NACCHO
National Association of County & City Health Officials

Public Health
Prevent. Promote. Protect.

Beyond Our Walls:

Leveraging Pharmacies for STI Services and Care

JULY 2025

Executive Summary

Practicing pharmacists are highly trained and among the most accessible healthcare professionals in the United States. Pharmacies have historically played a critical role in public health by providing vaccinations, screenings, health education, and clinical referrals.

Innovations in STI prevention and care are essential to addressing the growing epidemic of STIs. Common barriers to accessing STI care—such as inconvenient hours, long wait times, distance to clinics, and concerns about confidentiality—highlight the need to move STI services beyond traditional clinical settings. Pharmacies present a promising solution, serving as accessible and trusted points of care within communities nationwide.

NACCHO, with support from CDC's Division of STD Prevention (DSTDP), funded five local health departments (LHDs) to design and implement a collaborative partnership with local pharmacies aimed at expanding STI services and care. The project's overarching goal was to develop models for effective collaboration between health departments and pharmacies to meet community needs for STI testing and treatment. Specific objectives included assessing the operational feasibility of expanding STI patient care into pharmacy settings, evaluating sustainability, identifying barriers and facilitators to implementation, and describing the dynamics of partnership. Generally, the partnership models fell into two categories: 1. Self-collect STI testing, available either via mail-order or picked up from the pharmacy, and 2. Expedited or more accessible dispensing of medicine to the patient or their partner(s) at the pharmacy, allowing for immediate treatment/care at the pharmacy without a prior clinic visit.

Feasibility assessments indicated that integrating STI services into pharmacists' daily workflows could be achieved without significant burden, alleviating pressure on health departments, and attracting individuals who may not otherwise seek care in a clinic. Changes to medication dispensing (e.g., adding injectables) was easier to implement than expanding patient-pharmacist interactions (e.g. adding testing onsite). Key challenges identified included staff turnover at both entities, navigating legal barriers, and adapting to new processes and data systems. While all the sites stated that the pilots were programmatically very sustainable, they were financially very unsustainable. Financial sustainability may depend on revised reimbursement structures. Across the models, patient demand was low but return and positivity rates indicated a significant need within the communities served. Both LHDs and pharmacies valued the partnership, expressing that they would collaborate again, emphasizing that they were *"stronger together."*

This evaluation concluded that such partnerships are feasible, and health departments can and should consider leveraging partnerships with pharmacies. Participants in these partnerships advised others seeking similar partnerships to prioritize communication and trust building. They stressed the importance of equal partnership with pharmacy staff, respecting their expertise, and maintaining frequent communication to align on project goals. Securing buy-in by understanding each other's processes was also recommended. Additionally, participants suggested being open to innovation, exercising patience, and recognizing that LHDs often move more slowly due to bureaucratic processes.

Health departments are encouraged to explore opportunities to leverage pharmacy practices in achieving their missions. This includes identifying relevant policies, assessing flexibility, and addressing barriers to expanding pharmacy-based services. To advance the shared goals of expanded STI prevention and care in our communities, STI programs and partners may consider using the models, resources, and tools developed through this project to strategically develop relationships with community pharmacists. Ongoing efforts are needed to ensure that successful models are replicable, and that adequate reimbursement is available for pharmacists to sustain these collaborations.

Background

Practicing pharmacists are highly trained and the most accessible healthcare professionals in the United States. According to a 2016 study, the number of pharmacy encounters was significantly higher than those with a primary care physician with the disparity even greater in rural areas. [1]

A 2022 review found that patients visited their community pharmacies nearly twice as often as physicians or other qualified health care professionals.[2] And, as of 2022, 88.9% of the US population lived within 5 miles of a pharmacy.[3] In cities, that estimate was reduced as low as 2 miles.[4] In 62.8% of cases the pharmacy was a chain, but in rural areas, approximately 76.5% were franchises or independent pharmacies.[5]

Nimble

Respected

Accessible

Skilled Injectors

Non-Stigmatizing

Already Providing Treatment

Pharmacies have long played a critical role in public health by providing vaccinations, screenings, health education, and clinical referrals. In many settings, pharmacists have utilized Collaborative Practice Agreements (CPAs)[6] and other avenues for prescriptive authority to provide patients with access to affordable and fast screenings, treatment initiation, and medication management including TB testing, Hepatitis vaccination, HIV management and care, and safe syringe programs. More recently, this prescriptive authority allows for pre-exposure prophylactics (PrEP) services for HIV prevention and COVID-19 testing and vaccination as well as antiviral dispensing and monoclonal antibody administration for HIV. Point-of-care (POC) testing for multiple conditions is also being provided by some pharmacists to further enhance patient care access by providing screenings and prompt treatment initiation within the same pharmacy.[7,8,9] During the COVID-19 pandemic, new relationships developed between local health departments (LHDs) and pharmacies, and pharmacies received greater recognition as community assets with capacity to expand access to diagnostic and treatment options. Pharmacy practices have great potential as important safety nets/access points for the delivery of sexually transmitted infection (STI) care as pharmacists are accessible, trusted, and in communities across the country.

In 2023, the United States reported more than 2.4 million STIs.[10] Young adults and adolescents, and gay, bisexual, and other men who have sex with men are disproportionately impacted by STIs. Black persons made up 32.4% of gonorrhea, chlamydia, and syphilis in 2023 while only making up 12.6% of the population, and rates of syphilis and congenital syphilis were highest among American Indian/Alaska Native persons.[11] Over the last five years, syphilis rates among women have increased 107%[12] and rates of congenital syphilis have increased 10 times over the 2012 rate.[13]

1. Berenbrok LA, Gabriel N, Coley KC, Hernandez I. Evaluation of Frequency of Encounters With Primary Care Physicians vs Visits to Community Pharmacies Among Medicare Beneficiaries. JAMA Netw Open. 2020 Jul 1;3(7):e209132. doi: 10.1001/jamanetworkopen.2020.9132. PMID: 32667653; PMCID: PMC7364370.
2. Valliant SN, Burbage SC, Pathak S, Urick BY. Pharmacists as accessible health care providers: quantifying the opportunity. J Manag Care Spec Pharm. 2022 Jan;28(1):85-90. doi: 10.18553/jmcp.2022.28.1.85. PMID: 34949110; PMCID: PMC8890748.
3. Berenbrok LA, Tang S, Gabriel N, Guo J, Sharareh N, Patel N, Dickson S, Hernandez I. Access to community pharmacies: A nationwide geographic information systems cross-sectional analysis. J Am Pharm Assoc (2003). 2022 Nov-Dec;62(6):1816-1822.e2. doi: 10.1016/j.japh.2022.07.003. Epub 2022 Jul 15. PMID: 35965233.
4. Open for business: pharmacies respond to emergency. Rx Impact: A Drug Store News Special Report; 2016:7–9. Available from: https://s3.amazonaws.com/dig.drugstorenews.com/2016-02-rximpact/html5/index.html?page=1&noflash. Accessed April 23, 2024.
5. See footnote 1.
6. Collaborative practice agreements (CPAs) create formal relationships between pharmacists and physicians or other providers to allow for expanded pharmacist provision of services to patients. CPAs generally define patient care that the pharmacist can provide autonomously in certain pre-defined situations or for certain conditions.
7. Point of care (POC) testing is screenings and/or tests conducted at or near the point of care which produce actionable results within minutes. They are used to aid in the identification and monitoring of infections or diseases.
8. CLIA Certificate of waiver allows a pharmacy or other setting to perform point of care tests (POCT) that have a waived degree of complexity as assigned by the US Food and Drug Administration (FDA).
9. Akers JM, Miller JC, Seignemartin B, MacLean LG, Mandal B, Kogan C. Expanding Access to Patient Care in Community Pharmacies for Minor Illnesses in Washington State. Clinicoecon Outcomes Res. 2024;16:233-246 https://doi.org/10.2147/CEOR.S452743
10. Sexually Transmitted Infections Surveillance, 2023 https://www.cdc.gov/sti-statistics/annual/summary.html
11. *Id*
12. *Id*
13. McDonald R, O'Callaghan K, Torrone E, et al. Vital Signs: Missed Opportunities for Preventing Congenital Syphilis — United States, 2022. MMWR Morb Mortal Wkly Rep 2023;72:1269–1274. DOI: http://dx.doi.org/10.15585/mmwr.mm7246e1.

Innovations in STI prevention and care are needed to address this growing epidemic. Frequently reported barriers such as inconvenient hours, long wait times, distance to clinic, and confidentiality/privacy concerns are an important reason to move STI care outside of the clinic. Pharmacies are a natural way to expand the access and convenience of STI care.

Pharmacist-prescriber CPAs, enabling an array of patient care services, are permitted.[14] If within the legal scope of practice as defined by their state, pharmacists can administer non-vaccine injectables, providing an opportunity for administration of injectable antibiotics for some STIs (e.g., ceftriaxone, Benzathine penicillin G), as well as for PrEP (Apretude [cabotegravir extended-release injectable suspension]).

Pharmacies could partner with private providers or other medical settings to help assure availability of STI medications either for pharmacists to administer directly or by dispensing to another provider (i.e., physician) for administration. Additionally, there is potential for pharmacy staff to offer STI testing, serve as a STI self-testing location, provide STI self-testing kits or act as a drop off site, conduct sexual history history taking and risk assessment, screen for STI/HIV/PrEP, and implement PrEP delivery models. Pharmacy practices with a private and confidential space or room could offer STI/HIV risk reduction counseling, specialty referrals, and testing via self-collection or a point of care test testing via self-collection (POC testing is possible if a pharmacy has a valid CLIA waiver).

