or a sexually transmitted disease (STD)[36]

For a patient who tests negative for HIV, the continuum of care involves post-test counseling on HIV prevention and, if they present higher risk factors, being prescribed PrEP and beginning a follow-up program that includes periodic testing while they remain at risk. If a patient tests positive, they should receive counseling and be linked to care, with the aim that they see a health care provider within a month of their diagnosis in order to begin antiretroviral therapy (ART, which is recommended for all people with HIV) and any

other necessary treatment. Their care plan includes periodic follow-up visits with their care provider and monitoring of their viral load. The goal is for the patient to achieve and maintain a suppressed or undetectable viral load, which requires continual adherence to treatment.[37]

Barriers to HIV Testing and Clinical Care

The same SDOH that increase risk factors for HIV among farmworkers are also barriers to diagnosis and care. Low incomes and lack of health insurance keep many farmworkers from accessing preventive and other health services. Farmworkers who have health insurance are more likely to have used health care services during the previous two years than farmworkers without insurance (84% vs. 56%).[38] Research has found that difficulty accessing preventive health care decreases the likelihood of HIV testing among migratory workers.[39] The same is likely to be true among farmworkers in general. Furthermore, Hispanics tend to be diagnosed later compared to non-Hispanic Whites, especially those who are foreign-born or male. Hispanics also begin HIV care later and have lower survival rates.[40]

Concerns about immigration status also play a role. A research study among Latinx immigrants found that fear of deportation negatively affected health care utilization, which in turn reduced the likelihood of annual HIV testing.[41] Similarly, a study among farmworkers in south Florida found that those who were not documented were less likely to get tested.[42] Some immigrants continue to believe that being diagnosed with HIV may prevent those who are here without immigration authorization from adjusting their status, even though the federal ban on HIV-positive individuals adjusting their status ended in 2010.[43]

The more information a person has about HIV, the more likely they are to get tested.[44,45] Although there is little data about HIV testing among farmworkers, there is some evidence that those with a higher level of education (12 years or more) are more likely to get tested.[46] However, these individuals represent a minority of the farmworker population, whose average level of education is ninth grade, as mentioned above. Meanwhile, HIV stigma persists in some portions of the Latino community, which may prevent patients from discussing their HIV risk with their doctors or asking for an HIV test.[47] Stigma combined with familismo, a cultural belief in one's duty to safeguard the family honor, also leads some Latinos to forgo testing and discussions of sexuality.[48,49] Moreover, homophobia and transphobia often lead men who have sex with men (MSM) and transgender individuals to refrain from discussing their HIV risk and seeking services.

Language barriers and limited time off work limit many Latino individuals' ability to access HIV services.[50,51] Farmworkers, many of whom are limited English proficient and lack paid personal or sick leave, fall within this category. Lack of transportation is also a common obstacle, since 20% of farmworkers do not own a vehicle.[52] Many migratory farmworkers, especially those on H-2A visas, depend on employer-provided transportation, which usually consists of vans or buses that transport groups of workers. The ability of these workers to go to medical appointments and purchase medications is therefore limited. This is further complicated by the relative scarcity of health care providers in rural areas, which forces many farmworkers to travel long distances to access care. Rural areas contain about 20% of the U.S. population, but only about 10% of the country's physicians.[53] The shortage is even more pronounced for providers able to deliver services to low-income HIV patients through the Ryan White HIV/AIDS Program (RWHAP). When researchers analyzed

RWHAP data for rural areas, they discovered that 23 states and territories do not have a single RWHAP-funded provider in rural areas.[54] Low-income patients may be able to access HIV-related services through Medicaid, but in most cases a person must be a U.S. citizen, a lawful permanent resident, or belong to certain other categories of "qualified noncitizens" and have five years of residency in the U.S. to access Medicaid.[55] Furthermore, about 14% of physicians in non-metropolitan areas do not accept Medicaid,[56] which compounds the problem of scarcity of rural health providers.

Distance to services is often too great to allow farmworkers without transportation easy access to care. Even in a county like Miami-Dade, Florida, which has the highest HIV incidence in the country and has both large urban areas and rural farmland, less than 7% of young Latino men had access to HIV preventive services within a one-mile walking distance of where they live, and only 33% within a 60-minute public transit ride.[57] For those in rural areas where public transit is rare and clinics are scarce, private transportation is usually necessary to access services.

