

# STD Testing and Treatment Through the Web

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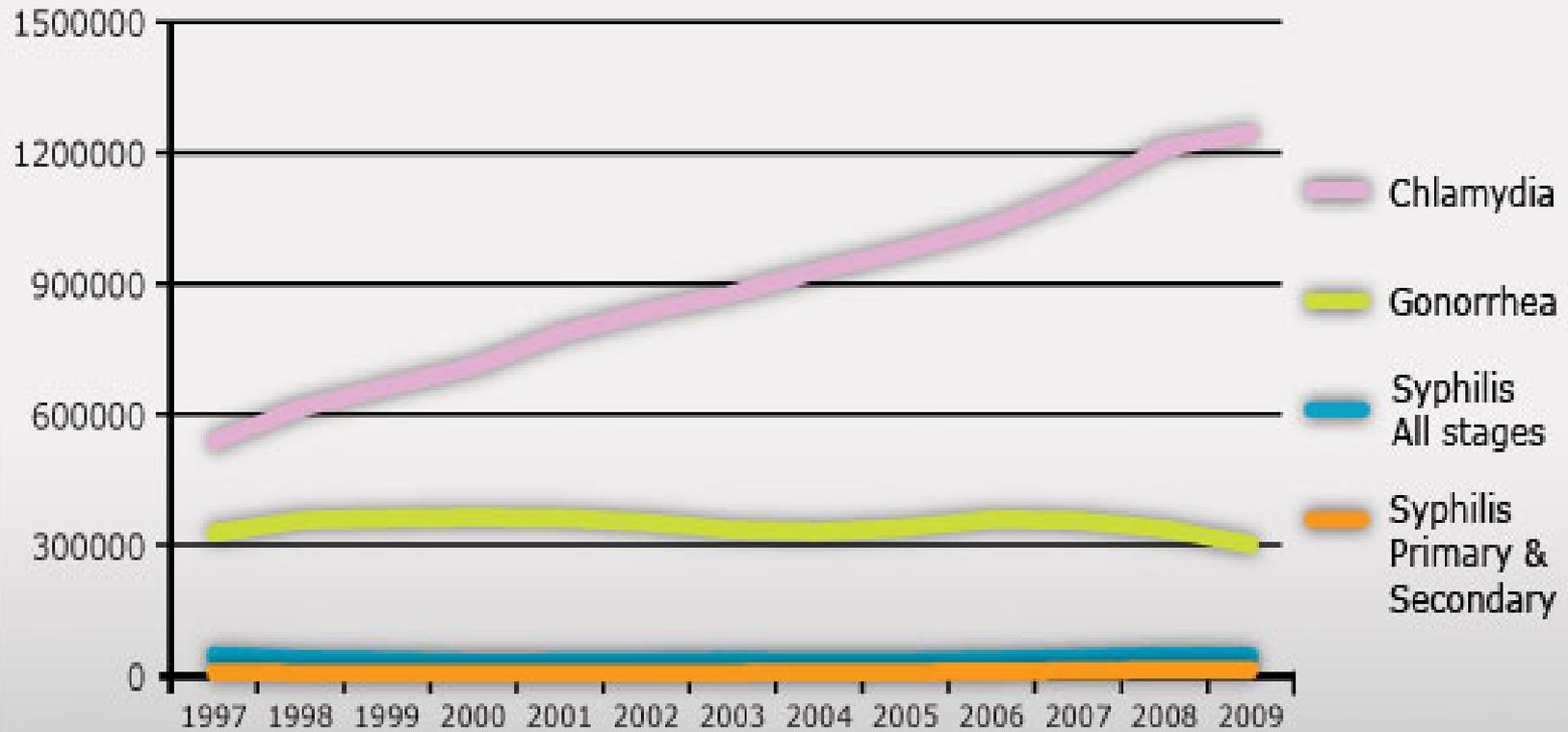
Funder: NIH/NIAID/STD Clinical Trials Group

