

POLICYLAB

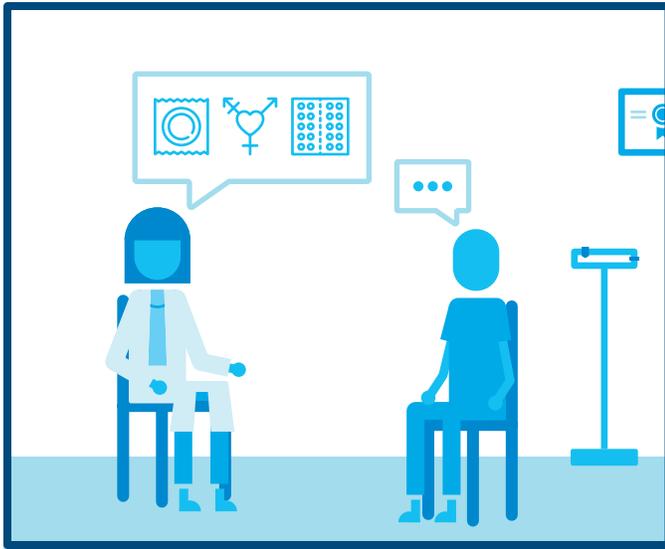
RESEARCH AT A GLANCE | SPRING 2019

A SYNOPSIS OF EMERGING POLICYLAB RESEARCH

**ADDRESSING
SEXUALLY
TRANSMITTED
INFECTIONS IN
PEDIATRICS**

WHAT IS THE PROBLEM:

Adolescents and young adults face a number of sexual and reproductive health needs that often go unmet.



Youth ages 15–24 account for more than half of newly acquired sexually transmitted infections (STIs) each year in the United States.¹ Many youth are unaware that they have a STI or other sexual or reproductive health condition; for example, only about half of HIV-infected adolescents are aware of their status.² Another unmet adolescent sexual and reproductive health need relates to pregnancy; nearly 230,000 babies were born to teen mothers ages 15–19 in 2017³ with three-quarters of teen pregnancies in 2011 being unintended.^{3,4}

Even though it is widely known that many youth struggle with sexual health challenges, pediatric practices don't always adequately support the sexual health needs of their patients due to a number of factors. For example, youth may be hesitant to open up about their sexual activity, and providers may be uncomfortable asking about these conditions. This brief, which looks at two different PolicyLab and Children's Hospital of Philadelphia studies, provides insight into the reality of screening for sexual health conditions in pediatric practices and one way we may be able to address some of the challenges to screening. Understanding how often youth are tested for sexual health conditions and the barriers and facilitators to testing in various clinical practices can help providers develop guidelines and practices that increase routine testing and timely treatment.

WHAT WE ASKED:

Were youth living with HIV tested in the year prior to their diagnosis?

Did providers and patients find an electronic tool to improve sexual health care delivery in the emergency department (ED) useful and effective?

WHAT WE DID:

In the first study, we reviewed the medical records from an adolescent HIV clinic of 300 youth ages 14–26 who received a HIV diagnosis between 2009–2015. Because early diagnosis is key to mitigating the long-term impacts of a HIV diagnosis, we then looked to see if the youth had presented with symptoms of HIV and received a HIV test in the year prior to their diagnosis at a primary or specialty care site within the same pediatric care network as the HIV clinic. If they had a health care encounter in the health care network within the 12 months prior to diagnosis but were not tested, we documented that as a missed opportunity. Ultimately, our formal analysis included a cohort of 58 youth.

In the second study, we were one of several sites, under the guidance of the principal investigator in Kansas City, that piloted a tiered, electronic questionnaire for youth to help providers establish tailored, evidence-based recommendations for how to meet the sexual health needs of a specific patient. For example, the questionnaire asked about the last time a youth had intercourse and whether they used a condom or other form of contraception. Specific provider recommendations to offer emergency contraception or STI testing were based on each individual patient's response. We conducted a pilot implementation project, which included hands-on review of the tool and a survey with closed- and open-ended questions, to determine whether the providers found it useful and whether adolescents found it easy to complete and preferable to face-to-face interactions. We included 57 providers at two general EDs and two pediatric EDs, and 57 adolescents at a single pediatric ED.

WHAT WE FOUND:

In the first study, we saw many missed opportunities to screen for HIV. Among the 58 youth diagnosed with HIV:



52%

had not been tested for HIV when they were at the doctor.

88%

had shown symptoms that could have been consistent with HIV infection.

And of those, only

51%

were tested.

In the second study, we learned that a tiered questionnaire was a promising tool to screen youth in the ED for sexual health conditions and connect them to care.



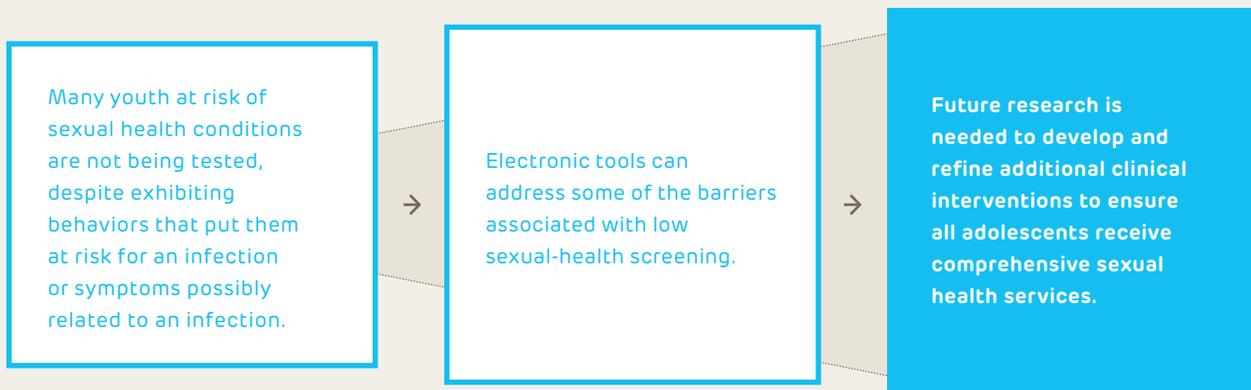
Clinicians overwhelmingly described the tool as “useful” or “very useful.”



