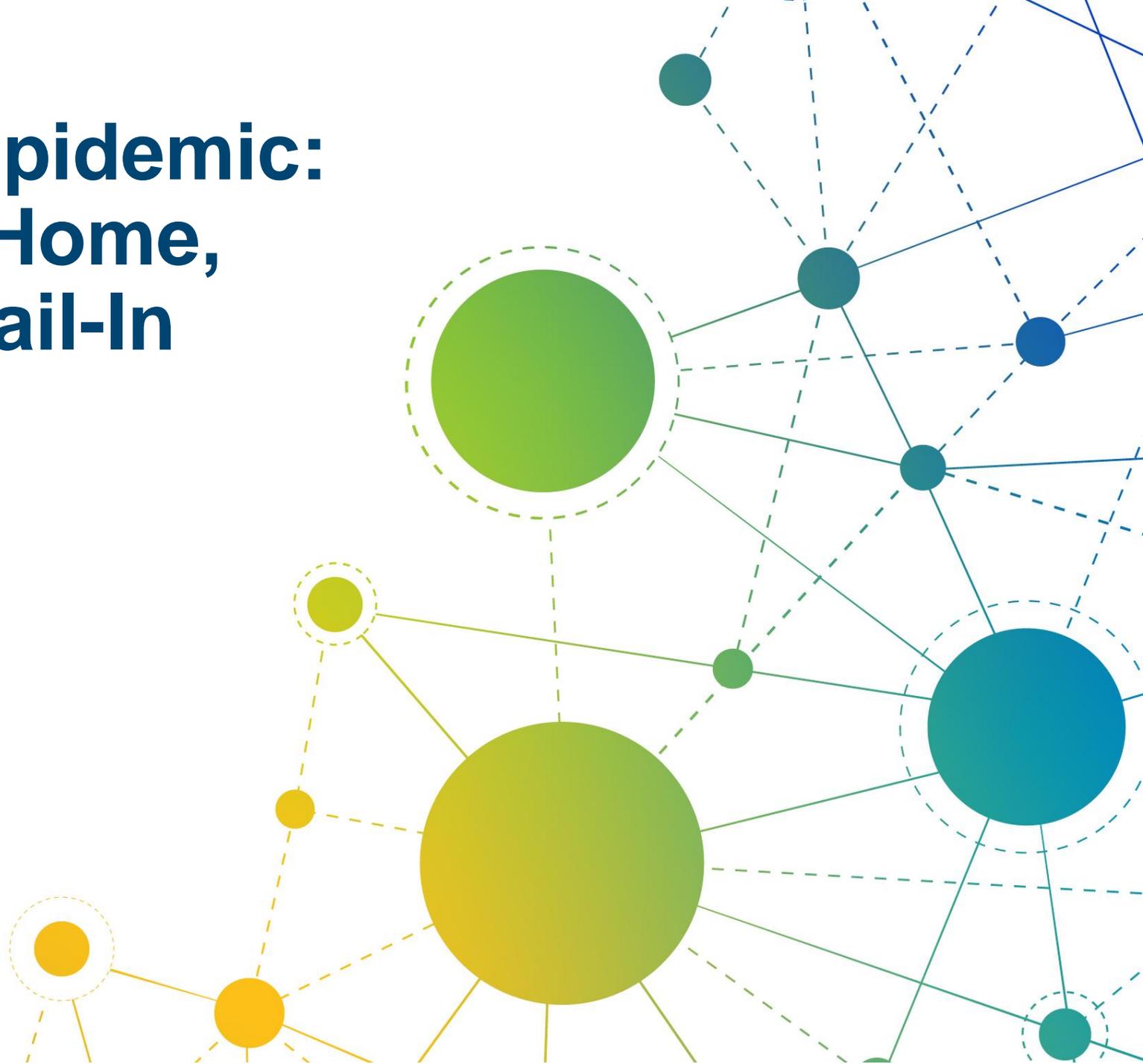


Tackling the STI Epidemic: IWantTheKit – At-Home, Self-Collection, Mail-In Testing for STI

June 6th 2023

Washington D.C.

