

## THE STOP STUDY – Screening Targeted Populations To Interrupt On-going Chains Of Transmission With Enhanced Partner Notification

September 2011

## The STOP Study

- 5 year, multicenter CDC-funded Study
- Collaborating with the San Francisco and NYC Departments of Health
- UNC submitted and received the award as a bona fide agent of the NC DHHS
- Participating sites in NC include the Durham, Forsyth and Wake County STI clinics

## New HIV Diagnosis in NC

- NC ranked 2<sup>nd</sup> and 4<sup>th</sup> in the US for AIDS cases and HIV incidence, respectively, in non-metropolitan areas.
- Implementation of HIV testing strategies that allow for earlier HIV diagnosis including acute HIV infection are urgently needed.

## Background

- For >8 yrs, NC DPH has used pooled HIV RNA testing on seronegative samples to detect persons with AHI.
- Disadvantages include increased cost and an unavoidable delay in time from testing to confirmed acute HIV infection (AHI) diagnosis (average 12-14 days).

## AIM #1

- To overcome these challenges, this study will implement a novel 4<sup>th</sup> generation EIA assay which simultaneously detects HIV-1/2 antibodies and p24 antigen.
- To evaluate the yield and cost-effectiveness of screening for AHI with a 4<sup>th</sup> generation EIA compared with pooled nucleic acid amplification testing (NAT).

## 4<sup>th</sup> generation EIAs

- In comparison to 3<sup>rd</sup> generation EIAs, 4<sup>th</sup> generation EIA assays reduce the window period for detection of AHI on average by 4 days, (range 2 days to 2 weeks).
- 4<sup>th</sup> gen assays can detect subjects with more recent infections given increased sensitivity attributable to the detection of p24 antigen (HIV core protein).

## Advantages of 4<sup>th</sup> Gen EIAs

- Faster turn-around for the diagnosis of AHI
  - 20-30 minutes on instrument
  - Initial positives require repeat testing
  - Confirmed positive result within 24-72 hours
- Possibly cheaper than NAT pooling for AHI detection.
  - Current cost of assay approximately \$4.50/test

## AIM #2

To evaluate the yield and cost-effectiveness of enhanced partner notification / contact tracing techniques linked to AHI screening

## Enhanced Partner Tracing

- Since the probability of HIV transmission during AHI is very high, identifying individuals with AHI provides a critical opportunity to avert onward transmission.
- The HIV epidemic in the SE US is largely concentrated among African American men and women, and MSM.

## Partner Tracing and the Internet

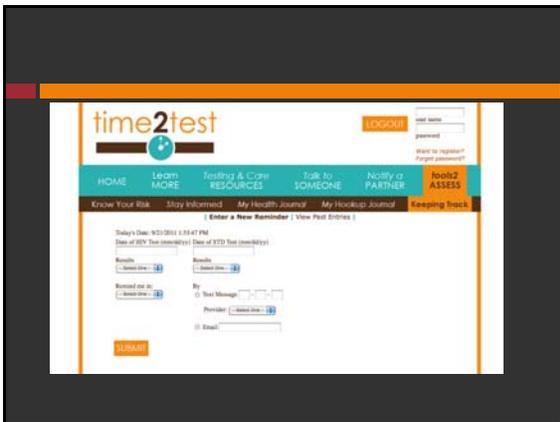
- Several studies indicate that use of the Internet to meet sex partners and engage in high risk behaviors is common among MSM
- We will evaluate use of enhanced partner tracing with novel Internet interventions designed to increase notification, screening and potential treatment of partners of acutely infected individuals

## Internet Partner Notification

- Growing number of patients find sex partners through internet services such as BGC, adam4adam.com, and others
- Many times these partners are locatable only through internal email and messaging services
- Need a way to notify and refer those partners
- Complement current NC IPN activities

## NC IPN Policy

- Current but minimally used – only 133 cases initiated in 2010
- Over half (88) were not locatable
- Since 2006, NC has used “Open” systems (hotmail, yahoo)
- In 2009, NC began using “Closed” systems (A4A, BGC)
- Will begin to use facebook, myspace, manhunt, grindr, time2test.org, and others for IPN



## Internet Partner Notification

- Measure the efficiency/time spent using IPN
  - Compare to traditional (in-person, phone) mechanisms
  - Compare acutes to chronics
- Time2Test.org- model for all STDs not just HIV
  - Measure satisfaction, uptake, acceptability of site

## IPN Challenges/Solutions

- Confidentiality
  - Assure messages reach only the intended recipient
  - Balancing need for specificity with caution
  - Double layers of security
- Measuring Success
  - How many partners are notified?
  - How quickly are partners notified?
  - How many partners are tested and enter care?

THANK YOU!

Questions?