Tackling the STI Epidemic: IWantTheKit – At-Home, Self-Collection, Mail-In Testing for STI

June 6th 2023
Washington D.C.
Matthew Hamill MD, PhD

HPTN Annual Meeting
1. Role of home-based testing to address the STI epidemic
2. Evolution of the STI testing landscape in the wake of the COVID-19 pandemic
3. Home-based testing is an important piece of the implementation of STI testing, treatment, and prevention
4. Innovation and surveillance activities
Disclosures

Royalties:
• UpToDate – received royalties
• British Medical Journal (BMJ) best practice
• Clinical Care Options (CCO)
• Consulting fees: GSK for HSV vaccine

Land acknowledgement
• In the spirit of healing, we honor the Piscataway and Susquehannock Nations, the original peoples of the land which Johns Hopkins University occupies. We give thanks to the past, present and future stewards of this land and respect all tribal nations’ sovereignty and right to self-determination. We aim to hold ourselves and the university community accountable to tribal nations.
Objectives

• Describe changes in use of online, home self-collection, mail-in testing for STIs
• Describe different models for self-collected, mail-in STI testing
• Identify future innovations using an online platform

Overview

• What is IWantTheKit (IWTK)?
• Changes in use especially since the COVID-19 pandemic
• Expansion to eight US states
• Current & future plans
• Surveillance opportunities
Brief historical highlights

- **2004**: IWTK website initiated
  - Women users only
- **2006**: Testing for men and women
  - CT/NG/TV
- **2011**: Alaska added
- **2013**: New website
  - Providing online results
- **2019 Expansion**:
  - New website
  - Numerous website innovations
  - Spanish language
  - Printable results
  - Linkage to care
- **2022**: Arizona added
- **2023 Expansion**
How it works

Step 1: Establish Profile and Place Online Order
Order Processed
1-2 business days

Step 2: Kit Shipped
Varies by the USPS

Step 3: Self-Collect At Home & Return Specimens
Timing Varies

Step 4: Specimens Received & Tested
1-2 business days

Step 5: Results Reported to Site Users

Step 6: Positive Test Results Reported to Public Health Authorities
3 times/week

Limited Data Set of negative results and unreturned kits

International STD laboratory at JHU
CAP certified. All positive CT/NG results reported to the Health Department per CDC guidelines
IWantTheKit (IWTK)

• Tests Currently Offered:
  • FDA-cleared Chlamydia, Gonorrhea, Trichomoniasis (female vaginal samples only)
  • HIV oral fluid self test (oraQuick)

• Anatomical Sites Tested: Genital, Rectal, Pharyngeal

• Specimen Collection Devices: Flocked Swabs in Dry Tubes (Vaginal Swab, Penile Swab, Rectal Swab, Oropharyngeal Swab)

• Cost for Users: Free (including postage)

• Turn-around Times:
  • Order Receipt to Kit Shipment – 1 to 2 business days
  • Specimen Receipt to Posted Test Results – 1 to 2 business days

• Age Requirements: 14+ years old to order an STI kit

• Linkage-to-care: option for users
Who uses IWTK?

IWTK Orders by Gender Identity, Other MD- Past 12 Months

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1 Baltimore not included in this graph.
Who uses IWTK?

IWTK Orders by Racial Identity, Other Maryland - Past 12 Months

1 Hispanic ethnicity selections included within these categories.
2 Baltimore City not included in this graph.
Who uses IWTK?

IWTK Orders by Age Range, Other MD - Past 12 Months

1 and younger
18-24
25-34
35-44
45-54
55 and older

1 Baltimore City not included in above graph
From April to October 2020, monthly online IWANTTheKit orders increased by 645%
STI rates

Longitudinal Positive Rates (by Month): 2020-2023
Do users with positive tests get treated?

- Testing without treatment and prevention has little public health value

- Experience during COVID-19
  - 96% of users who used Baltimore City Health Department STI clinics who tested positive for chlamydia or gonorrhea via IWTK were successfully contacted for treatment

Melendez JH et al Am J Public Health. 2022 Jul;112(7);985-989
Linkage-to-care

Number of Referrals for IWK Client Navigation - Past 12 Months

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IWTK Availability & Expansion

Currently Available
Maryland (2004)
Alaska (2011)
Arizona (2020)
Oklahoma (2022)
Kansas (2023)
New Mexico (2023)
Utah (2023)
Nevada (2023)

Expansion in Progress
North Dakota
South Dakota
Nebraska
Iowa
Washington
Oregon
Idaho
Montana
Wyoming
Future directions – Test expansion

- HIV Ag/Ab
- HIV RNA
- HCV Ab & RNA
- Syphilis treponemal and non-treponemal tests

Sample types under consideration:
- Collection of plasma/serum using finger stick (600 µl blood per tube)
- Dried Blood Spot (DBS)
• IWTK has a Public Health Surveillance protocol - deidentified samples are used to describe epi trends in STIs and emerging/re-emerging infections

In process:
• Rectal LGV in those with rectal CT

Planned:
• Urogenital and rectal *M genitalium* prevalence and macrolide resistance mutations
• Prevalence of *mpox* in rectal specimens
20 programs in the US offer STI mail-in, self-collection testing

- Five (25%) were free to consumers
- Six (30%) only offered prefixed kits (STIs tested could not be selected)
- Ten (50%) provided extragenital testing, two (10%) did not provide extragenital testing, and eight (40%) did not specify the testing site
- Three (15%) used their own laboratory, 11 (55%) did not provide laboratory information
- One commercial lab provided services to 5 organizations
Online STI platforms are an important part of the STI testing landscape.

Huge expansion in other settings (e.g., UK where cost savings drives innovation).

Lab interface with users via a website is key to success.

Future innovations are desirable – packaged care (e.g., STI diagnosis, treatment, prevention plus birth control).
  - In use in National Health Service in the UK.

Platforms like IWTK can be leveraged for public health surveillance activities.

https://sh24.org.uk/contraception/order
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• The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.
Thank you
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