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Drawing on the Strengths of Community Health Workers to Address Sexually Transmitted Infections: Roles, Medicaid Reimbursement, and Partnerships

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Seiler, Naomi; Horton, Katie; Organick-Lee, Paige; Heyison, Claire; Osei, Alexis; Dwyer, Greg; Karacuschansky, Aaron; Washington, Mekhi; and Spott, Amanda, "Drawing on the Strengths of Community Health Workers to Address Sexually Transmitted Infections: Roles, Medicaid Reimbursement, and Partnerships" (2023). *Health Policy and Management Informal Communications*. Paper 36.
https://hsrc.himmelfarb.gwu.edu/sphhs_policy_informal/36

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DRAWING ON THE STRENGTHS
OF COMMUNITY HEALTH
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INFECTIONS:

Roles, Medicaid Reimbursement, and
Partnerships

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Acknowledgements:

The authors would like to thank all of the experts who participated in interviews for this project (please see Appendix A for full list). This report was funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

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EXECUTIVE SUMMARY

Rates of bacterial sexually transmitted infections (STIs) in the United States are high and, largely, still soaring. Though chlamydia cases have decreased slightly since 2017, gonorrhea and syphilis have increased by 25% and 68%, respectively, and congenital syphilis has increased by 184%. Bacterial STI can lead to pain, infertility, and even, in the case of syphilis and congenital syphilis, death. With appropriate detection and treatment, all of these STIs are curable. And yet a range of barriers between communities and the healthcare system perpetuate the STI epidemic.

Community health workers (CHWs) could play a key role in helping bridge the gap between the public health and healthcare systems and communities to provide STI education, prevention, detection and treatment services. The Medicaid program, which covers 89 million Americans, is slowly beginning to include CHWs into payment models. However, to date, CHWs' potential to help address STIs has not been fully explored. This study was undertaken to identify ways that CHWs could be integrated into the STI field with the support of Medicaid coverage and in collaboration with the existing STI workforce.

Methodology

George Washington University (GW) researchers conducted interviews via teleconference with 25 key informants, including national STI and healthcare system experts, national CHW experts, CHW experts and practitioners, and DIS experts and program managers.

Findings

This project yielded a range of insights about opportunities to expand and support CHWs' role in the STI field; to explore how the Medicaid program can best support CHWs performing that work; and how CHWs could complement the existing disease intervention specialist (DIS) workforce in tackling the current STI epidemic.

Interviewees suggested a range of roles that CHWs could play in addressing STIs, including referrals, linkages to care, patient navigation, individual education, community education, and more. CHWs also work in a range of settings, creating the opportunity for integration in multiple types of organizations addressing STIs, including health departments, clinics, and nonclinical community organizations. Participants noted that several core strengths of CHWs, including their ability to bridge gaps between the community and providers, as well as their focus on addressing social determinants of health, could be particularly useful in linking underserved populations to STI services and in reaching youth and adults with sex education resources. Some CHWs might focus exclusively on STIs and sexual health, but other CHWs who address a broader set of health and social needs would benefit from STI education and referral resources.

Participants were in general agreement that Medicaid coverage could provide sustainable support for the CHW workforce. However, many cautioned that certain reimbursement approaches could inadvertently hinder CHWs' effectiveness. For example, reimbursement based on strict units of

service might not adequately reflect the time CHWs spend in outreach, such as finding and connecting with people who have fallen out of care. Performance measures or quotas could incentivize volume over meaningful – and effective – interactions. In addition, participants noted that most Medicaid reimbursement models would remain out of reach for CHWs situated in nonclinical settings.

Multiple interviewees noted that a growing presence of CHWs in the STI field could complement and support the existing DIS, or disease intervention specialist, workforce. DIS workers track individual cases of STIs, conducting interviews and partner notification services, among other roles. CHWs could wraparound this work by providing ongoing outreach or services to individuals, such as follow-up to answer further questions about STI risk and prevention. CHWs could also work more broadly to educate the community and STIs and existing resources. Several participants also noted the potential value of convening DIS and CHWs in a region to discuss their work and potential collaboration, as well as the possibility of cross-training.

Considerations

Based on the interviews as well as a literature review, the authors offer the following steps for stakeholders to consider:

Expanding CHWs' role in addressing STIs

STI programs in health departments can:

- Identify if CHWs are already providing sexual health-related services in the community and in what settings.
- Consider the feasibility of hiring CHWs into state and local health department STI prevention programs.
- Work with substance use disorder agencies in the region to develop joint programs for CHWs.

The CDC can:

- Work with partners to develop national education materials for CHWs about STIs.

Health Clinics and Community Based Organizations (CBOs) can:

- Integrate CHWs into their programs to provide more holistic, culturally-sensitive STI services and outreach.

Developing effective Medicaid coverage models for CHWs in the STI field

STI Programs in Health Departments and their partners can:

- Identify and engage in any ongoing state-level discussions of Medicaid reimbursement for CHWs.
- Reach out to any Medicaid Managed Care Organizations (MCOs) in the state about CHW reimbursement.
- Identify funding sources to sustainably support CHWs who serve uninsured or underinsured populations.

STI Programs in Health Departments can work with Medicaid agencies and managed care organizations to:

- Ensure that payment models allow for continued flexibility for CHWs to effectively address STIs and other health issues facing the community.
- Create opportunities for Medicaid to support CHWs in the community.
- Consider required ratios for CHWs to beneficiaries within MCO plans.

Integrating DIS and CHW Work

STI programs in health departments can:

- Create additional opportunities for CHWs and DISs to better understand each other's roles.
- Supplement their DIS workforce with CHWs.
- Consider opportunities for cross-training.

Conclusion

CHWs could play a key role in addressing the STI epidemic, and current Medicaid policy changes to cover CHWs could sustain their work. STI programs, providers, and other stakeholders can work with CHWs, Medicaid programs and plans, and the existing DIS workforce to integrate CHWs into the STI field.

INTRODUCTION

The United States is in the midst of an epidemic of sexually transmitted infections. Preliminary data for 2021 show that while chlamydia cases have decreased slightly since 2017 (-4.7%), cases of gonorrhea have increased by 25%, and syphilis by 68%.¹ If undetected, sexually transmitted infections can lead to pain, infertility, increased susceptibility to HIV infection, and, for syphilis, death. Congenital syphilis, acquired in utero, can lead to stillbirth, low birth weight, infant death, and other complications – and rates have increased by 184% since 2017.²

Yet all of these bacterial STIs are entirely detectable and treatable. The challenge for the public health and healthcare systems is connecting individuals and communities with STI screening, diagnostic, and treatment services, as well as education about STIs and sexual health. For STIs, issues related to stigma, privacy, and medical mistrust can compound barriers to care and hamper the kind of engagement needed to turn around the current epidemic.

Given these challenges, community health workers could play a crucial part in the response to the STI epidemic. Community health workers, or CHWs, are defined by the American Public Health Association (APHA) and the National Association of Community Health Workers as “frontline public health workers who are trusted members and/or have a close understanding of the community served.”³ CHWs can work in a range of settings – from clinics to health departments to community based organizations – and provide a range of services, including education, screening, patient navigation, peer support, and more. While some CHWs do already work in the sexual health field, overall the workforce remains a largely untapped resource for addressing STIs. Likewise, the Medicaid program - which covers nearly 89 million Americans⁴ and pays for a disproportionate share of STI related visits⁵ – is still in the early stages of determining how best to support the CHW workforce.

This study was undertaken to identify opportunities to expand and support CHWs’ role in the STI field. This report begins with background information on CHWs in the United States, including their current role in addressing sexual health and HIV; how some states are including CHWs in their Medicaid systems; and distinctions between CHWs and disease intervention specialists. It then presents findings based on a set of interviews with state and national experts in sexual health, CHWs, and STIs. The findings cover three areas: how CHWs’ distinct skills could allow them to contribute in the STI field; how Medicaid can best support CHWs performing that work; and how a growing CHW workforce could complement the existing disease intervention specialist (DIS) workforce in tackling the current STI epidemic. The report concludes with a set of considerations for public health agencies, Medicaid programs, and other stakeholders interested in integrating more CHWs into the STI field.

METHODOLOGY

GW conducted 19 semi-structured interviews via teleconference with 25 key informants, including national STI and healthcare system experts, national CHW experts, CHW experts and practitioners, and DIS experts and program managers (see Appendix for a full list of interviewees and affiliations). Interviews were conducted from April to June of 2022. Interview guides were developed based on literature reviews and a detailed comparison of the roles of CHWs and DIS workers.

All interview transcripts were reviewed by at least two researchers and key themes were coded through an iterative process in which participants' insights were organized by theme. Additional themes were added as identified. Project interviews were deemed exempt from IRB review by the George Washington University Institutional Review Board. All quotations included in this report are from project interviews, and de-identified per agreement with participants.

BACKGROUND

The CHW workforce in the U.S.