Promising Practices to Overcome Barriers and Improve Linkages to Care

Improving HIV Education and Prevention

HIV education for farmworkers must consider the cultural, social and economic context in which they live. All education must be delivered in a manner that is linguistically appropriate and adapted to the level of literacy of the intended audience. Technical language should be avoided in favor of simple and straightforward communication. Interventions must also be crafted in a way to remove the stigma around HIV and AIDS that deters people from seeking information, getting tested, and accessing care. Messages must be designed in a way that resonates with a farmworker audience, addressing personal and relationship factors as well as cultural beliefs and attitudes in a way that is culturally sensitive and empowers individuals. For this reason, it is necessary to engage members of the community in the development of educational materials and messages and to pilot interventions in the community. The format of educational interventions and materials must also take into account the needs and learning styles of farmworkers. Group education on HIV prevention delivers positive results when it is highly interactive, providing ample opportunity for audience participation. In these settings, role play exercises and case studies are useful methods to help participants internalize the information they are learning.

SEPA (Salud/Health, Educación/Education, Prevención/Prevention, and Autocuidado/Self-care) is a CDC-initiated, field-tested, research-based intervention for Hispanic women that meets the above criteria. SEPA has been adapted and tested with various audiences, including Latina farmworkers, and shown to increase condom use and knowledge about HIV, as well as improving participants' communication with their sex partners about HIV. Originally designed for low-income Mexican and Puerto Rican women, it can be used with women from other nationalities and ethnicities.[58] The six two-hour sessions cover topics such as HIV and STD prevention, interpersonal communication, and intimate partner violence, among others, through presentations and interactive elements such as group discussions and practice exercises.[59] SEPA has been adapted and used successfully with groups of farmworker women in South Florida, resulting in increased knowledge and condom use.[60,61] The CDC considers SEPA an effective prevention program.[62]

Other successful culturally-adapted prevention interventions have leveraged participants' social networks to take into account Latina's cultural preference for discussing sensitive subjects with trusted friends and their valuing of interpersonal relationships. One adaptation of VOICES, a video-based intervention designed to increase condom use and improve condom negotiation skills, was tested with farmworker women by recruiting respected women from within the farmworker community (Latina leaders). These Latina leaders were then trained on the intervention's content and initiating conversations on prevention of HIV and sexually-transmitted infections (STIs) among their friends. The Latina leaders carried out these conversations in group sessions, or alternatively during individual home visits, and provided informational pamphlets in Spanish to participants. This intervention, which is considered a High Impact Prevention Program by the CDC, achieved significant improvements in HIV knowledge, condom use self-efficacy, HIV testing, communication with friends about HIV prevention and intention to negotiate safe sex with male partner.[63]

HEALTHY, a three-hour HIV and general health group intervention that was also tested with farmworker women, addresses topics such as condom use, avoidance of over-the-counter medication, HIV communication and general health strategies. This intervention uses flip chart posters instead of a video. Tested under similar conditions as VOICES, it achieved significant improvements in the same areas as VOICES, but produced better results than the VOICES intervention in the areas of increased HIV knowledge and condom use self-efficacy.[64]

One approach that has proven successful in reaching populations with limited access to health care is to employ community health workers (CHWs, or *promotores*). These lay health educators come from the communities they serve and have a deep understanding of these communities' language and culture. *Project Salud* (Project Health) implemented a CHW-led, culturally-adapted, interactive group intervention with farmworker men and women in South Florida that led to increased condom use among participants and other behavioral changes such as greater HIV knowledge, fewer perceived barriers to condom use, and greater condom use self-efficacy. Focus groups composed of community members and key partners informed the development of the intervention instrument, ensuring that the resulting program was reflective of community experiences, language and insights. Community members were trained as CHWs to deliver the intervention, building further trust with the community.[65,66] But CHWs can be more than educators. They can help connect farmworkers to care by providing testing referrals and information about programs that can cover the cost of testing and treatment.