Matthew Hamill MD, PhD



Presentation highlights

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

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:



Order
Processed
1-2 business days

Step 2:



Kit Shipped
Varies by the USPS

Step 3:



Timing Varies

Self-Collect At
Home & Return
Specimens

Step 6:



1-2 business days

Positive Test Results Reported to
Public Health Authorities

Limited Data Set
of negative
results and
unreturned kits

3 times/week

Step 5:



Results Reported to Site Users

Step 4:



Specimens Received
& Tested

1-2 business days

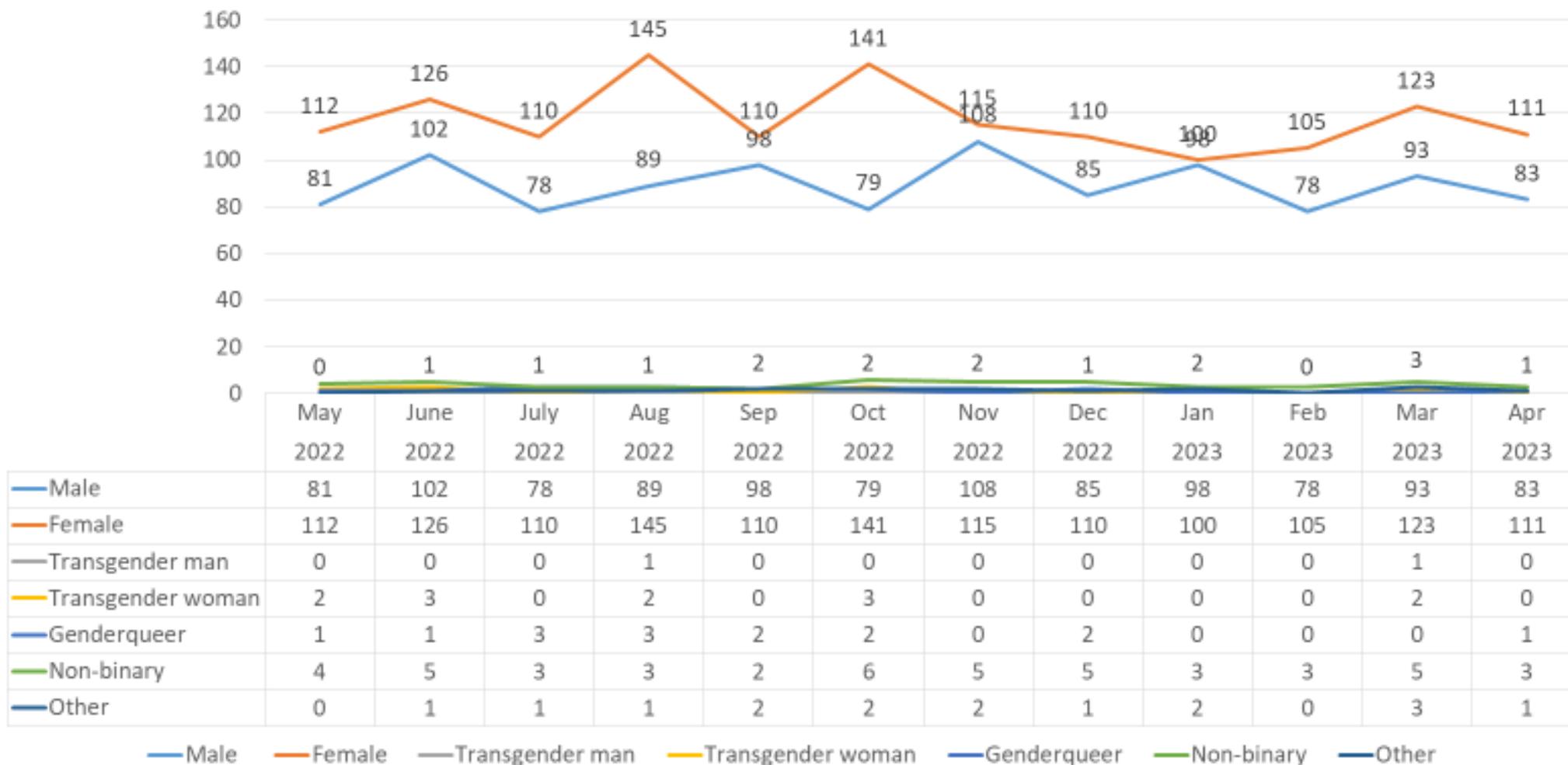
International STD laboratory at JHU
CAP certified. All positive CT/NG results reported to
the Health Department per CDC guidelines

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?