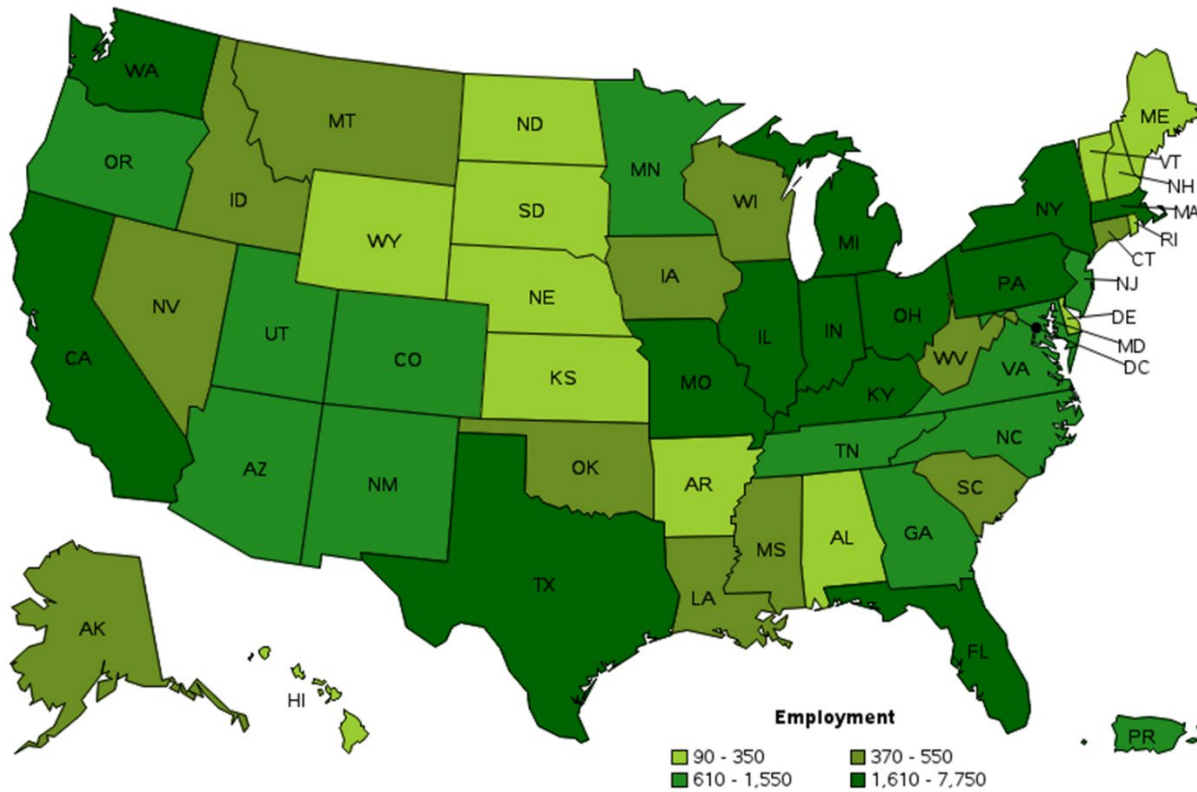
The APHA and many other public health organizations use the following definition of a CHW:

A community health worker is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the worker to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery.

A community health worker also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy.⁶

While the breadth of the term "CHW" makes the exact number working today difficult to quantify, the Bureau of Labor Statistics estimates that over 60,000 CHWs were working in the United States in 2021, with a mean annual wage of approximately \$48,000.⁷ CHWs are employed by outpatient care clinics, hospitals, insurance companies, local governments, and individual and family care service providers, and work in every state in the country⁸:

Figure 1 Employment of Community Health Workers, May 2021⁹



CHW effectiveness

Studies have confirmed CHWs' effectiveness in improving health outcomes among low-income and minority populations by connecting them to care.^{10,11,12,13} Overall, when CHWs are integrated into healthcare clinics, patients working with CHWs are more likely to follow recommendations, maintain regular care, and self-manage chronic disease better; and health plan leaders and providers positively view CHWs in clinical practices.¹⁴ CHWs have the most impact when delivering certain specific and preventive services to low-income, minority, or otherwise underserved populations.¹⁵ Hispanic or Spanish-speaking CHWs, often called "promotores," are valuable in connecting the community to health providers, particularly for community members who do not speak English, and leveraging resources to address health disparities.^{16,17}

In addition to the individual and community level benefits of CHW programs, return-on-investment analysis has found that CHWs provide economic benefits and are a cost-effective way to connect patients with care. A multi-year study conducted in Arkansas used CHWs to identify adults with unmet healthcare needs and connect them with care, resulting in a nearly 24% average reduction in annual Medicaid spending per participant.¹⁸ Additionally, the study found a substantial return of nearly three dollars for each dollar invested in the program.¹⁹ Subsequent studies utilizing ROI analysis to assess CHWs services have returned similar results.^{20,21}

CHWs are also effective when integrated into an Emergency Department to refer and connect patients to community resources, provide long-term support, and help patients navigate the fragmented healthcare system.²²

CHWs addressing sexual health and HIV

While there is little peer-reviewed literature focused on CHWs in the STI field, CHWs have a clear record of providing support and aid to historically marginalized people living with HIV (PLWH). CHWs provide holistic support for PLWH to address social determinants of health (SDOH), and can spend more time with patients than clinicians to establish a better rapport.^{23,24,25,26,27} CHWs are well-suited for recruiting populations for HIV screenings, fostering trust, facilitating care with community members, and locating and reconnecting people who have dropped out of care into the healthcare system.^{28,29,30,31} CHWs are effective in under-resourced communities, and are particularly adept at finding or developing affordable, targeted interventions that benefit that marginalized community.³²

Many CHWs also address HIV outside the clinical setting. CHWs have demonstrated effectiveness when working on HIV prevention, encouraging people to know their HIV status, educating and engaging diverse populations, and linking people who test positive to healthcare.^{33,34,35} CHWs are effective at providing sexual health information to the community, in part because they likely have the community's trust and assurance of confidentiality.³⁶ CHWs can deliver information on sexual and reproductive health and screenings to communities with low rates of health insurance, or "healthcare deserts" lacking adequate healthcare providers.³⁷ One study found that CHWs who provide sexual health education, particularly in the Latino community, had intergenerational impact: youth educated on HIV prevention in schools were found to relay that information at home to parents, grandparents, and extended family.³⁸

CHWs' effectiveness in addressing HIV is partly because CHWs are typically from the community they serve and so possess a deep understanding of both the community and members' beliefs about HIV, and how to work with patients and reduce stigma.^{39,40,41,42} CHWs can conduct home visits to keep PLWH retained or re-engaged in care, and involve and educate family members and support systems regarding care.^{43,44}

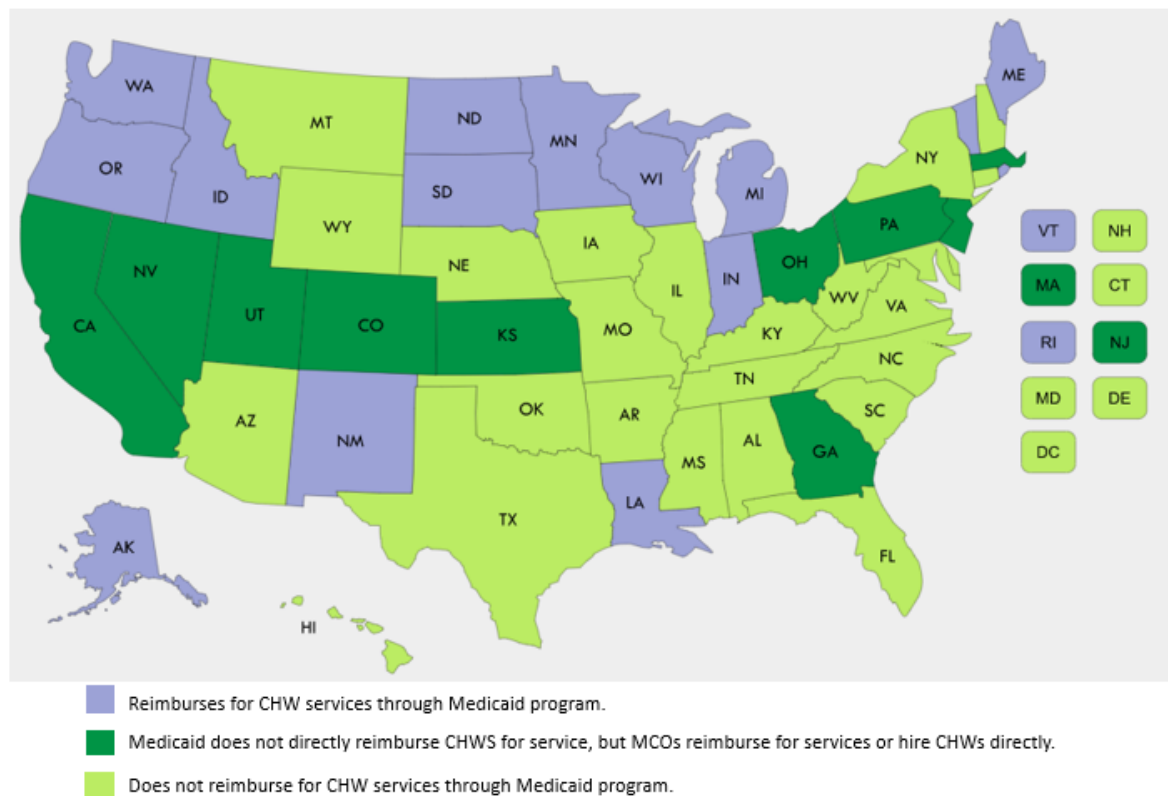
Medicaid coverage for CHWs

A lack of stable funding at both the state and federal levels remain a barrier to CHW integration.⁴⁵ Payment options for CHWs include grant funding, nonprofit contributions, reimbursement for services, federally qualified health centers (FQHCs), and general revenue, which vary by state. These sources generally result in unreliable payment for CHWs.⁴⁶

Because of the growing recognition of the contribution of CHWs to better health (as well as lower costs), state Medicaid programs have increasingly looked to develop reimbursement models that include this workforce. The Center for Medicare and Medicaid Services allows Medicaid programs to reimburse CHWs (and other non-licensed providers) for providing preventive services if the services have been recommended by licensed providers.^{47,48}

Currently, 15 states provide direct reimbursement for CHW services through Medicaid, and in 10 states, Medicaid managed care organizations (MCOs) reimburse for CHW services or hire CHWs directly.^{49,50}

Figure 2: State Approaches to Medicaid Reimbursement for CHWs⁵¹



NASHP’s State Community Health Worker Models, as of December 2021.

