

# Trained Graduate Student Volunteers – A Supplementary HIV Testing Workforce for an Integrated **Testing Model with Both Fourth-Generation Testing and Point-of-Care (POC) Testing**

Ahmed M. Saleh<sup>1</sup>, Danielle Signer<sup>1</sup>, Stephen Peterson<sup>1</sup>, Megan Gauvey-Kern<sup>1</sup>, Margaret Leather<sup>1</sup>, Boris Tizenberg<sup>1</sup>, Somiya Haider<sup>1</sup>, Shane Bryan<sup>3</sup>, Mindi Levin<sup>3</sup>, Richard E. Rothman<sup>1,2</sup>, Yu-Hsiang Hsieh<sup>1</sup> <sup>1</sup> Department. Emergency Medicine and <sup>2</sup> Division of Infectious Diseases, School of Medicine; <sup>3</sup> Student Outreach Resource Center (SOURCE), The Johns Hopkins University, Baltimore, Maryland.

### BACKGROUND

- At the end of 2011, an estimated 1,201,100 people <13 years were living with HIV in the United States, with more than 168,000 who remain unaware of their status.
- CDC currently recommends universal/non-targeted opt-out HIV screening should be offered as part of all routine healthcare for patients aged 13-64 years. The US Preventative Services Task Force recommends all persons 15-65 years to be tested for HIV infection.
- Emergency Departments (EDs) have been found to be one of the most common sites of missed opportunities for HIV diagnosis.
- Thousands of previously undiagnosed HIV infected patients were diagnosed in the ED setting, since 2006 CDC's revised recommendations for HIV testing.
- However, the overall rate of ED-based HIV testing remains exceedingly low (0.2%).
- Several HIV testing programs have utilized students in health sciences, nursing, and medicine as program testing and linkage to care staff. This type of staffing model has demonstrated promising results in terms of program implementation and identification of undiagnosed infections.

#### **OBJECTIVES**

• To evaluate the outcomes of expanding the routine HIV screening program in an inner city, academic emergency department (ED) using supplementary trained graduate student volunteers as testing facilitators.

- <u>Study Setting:</u> population.
- ED-Based Rapid HIV Testing Program: been operative since 2005.

Since August 2013, triage-integrated HIV testing model with fourth-generation blood and point-of-care (POC) testing, and an expedited linkage-to-care (LTC) process has been in place to offer free HIV testing.

Testing eligibility: all consentable 18-65 years old patients; not critically ill; no previous diagnosis of HIV

• *Student Volunteer Program:* 

Students are recruited at the beginning of each academic year using an application process. Ten students are selected each year.