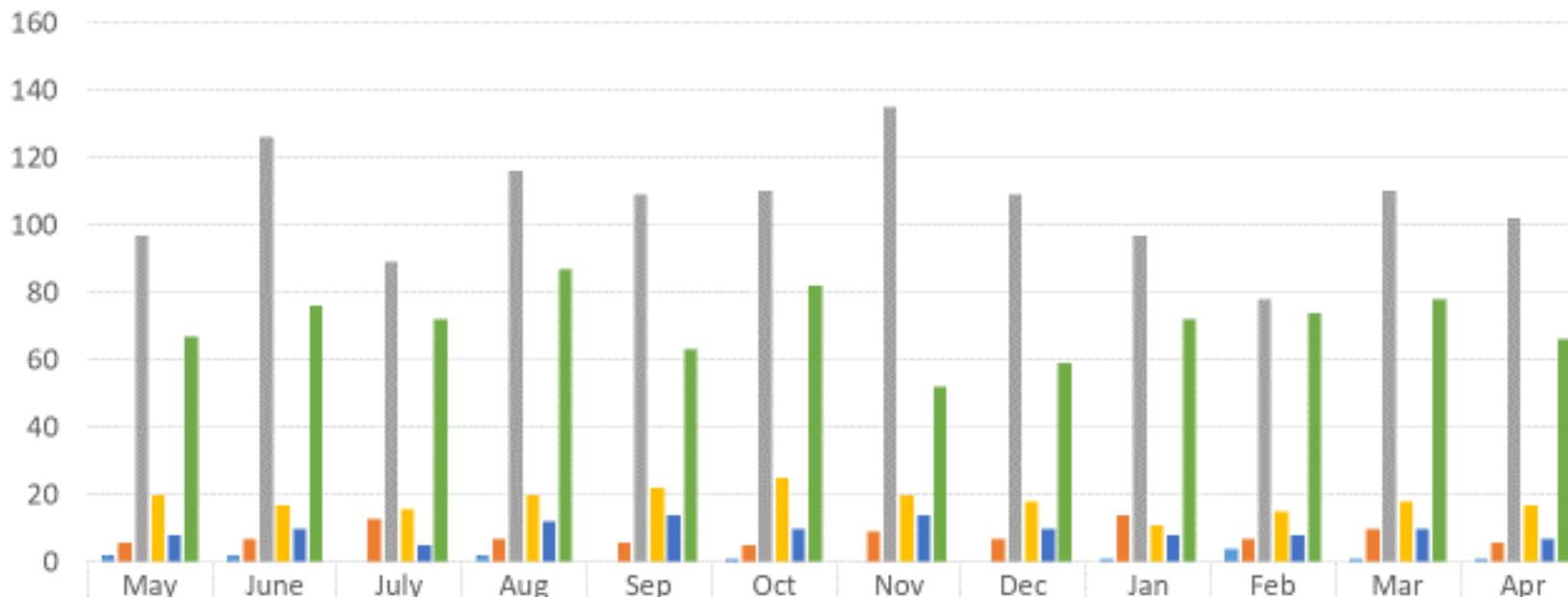
IWTK Orders by Gender Identity, Other MD- Past 12 Months



¹ Baltimore not included in this graph.

Who uses IWTK?