95%

of adolescents reported that it was “very/somewhat easy” to complete and understand the survey, and they preferred to disclose their sexual history over the computer as opposed to face-to-face.

WHAT IT MEANS:



Many youth at risk of sexual health conditions are not being tested, despite exhibiting behaviors that put them at risk for an infection or symptoms possibly related to an infection.

Electronic tools can address some of the barriers associated with low sexual-health screening.

Future research is needed to develop and refine additional clinical interventions to ensure all adolescents receive comprehensive sexual health services.

STUDY METHODS

In the first study, we conducted a retrospective chart review of 301 youth living with HIV ages 14–26 at a HIV clinic, comparing characteristics between those with and without HIV screening within the year prior to diagnosis. Our primary outcome measure was receipt of HIV testing during the year prior to diagnosis among those subjects previously seen within a large care network in the Philadelphia metropolitan area that includes primary and specialty care, a pediatric emergency department and a tertiary care hospital. At the time of the study, there were 31 primary care sites. All visits within the care network were included in the analysis. The date of diagnosis was defined as the date of initial HIV confirmatory test.

Exposure measures included demographics and clinical data such as the presence of symptoms potentially consistent with acute HIV infection (defined as fever, pharyngitis, lymphadenopathy, or flu-like illness). We defined documentation of sexual history as any documentation in the electronic health record progress note that included mention of the patient having sex. A missed opportunity was defined as a prior healthcare encounter occurring within 12 months prior to HIV diagnosis in which HIV testing was not performed. The prior visits only included those from available data in the care network.

In the second study, we engaged an expert group to synthesize evidence on a wide range of sexual health services (e.g., contraception, condoms, identification and treatment of previously diagnosed sexually transmitted infection). We created a computerized questionnaire and embedded a decision tree into the electronic health record using patient-entered responses to create tailored, evidence-based recommendations. We also embedded links to study-related resources. We utilized mixed methodology to explore perspectives of adolescents ages 14–19 and clinicians at two general and two pediatric EDs after they interacted with the system. Clinicians reported usefulness (Likert scale 1 = not at all, 4 = very); adolescents reported acceptability. In total, our cohort included 57 adolescents and 57 providers.

RELATED POLICYLAB WORK

Gallagher C, Lee SS, Shofer FS, Mollen CJ, Goyal MK, Dowshen NL. Pediatric Emergency Provider Sexually Transmitted Infection Screening Practices in Adolescents With Oropharyngeal or Anorectal Chief Complaints. *Pediatric Emergency Care*. 2018;1. doi:10.1097/pec.0000000000001414.

Mollen CJ, Miller MK, Hayes KL, Wittink MN, Barg FK. Developing Emergency Department-based Education About Emergency Contraception: Adolescent Preferences. *Academic Emergency Medicine*. 2013;20(11):1164–1170. doi:10.1111/acem.12243.

Wood SM, Mcgeary A, Wilson M, et al. Effectiveness of a Quality Improvement Intervention to Improve Rates of Routine Chlamydia Trachomatis Screening in Female Adolescents Seeking Primary Preventive Care. *Journal of Pediatric and Adolescent Gynecology*. 2019;32(1):32–38. doi:10.1016/j.jpag.2018.10.004.

PUBLICATIONS

Lazar NR, Salas-Humara C, Wood SM, Mollen CJ, Dowshen N. Missed Opportunities for HIV Screening Among a Cohort of Adolescents With Recently Diagnosed HIV Infection in a Large Pediatric Hospital Care Network. *Journal of Adolescent Health*. 2018;63(6):799–802. doi:10.1016/j.jadohealth.2018.07.010.

Miller MK, Mollen C, Behr K, et al. Development of a Novel Computerized Clinical Decision Support System to Improve Adolescent Sexual Health Care Provision. *Academic Emergency Medicine*. 2018. doi:10.1111/acem.13570

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2. HIV/AIDS. Centers for Disease Control and Prevention. <https://www.cdc.gov/hiv/group/age/youth/index.html>. Published April 20, 2018. Accessed April 1, 2019.
3. About Teen Pregnancy | CDC. Centers for Disease Control and Prevention. <https://www.cdc.gov/teenpregnancy/about/index.htm>. Published March 1, 2019. Accessed April 1, 2019.
4. Finer LB, Zolna MR. Declines in Unintended Pregnancy in the United States, 2008–2011. *Obstetrical & Gynecological Survey*. 2016;71(7):408–409. doi:10.1097/ogx.0000000000000340.



The mission of PolicyLab at Children's Hospital of Philadelphia (CHOP) is to achieve optimal child health and well-being by informing program and policy changes through interdisciplinary research. PolicyLab is a Center of Emphasis within the Children's Hospital of Philadelphia Research Institute, one of the largest pediatric research institutes in the country.

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