# STDs

## Estimated Annual Incidence of Selected STDs in the U.S., 2000

Trichomoniasis	7.4 million
Human Papillomavirus (HPV)	6.2 million
<b>Chlamydia</b>	<b>2.8 million</b>
Herpes Simplex Virus (HSV) Type 2	1.6 million
Gonorrhea	718,000
Syphilis	37,000

# CASES STDs 1997-2006



# Limited Testing Access

- Funding cut 6 Million since 2004
- STD Clinics are Closing and Cutting Services

# Cost of STDs

**\$8 Billion Annually**

# What Can We Do

**To Increase Access to Testing and Treatment with Limited Resources?**

# Why Not the Web?

Research has shown that people can self-collect vaginal and penile specimens and get accurate results (Gaydos 2007)

# Why Not the Web?

- In one U.S.-based randomized controlled trial, young women who had a recent STI or STI-related risk factors and who received the home collection kit completed significantly more tests for Chlamydia and gonorrhea than women who received an invitation to a medical clinic, and significantly more who received the kit tested when asymptomatic (Cook, Ostergaard et al. 2007).

# Diffusion of Home Testing



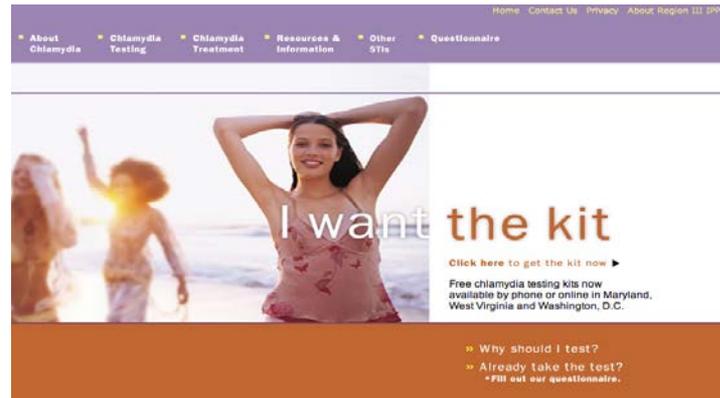
- I want the kit: Home specimen collection for men and women for GC, CT, Trich.
- Free Chlamydia testing kits now available by phone or online in Alaska, Denver, CO, Maryland, West Virginia, Philadelphia, PA, Washington, D.C., and select counties of Illinois

# I Want the Kit



- Chlamydia Prevalence Maryland:
  - Family Planning Clinics 3-5%
  - Internet 10% (1171 Females)

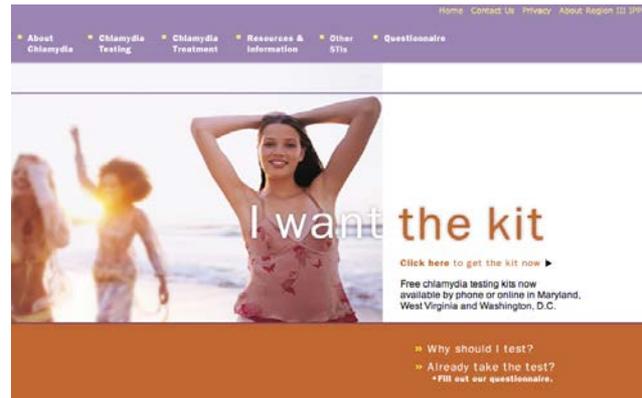
# I Want the Kit



## • Usability

- Easy to collect (96%)
- Easy instructions (98%)
- Would use again (92%)

# I Want the Kit



## •Cost Comparison (Wei Huang 2011)

The internet-based screening strategy prevented **35.5** more cases of pelvic inflammatory disease and saved an additional **\$41,000** in direct medical costs as compared with the clinic-based screening strategy.

# Don't Think Know



- LA County – GC/CT Home specimen collection for women and men.
- Equally successful program for both English and Spanish speakers.

# Questions?

- How can we provide internet testing without losing our ability to assist patients with linkage to care and partner notification?
- How will people get treatment if they are not willing to go to an STD clinic?
- Will this program be cost effective?
- How can this program be sustainable?
- Will this program result in more people being diagnosed and treated for STI?