Several national strategies and a consensus report recognize the potential of pharmacists in STI care and delivery. The STI National Strategic Plan (2021-2025) highlighted the role of pharmacies as non-traditional settings for scale-up of innovative STI service delivery models and in increasing screening and linkage to STI care.[15] Similarly, a Centers for Disease Control and Prevention-commissioned consensus study published by the National Academy of Sciences, Engineering, and Medicine (NASEM) speaks to the importance of leveraging non-traditional health care systems and practitioners, specifically calling out the role of pharmacists in STI prevention and control.[16] Pharmacies have also been named as places for finding people who are not in HIV or Hepatitis care or would like expanded HIV prevention care in the National HIV/AIDS Strategy[17], the Clinical Practice Guidelines for Preexposure Prophylaxis for HIV Prevention and Clinical Providers Supplement[18], and the Viral Hepatitis National Strategic Plan for the United States: A Roadmap to Elimination[19].

In January 2022, the National Association of County and City Health Officials (NACCHO) hosted a convening with members of the pharmacy community (chain and independent) and health department officials with support from the Division of STD Prevention (DSTDP) at the CDC. Topics included how health departments are working with pharmacies and the landscape for potential expansion into sexual health services. A report on the convening is available.

Key takeaways included:

Commitment to raising awareness of pharmacies as a viable option for sexual health services (among health departments, pharmacists, and consumers)

Timing of service provision should take competing priorities into account (e.g., flu vaccine season)

Training for pharmacists and other pharmacy staff is essential. (see Appendix 1 for developed trainings)

Scope of practice concerns and potential limitations were identified, and solutions will need to be developed (e.g., collaborative practice agreements, standing orders) [20]

14 CPAs are allowed in all states and DC but with significant differences in what is required including continuing education, liability insurance, documentation of services, and even patient consent. https://www.pharmacist.com/CEO-Blog/collaborative-practice-now-allowed-in-all-50-states#:~:text=While%20all%2050%20states%20now,insurance%2C%20and%20documentation%20of%20services.

15. https://www.hhs.gov/sites/default/files/STI-National-Strategic-Plan-2021-2025.pdf

16. Sexually Transmitted Infections: Adopting a New Sexual Health Paradigm. https://www.nap.edu/catalog/25955/sexually-transmitted-infections-adopting-a-sexual-health-paradigm

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

18. https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

19. https://www.hhs.gov/sites/default/files/Viral-Hepatitis-National-Strategic-Plan-2021-2025.pdf

20. https://www.naccho.org/uploads/body-images/Convening-on-Sexual-Health-Services-in-Pharmacy-Settings.pdf

Project Overview

Following the convening, NACCHO, with support from DSTDP, funded five local health departments (LHDs) to design and implement a collaborative partnership with local pharmacies to expand STI services and care. The overall goal of the project was to develop models for health departments and pharmacies to collaborate to serve their communities' needs for STI testing and treatment. Project objectives were to gather information about the operational feasibility and sustainability of expanding STI patient care into pharmacy settings, identify barriers/facilitators to implementation, and describe how the partnerships work.

Funded sites were Chaffee County (Colorado), Allegheny County (Pennsylvania), Linn County (Iowa), Richmond-Henrico County (Virginia), and Detroit City (Michigan). Each site was initially funded for one year (up to $75,000) but because of the time needed to roll out the partnership projects, a second year with additional funding was added (up to $30,000). Chaffee County ended their project early due to circumstances out of their control so they will be excluded from this report; however, a write-up of some early details and findings of their project can be found in Appendix 2.

Methodology:

The information contained in this report comes from qualitative data collection. This includes multiple interim reports and calls with project staff throughout the project period (August 2022-July 2024) as well as a final report submitted by each site. Additionally, at least one staff member from the LHD and another from the pharmacy partner were interviewed separately at the end of the project to reflect on the experience. The interviews were analyzed by NACCHO Research and Evaluation team members for themes and key findings and provided to project staff in summary form.

Models of Implementation:

During the project, the various pharmacies expanded their service offerings to include additional STI treatment (e.g., ceftriaxone and penicillin G benzathine injections) and testing options, and additional pharmacies were also added in some jurisdictions.

Generally, the partnership models fell into two categories:

1. **Self-collect STI testing[23] either via mail order or picked up from the pharmacy.**

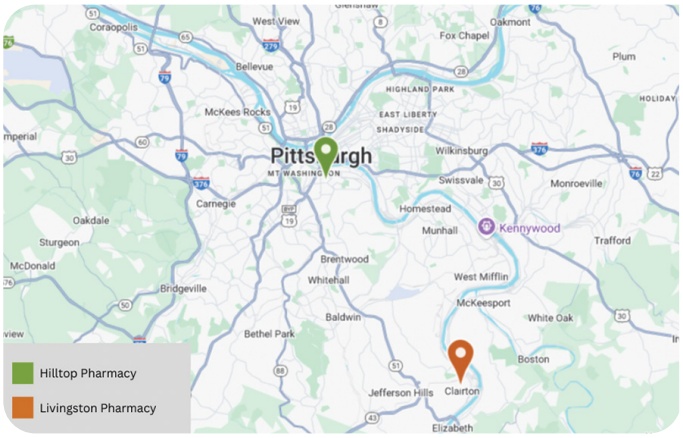
2. **Expedited or more accessible dispensing of medicine to the patient or their partner(s) at the pharmacy (e.g. patient or their partner being able to go immediately to a pharmacy in their community for treatment without a visit to the clinic).**

Summaries of Project Activities (by Jurisdiction):

HD	Services Available	Infections Tested/Treated	Marketing Approach	Training Provided/ Completed
Allegheny County Health Department (ACHD) [urban]	Test pick-up and drop-off; treatment; EPT*	Chlamydia (CT) Gonorrhea (GC)	Bus tags, bus shelters, billboards, flyers, organic and paid social media (Facebook, Instagram, Twitter, Google, Snapchat, LinkedIn, Grindr), press release and local media coverage	Completion of the National STD Curriculum Chlamydia and Gonorrhea Self Study; patient education developed by Pitt pharmacy and standardized at ACHD and Hilltop pharmacy; Hilltop actively assisted Livingston pharmacy with onboarding and partnership in Year 2
Detroit Health Department (DHD) [urban/ suburban]	Test pick up; on-site rapid syphilis and HIV testing; referral	HIV Syphilis	Billboard, list serv send out, social media, banners, flyers	1:1 mock activities, binder of protocols, Michigan Department of Health and Human Services training, test training, form training
Linn County Public Health (LCPH) [rural/urban]	On-site self-collect (some locations); test pick-up and drop-off; PrEP initiation	CT GC Syphilis	Social media, print, postcards	1:1 training, Google Drive with documents, binder with hard copies
Richmond-Henrico Health Division (RHHD) [urban/ suburban]	STI treatment; PrEP referral	CT GC Syphilis	N/A	1:1 training and on-boarding

**Expedited Partner Therapy: the treatment of sex partners of patients diagnosed with chlamydia or gonorrhea by providing prescriptions of medications to a patient to provide to their partner without an examination by a health care provider first.*

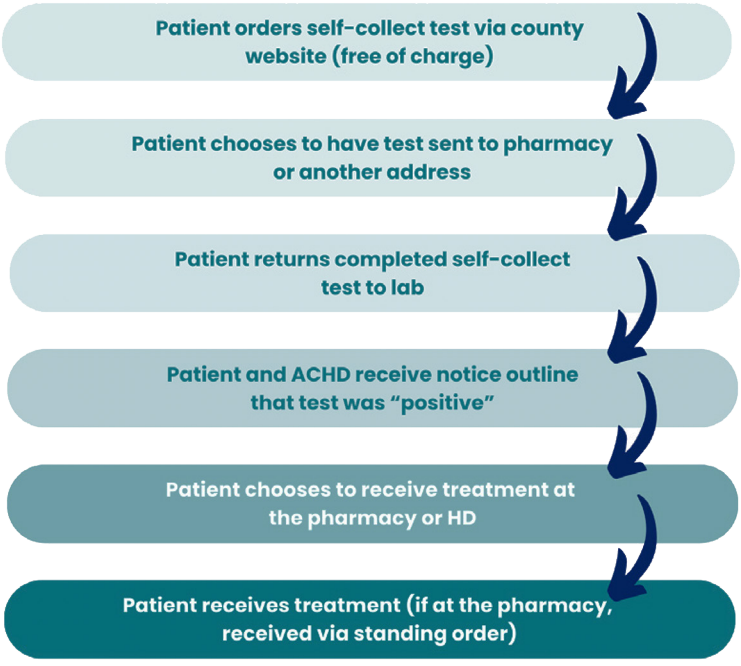
Allegheny County Health Department (ACHD):



Initial Proposal: Allegheny County proposed to engage in a partnership to integrate STI services within community pharmacies because communities that have a disproportionate burden of STIs also often have less access to health department clinics due to geographic limitations. Hilltop Pharmacy, which was their initial pharmacy partner, is in one of those neighborhoods with some of the highest infection rates and limited access to the ACHD. ACHD also would provide free self-collected testing kits and cover the costs of laboratory services so patients could order STI test kits online via the health department's website. They could have the test shipped directly to a personal address (like their home) or select to pick it up at the pharmacy for additional privacy. If the patient received a positive test result from the self-collection, they would be contacted by staff at ACHD's STI clinic and offered treatment at either the clinic or at Hilltop Pharmacy. Hilltop Pharmacy could then provide treatment to patients via standing orders signed by ACHD's physician.