Reimbursement can take various forms. For example:

- Minnesota enacted a State Plan Amendment in 2008 allowing CHWs to provide health education and care coordination services following demonstration of a return on investment for funds spent on CHW training and employment.⁵²
- Idaho has a Primary Care Case Management (PCCM) program that reimburses primary care providers for care coordination. The Medicaid program pays a higher PCCM monthly rate for providers who include CHWs in their care team.
- Indiana’s Medicaid fee-for-service program permits billing for self-management education and training offered by CHWs.
- Louisiana reimburses for CHW services through Medicaid MCOs.
- Michigan requires Medicaid health plans to employ at least one CHW for every 5,000 members.

The reimbursement approach is still under consideration in more states. For example, California Governor Newsom has proposed a \$16.3 million revised budget for CHWs to serve Medi-Cal beneficiaries by July 2022.^{53,54} CHWs, under the supervision of a licensed provider, will be able to provide services including diagnosis, prevention, and treatment of health conditions for Medi-Cal beneficiaries in both FFS and managed care systems.⁵⁵

In addition to direct reimbursement, a 2021 study found that a number of states have included CHWs as a component of innovative Medicaid payment model.⁵⁶ This analysis found that 27 states utilized CHWs in State Innovation Models to test novel multipayer delivery system reforms, and 11 states used CHWs in Patient-Centered Medical Homes or Health Homes that reimburse provider teams to coordinate care and support for people with chronic conditions. For example, New York City has successfully integrated CHWs into Medicaid health home networks, with CHWs coordinating care for “super-utilizers” who access the health care system frequently⁵⁷; and Texas is utilizing its Section 1115 Delivery System Reform Incentive Payment to provide payment for CHW services.⁵⁸

FINDINGS

The key informant interviews yielded an array of findings on the roles CHWs could play in addressing STIs, how Medicaid programs and managed care organizations could best support CHWs in that work, and how CHWs could complement the work of the DIS workforce.

Key Finding 1: CHWs can play an important role in addressing STIs, particularly for historically marginalized populations

Many interviewees stated that CHWs could play multiple key roles in addressing the STI epidemic, given their demonstrated strengths and the history of CHWs working in the HIV field.

CHWs can effectively reach individuals and communities to link them to STI services

Multiple interviewees stated that CHWs would be effective in providing STI care to historically marginalized groups because they are viewed as more trusted members of the community and often have shared-lived experiences. They stated that CHWs could perform a range of tasks related to STI patient needs, including (but not limited to):

- Referrals to testing;
- Referrals to treatment;
- Aiding in STI prevention; and
- Helping patients reenter and navigate care.

In addition, CHWs have a strong referral network to a range of health and social needs, which is important for populations at higher risk for contracting an STI.

"One of the roles [for CHWs] would be care coordination, and particularly in the HIV and STI area. This is where we see community health workers playing a really significant role, because they are the ones who really spend the time to, once somebody tests positive, to really connect them to the services, the education, the follow up care and treatment and treatment support that necessarily other members of the clinical care team may not have, so I think care coordination is one role that they could play."

Other interviewees noted that at-risk populations who experience multiple barriers to the healthcare system can particularly benefit from CHW services.

"Most of the people who are having these high rates [of STIs], you know again are probably from more marginalized communities that need other resources. It's not just about the health it's about other resources as well, and they can connect them and that's what a Community Health Worker does. And then the care and treatment side, once they're in care and treatment, keeping them and sustaining them to make sure they follow the course of treatment, so if they have to reorder pills making sure that they follow up with the appointments that they are getting they're completing the course of treatment."

"I would think it's anybody who doesn't regularly access the healthcare system. Sometimes that's youth, sometimes that people who live in poverty or are experiencing homelessness, people with language barriers. All those pieces are important; how many barriers they have to getting their needs met, and that's the important part."

"We've had some [CHWs] go as far as, you know, so and so didn't make it to their appointment; if it's ok, you know, I'm going to call and might stop by at their house if it's safe, etc. It's a different type of wrap around to be physically present in a way that [...] case managers and nurses can't, I think. There's an element of support that looks a little bit different, especially with peers with lived experience."

CHWs can work in a range of settings relevant to STIs

CHWs work across a wide range of settings relevant to addressing STIs. These include:

- local health departments
- clinical settings, such as STI clinics or federally-qualified health centers
- community-based organizations
- health issuers, such as Medicaid managed care organizations

As multiple interviewees discussed, the function of CHWs can vary based on their different employer types or settings. For example, CHWs in a local health department could collaborate with DIS workers (see Finding 3 for more detail). CHWs in a clinical setting can engage with clients to help them navigate their medical and other services, and create a bridge of trust between the client and other members of the care team. CHWs in non-clinical community-based organizations can do community education and outreach, linking people to information and referring them to services.

Several interviewees noted that CHWs can conduct outreach in many public settings, such as grocery stores, college campuses, libraries, clubs, and COVID-19 testing sites, to connect patients to care. Maintaining this flexibility is important for CHWs to meet patients where they are and provide comprehensive sexual education and information.

“My job is not a 9-5, especially in HIV because for example, I would see in terms of [HIV] spreading it's going to happen in the night time. We're going to the club, we see a nice person, we want to go home. [...] You're not going to be in the strip club at 3 in the afternoon, you're going to be in the strip club at 3 o'clock in the morning so that's where I need to be at 3 o'clock in the morning.”

“It's a different type of wrap around to be physically present in a way that [...] case managers and nurses can't, I think. There's an element of support that looks a little bit different, especially with peers with lived experience.”

“You need to be able to call me at 3 o'clock in the morning saying ‘I don't have condoms, I don't have any money for condoms but I'm outside.’ I say all right sis, say no more, we have a team coming around the corner right now we're about to give you the whole list of dental dams, condoms, etc.”

CHWs can help mitigate medical mistrust between patients and health providers

Several interviewees mentioned that CHWs can be critical in serving communities that have been historically mistreated by the medical system. Judgement, stigma, and lack of urgency from clinical providers may deter patients from seeking community-based services for STI treatment and contributes to loss to follow-up. However, CHWs can serve as patient advocates both within clinical settings and outside of them to mitigate these discriminatory experiences, while providing sexual education and patient navigation.

“Mistrust of healthcare institutions and stigma related to the condition and all of that are areas where CHWs are, that's their wheelhouse I mean that is, that is exactly what you need it for.”

“That experience actually prevents a lot of women from using the services in the Community, because nobody wants to feel as if their bodies are being policed, especially as a woman, because we already feel that way.”

“CHWs help in navigating the healthcare system and breaking down those concepts which patients would not necessarily understand, and acting as an advocate on their behalf.”

“But if you couple that [provider] with a Community Health Worker who's sitting in a waiting room, answering questions, talking to people, being the resource before and after your conversation with the provider, how great is that.”

STI-related stigma can prevent individuals from talking to providers about their sexual health, especially in small rural areas or closely knit communities. Several interviewees mentioned that CHWs can reduce STI stigma on both an individual and organizational level in either community, local health department, and clinical settings so patients receive adequate STI care.

“Because it's sexually related and there's sex in the word, there's some people way more uncomfortable with talking about STIs than COVID. [...] But CHWs are partnering with HIV agencies to add HIV screening to the work that they do. I see this as just being one more thing they can do to help the community and most of them are really committed to making their community stronger [...] and will work with whatever issues they need to. You just have to give them the skills and talk with them on different approaches.”

However, one interviewee did caution that in more rural communities, individuals may know their local CHW worker personally, which may deter them from sharing information about their sexual health.

CHWs prioritize the social determinants of health

Many interviewees highlighted that CHWs provide a comprehensive approach to care that addresses the needs of the whole person in addition to their medical conditions. By linking patients to services that address these health-related social needs (education, food, housing, employment, transportation, social services), CHW services can improve health outcomes in multiple areas, including sexual health. Interviewees noted how CHWs addressing the social determinants of health is foundational in treating patients for STIs.

“I think the most important thing is making sure that we address the concerns that individuals have because we all know that if you don't have basic things...an HIV test is the least that you need to worry about... So, it's more of a holistic approach... and we have found that once we help them overcome those barriers, then it's much easier to get them screened, you know, for us.”