Whether they are delivered by CHWs, doctors, nurses or other providers, interventions have a greater likelihood of success when they are designed for the specific needs of each audience, such as individuals with substance use disorder; women who have sex with men; men who have sex with women; transgender individuals; and gay, bisexual, and other MSM, among others. Therefore, the CDC developed a compendium of evidence-based interventions tailored to various audiences, some of which have been developed and tested among immigrant Latinx and other minority ethnic groups.[67] The compendium includes group, couple, and individual-level risk-reduction interventions.[68]

Increasing HIV Testing

Social stigma, insufficient knowledge, and difficulty accessing health care prevent many

farmworkers from getting tested for HIV. While HIV education, as described above, can help address stigma and gaps in knowledge, obstacles such as lack of transportation and inability to take time off work make it more difficult for farmworkers to get tested. By making HIV testing a routine part of medical care, incorporating it into primary and urgent care appointments and streamlining the process, health care providers can increase the likelihood that even those who obtain care only infrequently are tested and linked to care as needed. In traditional HIV counseling, a counselor advises a patient regarding HIV testing, and it is up to the patient to request the test from their physician. The physician then refers the patient to be tested. The downside of this method is that the counseling is usually time-consuming, and it relies on the patient feeling comfortable making the HIV test request to their doctor. Furthermore, the patient must return at a later date to receive additional counseling and their test results. The time and travel necessary to go through this process can be prohibitive for patients who face time constraints and transportation barriers. Simplifying this process and integrating it into routine medical appointments can overcome these obstacles.

An approach of nurse-initiated screening, streamlined counseling, and rapid testing in primary and urgent care clinics has proven more than twice as effective as traditional counseling and testing approaches at getting patients tested (89.3% vs. 40.2%) and more than five times as effective at getting patients to receive their results (79.8% vs. 14.6%).[69] In this approach, nurses have standing orders to test patients, which they can enter into every patient's record without the need for a physician to issue an order for each individual. Nurses then provide brief HIV counseling and perform rapid testing. Patients receive their results during the same visit once their appointment with the physician is complete. Those who test negative are given brief post-test counseling before receiving their results; those who test positive receive full post-test counseling, confirmatory tests, and follow-up appointments during the same visit.[70] While this approach is not as effective as traditional counseling at educating patients about HIV prevention, it is highly effective at increasing testing and results receipt rates.

Physicians, too, can play a crucial role in patients' decisions concerning HIV testing. Research has shown that 86% of Hispanic men would get tested for HIV if their doctor recommended it.[71] Significantly, 49% of those who said they intended to get tested within six months would only get tested if the test were offered on the same day, highlighting the importance of a streamlined counseling and testing process.[72]

CHWs can play a key role in improving access to testing and care. Training and equipping CHWs to deliver streamlined counseling, conduct rapid testing and link patients to care can greatly expand testing and care access for farmworkers who cannot easily obtain routine health services.[73] In settings where CHWs are not able to conduct rapid testing, enabling them to provide farmworkers with testing referrals and access to transportation will make it more likely that they will get tested. Some health centers also found it helpful to have CHWs who can accompany patients to appointments.

Improving Access To and Retention in Care

Evidence suggests that employing patient navigators–trained professionals who help patients access care by providing information, guidance, referrals and linkages to resources and programs-decreases barriers to care and improves health outcomes. The assistance of patient navigators can reduce the number of uninsured HIV patients, reduce structural barriers

such as language barriers and lack of information, reduce stigma, and improve retention in care, leading to decreased viral loads.[74] Patient navigators can help patients make appointments, obtain transportation to the clinic, access rehabilitation programs for substance use problems, enroll in Medicaid or other programs to cover the cost of care, and access assistance programs to address food, housing and other socioeconomic needs.

Some health centers help their farmworker patients overcome transportation and time constraints by providing transportation to medical appointments, operating mobile clinics, and offering late hours. Many have also expanded their telehealth options, a process that was accelerated by the COVID-19 pandemic. While not all farmworkers have reliable access to the internet, those who do can benefit from telehealth services if provided sufficient information and guidance on how to use these services. Health centers and other providers seeking to expand their reach within the farmworker community to promote HIV prevention and expand access to care can bolster the effectiveness of those efforts by partnering with local farmworker organizations. Like CHWs, these organizations enjoy the trust of the community and can advise and support messaging, outreach, recruitment and other activities.

Conclusion

Farmworkers face a multitude of barriers that often prevent them from accessing necessary health care services, including HIV counseling, testing and care. Health centers can help farmworkers overcome those barriers by enlisting the help of community organizations, employing CHWs, streamlining the testing process, and providing supportive services such as patient navigators, transportation, and telehealth services. Delivering interventions that are culturally and linguistically appropriate and address personal, relationship and community factors that contribute to HIV risk is key to promoting prevention, increasing patient retention in the continuum of care and improving health outcomes.