Both Hilltop and ACHD would be supported by the University of Pittsburgh School of Pharmacy (Pitt Pharmacy). They would provide technical assistance to both the pharmacy and the health department on training and how to implement standing orders.

Final Model: ACHD's final model closely aligned with their initial proposal—ACHD provided self-collect STI test kits via mail or the pharmacy, and patients with positive results were informed immediately via the home testing online portal. Once informed of the result, the patient could follow up to schedule treatment or go directly to Hilltop Pharmacy for treatment. Health department staff would also reach out to connect individuals with treatment at the health department clinic, Hilltop Pharmacy, or have the medication sent to a pharmacy of their choice. All patients were encouraged to come to the clinic for further testing not offered through the self-collect test kits. In Year 2, the self-collect STI testing company changed because of the decision by the initial company to stop offering self-collect STI testing. Pitt Pharmacy also played a significant role developing workflows and providing technical assistance to the Hilltop pharmacy and ACHD on systems alignment. They drafted a toolkit (with support from Hilltop and ACHD) on how to implement a program like this so that it could be replicated by other community pharmacists across Pennsylvania and the country (see Appendix 4). They also provided education on and promoted the model in various professional settings, including through peer-reviewed publication.



The partnership between Pitt Pharmacy, ACHD, and Hilltop Pharmacy from the start meant a strong division of labor. ACHD was responsible for coordinating with the test kit company and developing the workflow for follow-up on the test kit results (including linkage to the pharmacy) and the test kit marketing plan. Hilltop Pharmacy reviewed the standing orders for accuracy and feasibility and provided and documented patient care. The Pitt Pharmacy team led efforts with Hilltop Pharmacy pharmacists and clinicians at ACHD to develop the standing order for treatment by the pharmacies – reaching out to pharmacists in other states for sample standing orders and utilizing clinical guidance from treatment guidelines. Livingston Pharmacy was added to the partnership team in Year 2. The model at Livingston was the same as for Hilltop. This addition was important to ACHD to reach patients in another high-need medically underserved neighborhood that is geographically distant from the ACHD STI clinic. Hilltop actively assisted Livingston with onboarding and partnership in Year 2. Both pharmacies began the process to become 340B contract pharmacies with ACHD as the covered entity—which will open doors for future collaboration to potentially obtain medications for patients of ACHD at a reduced cost.

Outcomes: By the end of the ACHD project period (November 2022-July 2024), 125 STI self-collection kits were ordered for pick up at the pharmacy (as compared to 2,114 which were ordered for delivery to any other location such as a private home). The return rate for those ordered to the pharmacy was 52% while the return rate of all other kits ordered was 26%.. Across all kits mailed (to the pharmacy or elsewhere), 5.8% were positive for chlamydia and 1.8% for gonorrhea. Prior to the switch in test kit companies at the beginning of 2024, 36% of kits ordered were 3-site kits—of those, just under half were activated (227/500). At that same point in time, most of those ordering kits were white (61%) but there was a larger percentage of kits ordered by Blacks than they represent in Allegheny County (20% vs. ~14%). Forty-three percent were ordered by females, 28% by males, and 28% by other or "prefer not to respond." Five individuals received treatment at the pharmacy.

"Both Hilltop and Livingston are strongholds in our community and people go to them for a lot of things."

-Allegheny County Health Department staff

An enormous success in the second year of the project was the expansion of the partnerships between the pharmacies and ACHD through official 340B [21] contracts. This will provide additional financial stability for these efforts beyond the project grant.

Lessons Learned: All members of the partnership team must understand and be supportive of the effort. Allowing pharmacists to access testing and treatment information from the state health department and self-collect STI testing companies would allow them to verify test results and use their clinical experience to select appropriate treatment regiments utilizing standing orders. There were initially some issues such as layers of approval (e.g., getting pharmacist access to the state platform for reporting and managing public health data or testing result platforms) and barriers to information sharing because of concerns by the companies about HIPAA.

The first self-collect STI testing company did not recognize the pharmacist as a provider of ACHD, so the pharmacy partner was not able to see results of the patients' self-collected STI test kits. Some coaching on the recognition of the role pharmacists were playing in the program on behalf of ACHD by outside partners was necessary. Without access to these systems, the pharmacist could not confirm that someone coming to the pharmacy needed treatment (and for what), nor could they indicate that the patient had been treated so ACHD would not follow up with the patient. The lack of unified information technology was also challenging because the test kit company laboratory result interface was not "searchable" to find patient results and the systems between them, ACHD, and the pharmacy could not interact directly.

Another obstacle was the current pharmacy laws in Pennsylvania. In the state, pharmacy laws limit the pharmacists to manage a patient's drug therapy by adjusting the strength, frequency, or route of administration but not to initiate a treatment.[24] To overcome this challenge, a standing order for treatment of STI/HIV patients at the pharmacy was issued by the medical director at ACHD (see Appendix 4). This specifically outlined how to treat the patient and for what conditions that treatment can be provided and allowed patients to receive prompt treatment at Hilltop Pharmacy, if eligible, without being seen at the LHD. Standing orders and protocols from other states (Iowa and Colorado) were used as templates.

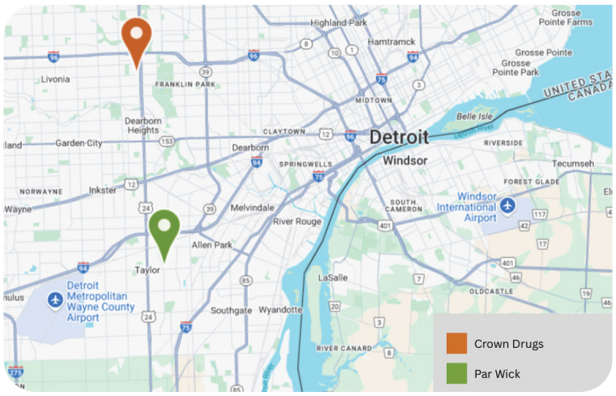
Training personnel took more time than assumed because the project was novel and there were no examples to be learned from. Similarly, all parties needed to learn and understand processes including the role and scope of practice of pharmacists, unique health department STI clinic and pharmacy workflow considerations, pharmacy reimbursement for services rendered, and navigating legal barriers.

Unfortunately, if a treated patient was covered by either Medicaid or private health insurance, the reimbursement was low compared to the output by the pharmacist. In this project, the pharmacist had to send an invoice and then was paid minimally for both the drug and the care (administration of injectable medication), and payment took about 6 weeks. Barriers outside the LHD or the pharmacy may create additional limitations. In this case, there was a desire to add point-of-care testing to the services available at the pharmacy, but the Pennsylvania Bureau of Labs does not allow PharmDs to serve as laboratory directors when obtaining a CLIA waiver. Because of this, a pharmacy may need a collaboration with a medical doctor or try to apply to serve as the lab director of record after offering 2 years of COVID/Flu/Strep testing because this may "count" as 2 years of lab experience.

What Made Allegheny County Health Department's Partnership with Hilltop Pharmacy a Success?

Detroit Health Department (DHD):

Initial Proposal: The Detroit Health Department's initial proposal was to allow consumers to access quality preventative care without having to choose to be seen or tested in more traditional settings (i.e., local STI clinics or community-based organizations) by piloting a model between DHD and specialty pharmacies to increase access to syphilis and HIV testing and referrals for treatment or PrEP. Specifically, the project was designed as an expansion of an established partnership with a local specialty pharmacy to offer the testing to pharmacy clients. Services would be advertised with flyers in store and included in bags and advertised on the social media of DHD and the pharmacy.



The pharmacy would obtain HIV rapid tests, lancets, blood collection supplies, and other related materials through their established purchasing mechanisms and tests would be reimbursed by DHD. For syphilis, DHD would cover the cost of testing and accept blood samples from the pharmacy to be shipped via courier to lab. Results would be reported directly to the individual to make an appointment for treatment at DHD.

The pharmacy would refer any person with a positive HIV test to DHD's Link-Up Rx program for same-day linkage to care. If they were negative for HIV but at risk and interested in more services, they were referred to a partnering Ryan White agency for PrEP. If there was a positive test for syphilis, they were referred to the DHD's iDecide Clinic for treatment.

Pharmacy staff would be trained by DHD on how to collect a proper sexual history, referral processes for syphilis and PrEP, and reporting requirements. They would also receive certification for HIV testing from the Michigan Department of Health and Human Services (MDHHS) prior to starting.

Initially DHD planned to partner with Singh Pharmacy in Royal Oak, MI to implement this project. Unfortunately, circumstances at the pharmacy made this impossible after the project period began so additional pharmacies had to be identified.