“The CHWs we train ... spend I think most of their time dealing with all the other social determinants and knowing where to connect people.”

CHWs can play a role in youth and adult sex education, addressing STI risk proactively

Multiple interviewees noted that because of their relationship to the community and the relative flexibility of their time and roles, they could engage more meaningfully than other providers in offering sex education information and resources.

“I think if there's a place for Community Health Workers to make a big difference, I think sexual health education is a big part of that. It is a significantly under-addressed issue that contributes to a lot of our other problems. [...] One of the things that we routinely deal with is you know folks that do not really know a whole lot about STIs or STI prevention or sexual health in general.”

Multiple interviewees mentioned that CHWs can work more effectively with youth than other providers. One interviewee stated that in contrast to health department employees, CHWs can contact and conduct follow-ups with youth at their homes. On an interpersonal level, CHWs can use their life experiences and cultural competence to relate to youth and gain their trust in order to provide information about sexual health and connect them to youth-serving agencies.

While a CHW could focus entirely on STIs, a broader approach can also be appropriate

Interviewees discussed multiple models for CHWs to play a greater role in STIs. CHWs could focus entirely on HIV, STIs, or sexual health more broadly. Alternatively, CHWs who focus on other health conditions, such as diabetes or asthma, could be trained on STIs and existing resources related to STIs, in order to refer people to information when STI questions arise. Some CHWs, such as those employed by Medicaid MCOs, may focus entirely on upstream determinants of health across all patients; these CHWs too could benefit from STI training.

“It’s not just that I have to get my kid’s asthma taken care of, it’s not that I just have to get diagnosed with HIV or I [...] need prenatal care, I think it’s the Community Health Worker, they kind of need to know a little bit about a lot.”

Key Finding 2: Carefully designed Medicaid coverage can sustainably bolster the CHW workforce

As described in the Background section, a number of state Medicaid programs currently cover CHW services, either through their FFS programs or through mandatory or voluntary efforts by managed care organizations. Interviewees described the overall benefits and drawbacks of Medicaid reimbursement for CHWs, including those who might work to address STIs, and how different coverage models could impact their work.

Reimbursement through Medicaid can result in improved stability for CHWs and improved patient care.

Most interviewees agreed that reimbursement through Medicaid or MCOs could benefit CHWs and their clients, particularly compared to other less-stable funding. For example, five interviewees indicated that Medicaid reimbursement can provide more long-term stability for CHW funding than grants. Job stability for CHWs enables CHWs to become more knowledgeable about available community resources, and build stable relationships with providers.

“If we can get the mindset that a CHW is needed in every entity, whether a for-profit or nonprofit, because no matter what the employer is, or what type of employer, it deals with the community in some form or fashion and keeping that connection. Then, we can advocate for the case that CHWs needs to be on the permanent payroll, not that grant.”

The specific approach to CHW coverage can have significant intended and unintended impacts on their practice

Interviewees discussed the benefits and drawbacks of different models for Medicaid reimbursement of CHWs, for the workforce in general and for CHWs addressing STIs:

Nearly all interviewees indicated that paying for specific units of service delivered by CHWs on a fee-for-service basis could limit CHW flexibility and effectiveness. For example, multiple interviewees noted that paying for specific or limited units of time with a CHW could reduce their ability to conduct effective outreach and build relationships.

“Part of what a CHW is doing is building relationships in the community and building that trust. It's really hard to measure that and it's hard to do that in 20 minutes, 30 minutes, or an hour. It may take a half a day of being with somebody to earn the trust level that you need to talk about the things you need to talk about with somebody. And it may take repeated visits to do that.”

One interviewee noted that finding one unhoused person and linking them to care for an STI could result in a dramatic reduction in community spread. Not reimbursing for time spent searching for a person could prevent CHWs from looking for and aiding people who are harder to reach, such as unhoused and migrant patients, even though they, and their community, may benefit significantly from CHW services.

Another interviewee stated that CHWs do a significant amount of community engagement that is not traditionally reimbursable within the healthcare sector. This includes community events, such as playing pick-up basketball games. This work, which is important in building trust and relationships with the community, would not be reimbursable in a typical fee-for-service or delivery-based model of care.

One interviewee specifically noted the drawbacks of Minnesota's fee-for-service model for CHWs:

“It was a big to-do to get that [model], and it's very, very limited. It's education for certain things, and certain amount and the time is limited, and the payment is very limited, and there's a whole lot of boxes and the CHWs who are working in that system were very frustrated.”

Six interviewees cautioned that regardless of how an employer is reimbursed for CHW services, CHWs themselves should receive salaries that are not directly linked to billing, so that they retain flexibility in responding to patients' needs.

“The fundamental value of CHWs is self-determination, so anything, and certainly Medicaid payment policies around CHW activity, can have a profound impact on their practice.”

Any quality measures linked to Medicaid reimbursement should be carefully designed to avoid problematic incentives. Interviewees noted that tying payment to quality metrics could have

adverse impacts. For example, one interviewee stated that linking CHW reimbursement to a deliverable, such as increasing PrEP adherence by a certain percentage in a population, could lead the CHW to focus mainly on this deliverable, and remove some of the flexibility of addressing all of the patient's needs. Another interviewee noted that, when designing a payment model, there must be strong guidelines to discourage plans from assigning high numbers of clients to the CHW solely to increase reimbursement.

Required ratios for MCOs could improve CHW funding and flexibility. Interviewees noted that states could require or incentivize Medicaid MCOs to employ a certain ratio of CHWs to beneficiaries, similar to Michigan's current model. This would provide long-term employment opportunities for CHWs while allowing CHWs the flexibility to best support enrollees.

"[Funding CHWs through required ratios in MCOs] seems promising in that payment for the CHW, their salary, isn't tied to a specific action, like a specific patient encounter. So they can be funded and still go out into the community and kind of do that bigger-picture patient advocacy stuff. Like, if they go to somebody's home and they see oh, they have all these other unmet social needs, they can still be funded to address those, or, like, maybe do some housing navigation or kind of have a little bit more flexibility in what they do."

Some interviewees noted that Medicaid MCOs already employ care coordinators. Typically, these care coordinators are not CHWs, though they could either be hired to do both the role of CHW and care coordinator, or care coordinators could be trained to do the work of CHWs. This could allow CHWs to receive a salary and have more flexibility in how they support their patients.

A range of novel payment models in Medicaid could permit the inclusion of CHWs.

Interviewees noted the variety of alternative payment model structures (e.g., value-based payment and Accountable Care Organizations) where provider networks or groups receive per-member per-month money that is more flexible, which could allow the inclusion of CHWs to address STIs and other health issues:

"We don't have good ways right now of billing for CHW services, so if you have a financing model where the funds, like a value-based payment model or some kind of managed care model where the entity receives a per Member per month rate or something like that, then the funds have a lot more flexibility attached to them and can fund CHW-type roles."

One interviewee noted that states or MCOs could structure a proactive incentive for providers, offering clinical teams an additional payment either tied to a quality measure or structured around social complexity to increase the likelihood of using CHWs to help address social needs. The interviewee noted that the success of such an approach would depend on collaboration with CHWs and thoughtful design to ensure that the CHWs would retain flexibility and effectiveness.

Medicaid support could be difficult to access for CHWs working in non-clinical settings

Multiple interviewees noted that the benefits of Medicaid coverage would likely be most accessible for CHWs who work in clinical settings, because their employers are likely already billing Medicaid for other providers and services. In contrast, community-based organizations (CBOs) and some health departments could face significant challenges in creating billing structures to initiate billing Medicaid for CHW services.

“I hope that when we look at [payment] models, that we don't just focus on medical practices, medical settings for supporting CHW work because there's a lot of value in having people in the community who aren't connected to a medical practice.”

One benefit of having CHWs in community-based settings is that many people either do not trust traditional healthcare settings or do not have health insurance to access clinical care. This may be particularly salient in non-Medicaid expansion states, where many low-income adults fall in the “Medicaid gap” and lack health insurance altogether:

“I hope we will look at not just paying for people in healthcare settings to do the community health workers. I hope we will [pay CHWs that are] community based and community placed and are not part of the healthcare system because we are one of the states that have not expanded Medicaid - we have a lot of people who don't have any insurance, who don't have a medical home, [...] who when they need medical care they tend to go to the emergency room. We have a lot of people in the community who need someone to help them navigate the system, to help them understand we have free and reduced-priced clinics, that we've got people who will see them on the sliding scale or get hooked up in other ways of assistance when they're not insured.”

One interviewee expressed concern that Medicaid reimbursement for CHWs could disincentivize outreach to uninsured individuals, frustrating CHWs who want to serve the whole community.

Some interviewees offered potential models for connecting CHWs in nonclinical settings to Medicaid reimbursement. One interviewee suggested having clinics collaborate with CBOs, with a clinic-employed CHW situated in the CBO setting. This could potentially allow the clinic to bill Medicaid for the CHW's services.

