



**Drexel University
College of Medicine**

In the tradition of Woman's Medical College of
Pennsylvania and Hahnemann Medical College

Implementation and Sustainability of a Hospital-Wide Rapid Testing Program

Erika Aaron, MSN CRNP

Shannon Criniti, MPH

Amy Hilley, MPH

Anita Vargas

Infectious Disease and HIV Medicine

Drexel University College of Medicine

Phila, Pa



State of HIV/AIDS in Philly

- Philadelphia metro area is ranked 6th in U.S. for HIV/AIDS prevalence
[CDC. Persons Living with HIV/AIDS or AIDS by Geographic Area and Ryan White CARE Act Eligible Metropolitan Area of Residence, Dec 2004]
- 12,000 persons living with HIV/AIDS [2005]
- Philly is ranked in top 5 states with number of IVDA
- Of infants exposed to HIV, there was a 5% MTCT rate in 2005, and no transmission in 2006
 - 25-30% of pregnant HIV+ women in 2005-2006 were diagnosed during the prenatal period
 - 2-5% were diagnosed during labor

Program background

- DrexelMed: The Partnership Comprehensive Care Practice (PCCP) is a large comprehensive adult HIV care clinic in the Philadelphia area.
- DrexelMed is affiliated with Hahnemann University Hospital (HUH), a 600 bed teaching hospital, located in center city Philadelphia
- HUH and the PCCP treats patients from zip codes with high the highest prevalence of AIDS (2.5 – 1 %) and STDs in Phila.

Goals for a hospital-wide sustainable HIV testing policy

1. At every interface within the hospital system, an HIV test will be offered in an opt out model
2. Hospital-wide staff will be comfortable offering and giving results
3. Normalization of testing will help de-stigmatize HIV diagnosis
4. Identify positive patients early in disease process and successfully link into care
 - Establishment of long term medical and preventative care
5. All grant-funded HIV testing positions or programs will have sustainability planned from the start.
 - Establish timeline and objectives for capacity-building, income generation, or alternate sources of funding.

Components to consider for a testing model

- Who will be offered testing – targeted or opt out
- How patients will be provided informed consent
- How pt education and counseling will be provided
- What test assay will be used. Where will the test be performed
- Who will deliver results, in what setting
- What resources are available to support and sustain testing initiatives
- How will linkage into care following a positive test be done

HIV Testing Models: One size does not fit all

- Delivery Room - “Doc model”: OB physicians perform the counseling; nurses obtain the serum specimen; lab performs the test
- OB/GYN/FP Clinic – “MA-Doc model”: Medical assistants offer and consent during triage; counseling and results given by docs
- ER – “Counselor Model”: HIV clinic provides grant-funded testers in ER; capacity building from beginning with goal to transition to ER house staff within 2 years.
- HIV Clinic – “FP Services Model”: Patients’ partners are tested in HIV clinic by Title X family planning counselor