21. https://www.hrsa.gov/opa
22. Pennsylvania Code §27.302

Final Model: After Singh Pharmacy could no longer participate in the project, DHD had to identify new pharmacies to work with. This caused a significant delay in implementation compared to the other demonstration sites; testing was not offered until April 2023. Their new criteria for partnering included selecting a pharmacy with a commitment to the community, space for testing, and with a pharmacist passionate about the project. DHD decided to partner with pharmacies that they had existing relationships with from prior LHD activities. DHD and their partner pharmacies, Crown and Par Wick, together provided free in-person HIV and syphilis testing as well as self-collect tests which could be taken to another location. Pharmacy staff were trained by DHD in collecting a proper sexual history, referral processes for syphilis and PrEP, and reporting requirements. They also receive certification for HIV testing from MDHHS prior to starting.

> ***"We had the knowledge and expertise and resources, we just needed to get folks in the door."***
>
> **-Participating Pharmacy**

Most testing did not occur in the pharmacy but instead in the community at health fairs and other events. Moving the testing out of the pharmacy and into the community occurred because of the low volume of individuals coming to the pharmacy for testing. Marketing efforts were an essential part of the project. DHD and the pharmacy team collaborated on developing marketing materials including flyers, banners, and billboards. Flyers were distributed to agencies, internal list serv, at outreach events, the DHD and pharmacy social media platforms, businesses surrounding the pharmacies, and through mail-in orders. Even with both the pharmacy and the health department advertising, they were unable to create sufficient uptake for in-pharmacy testing.

Outcomes: Ninety-two clients were tested for HIV and/or syphilis. No clients tested positive for HIV, but one client did show a reactive test for syphilis. The client was referred to the DHD clinic for treatment but instead opted to schedule with his infectious disease doctor. One client who tested negative for HIV was educated on PrEP, and the pharmacy successfully referred the client to a Ryan White agency for PrEP services.

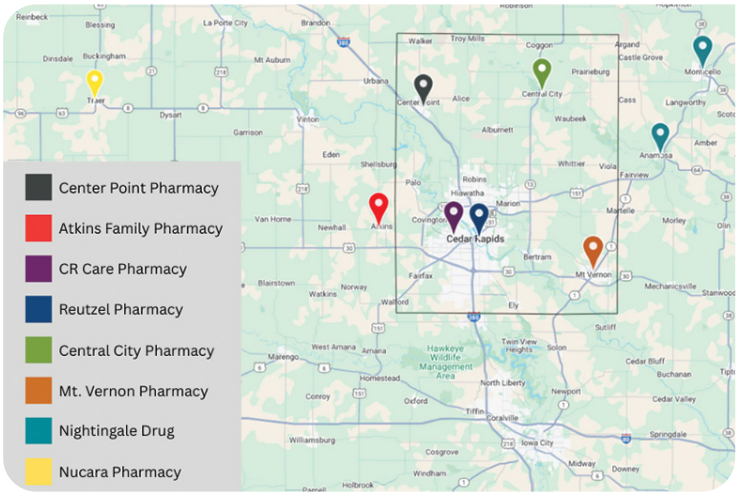
Participants that received testing at the pharmacy or at a community event from pharmacy staff stated they benefited from quick and easy access to testing and would recommend testing at the pharmacy to family and friends.

Lessons Learned: The ability of the health department to provide pre-purchased tests to the pharmacy helped to make the project sustainable since it eliminated a need to coordinate purchasing. Building on the relationship with the pharmacy based on their HIV activities (it is a HIV specialty pharmacy) made the project easier and a natural fit for expanded services in the community.

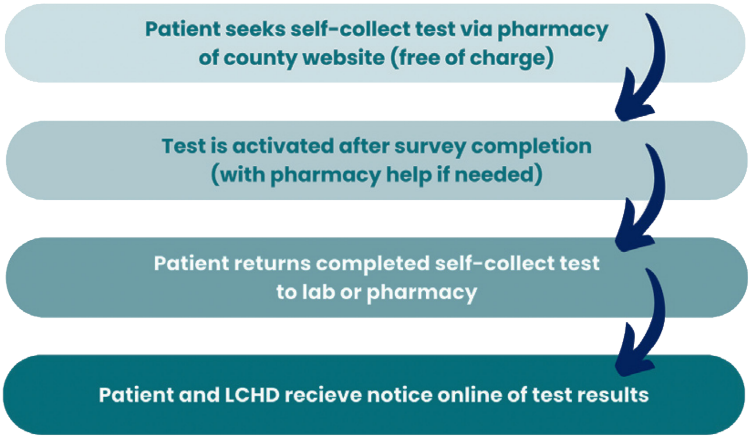
The community must know that sexual health services are available at the pharmacy. This means that outreach and marketing are essential. In this case, the pharmacy staff went out to do testing in the community (at health fairs, at shelters for unstably housed people, etc.) to meet people where they were.

Linn County Public Health (LCPH):

Initial Proposal: Linn County Public Health proposed all testing would be completed with self-collect STI test kits with specimen collection happening in the pharmacy (where space allowed) or clients could take a kit home or to another comfortable/ safe location and then bring it back to the pharmacy for shipping to a lab for processing or ship it themselves (via a pre-paid mailing bag). Urine and blood specimens would be obtained for testing for gonorrhea, chlamydia, syphilis, and HIV. Test results would be sent to the patient and LCPH electronically. LCPH would provide additional education and help with care coordination for treatment. In addition to testing, pharmacies could also make referrals for PrEP services. Pharmacies received incentive funding for every test kit dispensed and PrEP referral given.



Final Model: LCPH partnered with nine pharmacies to implement STI testing services. Seven of the pharmacies were in rural settings and two pharmacies were urban and catered to some of the County's populations most disproportionately impacted by STIs, including immigrants/refugees and substance misusers. All testing was for chlamydia, gonorrhea, trichomoniases, syphilis, and HIV using urine and blood specimens. Specimen collection was all via self-collection and either happened in the pharmacy or the kit could be taken with the client to collect elsewhere. Once complete, the client could ship it directly to the lab (via a pre-paid mailing bag) or bring it back to the pharmacy for shipping. Results were available via an online portal in 2-5 days. The self-collect test kits were provided to the pharmacies by LCPH free of charge.



Pharmacists identified and educated clients that expressed an interest in STI testing and helped those clients complete an on-line survey to activate the test kit. LCPH received each survey electronically and manually activated the kit account. Test results were sent to the client and LCPH electronically and clients with positive test results were contacted by LCPH. LCPH provided additional education and helped with care coordination for treatment. In addition to testing, pharmacies could also make referrals for PrEP services. Pharmacies received incentive funding for every test kit dispensed and every PrEP referral given.

To support the pharmacies, LCPH created a google drive and provided hard copies of handouts with the workflows, educational, and advertising materials (see Appendix 5). LCPH went to the pharmacies and completed training with the pharmacies. LCPH connected with each pharmacy every 2-4 weeks to check in and solve problems.

LCPH also marketed the availability of self-collect test kits and services in the pharmacy. To do this, they worked with Commando Advertising to market across four counties. The marketing included a press release, interviews with local news channels, and advertising on dating apps. Data showed that there was a direct correlation between advertising and the number of test kits distributed—though primarily for self-collection via mail-ordered tests. There was a special emphasis on this marketing related to STI Awareness Month in April 2023 (see Appendix 5).

In the period, October 2022-July 2024, 68 tests were picked up from the pharmacy. Of those, 47 were returned for processing (70% return rate), and four were positive for CT/GC (9% positivity). In contrast, during the same period, the return rate for those ordering for self-collection was only 48% (259/544) with a 7% positivity (20/259).

Outcomes: October 2022-July 2024

Total number of test kits requested (ordered online, requested at the pharmacy or distributed at events)	612
Total number of test kits were returned for results	306 (50%)
Total number of test kits dispensed from pharmacies	68 (11%) of the 612
Total number of test kits returned for results	47; 70% of the kits resulted from the 68 dispensed from the pharmacies
Total number of test kits requested online	544 (89%) of the 612 kits
Total number of test kits activated	259 (48% of the 544 kits)

Of the 68 kits, 53 (80%) were taken by whites, 8 (12%) were taken by African Americans/Black, 1 (2%) by Hispanics and the final 4 (6%) from other races. Of the kits taken, 37 (56%) were female and 29 (44%) were male. When looking at age, 11 (17%) were 18-25 years of age, 16 (24%) were 26-35 years of age, 8 (12%) were 46-55 years of age, 4 (6%) were 56-65, 2 (3%) were 66-75 years of age and the final one (2%) was used by someone over 76. Of those taking a kit, 64 (97%) were heterosexual and 2 (3%) were men who have sex with men (MSM).

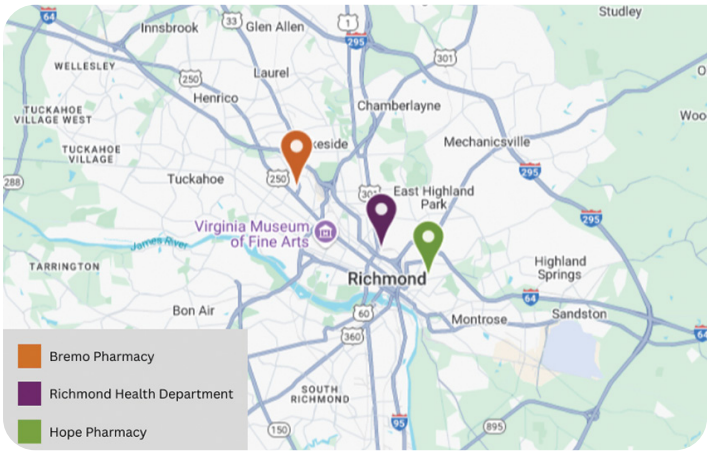
Lessons Learned: A key to the partnerships in Linn County was the existing working relationships between the health department and pharmacies in the past around immunizations and tuberculosis. These relationships deepened during Covid when they were engaged in testing and vaccination efforts, especially distribution before private market availability. The state health department also worked to develop a strong relationship with the Iowa Pharmacy Association and holds quarterly meetings which include the local health departments allowing them to learn from each other and explore partnerships opportunities and needs. These relationships meant that pharmacies were very willing to participate in this new endeavor.