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



Alaskan Native/American Indian	2	2	0	2	0	1	0	0	1	4	1	1
Asian/Pacific Islander	6	7	13	7	6	5	9	7	14	7	10	6
Black	97	126	89	116	109	110	135	109	97	78	110	102
Multiracial	20	17	16	20	22	25	20	18	11	15	18	17
Unknown	8	10	5	12	14	10	14	10	8	8	10	7
White	67	76	72	87	63	82	52	59	72	74	78	66

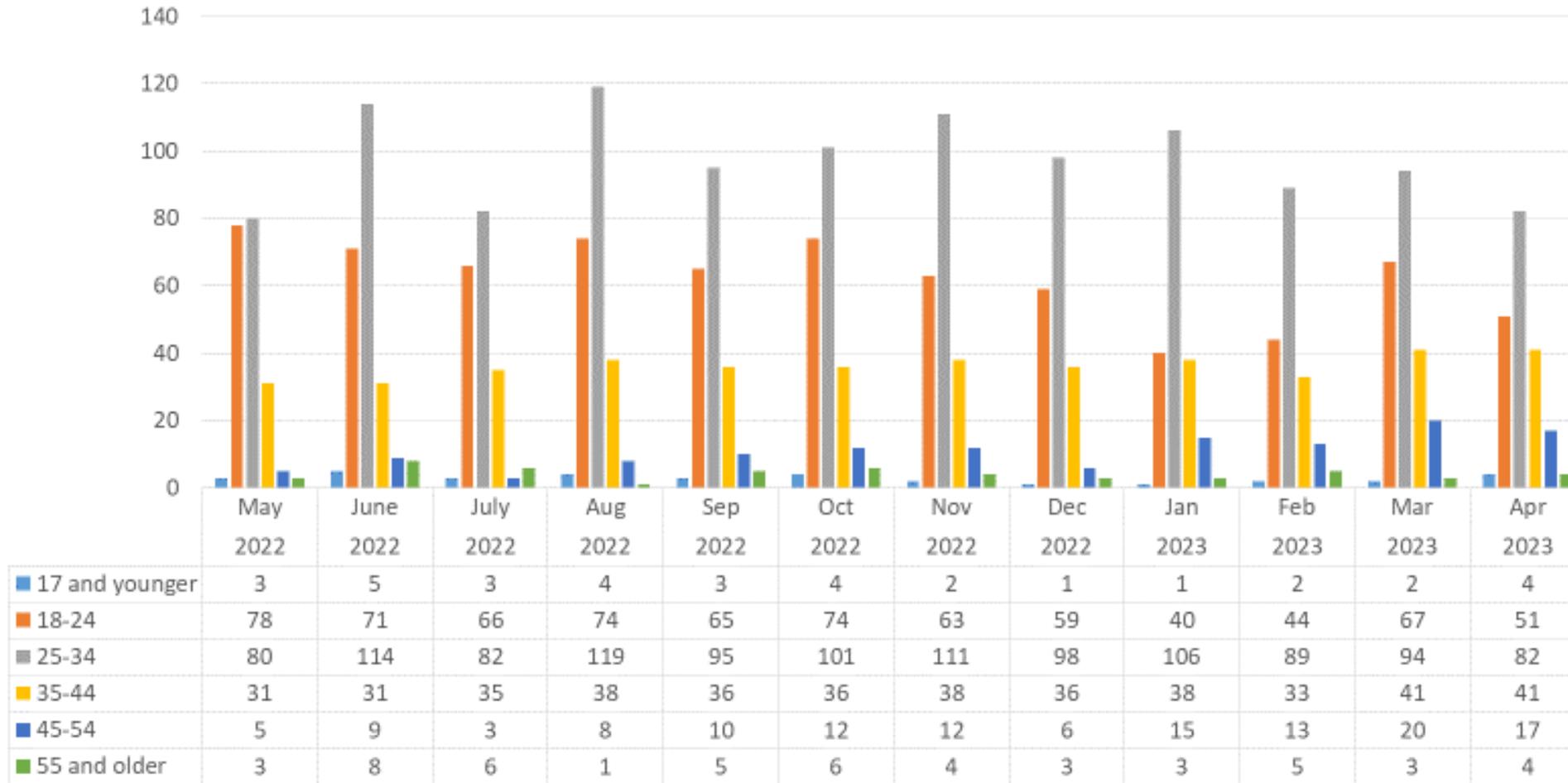
Alaskan Native/American Indian Asian/Pacific Islander Black Multiracial Unknown White

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 Baltimore City not included in above graph

