Acceptance of Opt-out Routine HIV Screening at an Urban Emergency Department

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Outline

- CDC Recommendations for Routine HIV Screening
- Methods: GWU ED data
- Results
- Conclusions
- Limitations and Strengths
- Discussion and Future Research

Rationale for HIV Screening

- Estimated 25% of infected individuals are unaware of their status
- 39% of newly identified HIV infections progress to AIDS within 12 months
- Meets basic screening justifications:
  - Screening for HIV is reliable, inexpensive and non-invasive
  - Early detection can prolong life with treatment
  - Anticipated benefits of early detection outweighs cost of screening

CDC Routine HIV Screening

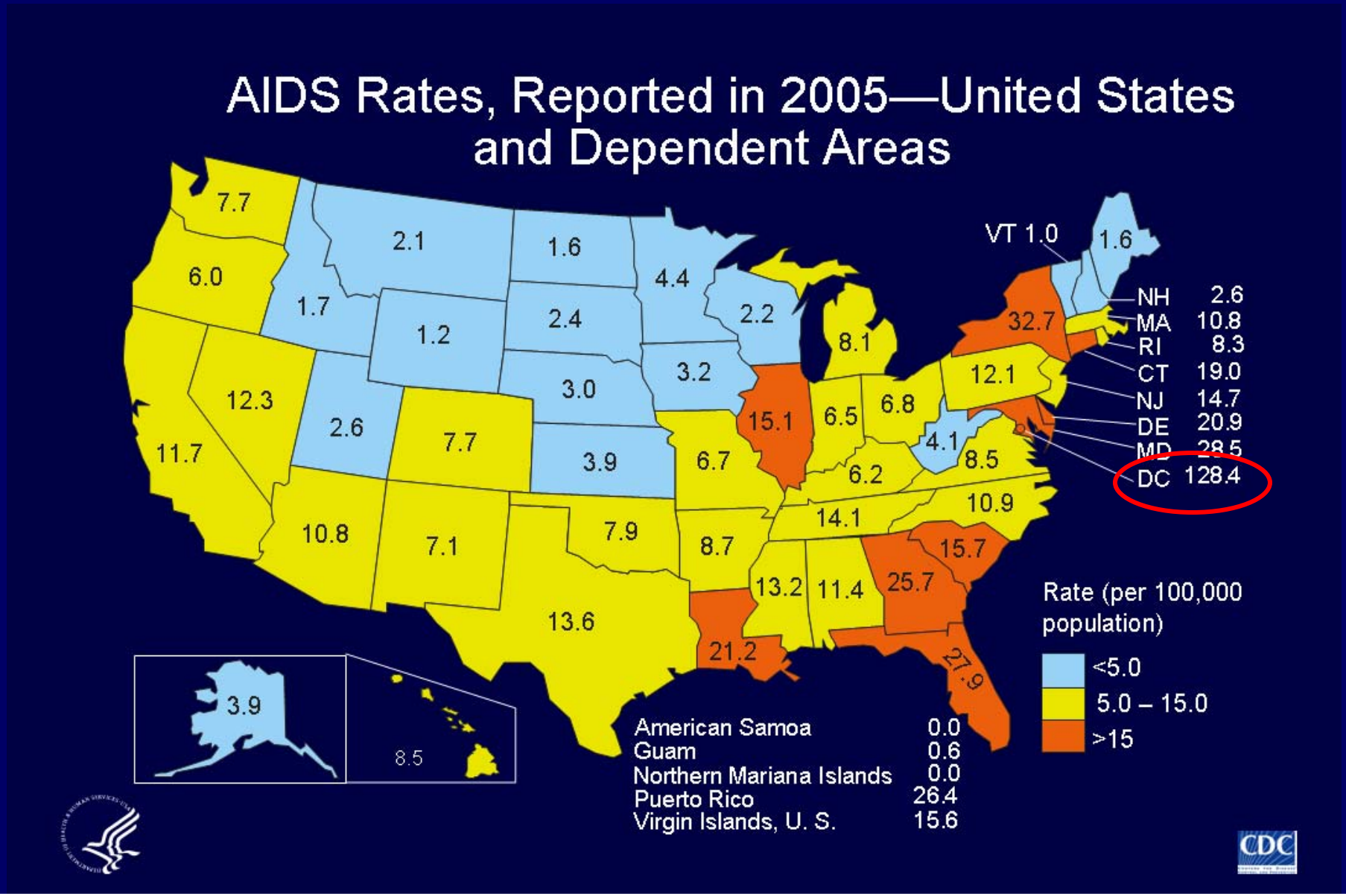
- 2006 Centers for Disease Control and Prevention (CDC) recommendations:
  - All health care settings should offer voluntary, routine HIV screening
    - 13-64 year olds
    - "Opt-out" testing
    - HIV testing part of normal medical care; separate written consent not required
    - Prevention counseling should not be barrier for HIV testing in health care settings