Another crucial element of this model was the marketing of test kit availability. Because Linn's approach allowed for mail ordering of self-collect test kits and picking them up from the pharmacy directly, they were able to publicly advertise availability of test kits on dating apps (e.g., Scruff, Grindr, Jack'd) as well as via Google ads, Facebook, and on websites aimed at websites aimed at other priority populations. The additional advertising of test kit availability significantly increased the number of test kits requested compared to using local media resources and the health department's social media. The app advertisements directed to the LCHD webpage where interested parties could order test kits to be delivered to an address of their choosing and learn about their ability to pick one up at a local pharmacy.

Initial Proposal: At the time of their proposal, Richmond and Henrico County Health District (RHHD) offered STI testing at its downtown Richmond clinic location during regular business hours three days per week, and by appointment at satellite Resource Center clinics in public and low-income housing communities in the East End and Southside of the city. Expedited partner therapy (EPT) and non-occupational post-exposure prophylaxis (PEP) were only minimally available across Richmond and Henrico County.

The initial proposal was for a partnership designed to establish a collaborative practice agreement (CPA) between RHHD and Bremo Pharmacy for STI testing and care. The partner pharmacy, Bremo Pharmacy, is located along a convenient bus route for access from both the city and county so the partnership would expand services to both as well as offering access to testing and treatment during evenings and weekends.

Richmond and Henrico County Health District (RHHD):



Additionally, Bremo has three clinic rooms that could serve as space for counseling about PrEP (pre-exposure prophylaxis for HIV prevention), PEP (post exposure prophylaxis), and any other STI issues where a patient might prefer privacy. The only STI service offered by Bremo was ceftriaxone injections where Bremo would fill the prescription and offer the injection at the pharmacy for an additional fee to the patient. Bremo also had the capacity to stock and train to administer on-site penicillin for syphilis patients. RHHD planned to offer telehealth appointments with prescription fulfillment at Bremo, including EPT and PEP, to expand the number of patients it served while also ensuring that patients follow up on STI treatment in a timely manner. In the initial project design, Bremo would bill insurance for all medications when the patient was insured and costs for uninsured individuals would be covered with the NACCHO grant funding.

Final Model: RHHD and Bremo partnered to extend treatment options to the pharmacy. RHHD patients who tested positive could go to Bremo for treatment for gonorrhea and chlamydia, including filling EPT prescriptions, and latent syphilis (2nd and 3rd shots). These treatments were at no cost to the patient and RHHD's access to 340B for medications was extended to the pharmacy. A second pharmacy, Hope Pharmacy, was added in the second part of the project and had faster onboarding because of the established model developed with Bremo.

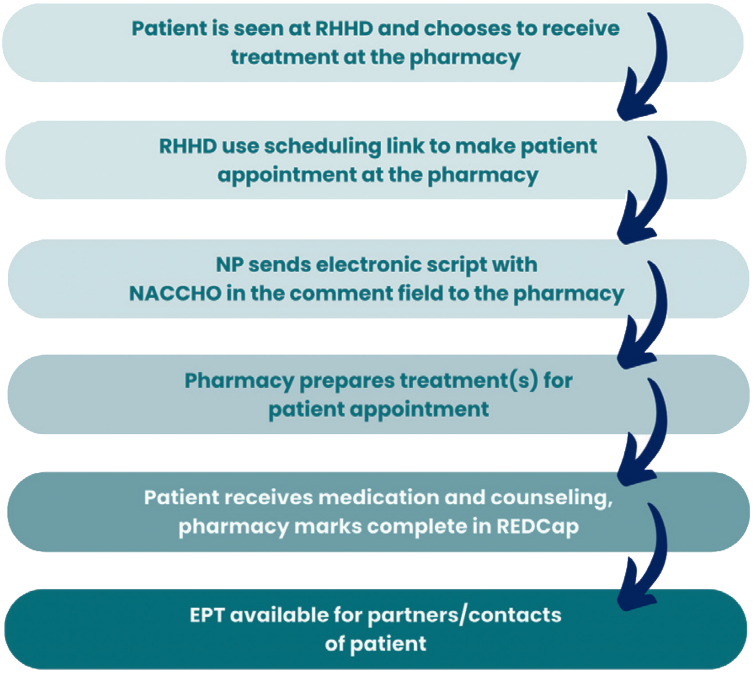
The pharmacies and RHHD used REDCap to track and record patient testing and treatment. Rapid HIV and Hep-C fingerstick tests were also available at both pharmacies. The plan to add telehealth to assess patients and prescribe medication to be picked up at the pharmacy was not able to be implemented due to staffing shortages.

Outcomes: Referrals to Bremo Pharmacy started in January 2023, and Hope Pharmacy was added in September 2023. Referrals to both were paused from October 2023-January 2024 and the project period ended in June 2024.

During that time, 121 Richmonders received treatment at Hope Pharmacy or Bremo Pharmacy with 136 STIs treated, including some repeats of those previously referred. Of those referred, seventy-five received treatment (including nine Penicillin G Benzathine injections). Sixteen individuals were linked to PrEP during the conversation referring them to Bremo. Twenty-one partners received treatment via EPT via Bremo. Of the cases treated at the pharmacies, approximately 40% were for chlamydia. Specifically, at Hope, approximately 30% were for gonorrhea, 20% for comorbid infections, 5% for syphilis, and 5% for other infections.

At Bremo, approximately 45% were for gonorrhea, 10% for comorbid infections, 10% for syphilis, and 10% for other infections.

Pharmacy referrals freed up time at RHHD clinics for providers to focus on new patients or those with needs that could not be referred out and allowed for faster treatment options.



Over the course of the project, the pharmacies treated the equivalent of an extra month's worth of STI cases on behalf of RHHD—52 cases of chlamydia, 42 cases of gonorrhea, 14 cases of comorbid gonorrhea and chlamydia, 11 cases of syphilis, and 10 other infections (e.g., trichomoniasis, bacterial vaginosis, urinary tract infections).

Treatment options for clients were expanded beyond the days and times that the RHHD clinic would have had availability. Almost 70% of patients were able to receive treatment at the pharmacies within 1 day. It revealed how well-equipped and willing the pharmacists were to engage in this work and how a collaborative relationship with them, clinicians, disease intervention specialists (DIS), and health educators could provide timely wraparound care. It leveraged their existing relationships with their communities and elevated the role of the pharmacies overall in Richmond. This work sets the stage for additional partnerships with pharmacies and adding additional services within the existing partnership (e.g., expanded vaccination services, on-site testing).

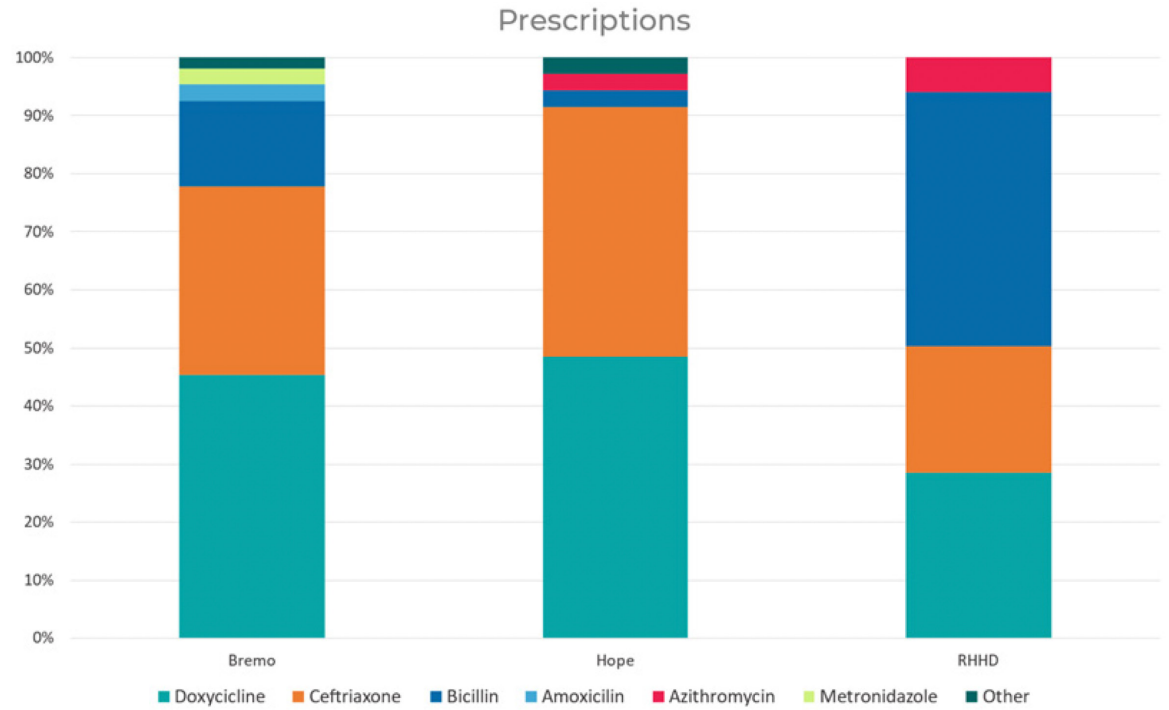
"Once a patient is established with RHHD, the pharmacy can function as an extension of us. With a patient connected to our clinic, they automatically qualify for 340B–with syphilis, this is essential for patients to go to the pharmacy for treatment."