Another interviewee noted that CHWs could create groups and work as independent contractors or consultants for education and outreach, with a central mechanism for billing Medicaid. One interviewee cited the Minnesota-based organization CHW Solutions as an example. In addition to CHW services and training, CHW Solutions offers standing orders from a medical director and CHW billing services for entities to access Medicaid reimbursement.⁵⁹

Key Finding 3: The CHW and DIS workforces bring complementary strengths to the STI Field

DIS and CHWs have largely distinct roles and can be perceived differently by the community

Interviewees emphasized a number of differences between the roles of CHWs and DISs, echoing distinctions that the research team identified (see Table #1).

Table 1: Public Health Professions: CHWs and Disease Intervention Specialists

	Community Health Workers (CHWs)	Disease Intervention Specialists (DIS)
<i>Education Requirements</i>	Most CHW's have a high school diploma or associate degree ¹	Most DIS's have a bachelors or master's degree in public health or epidemiology ²
<i>Training</i>	Some states have voluntary or required CHW certification programs that are either state or privately operated ^{60,3}	Passport to Partner Services; subsequent trainings requirements vary by region ⁶¹
<i>Compensation</i>	\$42,000 to \$70,790 ⁶²	\$59,069 ⁶³
<i>Site of Service</i>	Department of health (DOH), hospitals, and health clinics, often in rural areas and underserved minority communities; some community-based organizations	Primarily department of health (DOH)
<i>Defining features</i>	<ul style="list-style-type: none"> • Often members of community served • Multilingual • Culturally sensitive • Minority-focused 	<ul style="list-style-type: none"> • Targeted disease outreach • Counseling • STI/STD focused • Conduct case investigations
<i>Key tasks/SOW</i>	<ul style="list-style-type: none"> • Information dissemination • STI Services • Health literacy advocate • Referrals • Recruitment • STI/STD Services • Health education • Case management • Chronic disease service delivery 	<ul style="list-style-type: none"> • Patient notification • Expedited Partner Therapy • STI testing • Contact tracing • Referrals • Partner notification services • Infectious disease outbreak • STI/STD Services • Communicable disease service delivery
<i>Effectiveness</i>	<ul style="list-style-type: none"> • Connecting underserved populations to care^{64,65,66,67} • Cultural competency • Mitigating language barriers^{68,69,70} • Improving health literacy^{71,72} • Working with youth and adolescents^{73,74} • Long-term interventions 	<ul style="list-style-type: none"> • Infectious disease outbreak⁷⁵ • Short-term interventions • Coordinating care for those with chronic diseases^{76,77}

Three interviewees noted that DISs have more specialized and high-level training than CHWs. On the other hand, interviewees described the CHW role as involving a more upstream, holistic, and consistent approach to addressing barriers to care by providing patients with education, resources, and linkage to care.

“I would not see [CHWs] as being the folks who do the work around contact tracing or contact investigation like the Disease Intervention Specialists do, I see [CHWs] as being the ones who say well this is why you need to tell them all your sexual contacts and why you need to get tested before having your baby. That’s the CHW role, more than tracking people down and telling them they’ve been exposed.”

Numerous interviewees noted exceptions to this division of labor. While most experts saw CHWs as being more involved in linkage to care, some interviewees noted that DIS can also be involved in linkage to care, care coordination, arranging transportation, referrals to address social determinants of health, domestic violence support, harm reduction, and school-based health education. Likewise, while most experts saw CHWs as being more involved in population-based prevention, one expert suggested that CHWs can also be involved in the hands-on prevention work that is typically associated with DIS.

“People have a mental picture of CHWs involved primarily in population-based primary prevention, which they can be, but they can also be involved, very much hands-on, in tertiary prevention and helping people prevent the progression of the disease.”

While most interviewees said that CHWs are highly connected to the communities they serve, interviewees had differing opinions about whether the same could be said about DIS. Two interviewees discussed structural barriers to increasing diversity in the DIS workforce in health departments, including strict requirements about residency, minimum education, years of experience, and/or lack of felony convictions. These requirements can make it difficult for health departments to hire people with lived experiences of poverty, discrimination, or other factors that make them relatable to the patient population they are serving.

“It becomes very, very difficult to locate individuals once they are identified as being [a DIS]. When they come around the community or the neighborhood or and they’ve already been identified, [patients] want to avoid that person versus ‘Hey you’re my helper, I can trust in you.’”

There are efforts to increase diversity in the DIS workforce, but interviewees stated that these steps can be limited by policies and laws that prevent organizations from hiring based on protected status.

Cross-training between DIS and CHWs could strengthen both workforces

Multiple interviewees pointed to a need for bidirectional education so that CHWs and DIS can better understand the strengths of each other's roles and work together. CHWs could learn more about DIS's role to understand how their work reinforces the DIS approach:

“CHWs do focus and learn so much depending on the program or the agency that they are working on, whether it's again the funding that they're tied to...[but] they might need additional training to really learn more about where the DIS's role meshes a little bit more with their current role.”

Similarly, DIS staff could receive CHW training to enhance their effectiveness; one interviewee cited a local health department that required all DIS staff to undergo the state's CHW training curriculum. Another interviewee noted that this approach could be useful, though it is still important for DIS staff to reflect the community served:

“I think there are certain skills that you can learn from the Community Health Worker model that can be incorporated into the interactions that we [DIS] have with clients. I think something that I've run into, and my staff have run into, is the moment that someone comes into the room with someone that they're not comfortable with— you know just looking them up and down, they shut down and maybe we bring in different DIS and that conversation does a complete 180. So yes, we can teach the tools, but it's not always going to be 100% effective.”

People with CHW skills who reflect the community served could perform DIS services in a clinical or community-based setting

Two interviewees shared that having DIS integrated into a clinic setting could help with immediate identification of a positive case, interview, and follow-up. For example, in Erie County, New York, a DIS worker is situated in the public STI clinic, and is able to connect immediately with clients as needed.

In another model, the City of Chicago situates DIS-like partner services in a community-based clinic. These staff are not called CHWs, but reflect the community served and apply a CHW approach to relationship building.

Case Study: Community-Based Partner Services

As part of the comprehensive response to the syphilis outbreak in 2002, the Chicago Department of Public Health (DPH) funded and established a community-based DIS Program at [Howard Brown Health](#) (HBH), a multi-site, federally qualified health center with comprehensive health and social services focused on the LGBTQ+ community. Under a longstanding agreement with DPH, Howard Brown's Partner Services program conducts patient interviews and partner notification, two tasks typically performed by health department DIS, for clients seen in their clinics who are diagnosed with HIV or syphilis. Howard Brown's Partner Services Specialists undergo DIS training that is identical to that for health department DIS staff and receive ongoing

technical assistance from DPH to ensure compliance with partner service expectations and outcomes. Unlike DPH DISs, Howard Brown does not have direct access to surveillance data, but their staff can reach out to DPH to request necessary information (such as earlier syphilis testing results for staging purposes).

While Howard Brown’s Partner Services staff are not officially titled “Community Health Workers,” they arguably merge the DIS role with many of the key strengths of CHWs. Similarly to the DPH DIS, HBH Partner Services Specialists perform a [range of tasks](#) to help patients navigate their diagnoses, such as linkage to care and providing pre-and post-test counseling. Importantly, the staff also reflect their client population and undergo training related to LGBT sensitivity, structural racism, and immigration, promoting community trust. DPH Director of Disease Investigations Michael Castro reports that based on previously published data, the partner services intervention delivered by Howard Brown staff has been better received by their clients; and that DIS outcomes from Howard Brown, including the percent of clients diagnosed with HIV or syphilis who were interviewed and the partner index (number of named partners per interviewed patient), have been slightly better than those achieved by traditional DIS.

The current shortage of DIS workers could be mitigated in part through task-shifting to CHWs

Many interviewees discussed the current shortage of DIS workers. Low pay has caused many DIS workers to leave the workforce in search of better paying jobs and prevents new hires from applying in the first place. Interviewees noted that DISs do not often stay in their positions long, with many moving onto other positions with more job mobility and promotion opportunity. Interviewees also noted that because of the COVID-19 pandemic, many DIS workers were transitioned from the STI field to COVID-specific roles like contact tracing, which resulted in high levels of burnout.

As interviewees noted, there has been an influx of funding to STI programs for the next five years, which should provide increased capacity or opportunity to hire DIS workers and shift COVID-19 contact tracers back to STIs. However, multiple interviewees also suggested that CHW engagement could help decrease DIS workforce issues, and that it would be reasonable to train CHWs for some of the tasks more commonly performed by DIS. One interviewee stated that utilizing CHWs to fill some DIS roles could free up DIS’s time for things CHWs can’t typically do, such as partner notification. CHWs could also take on tasks typically performed by nurses, such as HIV testing.

CONSIDERATIONS FOR THE STI FIELD

Based on the above findings, the authors offer the following considerations for public health officials, CHWs, state Medicaid agencies, community-based organizations, and other stakeholders interested in strengthening the role of CHWs in the STI field.

Expanding CHWs' role in addressing STIs

As reflected in the literature and interviews, CHWs could play an integral role in addressing the current STI epidemic.