Resources

Health professionals seeking training on how to talk to their patients about HIV and on the latest clinical best practices can access in-person and virtual training courses, information and materials:

- National HIV Classroom Learning Center (NHCLC): This CDC-funded program run by CAI, a nonprofit organization, offers in-person and virtual training courses that equip health care providers, CHWs and other involved in the HIV continuum of care with the necessary skills to communicate with patients about HIV and link them to care. NHCLC offers courses that prepare participants to deliver high-impact prevention (HIP) interventions. Courses are available in English and Spanish. NHCLC also provides technical assistance to government agencies and service providers, including community organizations.

- HealthHIV National E-learning Center: This CDC program offers virtual training courses on HIP interventions and other relevant health topics. The courses can be accessed through the CDC TRAIN portal. Health care providers and staff from community organizations directly funded by the CDC can access the courses free of charge.

- National LGBTQIA+ Health Education Center: The National LGBTQIA+ Health Education Center, a HRSA-funded National Training and Technical Assistance Partner (NTTAP) that is part of The Fenway Institute, offers learning resources for health professionals to promote the delivery of quality health services to LGBTQIA+ patients. These include resources on HIV prevention, PrEP delivery, trauma-informed care, health equity, and others.

- Farmworker Justice (FJ): FJ created a series of culturally-appropriate HIV prevention fotonovelas (illustrated short stories in the style of comic books) designed for Latinx farmworker youth, men, and women. The fotonovelas are available in English and Spanish. FJ and the National LGBTQIA+ Health Education Center also co-published the issue brief Promoting Health Care Access for LGBTQIA+ Farmworkers.

HRSA disclaimer: This publication is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $550,000 with 0% financed with non-government sources. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS, or the U.S. Government. For more information, please visit HRSA.gov.

References

1. Rhodes SD, Bischoff WE, Burnell JM, Whalley LE, Walkup MP, Vallejos QM, Quandt SA, Grzywacz JG, Chen H, Arcury TA. HIV and sexually transmitted disease risk among male Hispanic/Latino migrant farmworkers in the Southeast: Findings from a pilot CBPR study. Am J Ind Med. 2010 Oct;53(10):976-83. doi: 10.1002/ajim.20807. PMID: 20632316; PMCID: PMC3668338.

2. Health Resources and Services Administration. 2022 Special Populations Funded Programs. https://data.hrsa.gov/tools/data-reporting/special-populations

3. *Ibid*

4. U.S. Department of Labor (2022). Findings from the National Agricultural Workers Survey (NAWS) 2019-2020: A Demographic and Employment Profile of United States Farmworkers. Research Report No. 16. Prepared by JBS International. January 2022, at 4.

5. Centers for Disease Control and Prevention. Estimated HIV incidence and prevalence in the United States, 2015–2019. HIV Surveillance Supplemental Report 2021;26(No. 1), at 39. http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html.

6. DOL (2022), note 3, at iv.

7. Rhodes *et al.* (2010), note 3.

8. Fitzgerald K, Chakraborty J, Shah T, Khuder S, Duggan J. HIV/AIDS knowledge among female migrant farm workers in the Midwest. J Immigr Health. 2003 Jan;5(1):29-36. doi: 10.1023/a:1021000228911. PMID: 14512756.

9. Organista KC, Balls Organista P, García de Alba JE, Castillo Morán MA, Ureta Carrillo LE. Survey of condom-related beliefs, behaviors, and perceived social norms in Mexican migrant laborers. J Community Health. 1997 Jun;22(3):185-98. doi: 10.1023/a:1025173008088. PMID: 9178118.

10. DOL, note 3, at 13.

11. *Id.*, at 15.

12. DOL, note 3, at 6.

13. Levy V, Page-Shafer K, Evans J, Ruiz J, Morrow S, Reardon J, Lynch M, Raymond HF, Klausner JD, Facer M, Molitor F, Allen B, Ajufo BG, Ferrero D, Sanford GB, McFarland W; HeyMan Study Team. HIV-related risk behavior among Hispanic immigrant men in a population-based household survey in low-income neighborhoods of northern California. Sex Transm Dis. 2005 Aug;32(8):487-90. doi: 10.1097/01.olq.0000161185.06387.94. PMID: 16041250.