Delivery Room



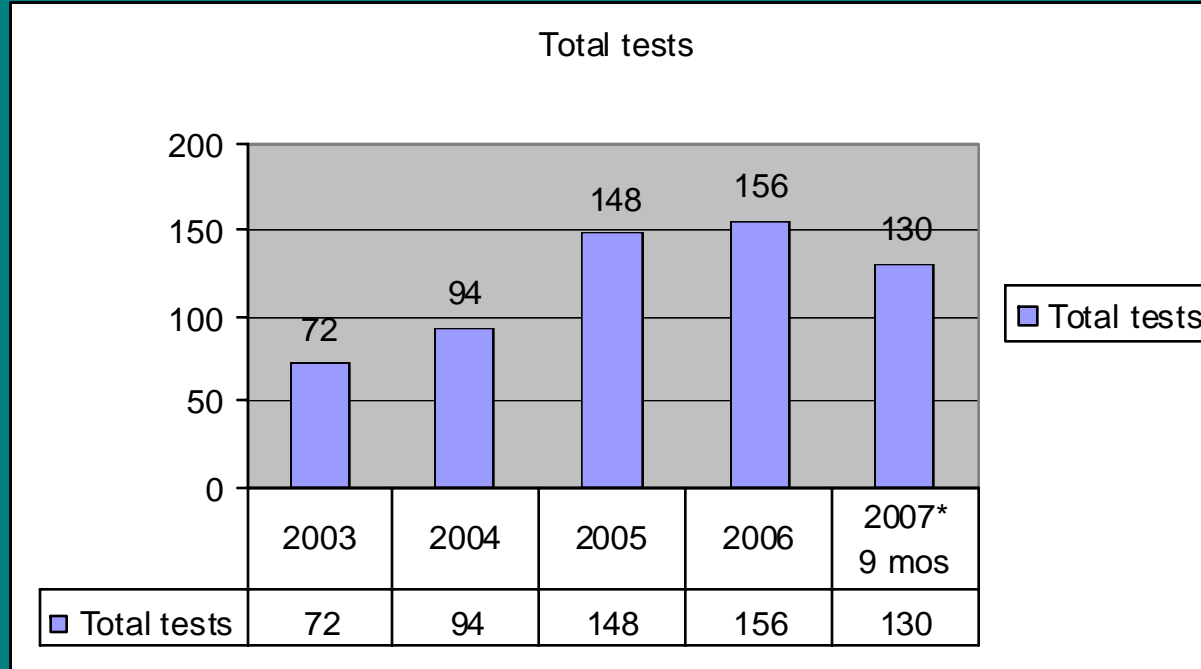
DR Program Background

- Advisory Comm of key stakeholders to build infrastructure and maximize support:
 - Dept chairs of OB/GYN, ID/HIV, neonatology, referring pediatric hospital.
 - Dir of Lab, Risk Management, Legal Dept, CQI committee, Forms committee, Dir. nursing, DR Head nurse, pharmacy, Pa. MidAtlantic AETC, Circle of Care (Title IV)
- **Needs assessment:** Prenatal clinic and postpartum unit
 - 92% would accept an HIV test during labor
- **Criteria:** Opt out testing for all women who present to DR
 - with no prenatal care, and/or
 - with no documented HIV result in chart
- **Goal:** All women will have been tested and know their HIV status before delivery (or prior to discharge)
- “Doc model”: OB physicians perform the counseling; nurses obtain the serum specimen; lab performs the test

Testing in Delivery Room: 4/02 - 9/07

- **N= 600** Rapid HIV Tests performed
- **Rate of patients presenting for delivery with no prenatal care (<2 visits):**
 - an average of 10 patients per month
 - 2200 deliveries/year
- **Turnaround Time (time drawn to time results reported to physician):**
 - ELISA: Between 2-6 hours
 - Oraquick: Between 1-3 hours at first, now no longer than 1 hour
- **Test results:**
 - 8 positive results – 1.5% seropositivity rate
 - 1 false positive ELISA
 - 1 positive newborn

DR # tests



2003-2004 there was 30% increase in testing

2004-2005 there was 57% increase in testing

2005-2007 steady state sustained

Challenges with DR program

- Nurses buy-in
- Trainings trainings trainings
 - Partnered with local AETC
- Getting records from prenatal clinic to DR
- Getting buy-in from private MDs
- Transportation of specimens
- Lab coverage – night time coverage lab

Sustainability: Support from Hospital Lab

- Started with expedited 4/02
 - Lab agreed to run ELISA daily (was three times a week only)
 - Turn around 4 hours due to machine warm up
- Rapid test approved 10/02
 - Lab did whole blood test due to quality control concerns in the DR
- 24 hour coverage
 - 3/03 Lab agreed to come in on-call at night
 - 2004 switched to the blood bank at night

Sustainability: Role of HIV team

- Organized advisory committee
- Obtained funding to support program development
- Helped move through Lab issues
 - Established a relationship Point of care committee
 - Helped to initiate a CQI measure for turn around time
 - We were not satisfied until it was less than one hour
- HIV clinic on-call 24 hours to provide support for positive results
- Worked with pharmacy to ensure liquid AZT for infant available for mom before she leaves hospital
- HIV social worker rounded on all positive women PP and ensure linkage into care for woman and newborn

Successfully sustained

- Completely self-sufficient
 - all patients with no prenatal care get tested
 - starting to test patients without documentation of HIV test on prenatal charts
- All OB/GYN residents know how to offer testing in a sensitive and respectful way
 - Continue to provide training every 6 months
- Using same implementation committee for the ER