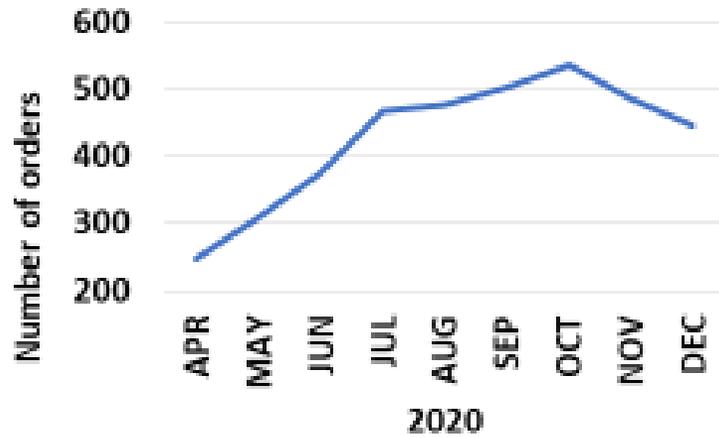
IWTK Orders and Tests

Pre-COVID-19

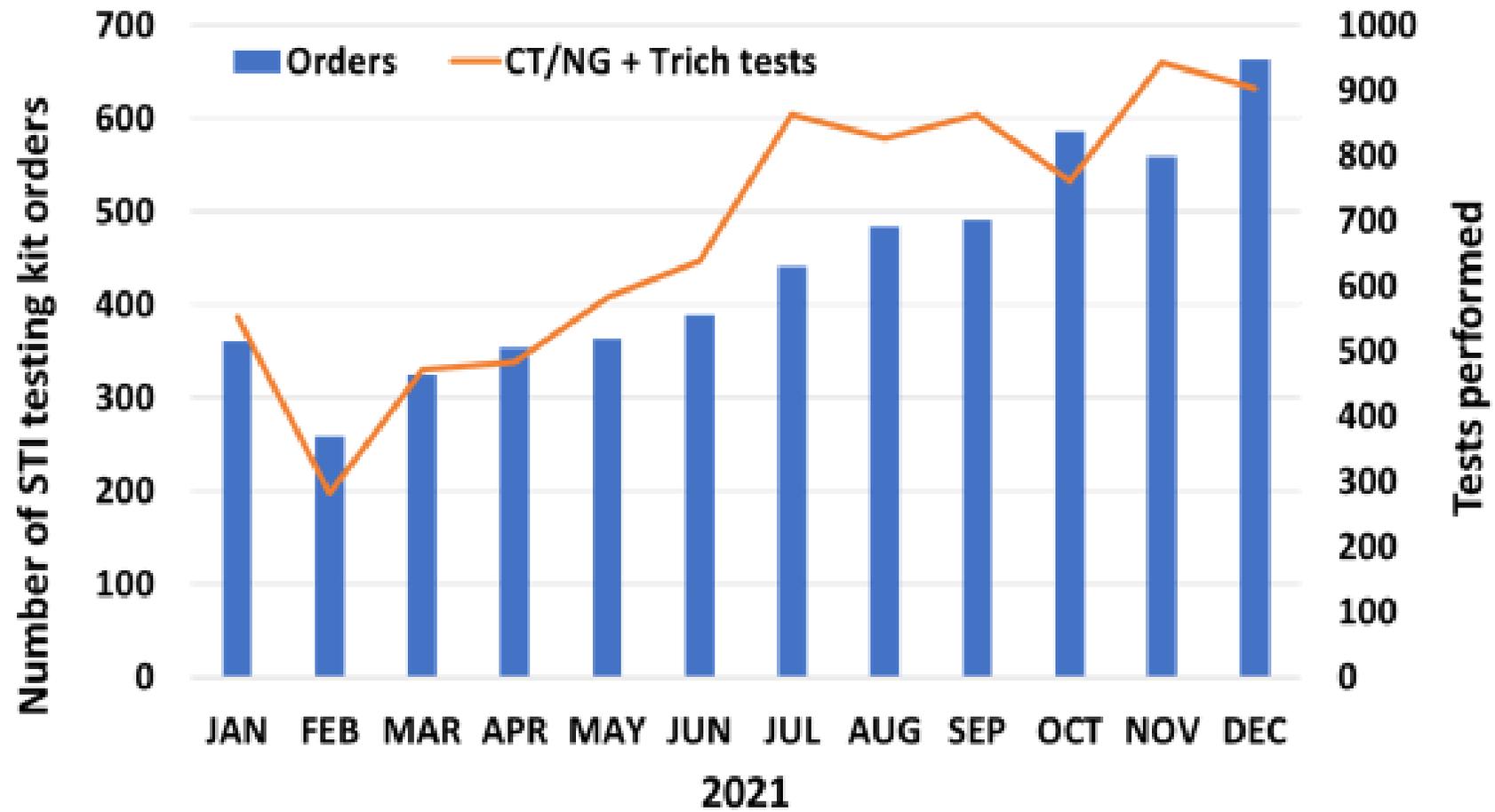
Average monthly orders: 121

COVID-19: Catalytic Phase

BCHD shutdown, massive referral to IWTK

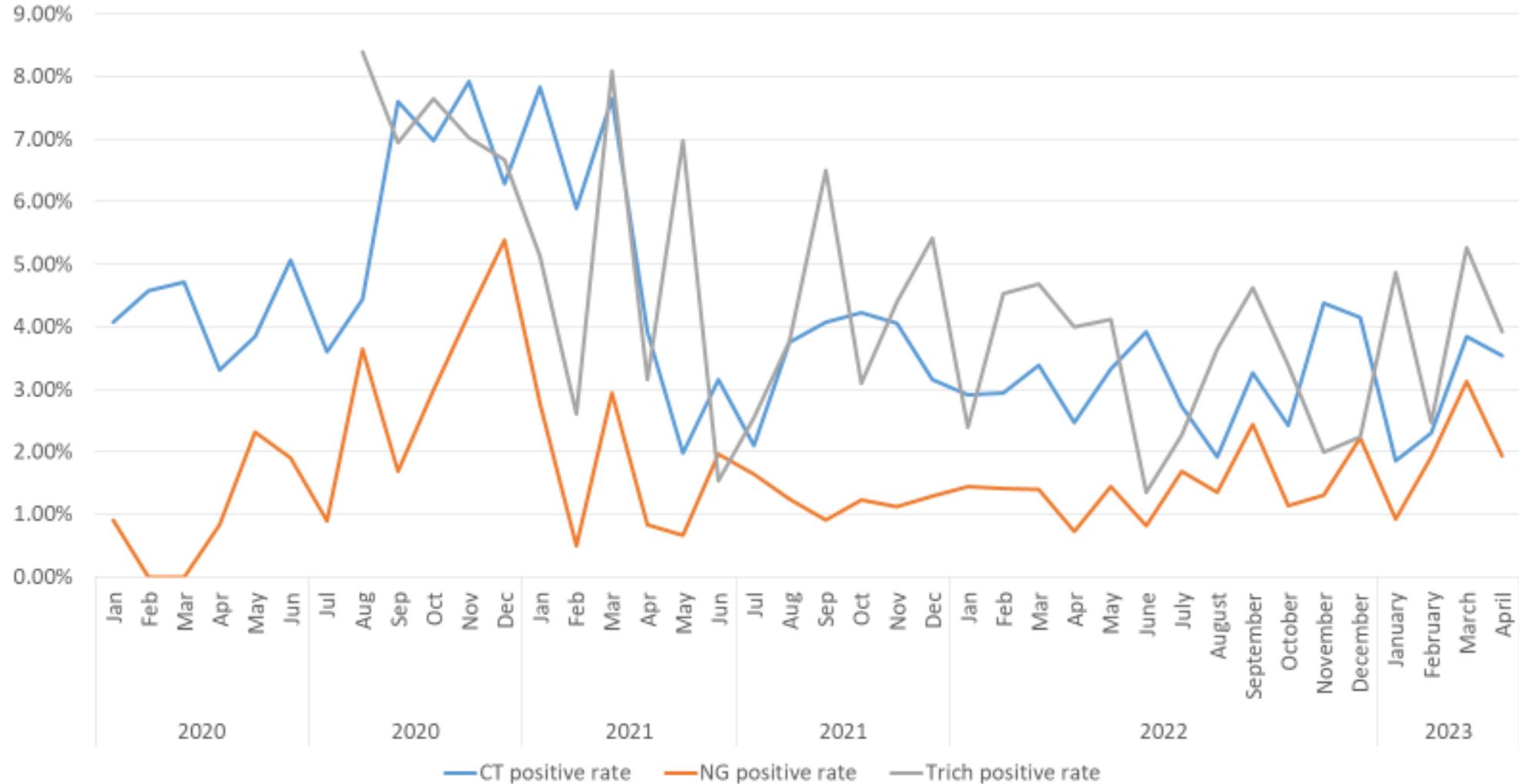


Sustainability Phase



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