HIV Testing in Emergency Depts

- HIV screening in ED is limited
  - Unpublished survey: only 57% offered HIV testing
  - Barriers to implementation
    - Lack of mechanism for follow-up
    - Inability or lack of certification to provide counseling
    - Belief that risk assessment and testing procedures are time-consuming
- Past reports focused on targeted testing of high risk groups (e.g., IDU, STD symptom, MSM, pregnant)
- Recent reports of routine testing in ED in Cook County, Chicago
  - 48-59% test acceptance

Lyss et al 2007; Fincher-Mergi et al 2002; Lyons et al 2005

DC AIDS Case Rate



Routine HIV Screening in DC

- HIV/AIDS Administration launched an HIV testing campaign in June 2006
  - "Come Together DC—Get Screened for HIV"
  - Encouraged HIV testing of DC residents ages 14-84
  - OraQuick Advance rapid HIV tests distributed free-of-charge to health facilities
- First city in the US to systematize and implement routine testing

GWU Emergency Department

- Located in downtown Washington, DC
- Sees nearly 60,000 patients per year
- Serves patients from all over the city (from high to low-income neighborhoods)
- September 2006 implemented routine HIV screening as part of the DC testing campaign
- One of the few EDs in the nation to offer routine, opt-out testing

Specific Aims

- To examine the feasibility and acceptance of the routine testing program at an urban ED
- To identify characteristics of individuals who accepted the HIV test and who tested preliminary positive

Methods: GWU ED Screening

- Free, routine HIV screening was offered to all emergency room patients seeking care
- “Opt-out” screening
- HIV test offered by trained medical students between 8 AM and midnight

Methods: Study Population

- Inclusion:
  - Ages of 14-84 years old
  - English or Spanish speaking
- Exclusion:
  - Already HIV positive
  - Altered mental state
  - Patients requiring urgent medical intervention

Methods: Patient Testing Flow

Patient presents at GWU ED:

→ Triaged; determination of urgent/non-urgent care

- → Asked for self-reported HIV status
  - → Unknown HIV status or negatives offered confidential testing
  - → Patient accepted or declined
    - – Decliners received usual ED care
    - – Acceptors tested using OraQuick
      - » Preliminary result returned to patient
      - » Positives were referred for confirmatory testing
      - » GWU ID clinic or local free clinic

Methods: Data Collection

- September 2006-October 2007
- Data from medical intake records:
  - Age
  - Gender
  - Race/ethnicity
  - Medical insurance status
  - Zip code residence
  - Acceptance of test
  - Preliminary test result

Methods: Data Analysis

- Age categorized into quartiles
- Zip code converted into residence in tri-state area vs. outside area
- Chi-square test and logistic regression to assess univariate associations
- Statistical significance at $p \leq 0.05$
- Data analyses conducted using STATA 9.0se
- GWU IRB approval obtained to use de-identified data

Results: Demographics

Individuals approached for HIV screening N=8,662

Variable	% or mean
Male	44.3
Age, mean (SD)	37.1 (±13.0)
Race: White	37.9
Black	49.8
Hispanic	4.3
Asian	1.7
DC, VA, MD area residence	71.2
Insurance: private	51.9
public/none	17.5
HIV test acceptance	***4695 or 54.3%***

Results: Test Acceptance (1)