14. Cianelli R, Villegas N, Lawson S, Ferrer L, Kaelber L, Peragallo N, Yaya A. Unique factors that place older Hispanic women at risk for HIV: intimate partner violence, machismo, and marianismo. J Assoc Nurses AIDS Care. 2013 Jul-Aug;24(4):341-54. doi: 10.1016/j.jana.2013.01.009. PMID: 23790277; PMCID: PMC3870152.

15. *Id.*

16. https://www.cdc.gov/hiv/division-of-hiv-prevention/index.html

17. https://ryanwhite.hrsa.gov/about/parts-and-initiatives

18. https://ryanwhite.hrsa.gov/hiv-care/hotlines

19. https://targethiv.org/community/find-services

20. https://findhivcare.hrsa.gov/

21. https://ryanwhite.hrsa.gov/sites/default/files/ryanwhite/data/rwhap-annual-client-level-data-report-2022.pdf

22. https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview

23. https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/01/fact-sheet-the-biden-%e2%81%a0harris-administration-marks-world-aids-day-2021-with-renewed-commitments-to-ending-the-hiv-aids-epidemic-by-2030/

24. https://files.hiv.gov/s3fs-public/NHAS-2022-2025.pdf

25. https://files.hiv.gov/s3fs-public/2023-12/National-HIV-AIDS-Strategy-2023-Interim-Action-Report.pdf

26. https://www.hiv.gov/blog/hhs-awards-221-billion-fiscal-year-2021-help-americans-access-hiv-care-support-services-and

27. https://www.whitehouse.gov/wp-content/uploads/2023/03/budget_fy2024.pdf

28. https://ryanwhite.hrsa.gov/about/parts-and-initiatives/fy-2021-ending-hiv-epidemic-awards

29. https://www.cdc.gov/hiv/funding/announcements/ps-24-0020/index.html

30. https://www.cdc.gov/hiv/funding/announcements/ps24-0047/index.html

31. https://www.cdc.gov/hiv/policies/law/states/exposure.html; see also https://www.hivlawandpolicy.org/resources/hiv-criminalization-united-states-sourcebook-state-and-federal-hiv-criminal-law-and

32. *Id.*

33. To find state-specific information on HIV criminalization laws and policies, see: https://www.hivlawandpolicy.org/rights-resources/find-laws-your-state

34. https://www.hiv.gov/blog/ending-the-hiv-epidemic-in-the-u-s-requires-states-to-update-outdated-hiv-criminalization-laws

35. https://www.cdc.gov/hiv/policies/law/hiv-criminalization-legal-and-policy-assessment-tool.html

36. Centers for Disease Control. Integrating Routine HIV Screening Into Your Practice. PubNo. 300974. July 2023. https://www.cdc.gov/hiv/clinicians/materials/pdf/cdc-hiv-together-brochure-integrateroutinescreening-provider.pdf

37. *Id.*

38. U.S. Department of Labor (2020). Findings from the National Agricultural Workers Survey (NAWS) 2017-2018: A Demographic and Employment Profile of United States Farmworkers. Research Report No. 14. Prepared by JBS International. March 2021, at 49.

39. Blondell SJ, Kitter B, Griffin MP, & Durham J. (2015). Barriers and facilitators to HIV testing in Migrants in high income countries: A systematic review. AIDS & Behavior, 19, 2012–2024.

40. Chen NE, Gallant JE, Page KR. A systematic review of HIV/AIDS survival and delayed diagnosis among Hispanics in the United States. J Immigr Minor Health. 2012 Feb;14(1):65-81. doi: 10.1007/s10903-011-9497-y. PMID: 21773882; PMCID: PMC3329255.

41. Suro B, Lechuga J, Galletly CL, Glasman L. The Influence of Perceived Immigration Context and Healthcare Utilization Immigration Law Concerns Latinx Immigrants' HIV Testing. J Lat Psychol. 2022 May;10(2):156-167. doi: 10.1037/lat0000171. Epub 2022 Mar 17. PMID: 37034822; PMCID: PMC10081501.

42. Fernández MI, Collazo JB, Bowen GS, Varga LM, Hernandez N, Perrino T. Predictors of HIV testing and intention to test among Hispanic farmworkers in South Florida. J Rural Health. 2005 Winter;21(1):56-64. doi: 10.1111/j.1748-0361.2005.tb00062.x. PMID: 15667010.