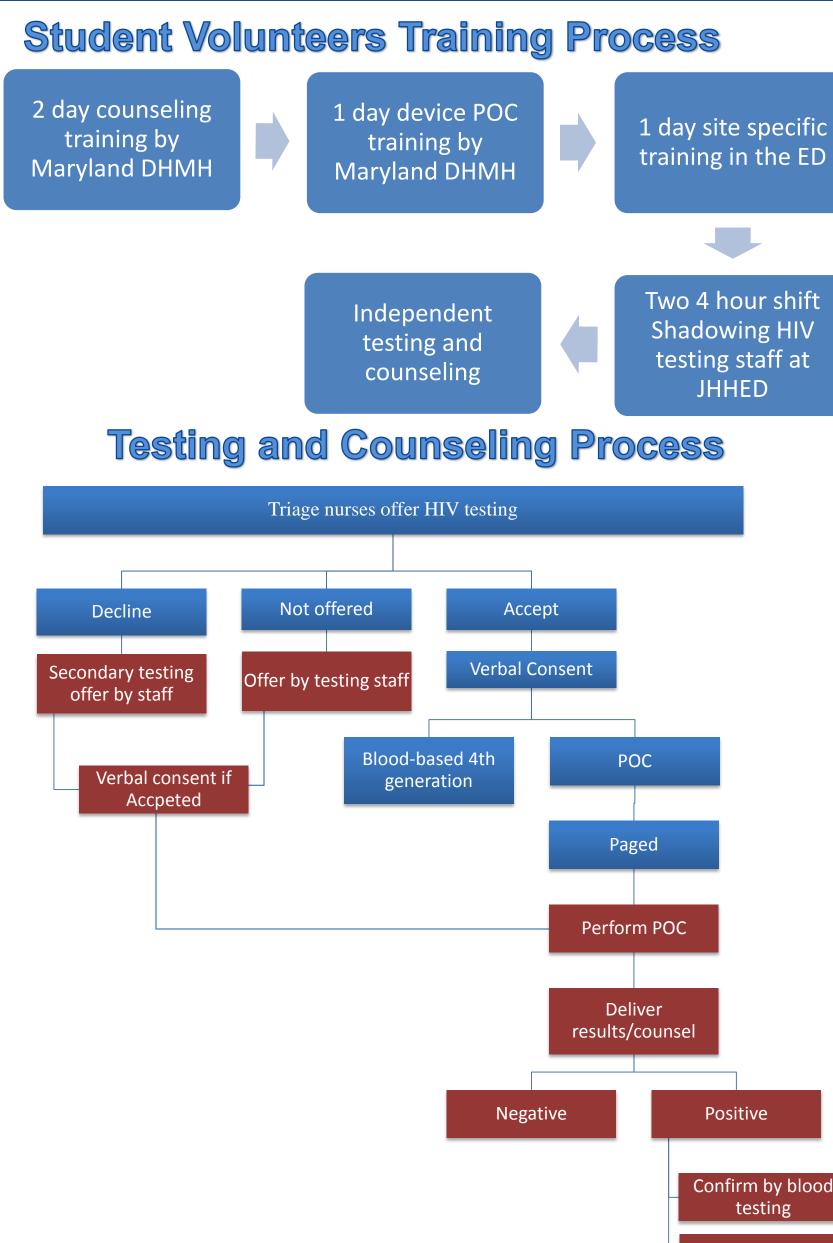
Student volunteers completed a standardized shift report at the end of each shift, reporting the numbers of ineligible patients, pages received, tests completed, positive results, linkage opportunities, and missed opportunities. Shift reports from December 2013 through February 2015 were analyzed.

### METHODS

The Johns Hopkins Hospital Emergency Department (JHHED) has an annual census of 70,000. JHHED serves a diverse and socioeconomic disadvantaged

JHHED HIV Testing and Linkage to Care Program has

Johns Hopkins University Student Outreach Resource Center (SOURCE) has been collaborating with JHHED HIV testing staff to supplement the full time staff with medical, nursing, and public health students to expand the program and provide better shift coverage.



### RESULTS

1 day site specific training in the ED

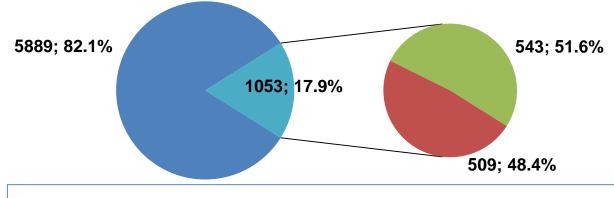
Two 4 hour shift Shadowing HIV testing staff at JHHED

Link-to-care

• Student facilitators completed 640 hours of testing.

- A total of 5934 patients were tested by POC, of which 1052 were tested by student volunteers.
- Student facilitators approached 1573 patients who were not offered (n=1140) at triage and who were offered but declined (n=433). Of which, 543 (35%) were tested.

Tested by full time staff Tested in response to triage Secondary offer/facilitation



#### **Identified HIV + ED Patients**

- 2 (0.2%) newly diagnosed HIV patients.
- 2 known HIV + re-linked to care.

## CONCLUSIONS

- Supplementing the routine ED-based HIV screening program using a free volunteer-based workforce is a valuable asset, which resulted in greater numbers of patients tested for HIV and identified more newly diagnosed patients who were subsequently linked to care.
- Scaling up this program would provide better coverage and a reduction in both missed opportunities and costs.
- However, challenges that arise in such programs include the limited student availability, required annual training, and annual turnover.

### FUNDING

- Baltimore City Health Department
- Gilead HIV Focus Program