STI programs in health departments can:

- **Identify if CHWs are already providing sexual health-related services in the community and in what settings.** Assessing the existing CHW landscape locally, and whether any CHWs are doing some or all of their work in the sexual health field, is an important first step in order to build on existing efforts and/or identify current gaps. Many states have a CHW association or network, whose leaders and members could help STI programs understand and connect with the existing CHW workforce.⁷⁸
- **Consider the feasibility of hiring CHWs into state and local health department STI prevention programs.** CHWs could play a range of roles in STI prevention programs, including community outreach and referral to services; community or school based sex education; or creating trust between the department and the community.
- **Work with substance use disorder agencies in the region to develop joint programs for CHWs.** Given the high comorbidity of substance use disorder and STIs, health department divisions focused on STI can reach out to colleagues in the SUD field to develop specialized training or other programs for CHWs on upstream risk factors for both challenges.

The CDC can:

- **Work with partners to develop national CHW education materials on STIs.** Federal stakeholders in STI prevention, such as the CDC, may consider partnering with the National Association of Community Health Workers (NACHW) to develop a module on the Community Health Workers role in STI prevention. Many states' CHW certification programs include requirements for initial training and for continuing education (CE), and materials on STIs could be included in these state programs and made available to the larger CHW community.

Health Clinics and Community Based Organizations (CBOs) can:

- **Integrate CHWs into their programs to provide more holistic, culturally-sensitive STIs services and outreach.** As discussed throughout the report, CHWs could play a variety of roles in both clinical and nonclinical settings. In clinical programs with a high volume of STI patients, CHWs could be focused entirely on STIs, offering navigation, peer support, or referral to social service needs, as well as outreach to patients who fall out of care. Nonclinical organizations can hire CHWs to provide community-level outreach, sex education, and referral to services.

Developing effective Medicaid coverage models for CHWs in the STI field

As discussed above, many states are already integrating CHWs into their Medicaid systems in various ways, and these approaches continue to evolve.

STI Programs in Health Departments and STI service providers can:

- **Identify and engage in any ongoing state-level discussions of Medicaid reimbursement for CHWs.** Engagement is important to ensure that payment approaches support the unique strengths of STIs, most importantly by retaining their flexibility to meet the needs of individuals and communities. In addition, having a “seat at the table” for this planning will give STI stakeholders insight into the best way to leverage Medicaid funding for CHWs working entirely or partly on STI services.
- **Reach out to Medicaid MCOs in the state about CHW reimbursement.** Medicaid MCOs typically have significant flexibility to fund CHWs through creative models. Even if a state Medicaid agency has not formally added CHW services to the state plan, a Medicaid MCO could potentially fund services that help serve their patient populations.
- **Help identify funding sources to sustainably support CHWs who serve uninsured or underinsured populations.** A focus on Medicaid reimbursement is important but insufficient to supporting all who need CHW services, particularly in non-Medicaid-expansion states where significant numbers of low-income adults remain uninsured.

STI Programs in Health Departments can work with Medicaid agencies and managed care organizations to:

- **Ensure that payment models allow for continued flexibility for CHWs to effectively address STIs and other health issues facing the community.** Key considerations include:
 - Not tying payment to rigid process or outcome measures that could unduly constrain CHW flexibility in spending time with patients, connecting with the community, and looking for hard-to-reach patients who have or could have STIs.
 - Carefully creating mechanisms to prevent adverse outcomes and disparities in equity for who receives care.
- **Create opportunities for Medicaid to support CHWs in the community.** CHWs can play a role in the clinical setting, but work in the community allows them to meet a broader range of people and serve a broader set of needs. STI control programs – and interested partners in health departments – could work with Medicaid agencies or MCOs to develop ways to support CHW work in a community settings. This could include cooperative agreements, or other approaches to support CHW salaries in community-based organizations. This could also include reimbursing for services by CHWs who are employed by a clinic or health system, but have the flexibility to offer services in a partnering community-based organization.

- **Consider required ratios for CHWs to beneficiaries within MCO plans.** This approach, already in place in some states, gives CHWs a large panel of MCO members to serve. While the work would not be focused on STIs, health departments can ensure that these CHWs have key information on STIs and sexual health, as well as appropriate referral resources.

Integrating DIS and CHW Work

There are multiple opportunities to integrate the existing DIS workforce with CHWs to bolster the overall response to STIs.

STI programs in health departments can:

- **Create additional opportunities for CHWs and DISs to better understand each other's roles.** For example, a health department could host a convening where DIS staff can meet any CHWs working in the sexual health field in the community, or who might be interested in expanding their knowledge of STIs and sexual health. An initial meeting would create mutual knowledge of each other's roles and allow those already in the field to help identify opportunities for collaboration.
- **Supplement their DIS workforce with CHWs.** As noted above, STI control programs could consider directly hiring CHWs to play a range of roles. CHWs could specifically supplement the work of DIS staff through task shifting components of the DIS role, or by extending DIS's reach. For example, CHWs could provide ongoing support and/or sex education to clients after their initial DIS encounter. STI staff in HDs could also convene teams of DISs and CHWs to jointly identify opportunities for collaboration
- **Consider opportunities for cross-training.** DIS teams could participate in CHW training modules to advance their skills in community knowledge and engagement. Conversely, CHWs could undergo DIS training, either to support a shift to a formal DIS role, or to play a DIS-like role in a community setting (see, e.g., the Chicago model discussed above). DISs and CHWs working in the same community could also meet regularly to share lessons and insights on sexual health, unmet needs, and effective approaches.

CONCLUSION

Numerous challenges, from funding shortages to competing public health priorities to barriers to patient trust and care, are allowing the STI epidemic to continue and worsen. CHWs have the skills and demonstrated effectiveness that can help connect individuals and communities to STI education, prevention, testing, and treatment. By tapping into existing Medicaid coverage efforts

and coordinating thoughtfully with the existing DIS workforce, STI programs can work to integrate CHWs into STI response efforts.

Note: This report was supported by the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services (HHS) as part of financial assistance award totaling \$117,351 with 100 percent funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by CDC/HHS, or the U.S. Government.

Appendix: Project Interview Participants

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Ashley Rodríguez, Chair, Community Health Worker Special Interest Group, APHA

Carl Rush, MRP, Policy Advisor and Former Board Member, National Association of Community Health Workers (NACHW)

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Scott Strobel, Disease Intervention Specialist and Section Chief, STI/HIV Surveillance and Intervention, Kansas Department of Health and Environment (KDHE)

George Walton, STD Program Manager, Iowa Department of Public Health, Board Chair, The National Coalition of STD Directors (NCSD)

Shannon Wood, Lead Disease Intervention Specialist, Iowa Department of Public Health (IDPH)

Endnotes

- ¹ Centers for Disease Control and Prevention, Preliminary 2021 STD Surveillance Data (last reviewed Sept. 1, 2022). Available at <https://www.cdc.gov/std/statistics/2021/default.htm>
- ² Centers for Disease Control and Prevention, Preliminary 2021 STD Surveillance Data (last reviewed Sept. 1, 2022). Available at <https://www.cdc.gov/std/statistics/2021/default.htm>
- ³ Community Health Workers. <https://www.apha.org/APHA-Communities/Member-Sections/Community-HealthWorkers>. Accessed February 2022.
- ⁴ Centers for Medicare and Medicaid Services, “May 2011 Medicaid & CHIP Enrollment Highlights.” Available at <https://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-enrollment-data/report-highlights/index.html>
- ⁵ Pearson WS, Spicknall IH, Cramer R, Jenkins WD. Medicaid coverage of sexually transmitted disease service visits. *Am J Prev Med.* 2019; 57(1):51-56.
- ⁶ Community Health Workers. <https://www.apha.org/APHA-Communities/Member-Sections/Community-HealthWorkers>. Accessed February 2022.
- ⁷ U.S. Bureau of Labor Statistics. Occupational Employment and Wages, May 2021 21-1094 Community Health Workers. Available at <https://www.bls.gov/oes/current/oes211094.htm>
- ⁸ U.S. Bureau of Labor Statistics. Occupational Employment and Wages, May 2021 21-1094 Community Health Workers. Available at <https://www.bls.gov/oes/current/oes211094.htm>
- ⁹ U.S. Bureau of Labor Statistics. Occupational Employment and Wages, May 2021 21-1094 Community Health Workers. Available at <https://www.bls.gov/oes/current/oes211094.htm>
- ¹⁰ Sun CJ, García M, Mann L, Alonzo J, Eng E, Rhodes SD. Latino sexual and gender identity minorities promoting sexual health within their social networks: process evaluation findings from a lay health advisor intervention. *Health Promot Pract.* 2015;16(3):329-337. doi:10.1177/1524839914559777
- ¹¹ Parker A, Johnson-Motoyama M, Mariscal ES, Guilamo-Ramos V, Reynoso E, Fernandez C. Novel Service Delivery Approach to Address Reproductive Health Disparities within Immigrant Latino Communities in Geographic Hot Spots: An Implementation Study. *Health Soc Work.* 2020;45(3):155-163. doi:10.1093/hsw/hlaa014
- ¹² Wolfe HL, Baughman A, Davoust M, Sprague Martinez LS, Rajabiun S, Drainoni ML. Client Satisfaction with Community Health Workers in HIV Care Teams. *J Community Health.* 2021;46(5):951-959. doi:10.1007/s10900-021-00978-1
- ¹³ 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;35(2):139-146. doi:10.1097/FCH.0b013e3182465153
- ¹⁴ Sabo S, Wexler N, O'Meara L, et al. Organizational Readiness for Community Health Worker Workforce Integration Among Medicaid Contracted Health Plans and Provider Networks: An Arizona Case Study. *Front Public Health.* 2021;9:601908. Published 2021 Jun 7. doi:10.3389/fpubh.2021.601908
- ¹⁵ Snyder J. Community Health Workers: Roles and Opportunities in Health Care Delivery System Reform. ASPE Issue Brief. January 2016. <https://aspe.hhs.gov/sites/default/files/private/pdf/168956/CHWPpolicy.pdf>
- ¹⁶ Documet PI, Macia L, Thompson A, et al. A Male Promotores Network for Latinos: Process Evaluation From a Community-Based Participatory Project. *Health Promot Pract.* 2016;17(3):332-342. doi:10.1177/1524839915609059
- ¹⁷ Otiniano AD, Carroll-Scott A, Toy P, Wallace S. Supporting Latino Communities’ Natural Helpers: A Case Study of Promotoras in a Research Capacity Building Course. *J Immigrant Minority Health* (2012) 14:657–663 DOI 10.1007/s10903-011-9519-9
- ¹⁸ Felix H, Mays GP, Stewart MK. Medicaid Savings Resulted When Community Health Workers Matched Those With Needs To Home And Community Care. July 2011. *Health Affairs* 30:7. <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2011.0150>
- ¹⁹ Barbero C, Mason T, Rush C, et al. Processes for Implementing Community Health Worker Workforce Development Initiatives. *Front Public Health.* 2021;9:659017. Published 2021 Jun 24. doi:10.3389/fpubh.2021.659017