-Richmond-Henrico Health District Staff

Lessons Learned: It is essential to have pharmacy champions at both the pharmacy and LHD who are willing to troubleshoot challenges. Considerable time is needed to learn and develop systems, so staff changes do not significantly impact the implementation timeline, especially for referrals and data collection. The expertise and will of the pharmacy staff in partnership with dedicated staff at the LHD were unanticipated necessities to overcome challenges.

The project was limited by RHHD only being able to refer "established" patients (i.e., those who had a visit with a LHD provider in the last year) so they could not advertise services available at the pharmacy nor free up as many appointment slots as desired. Clinical leadership has been approached about expanding the definition of an established patient. Given the definitions established in Virginia Code § 54.1-3303 concerning a bona fide practitioner-patient relationship, telehealth and a collaborative practice agreement with the pharmacies are still being explored as potential ways to establish a patient relationship outside of our current model.

Other limitations included insufficient staffing to offer telehealth appointments, and on-site testing at the pharmacy was not offered because the establishment of a collaborative practice agreement could not occur during the project period. Many of the patients who were eligible to receive treatment at the pharmacy were presumptively treated or they elected to return to the clinic for treatment.



If patients could be directly sent to the pharmacy for testing and treatment (with or without a telehealth appointment) greater uptake would have been likely. Having multiple pharmacy partners would also be helpful as many patients would have used the pharmacy as an access point if it was closer to their community or the pharmacy they already used. This is one of the reasons that Hope Pharmacy was added in the second year of the project.

Moving services to the pharmacy allows for more accessibility (location and hours) while also demonstrating the capacity of pharmacists and pharmacies to provide convenient STI care. By adding 340B into the model, the LHD was able to maintain the low treatment costs that occur at the LHD while extending services into the pharmacy. The 340B process as designed is a multistep to extend the benefit of subsidized medication normally only available in the 340B eligible clinic to the partner pharmacies. In cooperation with the Virginia Department of Pharmacy Services (DPS) medication was prescribed for RHHD established patients, filled by the DPS, and delivered to the pharmacy for administration. This was specifically beneficial for treating syphilis and meant that low-cost Penicillin G Benzathine was administered by the pharmacy to the patient as prescribed, run through insurance when applicable, and any remaining cost was covered by the NACCHO grant.

Take Aways

Across the LHDs, the motivation for these partnerships was a belief that pharmacies could increase the number of clients treated, because they are viewed as more accessible to patients, and they offered extended hours for appointments. The LHDs also had previous positive experiences partnering with pharmacies. For the pharmacies, they were motivated to participate due to their commitment to the community and a desire to address the STI epidemic and this project provided a "test" with which to assess financial viability to do more than just dispense medication.

Overall, LHDs felt they were able to offer services to more people through the partnership, and the collaboration increased access in areas without clinics. Some also noted that the partnership effectively served new communities, such as partners of individuals who tested positive for STIs. Being able to offer services in multiple languages was also highlighted—pharmacy staff in a community may be more likely to speak the languages of that community. Given that timely STI treatment is crucial, LHDs noted that the ability to offer faster and more convenient options (location and open hours) increased patient interest in going to the pharmacy for care. Those that received services at the pharmacy felt the services were more accessible both because of location and hours.

"With a small privately-owned pharmacy, the pharmacist is on-site and working side by side with the staff to assure processes and procedures work."

-Participating Pharmacy

Barriers to testing at STI clinics such as stigma, the need to make an appointment, and operating hours may be overcome by providing services in settings like pharmacies. One patient in Allegheny County shared unprompted that without the ability to receive services at the pharmacy, they would not have received services at all. The LHDs found it easier to partner with independent community pharmacies rather than with chain pharmacies as there were fewer layers of bureaucracy and greater openness to innovation to serve their community. When LHDs tried to work with the chain pharmacies it became apparent that the local stores did not have the structure to participate in a project like this because of the layers of approval needed and many were also understaffed.

All the participating LHDs and pharmacies had some relationship prior to the project from past collaborations from either COVID or other activities such as opioid response or related to other communicable disease such as H1N1. During the COVID pandemic, these relationships deepened because of their partnerships for testing and vaccine distribution.

The partnership models generally fell into 2 categories: 1) self-collection STI testing kits and 2) more accessible or faster medication dispensing to the patient and/or their partner(s). Assessments of feasibility indicated that integrating STI services into pharmacists' daily workflows could occur without significant burden. Changes to medication dispensing (e.g., adding injectables) were easier to implement than expanding patient-pharmacist interactions (e.g., adding testing onsite). It was more time-consuming and sometimes even impossible to expand how a patient interacted with the pharmacist (e.g., for treatment without an appointment with a provider). This may be overcome via a standing order for testing or treatment under certain circumstances (e.g., with a positive mail-order test for gonorrhea and/or chlamydia) (see Appendix 5 for templates). While it was not possible in the timeline of the Richmond project due to staffing challenges, it was hoped that telemedicine options could be used to overcome the need for a clinic visit before going to the pharmacy where that is a current requirement. A victory was the increased rate of return for self-collect test kits distributed by pharmacy partners in relation to test kits that were requested for direct shipment to another address.

Navigating legal barriers (see more information in Appendix X), learning new processes and data systems (on both the LHD and pharmacy's sides), and awareness of the expanded pharmacy services by potential users were all challenges that had to be overcome. Many individuals do not see pharmacies as healthcare destinations so they may not seek care there even when the services are more accessible. There may be restrictions on CLIA waivers. In some states, a PharmD cannot serve as a lab director for the waiver application so either a CPA would need to be established for STI point-of-care (POC) testing, or other approaches may need to be attempted such as offering of other "simpler" POC testing to demonstrate "lab experience" to serve as the lab director of record.

Solutions to expand service availability and lower staff time requirements would be beneficial to allow more patients to be seen for services (testing and treatment) at the pharmacy without needing to be seen in the LHD clinic—e.g., standing orders, collaborative practice agreements, technology solutions to create a patient file without needing a clinic visit. Some partnerships used these solutions but expansion of these solutions in other sites would have increased the uptake.

Time and Knowledge Requirements:

In most cases, contracts of memoranda of understanding (MOUs) were used to outline project roles, expectations, and reimbursement structures. Partner pharmacies were surprised at how accessible the LHD was once they knew the individuals from the health department to contact. LHDs recognized it was essential to rectify historic disconnection between LHDs and pharmacies and are working to remedy this by implementing regular communication such as quarterly calls with pharmacists across their jurisdictions and working more closely with pharmacy associations. Building on that, both LHDs and their pharmacy partners emphasized that the key to their successful partnership implementation was communication. This included regular meetings, coalitions, email distribution lists, and informal interactions. LHDs specifically noted the importance of treating pharmacies as equal partners and conducting site visits (often with food) to foster face-to-face connections. Sustained and standing communication and partnerships between the state and local health departments and entities like the state pharmacist/pharmacy association provides space to problem solve continuously and makes partnering on specific initiatives significantly easier.

To maximize partnership impact, policy and practice barriers that prevent pharmacists and their staff from providing expanded services for STIs, including HIV, must be identified, and alternatives considered. This requires collaboration between public health leaders, state and local health departments, and professional organizations.[25]

Staff turnover at both the health department and the pharmacy must be considered in the roll-out of a project like this. Because the systems that are being used are new, if only a single staff member is up to date on the systems, developed the system, or is the only champion for the partnership, it can cause significant delays or a decrease in motivation and momentum. This may be easier to overcome on the health department side as they have additional public health motivation for the work. For pharmacies, the high turnover of pharmacists and pharmacy technicians (especially in larger non-independent community pharmacies) means continuously needing to re-engage, train new staff members, and even begin again from scratch.

Data-Sharing Challenges:

Another related issue was establishing patient tracking processes, especially in areas where pharmacists are not considered healthcare providers, complicating access to necessary documents and patient records.
There is also a significant need for technology and technical assistance to facilitate document/data sharing between LHDs and pharmacies.
The primary challenge is establishing HIPAA-compliant methods for sharing patient records; even sharing non-confidential materials presented access issues. Many sites utilize REDCap for collecting and exchanging patient information. However, pharmacies largely relied on LHDs for making changes to a patient's record, which was complicated if there was no designated point of contact with the necessary expertise at the LHD. LHDs also face similar challenges in developing workflows for sharing information, tracking kits, and submitting invoices. Additionally, working with LHDs may involve other functions or divisions of the county or state government (legal team, data/surveillance systems) requiring additional documentation and approvals.