Linkage-to-care

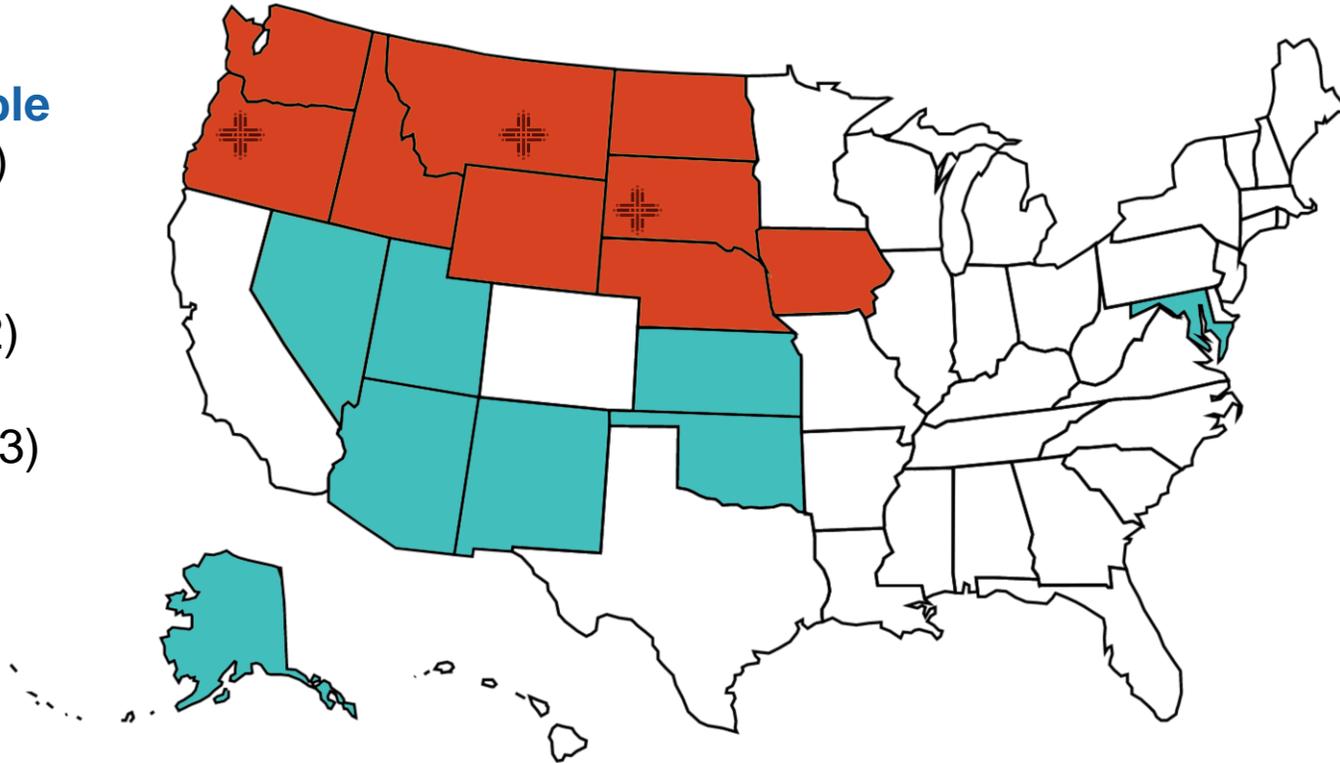
Number of Referrals for IWTK Client Navigation - Past 12 Months



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 μ l blood per tube)
- Dried Blood Spot (DBS)



Public Health surveillance opportunities

- 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

Diversity of mail-in services

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

Summary

- 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

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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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HIV Prevention
Trials Network