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IHI-HIP Covid-19 Essay Contest

With innovations in public health and advances in clinical medicine, physicians of the 21st century have seen some diseases shrink from death sentences to manageable maladies. Vaccines have eradicated certain communicable diseases in the US, and antiretroviral drugs have rendered HIV a chronic but controllable illness. Unfortunately, the same decrease in disease burden has not been seen with regards to other sexually transmitted infections (STIs). In 2018, combined cases of chlamydia, gonorrhea, and syphilis reached an all-time high.¹ Decreased condom use and declining local, state, and federal investment in STI screening, prevention, and treatment programs have been posited as leading causes of this rise in STIs.² STI prevention and treatment funding for the CDC has remained constant since 2003, resulting in a 40% decrease in funds when adjusted for inflation.² Furthermore, budget cuts and restrictions on services provided by Title X clinics under the current administration caused one in four sites to leave the program, further restricting access to an already meagre commodity.²

Women, especially women of color, are disproportionately affected by STIs.³ When one considers lack of insurance and the shrinking access to Title X programs in the US, this existing barrier only rises. During a pandemic, what few resources exist for affordable STI testing and treatment further shrink, as offices close their doors to prevent spread of the virus among patients and staff. In Clarkston, GA, several healthcare centers, including the Harriet Tubman Women's Clinic (HTWC), which serves exclusively uninsured women living below 200% of the federal poverty level, have had to close their doors. This leaves women who normally utilize this clinic for their sexual health needs without an option aside from the emergency department. Unnecessary trips to the emergency department expose these women to increased risk of contracting Covid-19 and utilize resources better allocated to taking care of those suspected of having the virus.

In a pandemic, healthcare resources must be reallocated to care for those who have fallen ill with the virus and non-urgent medical services should be postponed to avoid crowding and spread of illness in medical offices. Certain medical issues require timely diagnosis and treatment, however, even amid a pandemic. STIs fit into this category as they may cause acute suffering as well as long-term adverse health effects if not treated promptly, such as pelvic inflammatory disease, pelvic adhesions, infertility, ectopic pregnancy, and susceptibility to other STIs.⁴ Screening for the three most common STIs (i.e., chlamydia, gonorrhea, and trichomonas) simply requires a urine sample, which may be collected in one's home. Home STI testing kits have gained popularity in recent years due to their ease of use, the privacy they ensure, an increase in patient satisfaction compared to clinic-based screening, and an acceptable sensitivity and specificity when compared to physician-obtained samples.⁵ Increasing access to home screening kits may be a key intervention in decreasing STI rates, as 56.3% of women completed screening when provided with a home testing kit, compared to 32.9% who were offered clinic-based screening.⁵ Without insurance, however, these kits can be costly, with popular brands such as LetsGetChecked ranging from \$99 - \$299 per test, further restricting access of uninsured women.⁶

My proposal would create home STI screening kits to be mailed to appropriate HTWC patients. HTWC patients would call or text the clinic phone and interact with a medical student, working in conjunction with a physician volunteer. If the patient met criteria for screening, the patient would be offered a home STI screening kit. A home STI screening kit would be mailed to the patient's address in a

discreet box. The home STI screening kit would contain educational materials (e.g., a pamphlet regarding STI screening, treatment, and prevention and a pamphlet regarding Covid-19 precautions), an instructional sheet regarding specimen collection, a sterile urine specimen cup, a solid black “privacy” bag to hold the labeled urine specimen cup, a supply of condoms, and a supply of feminine hygiene products (e.g., pads and tampons). The patient would be provided with the current operational hours of the clinic and instructed to collect a specimen and bring the labeled urine specimen cup packaged in the “privacy bag” to clinic on a day that works best for her schedule. A student at clinic would collect this bag from the patient at her car and package the specimen to be sent to a lab for testing. The patient would then be notified of her test results over the phone and prescribed any medication necessary through a local pharmacy. The total cost of each home STI screening kit is estimated to be just over \$10 (see Table 1).

Item	Cost
1 sterile urine specimen cup	\$0.25
2 educational pamphlets	\$0 (Printed in clinic)
Supply of condoms	\$0 (Donated to clinic)
Supply of feminine hygiene products	\$0 (Donated to clinic)
1 “privacy” bag	\$0.15
1 5”x5” box	\$0.30
Shipping cost for one kit	\$10.00
Total cost	\$10.65

Table 1: Home STI screening kit estimated cost

Cost estimations obtained from similar products available for purchase on Amazon.com

This intervention does have several limitations. Firstly, the patient would need an address where the home STI screening kit could be sent, decreasing access of women with unstable housing. Secondly, the patient would need transportation to drop off her sample, decreasing access of women without transportation. Finally, certain STIs, such as HIV and syphilis, require a blood test, which could not be collected without the assistance of a medical professional to perform a blood draw. Despite these limitations, I believe the support of such a program could greatly decrease unnecessary emergency department trips, while increasing access to earlier detection and treatment of STIs amid the pandemic. Furthermore, as demonstrated by women’s preference for at-home screening when compared to clinic-based screening, an at-home STI screening program may be more suitable for certain women even after the pandemic.⁵ Increasing access to this convenient and private method of STI screening among our vulnerable population of uninsured women could help to decrease the disparity in STI screening rates among the uninsured. Pioneering this program out of necessity during the pandemic could set the foundation for a sustainable at-home STI screening program with expanded access to discreet and distanced testing far into the future.

Sources consulted

¹ STDs Continue to Rise in the U.S. Press Release. Centers for Disease Control and Prevention. <https://www.cdc.gov/nchhstp/newsroom/2019/2018-STD-surveillance-report-press-release.html>. Published October 8, 2019. Accessed April 25, 2020.

² Keller LH, Guttmacher Institute. Reducing STI Cases: Young People Deserve Better Sexual Health Information and Services. Guttmacher Institute. <https://www.guttmacher.org/gpr/2020/04/reducing-sti-cases-young-people-deserve-better-sexual-health-information-and-services>. Published April 2, 2020. Accessed April 25, 2020.

³ Sexually Transmitted Infections (STIs): An Overview, Payment, and Coverage. The Henry J. Kaiser Family Foundation. <https://www.kff.org/womens-health-policy/fact-sheet/sexually-transmitted-infections-stis-an-overview-payment-and-coverage/>. Published Feb 18, 2020. Accessed April 29, 2020.

⁴ Sexually Transmitted Diseases. National Institute of Allergy and Infectious Diseases. <https://www.niaid.nih.gov/diseases-conditions/sexually-transmitted-diseases>. Accessed April 29, 2020.

⁵ Shih SL, Graseck AS, Secura GM, Peipert JF. Screening for sexually transmitted infections at home or in the clinic? *Current Opinion in Infectious Diseases*. 2011;24(1):78-84. doi:10.1097/qco.0b013e32834204a8.

⁶ Everything you need to know about at-home STI and STD tests. Healthline. <https://www.healthline.com/health/healthy-sex/at-home-std-test#quick-test-chart>. Accessed April 30, 2020.