Financial Sustainability:

A fundamental challenge to pharmacy-LHD partnerships is financial sustainability. When expanding or forming new partnerships, it is essential to consider not just community impact but also how services can be integrated into the for-profit business models of pharmacies. While STI services may be able to be integrated in the daily workflow of pharmacies, it also must be financially sustainable for that integration to happen—how will pharmacists and other pharmacy staff be paid for the work that they are being requested to take on? While all the sites stated that the pilots were programmatically very sustainable, they were financially very unsustainable. If Allegheny and Linn (the two sites which offered self-collect/mail-order testing options) did not already have programs in place to cover the costs of providing and processing those kits, there would have been an additional cost that would have impacted sustainability. Some state Medicaid programs recognize pharmacists as providers, while others do not. Some LHDs may be able to expand the use of 340B to pharmacies, but others may not.

Traditionally, pharmacies are reimbursed only for medication dispensing and not the other services that they may be asked to provide with sexual health access expansion—e.g., counseling, on-site testing, provision of test kits. With the NACCHO grant to the sites, they were able to cover the cost of the pharmacist's time and the medications for treatment, but without that funding, it would be very difficult. This is especially true when serving those who are uninsured as there is nowhere to bill the time or medication costs. Even if an individual receiving services has insurance, many insurance plans cover only some of the activities that are needed to offer STI services.

Sustainability may depend on revised reimbursement structures that include not only the cost of the medicine but also of dispensing the medication (especially if it is a Penicillin G Benzathine injection to treat syphilis) and any counseling or sexual history taking, providing test kits, or reading test results.

Patient Uptake:

Patient uptake was also a challenge. It is likely this could be overcome with more advertising or partnership with other/additional pharmacies. While the findings suggest that there may not be huge patient demand for these services (especially in the beginning or without marketing), several of these models suggest that they do meet the needs of individuals that are not likely to go to other clinical settings for these services and can alleviate pressure on LHD clinics. All the sites ended up adding additional pharmacy partners to extend community reach. Additionally, it may be important to partner with pharmacies in areas where there will be greater demand to show proof of concept—in the case of the partnerships in this project, those pharmacies were in urban areas, serve clients who misuse substances, near colleges, and in more economically challenged areas. When working with rural pharmacies, the "small town" feel may be a barrier, as clients are older and likely know the staff and socialize with them outside of work which may decrease their comfort speaking about a still stigmatized service.

Conclusion

Pharmacists are valuable allies in STI care and treatment. These partnerships are feasible-- health departments can and should consider leveraging partnerships with pharmacies. The LHDs and pharmacies that participated in these partnerships advised others seeking similar partnerships to focus on communication and trust-building. They stressed the importance of equal partnership with pharmacy staff, respecting their expertise, and maintaining frequent communication to ensure understanding of the project's goals. They recommended securing buy-in by taking the time to understand each other's processes. They also suggested being open to innovation, exercising patience, and acknowledging that LHDs often move more slowly due to bureaucratic processes.

Health departments continue to embrace the intersectoral nature of public health and are encouraged to consider leveraging pharmacy practices to achieve their mission, recognizing opportunities across systems and sectors, identifying relevant policies, assessing flexibility, and addressing policy and practice barriers to expanding pharmacy-based services. To advance the shared goals of expanded STI prevention and care in our communities, STI programs and partners may consider using the models, resources, and tools from this project, to strategically develop relationships with community pharmacists. For tools and resources, see Appendices 1, 3 and 6.

These partnerships have the potential to decrease barriers and make STI testing more available. Using multiple modalities to increase testing availability will increase overall testing simply based on greater access to testing and additional places to receive education regarding STIs.

"We are much stronger together. LHDs do not always need to try to shoulder the entire burden of providing necessary services but instead can extend their reach by leveraging the strengths of willing partners. From both a patient care and community health standpoint, it has been well worth it and will be a loss for patients once funding runs out."

-Participating LHD

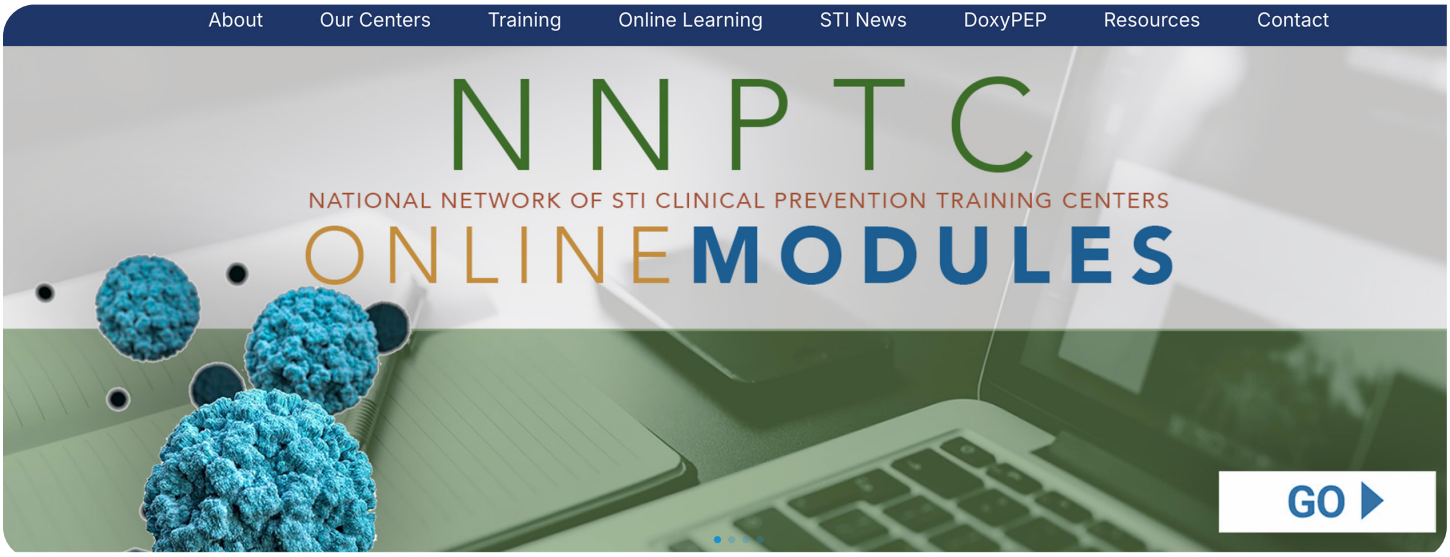
But culture change can be hard, so active engagement in process development for pharmacists, and advertising for the public on the availability of services are both essential. Trainings on STI/HIV treatment, prevention, and testing, and communication between pharmacy staff and the LHD allowed pharmacy staff to become more comfortable discussing STIs with patients and gained knowledge about STI rates, outbreaks, and antibiotic resistance resulting in being more connected to community health issues. More evaluation is needed to understand if there are additional barriers to seeking services in the pharmacy setting beyond those identified via this project.

Both LHDs and pharmacies expressed aspirations for additional initiatives, such as distributing PrEP to individuals who test negative for HIV, establishing telehealth options, and providing at-home testing kits. The consensus was that with more funding and resources, they could enhance marketing efforts, reach more people, and partner with additional pharmacies.

LHDs and their partner pharmacies appreciated these partnerships and would do it again. They expressed that the project deepened their relationship and made the sexual health services more accessible to their communities.

Appendix 1: Trainings

NACCHO partnered with the National Network of STD Clinical Prevention Training Centers (NNPTCs) to develop a six module training program for pharmacists and other pharmacy staff. The trainings are currently under review for compliance with current Administration Executive Orders. The development of the modules (each less than 30 minutes and covering topics such as STI/HIV testing and treatment) was led by faculty at the Sylvie Ratelle STD/HIV Prevention Training Center. Both the National Community Pharmacists Association (NCPA) and the American Pharmacists Association (APhA) were engaged in development.



Appendix 2: Chaffee County, Colorado

Chaffee County is one of the only rural counties that has seen increased HIV rates since 2016. At the same time, there are very limited testing, treatment, or prevention options. Colorado law allows pharmacists to prescribe medications and use POC tests. Based on this, in collaboration with two local pharmacies, Chaffee County Public Health (CCPH) expanded access to STI/HIV testing, treatment, and counseling by adding the pharmacy to the STI/HIV service continuum. Through a memorandum of understanding (MOU), patients had the option to test and treat at the pharmacy or test with CCPH and then be fast-tracked to the pharmacy for treatment.

Specifically, the pharmacy partner was able to offer PCR chlamydia, gonorrhea, and trichomoniasis testing to female patients with the Visby Medical™ testing system (self-collection). Rapid syphilis, HIV, and HCV blood spot collection (including oral HIV swabs) testing were also available to both male and female patients. PioneerRx pharmacy software was implemented to efficiently capture patient data and care notes, move the pharmacist through a scripted workflow, provide POCT, document labs, and share the collected patient information with the CCPH providers for follow-up. Scripts were available for providing consultation care and access to support navigators. The system also prompted the pharmacist on how to document follow-ups.