Women's Care Center: OB-GYN-FP Clinic



Testing in WCC: 9/03 – 9/07

- **9/03 – 4/07:**
 - 2,533 rapid HIV tests done by grant-funded HIV counselor:
 - 9% men (partner testing and walk-ins)
 - 39% tested were pregnant women - 13 new dx HIV+
 - **1.5% seropositivity of total clients tested**
 - 7.5% walk-ins
 - ~0.5% for clinic patients
- **4/07-9/07**
 - Transitioned from funded tester to clinic staff
 - **693** rapid HIV tests performed by clinic staff
 - Avg of 128/month - doubled monthly average
 - **4 positive results** - 2 pregnant , 2 family planning patients
 - **0.57% seropositivity of patients tested**

What Changed?

	Old way	New way
Who offers HIV test?	Dedicated HIV counselor or clinicians	In-house medical assistants
Where is test offered?	Waiting room, or exam room	Triage room
Consent	Special HIV-only consent	HIV integrated into general clinic consent for services
Who performs tests?	Dedicated HIV counselor	Medical assistants
Counseling model	20-30 minutes risk-reduction counseling	Streamlined counseling ave 3-5 mins
Testing location	Private office	Triage room / Clinic lab
Who gives results?	HIV counselor	Clinicians (MDs and NPs)

Successfully Sustained

Challenges

1. Lack of time to consent and perform HIV testing
2. Training needs
3. Fears of giving positive results
4. Billing
5. Need protocol to test male partners of patients

Solution

1. Support from Clinic Director: consent integrated into standard forms and triage protocol. Lab system was set up to handle multiple tests at once.
2. Partnered with local AETC and FP Council
3. Medical assistants perform test, MD staff trained in giving results. HIV clinic on call for back-up.
4. Tests covered through CDC grant, FP billing, and insurance billing codes.
5. Billed as FP visit



Hahnemann University Hospital

*As many as 1 out of 4 people
do not know that they are
infected with HIV*

****Know your Status... Get Tested for HIV****
If you know your status, you can start care
early to stay healthy and protect others



FREE RAPID HIV TESTING

- We offer HIV testing to all patients, both men and women.
- It is an Oral Swab test. No needles used.
- It is quick, voluntary, and confidential.
- You will get results before you leave today.
- Even if you are not a patient, you can get HIV testing at the Women's Care Clinic, 1427 Vine Street, 7th floor, Philadelphia
- To make an appointment call 215-762-8959.

**This test will not interfere with
your care while you are in the ER**



ED

Rapid testers extraordinaire!



Benefits of HIV Testing in the ED

- ED serves as the nation's medical safety net, guaranteeing accessible health services for underserved and underinsured.
 - 110 million pt visits/yr in US
 - high proportion do not access primary care
 - EDs heavy use by groups who do not have access to continuity of care
- 50-80% of newly HIV diagnosed have had an ED visit within the prior year.
- Rapid testing eliminates need for return visit.
 - Conventional testing did not allow ED to offer HIV testing
- Shorter hospital stays for those tested in ED (mean=6 days) vs. diagnosed with conventional testing during after hospital admission (mean=13 days)
- Potential public health benefits: detection earlier in course of HIV disease, decreased secondary HIV transmission

ED program background

- Reinstated advisory committee – used DR experience
- Support from Hospital leadership – Dept Chair ED, Director of Nsg – ED staff
- Needs assessment of ED pts showed 85% acceptability
- Two testers in ED for 10 hours each day, plan to increase time
- Grant support will last 2 years, capacity building built in at every step
- Goal is to transition to ED staff
- Proximity of HIV clinic to HUH ED may increase success of linkage to care

Testing in ED: 4/07 – 9/07

- 575 offered test
- 489 (85%) accepted HIV test
- 100% received results
- 7 confirmed positives (2/9 false positives)
- 1.4% seropositivity
- 100% linked into HIV care
- 2 (22%) kept 2 medical visits
 - Outreach specialist calls, mails letters, sends certified letter

ED Rapid HIV Test: Time Spent with Patient

Average time for entire counselor/patient interaction	5min 30sec (mean=5:33,med=5:22)
Time for consent and patient use of oral swab	> 2min (mean=1:37,med=1:39)
Counselor/Patient discussion of risk factors:	3min (mean=3:03,med=3:15)

Revised informed consent

I have read and understand the materials given to me about the Rapid HIV test. I understand that the results will take approximately 20-40 minutes and I agree to wait for the results. I understand that the HIV test is voluntary and by signing below I consent to it.