# Study

- STICTG (NIAID) Demonstration
- SF Bay Home Testing Consortium
  - San Mateo
  - San Francisco
  - Alameda
  - Contra Costa

# e-STI Study Objectives

- ❖ **Acceptability** of eSTD system for STD diagnosis and treatment among sexually active women aged 18-30 in Northern California counties for recruitment into a longitudinal clinical trial
- ❖ **Feasibility** of the eSTD system for recruitment in clinical trials of home specimen collection for STD
- ❖ **Cost** of maintaining the eSTD system per diagnosis of a new STD compared to estimated costs associated with standard clinical care

## STD CLINIC



FEAR

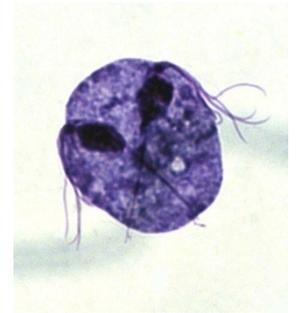
TIME

STIGMA

FUNDS

# The Details

- STDs included in test: Gonorrhea, Chlamydia, Trichomonas
- Study Population / Eligibility Criteria:
  - Female
  - 18-30 years old
  - History of unprotected sex since last test, or previous positive STD result without re-test, or current symptoms of STD
  - Pregnant and breastfeeding women and women with symptoms of PID **not** excluded, but strongly encouraged to follow up for care at a local clinic
- Connection to Care:
  - Existing San Mateo County patients have the option to send their results to their electronic medical record (EMR)
  - Positives transmitted to Local Health Departments for Partner Notification
- Prescription Options: Pharmacies available include several different pharmacies in all eligible counties



# How it Works

1. Potential participants can visit the study website to take eligibility survey, and can order home testing kit for STDs and complete a baseline survey (if eligible).



2. Participants receive the home collection kit in the mail, perform a self collection (vaginal swab), and mail in the swab to the lab in pre-paid envelope. (Recruitment ends at 400 kits mailed or 1,000 participants enrolled).



# How it Works

3. One week later, participants will receive a text or email message alerting them that their results are available to view online (through secure log-in portion of website). Patients with positive result(s) will have the option to get treated by visiting a local clinic **OR** by getting an e-prescription (automatically generated).



4. Depending on their treatment preference, patients with positive results will select the pharmacy of their choice to pick up medication, or will be given a list of nearby clinics and will be asked which they plan to visit. Positive patients will receive online education about the STD and prevention. Those with negative results can also view education modules.

# How it Works

5. Positive results will be transmitted to local health department DIS for partner notification.
6. Patients in San Mateo County can choose to share their results with their STD clinic or community clinic through the EHR.
7. Follow-up survey conducted online of all participants, measuring clinical experience, risk behaviors, acceptability of home testing and testing preferences.

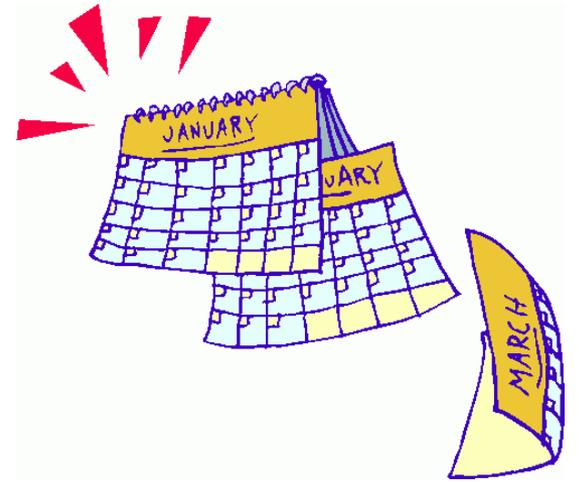


**CONFIDENTIAL**

For San Mateo DIS

Gonorrhea - Untreated

# Launch



November 15, 2011

# Future?



- Multisite study to determine if a home testing system increases detection and treatment of STI
- California State Pilot
- Adding HIV, syphilis and Hepatitis home testing
- Pilot to determine if a mixed payer system would be sustainable