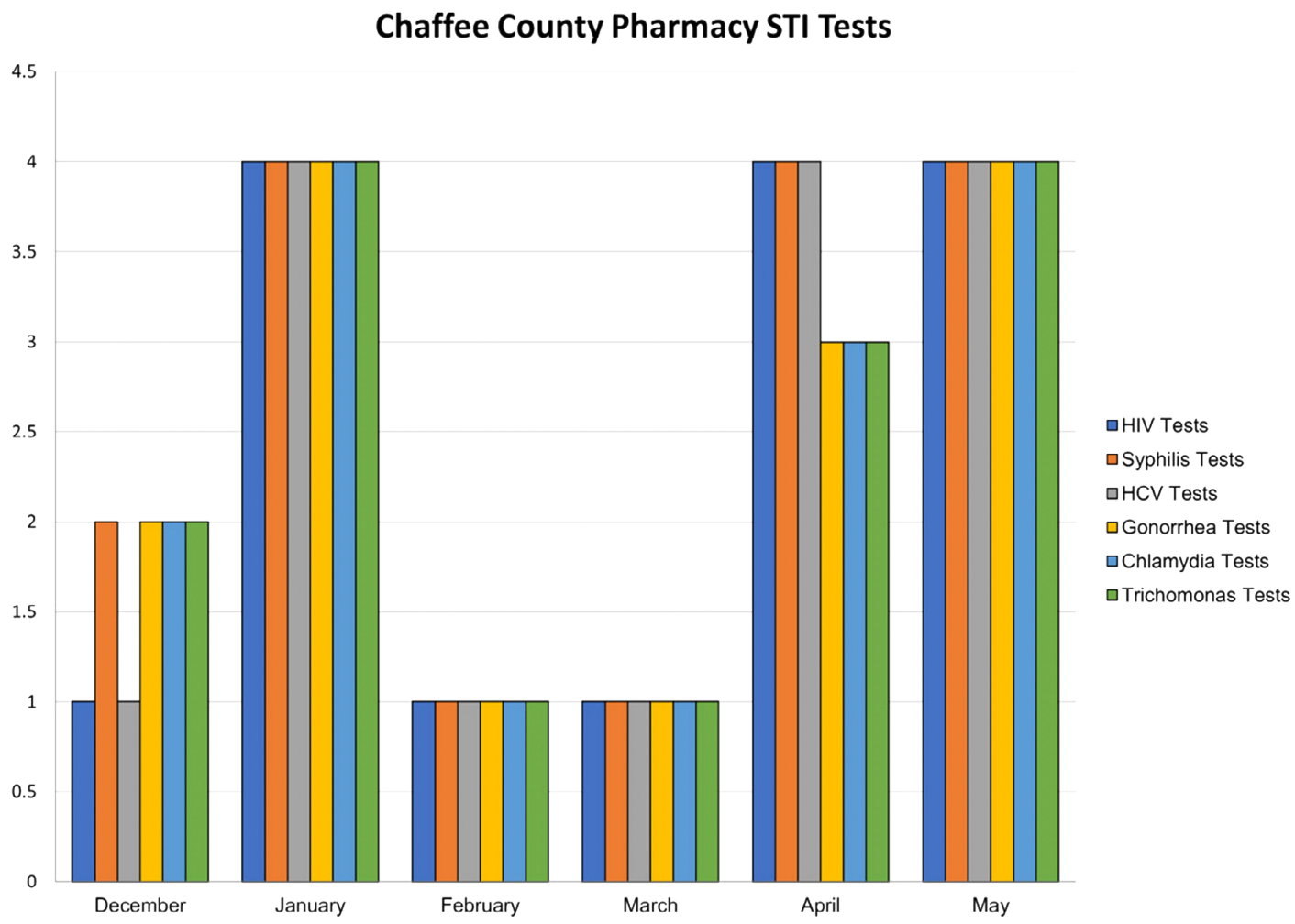
Traditional and digital marketing strategies were used to raise awareness about availability of STI/HIV services at the pharmacies and outreach was conducted to local providers, CBOs, and businesses (e.g., coffee shops, bars, grocery stores, river guide and boating events). Over six months (December 2022-May 2023), 97 tests were conducted across 18 patients. Despite the low uptake, these 18 patients accounted for approximately 35% of the CCPH STI client population during this period. All results were negative. Most patients were 18-35 years and identified themselves as white, female, and heterosexual.

Preventative testing in the context of new relationships (asymptomatic) was the most common reason for testing. Three patients were referred from a local clinic, but the remainder saw the marketing or were referred by a friend. Most patients reported no symptoms. During that same period, the pharmacy also provided treatment for two patients who were referred by their provider. When asked about challenges with implementation, CCPH reported that stigma continued to be a challenge in their rural community. Low testing volume with no positive results also made it difficult to evaluate their treatment protocols and processes for follow-up with patients. CCPH also noted that if a patient tested positive for syphilis, treatment is not available within the county and the patient would have to travel a minimum of one hour to find a facility offering treatment. Finally, unexpected staffing shortages made it challenging for pharmacy staff to conduct provider visits and on-ground marketing.

Even with these challenges, both parties expressed that working together had raised awareness about STIs and other services in the community (e.g. harm reduction) and that offering STI testing through the pharmacy improved access to a service that was previously non-existent. The participating pharmacies had developed a strong relationship with CCPH during the COVID-19 pandemic, thus demonstrating how they were able to continue to work together on other important public health areas to improve the health of their community.

Chaffee County Demographic Makeup:

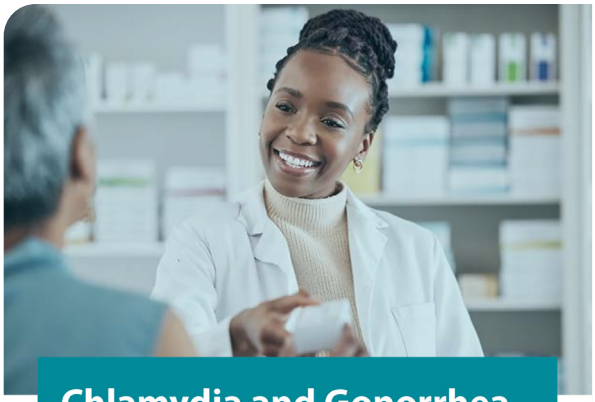
Rural and remote mountainous area, population <20,000; 2.5 hours to the closest city



Appendix 3: Toolkit

Allegheny County Health Department, the University of Pittsburgh School of Pharmacy, and Hillltop Pharmacy co-developed a toolkit, **Chlamydia and Gonorrhea Test-to-Treat Resources for Community Pharmacists.**

The toolkit includes example testing and treatment standing orders, sample STI treatment intake form, patient education materials including medication education handouts with patient-friendly language, and a pharmacy supply list for STI service provision.



Appendix 4: Allegheny County Standing Order and Treatment Protocol

COUNTY OF ALLEGHENY

SARA INNAMORATO
COUNTY EXECUTIVE

ALLEGHENY COUNTY HEALTH DEPARTMENT STANDING ORDER # 210
DIRECTED TO HILLTOP AND LIVINGSTON PHARMACIES
FOR THE TREATMENT OF CHLAMYDIA AND GONORRHEA

Appendix 5: LCPH STI Awareness Materials

Social Media Post Language:

Topic: True or False: Sexually transmitted infection (STI) testing can be done from home.

TRUE!

Linn County Public Health and nine local pharmacies offer FREE at-home STI test kits, providing individuals with the chance to know their status from the comfort of their own home.
Learn more at:
https://www.linncountyiowa.gov/593/Sexually-Transmitted-Infections

Email to Local Businesses

Dear Linn County Businesses,

April is Sexually Transmitted Infection (STI) Awareness Month! To recognize this observance, Linn County Public Health is equipping you with free resources to share with your employees and their families, as a way to raise awareness for STIs right here in our own communities.

If left untreated, STIs can have serious health effects on individuals, including infertility, pelvic inflammatory disease, ectopic pregnancy, cancer, increased pain and inflammation, loss of vision or hearing, or death.

Linn County Public Health is proud to partner with nine local pharmacies to offer FREE at-home STI test kits, making it easier and convenient to know their status. Individuals can pick up a test kit from the following locations, in addition to visiting this link and calling Linn County Public Health at (319) 892-6093.

CR Care Pharmacy – Cedar Rapids

Reutzel Pharmacy – Cedar Rapids

Mount Vernon Pharmacy – Mount Vernon

Central City Family Pharmacy – Central City

Center Point Family Pharmacy – Center Point

Atkins Family Pharmacy – Atkins

Nightengale Drug – Monticello

Nightengale Drug – Anamosa

NuCara Pharmacy – Traer

Additionally, we have attached a flyer that you can post in your business to promote the importance of STI testing and how to find STI testing resources.

Thank you for your consideration in helping us spread the word about how to keep your employees (and their families) safe and healthy. Remember, sexual health is health!

Sincerely,

Linn County Public Health Clinic

Appendix 6: Pharmacist Role in STI Prevention and Treatment Microsite

During the pharmacy convening, it was clear that health departments and pharmacists need a better understanding of the sexual health services covered under pharmacist scope of practice, which can be a major limiting factor for these partnerships. Pharmacists' scope of practice varies across states and has traditionally been limited to prescription receipt and medication dispensing. However, some states have expanded their pharmacist scope of practice to include STI-related testing and care.

To address this issue, the National Alliance of State Pharmacy Associations (NASPA) conducted policy analyses through a cooperative agreement. These analyses examined state scope of practice regulations that could facilitate an increased role for pharmacists in providing STI care, such as delivering test results, administering injectable STI antibiotics and PrEP medications, interpreting lab results, and seeking reimbursement for these services.

A microsite was developed to house a legal database with interactive maps and tools intended to increase the capacity of stakeholders to develop useful partnerships and engage in meaningful policy development around these issues including on how to build coalitions with pharmacy boards and associations, and state one pagers that offer a comprehensive overview of each states' practice landscape and options for Medicaid reimbursement.

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