43. Galletly CL, Lechuga J, Glasman LR, DiFrancesco W, Broaddus M, et al. (2019). HIV testing and mistaken beliefs about immigration laws. Journal of Racial and Ethnic Health Disparities, 6, 668–675.

44. Stefan MS, Blackwell JM, Crawford KM, Martinez J, Wu Sung S, Holliday SA, Landry M, Lavine N, Lerfald N, Morris JL, Greene S, Cykert S. Patients' attitudes toward and factors predictive of human immunodeficiency virus testing of academic medical clinics. Am J Med Sci. 2010 Oct;340(4):264-7. doi: 10.1097/MAJ.0b013e3181e59c3e. PMID: 20881755.

45. Kinney S, Lea CS, Kearney G, Kinsey A, Amaya C. Predictors for Using a HIV Self-Test Among Migrant and Seasonal Farmworkers in North Carolina. Int J Environ Res Public Health. 2015 Jul 17;12(7):8348-58. doi: 10.3390/ijerph120708348. PMID: 26193299; PMCID: PMC4515726.

46. Fernández *et al.* (2005), note 41.

47. Dolwick Grieb SM, Shah H, Flores-Miller A, Zelaya C, & Page KR (2017). HIV-related stigma among Spanish-speaking Latinos in an emerging immigrant receiving city. Journal of Immigrant and Minority Health, 19(4), 868–875.

48. Ma M, Malcolm LR. Cultural influences on HIV testing among Latino youth. Cult Health Sex. 2016;18(4):470-80. doi: 10.1080/13691058.2015.1084650. Epub 2015 Oct 2. PMID: 26430735.

49. Levison JH, Levinson JK, Alegría M. A et al. Critical Review and Commentary on the Challenges in Engaging HIV-Infected Latinos in the Continuum of HIV Care. AIDS Behav. 2018 Aug;22(8):2500-2512. doi: 10.1007/s10461-018-2187-1. PMID: 29948334; PMCID: PMC6085100.

50. Geter Fugerson A, Sutton MY, Hubbard McCree D. Social and Structural Determinants of HIV Treatment and Care Among Hispanic Women and Latinas Living with HIV Infection in the United States: A Qualitative Review: 2008-2018. Health Equity. 2019 Nov 4;3(1):581-587. doi: 10.1089/heq.2019.0039. PMID: 31701083; PMCID: PMC6830529.

51. Chen (2012), note 39.

52. DOL, note 3, at 43.

53. MacQueen IT, Maggard-Gibbons M, Capra G, Raaen L, Ulloa JG, Shekelle PG, Miake-Lye I, Beroes JM, Hempel S. Recruiting Rural Healthcare Providers Today: a Systematic Review of Training Program Success and Determinants of Geographic Choices. J Gen Intern Med. 2018 Feb;33(2):191-199. doi: 10.1007/s11606-017-4210-z. Epub 2017 Nov 27. PMID: 29181791; PMCID: PMC5789104.

54. Klein PW, Geiger T, Chavis NS, Cohen SM, Ofori AB, Umali KT, Hauck H. The Health Resources and Services Administration's Ryan White HIV/AIDS Program in rural areas of the United States: Geographic distribution, provider characteristics, and clinical outcomes. PLoS One. 2020 Mar 23;15(3):e0230121. doi: 10.1371/journal.pone.0230121. PMID: 32203556; PMCID: PMC7089565.

55. HIV.gov. Paying for HIV Care and Treatment. https://www.hiv.gov/hiv-basics/staying-in-hiv-care/hiv-treatment/paying-for-hiv-care-and-treatment

56. Hing E, Decker S, Jamoom E. Acceptance of new patients with public and private insurance by office-based physicians: United States, 2013. NCHS Data Brief. 2015 Mar;(195):1-8. PMID: 25932895.

57. Kanamori M, Shrader CH, Stoler J, Aguilar de Santana S, Williams M. Geographic Accessibility of HIV Preventive Services for Young Latino Men in Miami, Florida: A Cross-Sectional Study. J Assoc Nurses AIDS Care. 2021 Jan-Feb 01;32(1):68-78. doi: 10.1097/JNC.0000000000000210. PMID: 33055531; PMCID: PMC10102895.