-
- ²⁰ Kangovi S, Mitra N, Grande D, Long JA, Asch DA. Evidence-Based Community Health Worker Program Addresses Unmet Social Needs And Generates Positive Return On Investment. *Health Aff (Millwood)*. 2020;39(2):207-213. doi:10.1377/hlthaff.2019.00981
- ²¹ Community Health Workers and return on investment (ROI). MHP Salud. <https://mhpsalud.org/programs/community-health-workers-roi/>. Published March 31, 2021. Accessed February 2022.
- ²² Kwan BM, Rockwood A, Bandle B, Fernald D, Hamer MK, Capp R. Community Health Workers: Addressing Client Objectives Among Frequent Emergency Department Users. *J Public Health Manag Pract*. 2018;24(2):146-154. doi:10.1097/PHH.0000000000000540
- ²³ Wheeler DP, Lucas J, Wilton L, et al. Building effective multilevel HIV prevention partnerships with Black men who have sex with men: experience from HPTN 073, a pre-exposure prophylaxis study in three US cities. *J Int AIDS Soc*. 2018;21 Suppl 7(Suppl Suppl 7):e25180. doi:10.1002/jia2.25180
- ²⁴ James AJ, Marable D, Cubbison CV, et al. HIV testing in a large community health center serving a multi-cultural patient population: A qualitative study of providers. *AIDS Care*. 2019;31(12):1585-1592. doi:10.1080/09540121.2019.1612016
- ²⁵ Davoust M, Drainoni M, Baughman A, et al. "He Gave Me Spirit and Hope": Client Experiences with the Implementation of Community Health Worker Programs in HIV Care. *AIDS Patient Care and STDs*. Aug 2021.318-326. <http://doi.org/10.1089/apc.2021.0085>
- ²⁶ Hammack AY, Bickham JN, Gilliard I 3rd, Robinson WT. A Community Health Worker Approach for Ending the HIV Epidemic. *Am J Prev Med*. 2021;61(5 Suppl 1):S26-S31. doi:10.1016/j.amepre.2021.06.008
- ²⁷ Roland KB, Higa DH, Leighton CA, Mizuno Y, DeLuca JB, Koenig LJ. Client Perspectives and Experiences With HIV Patient Navigation in the United States: A Qualitative Meta-Synthesis. *Health Promot Pract*. 2020;21(1):25-36. doi:10.1177/1524839919875727
- ²⁸ Rajabiun S, Lennon-Dearing R, Hirschi M, et al. Ending the HIV Epidemic: One Southern Community Speaks. *Soc Work Public Health*. 2021;36(6):647-664. doi:10.1080/19371918.2021.1947929
- ²⁹ Sudha S, Morrison S, Kenneth G. Beneficioso y Una Prioridad: Latina Women's Perceptions about HIV Testing. *American Journal of Health Behavior*, Volume 41, Number 1, January 2017, pp. 3-15(13). DOI: <https://doi.org/10.5993/AJHB.41.1.1>
- ³⁰ Young B, Rosenthal A, Escarfuller S, Shah S, Carrasquillo O, Kenya S. Beyond the Barefoot Doctors: Using Community Health Workers to Translate HIV Research to Service. *AIDS Behav*. 2019;23(10):2879-2888. doi:10.1007/s10461-019-02636-z
- ³¹ Rios-Ellis B, Becker D, Espinoza L, et al. Evaluation of a Community Health Worker Intervention to Reduce HIV/AIDS Stigma and Increase HIV Testing Among Underserved Latinos in the Southwestern U.S. *Public Health Rep*. 2015;130(5):458-467. doi:10.1177/003335491513000509
- ³² Sudha S, Morrison S, Kenneth G. Beneficioso y Una Prioridad: Latina Women's Perceptions about HIV Testing. *American Journal of Health Behavior*, Volume 41, Number 1, January 2017, pp. 3-15(13). DOI: <https://doi.org/10.5993/AJHB.41.1.1>
- ³³ Rajabiun S, Lennon-Dearing R, Hirschi M, et al. Ending the HIV Epidemic: One Southern Community Speaks. *Soc Work Public Health*. 2021;36(6):647-664. doi:10.1080/19371918.2021.1947929
- ³⁴ Kenya S, Okoro IS, Wallace K, Ricciardi M, Carrasquillo O, Prado G. Can Home-Based HIV Rapid Testing Reduce HIV Disparities Among African Americans in Miami?. *Health Promot Pract*. 2016;17(5):722-730. doi:10.1177/1524839916629970
- ³⁵ Farley JE, Dangerfield DT 2nd, LaRicci J, et al. Community engagement and linkage to care efforts by peer community-health workers to increase PrEP uptake among sexual minority men. *Public Health Nurs*. 2021;38(5):818-824. doi:10.1111/phn.12887
- ³⁶ Wagoner KG, Downs M, Alonzo J, Daniel-Ulloa J, Rhodes SD. Latino men's qualitative perspectives on a lay health advisor intervention to promote their sexual health. *Health Soc Care Community*. 2015;23(3):304-312. doi:10.1111/hsc.12148
- ³⁷ Ford S, Meghea C, Estes T, Hamade H, Lockett M, Williams KP. Assessing the fidelity of the Kin KeeperSM prevention intervention in African American, Latina and Arab women. *Health Educ Res*. 2014;29(1):158-165. doi:10.1093/her/cyt100