Person to be tested

Date

Working towards Successful Sustainability

- 24 hr lab coverage
- Protocol scripts, posters, pt ed handouts, Doc and Nurse “cheat” cards
- Testers are resource for ED staff during transition
- Education opportunities whenever possible
 - Partner with local AETC
 - Grand rounds, education sessions in the middle of the ED
- Well established rapid response team
 - Hospital: SW, psychiatry on-call staff, in patient Psych unit
 - HIV: outreach worker, casemanager, peer counselor, MD or NP on call 24 hrs.
- Develop strong relationships between Emergency Medicine and ID/HIV Medicine

HIV Clinic

Family Planning Model

HIV clinic

Partner testing program

- 156 Tests done in clinic setting by Title X funded FP counselor
- 11 positive partners
- 100% linked into care
- 8 (73%) kept at least 2 visits

Overcoming Barriers: Institutional

Challenges

- State regulations that govern HIV testing practices: Penna ACT 148
- Departmental and institutional regulations
- Licensing/certification
- Finances
- Rapid patient turn over

Solutions

- Create streamlined consent; guidance from AIDS Law project
- Point of care testing; CQI requirements Legal Department; Forms committee
- CLIA license; HIV testing training and certification for staff
- Plan transition from grant/public funding for staff and supplies to income generation or billing insurance
- Modified consent
Streamlined counseling with focus on post test counseling

Overcoming Barriers: Patient

Challenges

1. Acknowledging patient fears and varying levels of knowledge
2. Patients reluctance to acknowledge risk

Solution

1. Perform needs-assessment on patient acceptability of testing in each setting
 - Train HIV counselors in Stages of Change model, which acknowledges patient readiness to test and change risk behaviors
 - Training support from local AETC
 - Provide patient information in appropriate reading level
2. Implement standardized, routine testing – not based on risk
 - Men underestimate their risks (Sahlu AIDS 1999);
 - Women have more fears about testing (Stein AIDS care 2000)

Overcoming Barriers: Patient

Challenges

3. Successful linkage into care

Solutions

- Response team/HIV team meets patient at time of diagnosis
- Consent pt prior to discharge to allow follow-up contact
- HIV Clinic outreach coordinator utilized for patient follow-up
- Appointment given before patient leaves hospital
- Assess for need for psychological support
 - Have plan in place for a “Rapid Response” team
- Make phone contact to access reaction to new dx prior to apt

Overcoming Barriers: Clinicians

Challenges

1. Time investment with program start-up and maintenance
2. Provider emotional issues regarding HIV
3. “Not enough time” - Resistance to do one more thing
4. Medical model not used to “offering” patients choices

Solutions

1. Apply for additional funding to support start in start up process
2. Needs assessment on provider attitudes
 - Allow staff time to air and discuss their concerns
3. Obtain support from Dept Chair/ administration
 - Creative trainings – Grand Rounds, middle of ER
 - Partner with local AETC
4. Staff talking points and sample scripts
 - Simple documentation tools

Future goals

- Routine testing in all ambulatory medical clinics of hospital system
- Expand to inpatient testing
- Routine testing in private OB/GYN offices
- Tests offered in invasive procedure units

Mixed Funding Streams

Support and funding for these testing programs

- CDC
- Ryan White Title I - Philadelphia AIDS Activities Coordinating Office
- Ryan White Title IV – Circle of Care, Phila
- Pennsylvania/Mid-Atlantic AIDS Education Training Center
- Southeastern Pennsylvania Family Planning Council
- Gilead Sciences

Acknowledgements

Thank you to the staff and management of:

Partnership Comprehensive Care Practice
Women's Care Center
Emergency Department
and Hahnemann University Hospital.

Thank you to our expert rapid HIV testers,
Anita Vargas, Brenda Martino, and Derek Scott.

Contact info

Erika Aaron, MSN, CRNP

Director of Women's Services

eaaron@drexelmed.edu

Division of ID and HIV Medicine
Drexel University College of Medicine