58. CDC. SEPA (Salud/Health, Educación/Education, Prevención/Prevention, Autocuidado/Self-care): A Small Group-level Intervention for Heterosexually Active Hispanic Women/Latinas. Last updated November 7, 2019. https://www.cdc.gov/hiv/research/interventionresearch/rep/packages/sepa.html

59. *Id.*

60. Rojas P, Ramírez-Ortiz D, Wang W, Daniel EV, Sánchez M, Cano MÁ, Ravelo GJ, Braithwaite R, Montano NP, De La Rosa M. Testing the Efficacy of an HIV Prevention Intervention Among Latina Immigrants Living in Farmworker Communities in South Florida. J Immigr Minor Health. 2020 Aug;22(4):661-667. doi: 10.1007/s10903-019-00923-4. PMID: 31493119; PMCID: PMC7058487.

61. Sanchez M, Rojas P, Li T, Ravelo G, Cyrus E, Wang W, Kanamori M, Peragallo NP, De La Rosa MR. Evaluating a Culturally Tailored HIV Risk Reduction Intervention Among Latina Immigrants in the Farmworker Community. World Med Health Policy. 2016 Sep;8(3):245-262. doi: 10.1002/wmh3.193. Epub 2016 Sep 17. PMID: 29034116; PMCID: PMC5636186.

62. CDC, note 48.

63. Kanamori M, Rosa M, Shrader CH, Munayco C, Doblecki-Lewis S, Prado G, Safren S, Trepka MJ, Fujimoto K. Progreso en Salud: Findings from Two Adapted Social Network HIV Risk Reduction Interventions for Latina Seasonal Workers. Int J Environ Res Public Health. 2019 Nov 15;16(22):4530. doi: 10.3390/ijerph16224530. PMID: 31731821; PMCID: PMC6888294.

64. *Id.*

65. Sánchez J, De La Rosa M, Serna CA. Project Salud: Efficacy of a community-based HIV prevention intervention for Hispanic migrant workers in south Florida. AIDS Educ Prev. 2013 Oct;25(5):363-75. doi: 10.1521/aeap.2013.25.5.363. PMID: 24059875; PMCID: PMC3947884.

66. Sánchez J, Silva-Suarez G, Serna CA, De La Rosa M. The Latino Migrant Worker HIV Prevention Program: building a community partnership through a community health worker training program. Fam Community Health. 2012 Apr-Jun;35(2):139-46. doi: 10.1097/FCH.0b013e3182465153. PMID: 22367261; PMCID: PMC5636189.

67. HIV Prevention Research Synthesis Project. Compendium of Evidence-Based Interventions and Best Practices for HIV Prevention. Centers for Disease Control and Prevention. Last updated June 17, 2022. https://www.cdc.gov/hiv/research/interventionresearch/compendium/index.html.

68. Id. Risk Reduction Chapter. Complete Listing of Risk Reduction Evidence-based Behavioral Interventions. Last updated October 25, 2023. https://www.cdc.gov/hiv/research/interventionresearch/compendium/rr/complete.html

69. Anaya HD, Hoang T, Golden JF, Goetz MB, Gifford A, Bowman C, Osborn T, Owens DK, Sanders GD, Asch SM. Improving HIV screening and receipt of results by nurse-initiated streamlined counseling and rapid testing. J Gen Intern Med. 2008 Jun;23(6):800-7. doi: 10.1007/s11606-008-0617-x. Epub 2008 Apr 18. PMID: 18421508; PMCID: PMC2517869.

70. *Id.*

71. Fernández MI, Bowen GS, Perrino T, Royal S, Mattson T, Arheart KL, Cohn S. Promoting HIV testing among never-tested Hispanic men: a doctor's recommendation may suffice. AIDS Behav. 2003 Sep;7(3):253-62. doi: 10.1023/a:1025491602652. PMID: 14586188.

72. *Id.*

73. Hammack AY, Bickham JN, Gilliard I 3rd, Robinson WT. A Community Health Worker Approach for Ending the HIV Epidemic. Am J Prev Med. 2021 Nov;61(5 Suppl 1):S26-S31. doi: 10.1016/j.amepre.2021.06.008. PMID: 34686287.

74. Bradford JB, Coleman S, Cunningham W. HIV System Navigation: an emerging model to improve HIV care access. AIDS Patient Care STDS. 2007;21 Suppl 1:S49-58. doi: 10.1089/apc.2007.9987. PMID: 17563290.