-
- ³⁸ Massengale KE, Morrison SD, Sudha S. Community Health Advocate-Identified Enablers of HIV Testing for Latina Immigrant Women. *AIDS Educ Prev.* 2016;28(4):325-340. doi:10.1521/aeap.2016.28.4.325
- ³⁹ James AJ, Marable D, Cubbison CV, et al. HIV testing in a large community health center serving a multi-cultural patient population: A qualitative study of providers. *AIDS Care.* 2019;31(12):1585-1592. doi:10.1080/09540121.2019.1612016
- ⁴⁰ Rios-Ellis B, Becker D, Espinoza L, et al. Evaluation of a Community Health Worker Intervention to Reduce HIV/AIDS Stigma and Increase HIV Testing Among Underserved Latinos in the Southwestern U.S. *Public Health Rep.* 2015;130(5):458-467. doi:10.1177/003335491513000509
- ⁴¹ Roland KB, Higa DH, Leighton CA, Mizuno Y, DeLuca JB, Koenig LJ. Client Perspectives and Experiences With HIV Patient Navigation in the United States: A Qualitative Meta-Synthesis. *Health Promot Pract.* 2020;21(1):25-36. doi:10.1177/1524839919875727
- ⁴² Kenya, S., Chida, N., Symes, S. and Shor-Posner, G. (2011), Can community health workers improve adherence to highly active antiretroviral therapy in the USA? A review of the literature. *HIV Medicine*, 12: 525-534. <https://doi.org/10.1111/j.1468-1293.2011.00921.x>
- ⁴³ Blasco P, Cyr J, Goodfriend M, et al. Patient Support, Education, and Counselling: Guidelines for Adults Living with HIV and/or TB. January 2017. https://samumfsf.org/sites/default/files/2017-10/HIV-TB%20Adult%20PSEC%20guideline%202017_FINAL%20150917.pdf
- ⁴⁴ Rajabiun S, Lennon-Dearing R, Hirschi M, et al. Ending the HIV Epidemic: One Southern Community Speaks. *Soc Work Public Health.* 2021;36(6):647-664. doi:10.1080/19371918.2021.1947929
- ⁴⁵ State Community Health Worker Models. The National Academy for State Health Policy. <https://www.nashp.org/state-community-health-worker-models/>. Published December 14, 2021. Accessed February 2022.
- ⁴⁶ Schmit CD, Washburn DJ, LaFleur M, Martinez D, Thompson E, Callaghan T. Community Health Worker Sustainability: Funding, Payment, and Reimbursement Laws in the United States [published online ahead of print, 2021 Apr 28]. *Public Health Rep.* 2021;333549211006072. doi:10.1177/00333549211006072
- ⁴⁷ NASTAD. Billing Coding Guide for HIV Prevention: PrEP, Screening, and Linkage Services. July 17, 2018. www.nastad.org/resource/billing-coding-guide-hivprevention
- ⁴⁸ Seiler N. Leveraging Financing and Coverage benefits: Medicaid Strategies to Deliver PrEP Intervention Services. https://academyhealth.org/sites/default/files/leveragingfinancingcoveragemedicaidstrategiesprep_jan2019_0.pdf. Published January 2019. Accessed February 2022.
- ⁴⁹ Schmit CD, Washburn DJ, LaFleur M, Martinez D, Thompson E, Callaghan T. Community Health Worker Sustainability: Funding, Payment, and Reimbursement Laws in the United States [published online ahead of print, 2021 Apr 28]. *Public Health Rep.* 2021;333549211006072. doi:10.1177/00333549211006072
- ⁵⁰ State Community Health Worker Models. The National Academy for State Health Policy. <https://www.nashp.org/state-community-health-worker-models/>. Published December 14, 2021. Accessed February 2022.
- ⁵¹ State Community Health Worker Models. The National Academy for State Health Policy. <https://www.nashp.org/state-community-health-worker-models/> Published December 14, 2021. Accessed February 2022.
- ⁵² Spencer A. Integrating community health workers into state and local ... <https://www.chcs.org/media/Integrating-CHWs-into-Chronic-Disease-Prevention-Financing-Considerations.pdf>. Published February 2018. Accessed February 2022.
- ⁵³ Flores V, Vasquez S, Thornton S, Lu B. Funding Community Health Workers in California: Using Medi-Cal to Transform Healthcare Delivery. *Community Health Councils.* September 2021. <https://chc-inc.org/wp-content/uploads/2021/11/CHW-Financing-2021.pdf>
- ⁵⁴ Department of Health Care Services. Community health workers . *Community Health Workers.* <https://www.dhcs.ca.gov/community-health-workers>. Published February 3, 2022. Accessed February 2022.
- ⁵⁵ Flores V, Vasquez S, Thornton S, Lu B. Funding Community Health Workers in California: Using Medi-Cal to Transform Healthcare Delivery. *Community Health Councils.* September 2021. <https://chc-inc.org/wp-content/uploads/2021/11/CHW-Financing-2021.pdf>

-
- ⁵⁶ Barbero C, Mason T, Rush C, et al. Processes for Implementing Community Health Worker Workforce Development Initiatives. *Front Public Health*. 2021;9:659017. Published 2021 Jun 24. doi:10.3389/fpubh.2021.659017
- ⁵⁷ Lockhart E, Turner D, Martinez-Tyson D, et al. Opportunities for and Perceptions of Integrating Community Health Workers Via the Affordable Care Act: Medicaid Health Homes. *Journal of Public Health Management and Practice*. 27:2. DOI: <https://doi.org/10.1097/PHH.0000000000001118>
- ⁵⁸ Spencer A. Integrating community health workers into state and local ... <https://www.chcs.org/media/Integrating-CHWs-into-Chronic-Disease-Prevention-Financing-Considerations.pdf>. Published February 2018. Accessed February 2022.
- ⁵⁹ CHW Solutions, Our Services. Available at <https://chwsolutions.com/services/>. Accessed Sept. 27, 2022.
- ⁶⁰ Partner Services. Centers for Disease Control and Prevention. 2022. <https://www.cdc.gov/hiv/effective-interventions/diagnose/partner-services/index.html#:~:text=Passport%20to%20Partner%20Services%20is,or%20enter%20course%20ID%23%204299>
- ⁶¹ Mase WA, Hansen AR, Smallwood SW, et al. Disease Intervention Specialist Education for the Future: An Analysis of Public Health Curricula. *Public Health Rep*. 2018;133(6):738-748. doi:10.1177/003335491879201.
- ⁶² Occupational Employment and Wage Statistics: 21-1094 Community Health Workers. U.S. Bureau of Labor Statistics. 2021. <https://www.bls.gov/oes/current/oes211094.htm>
- ⁶³ Disease Intervention Specialist Salaries. Glassdoor. https://www.glassdoor.com/Salaries/disease-intervention-specialist-salary-SRCH_KO0,31.htm
- ⁶⁴ Parker A, Johnson-Motoyama M, Mariscal ES, Guilamo-Ramos V, Reynoso E, Fernandez C. Novel Service Delivery Approach to Address Reproductive Health Disparities within Immigrant Latino Communities in Geographic Hot Spots: An Implementation Study. *Health Soc Work*. 2020;45(3):155-163. doi:10.1093/hsw/hlaa014
- ⁶⁵ Sun CJ, García M, Mann L, Alonzo J, Eng E, Rhodes SD. Latino sexual and gender identity minorities promoting sexual health within their social networks: process evaluation findings from a lay health advisor intervention. *Health Promot Pract*. 2015;16(3):329-337. doi:10.1177/1524839914559777
- ⁶⁶ Tingey L, Chambers R, Goklish N, et al. Rigorous evaluation of a pregnancy prevention program for American Indian youth and adolescents: study protocol for a randomized controlled trial. *Trials*. 2017;18(1):89. Published 2017 Feb 27. doi:10.1186/s13063-017-1842-6
- ⁶⁷ Mobula LM, Okoye MT, Boulware LE, Carson KA, Marsteller JA, Cooper LA. Cultural competence and perceptions of community health workers' effectiveness for reducing health care disparities. *J Prim Care Community Health*. 2015;6(1):10-15. doi:10.1177/2150131914540917
- ⁶⁸ Parker A, Johnson-Motoyama M, Mariscal ES, Guilamo-Ramos V, Reynoso E, Fernandez C. Novel Service Delivery Approach to Address Reproductive Health Disparities within Immigrant Latino Communities in Geographic Hot Spots: An Implementation Study. *Health Soc Work*. 2020;45(3):155-163. doi:10.1093/hsw/hlaa014
- ⁶⁹ Kenya S, Jones J, Arheart K, et al. Using community health workers to improve clinical outcomes among people living with HIV: a randomized controlled trial. *AIDS Behav*. 2013;17(9):2927-2934. doi:10.1007/s10461-013-0440-1
- ⁷⁰ 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;35(2):139-146. doi:10.1097/FCH.0b013e3182465153
- ⁷¹ Parker A, Johnson-Motoyama M, Mariscal ES, Guilamo-Ramos V, Reynoso E, Fernandez C. Novel Service Delivery Approach to Address Reproductive Health Disparities within Immigrant Latino Communities in Geographic Hot Spots: An Implementation Study. *Health Soc Work*. 2020;45(3):155-163. doi:10.1093/hsw/hlaa014
- ⁷² Marcell AV, Gibbs SE, Howard SR, et al. Do Nonclinical Community-Based Youth-Serving Professionals Talk With Young Men About Sexual and Reproductive Health and Intend to Refer Them for Care?. *Am J Mens Health*. 2017;11(4):1046-1054. doi:10.1177/1557988317696640
- ⁷³ Tingey L, Chambers R, Goklish N, et al. Rigorous evaluation of a pregnancy prevention program for American Indian youth and adolescents: study protocol for a randomized controlled trial. *Trials*. 2017;18(1):89. Published 2017 Feb 27. doi:10.1186/s13063-017-1842-6

-
- ⁷⁴ Serowoky ML, George N, Yarandi H. Using the Program Logic Model to Evaluate ¡Cuidate!: A Sexual Health Program for Latino Adolescents in a School-Based Health Center. *Worldviews Evid Based Nurs.* 2015;12(5):297-305. doi:10.1111/wvn.12110
- ⁷⁵ Davis C, Wright SS, Babcock M, et al. Lessons Learned From a Centers for Disease Control and Prevention Virtual Partner Services Technical Assistance Pilot Project to Respond to a Local Syphilis Outbreak. *Sex Transm Dis.* 2022;49(2):166-168. doi:10.1097/OLQ.0000000000001547
- ⁷⁶ Katz DA, Dombrowski JC, Barry M, Spellman D, Bell TR, Golden MR. STD Partner Services to Monitor and Promote HIV Pre-exposure Prophylaxis Use Among Men Who Have Sex With Men. *J Acquir Immune Defic Syndr.* 2019;80(5):533-541. doi:10.1097/QAI.0000000000001952
- ⁷⁷ Rudy ET, Aynalem G, Cross J, Ramirez F, Bolan RK, Kerndt PR. Community-embedded disease intervention specialist program for syphilis partner notification in a clinic serving men who have sex with men. *Sex Transm Dis.* 2012;39(9):701-705. doi:10.1097/OLQ.0b013e3182593b51
- ⁷⁸ Barbara Clinton, National Scan of Community Health Worker Statewide Associations (2017). For the Community Health Worker Collaborative with support from the Meharry-Vanderbilt Alliance. https://www.meharry-vanderbilt.org/meharry-vanderbilt/sites/default/files/CHW%20National%20Scan_Final.pdf