Variable	Accepted Test n (%)	Refused Test n (%)	p-value	Odds Ratio (95% CI)
Male	2051 (43.6)	1784 (45.1)	0.18	1.0
Female	2651 (56.4)	2176 (54.9)		1.06 (0.97, 1.15)
≤26 years old	1493 (31.8)	927 (23.5)	<0.001	1.0
27-36 years old	1177 (25.1)	923 (23.3)		**0.79 (0.70, 0.89)**
37-47 years old	1042 (22.2)	1051 (26.6)		**0.62 (0.55, 0.69)**
48-84 years old	985 (20.9)	1051 (26.6)		**0.58 (0.52, 0.66)**
White	1738 (37.0)	1534 (38.8)	<0.001	1.0
Black	2423 (51.6)	1886 (47.7)		**1.13 (1.03, 1.24)**
Hispanic	193 (4.1)	183 (4.6)		0.93 (0.75, 1.15)
Asian	63 (1.3)	86 (2.2)		**0.64 (0.46, 0.90)**
Other*	275 (5.9)	263 (6.7)		0.92 (0.77, 1.11)

*Other race is mixed race and American Indian/Native American

Results: Test Acceptance (2)

Variable	Accepted Test n (%)	Refused Test n (%)	p-value	Odds Ratio (95% CI)
Residence				
Outside DC, VA, MD	33 (7.2)	341 (8.6)	<0.001	1.0
DC, VA, MD	3487 (74.2)	2684 (67.8)		**1.31 (1.11, 1.53)**
Missing or unknown	876 (18.6)	935 (23.6)		0.94 (0.79, 1.12)
Insurance status				
Private	2465 (52.4)	2026 (51.2)	<0.001	1.0
Public	485 (10.3)	289 (7.3)		**1.38 (1.18, 1.61)**
None	417 (8.9)	330 (8.3)		1.03 (0.89, 1.21)
Missing or unknown	1335 (28.4)	1315 (33.2)		0.83 (0.76, 0.92)

Results: Preliminary Test Results

Variable	Prelim Positive n (%)	Negative Test n (%)	p-value
Overall (row %)	***49 (1.04)***	***4646 (98.96)***	
Male	35 (71.4)	2019 (43.5)	<0.001
Female	14 (28.6)	2627 (56.5)	
≤26 years old	11 (22.5)	1478 (31.9)	0.28
27-36 years old	16 (32.7)	1161 (25.0)	
37-47 years old	14 (28.6)	1030 (22.2)	
48-84 years old	9 (16.3)	972 (20.9)	
White	6 (12.2)	1728 (37.3)	<0.001
Black	41 (83.7)	2381 (51.4)	
Hispanic	1 (2.0)	192 (4.1)	
Asian	0 (0.0)	63 (1.4)	
Other	1 (2.0)	272 (5.9)	

Conclusion

- 54% accepted HIV testing in ED
- More likely to accept testing:
  - Younger individuals
  - Blacks (Asians less likely)
  - DC residents
  - Have public health insurance
- Preliminary positive: 1.04%
  - More likely to be male and black

Limitations and Strengths

- Testing offered limited times during the day
  - Offered at peak operation hours
- Limited data were available
  - Reasons for accepting/refusing test were not collected systematically
  - Incomplete data on confirmed HIV status

- Proof-of-concept was achieved
- Data from the only ED in the District offering routine HIV testing
- Large sample size, including patients from all socio-economic groups

Discussion

- Testing in ED was important component of the routine testing campaign in DC
  - Nearly 20% of tests were done at GWU ED
- Continue testing in ED per CDC recommendation (>0.1%)
- Testing in ED is feasible, but improvements to system need to be made
  - Need to increase test acceptance rate in ED
  - Need to improve linkage to confirmatory testing and HIV care after preliminary positive

Future Research

- Exploration of refusal to test
  - Reasons for not testing
  - Linkage with reported HIV risk behaviors
- Interventions to improve acceptance of HIV screening test
  - Randomized trial of video educational module in ED waiting area
- Formal cost-benefit study of offering HIV screening in ED
  - Increased length of stay, cost of test kits, HIV counselors salaries, and on-site confirmatory testing vs. anticipated benefit

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Questions?

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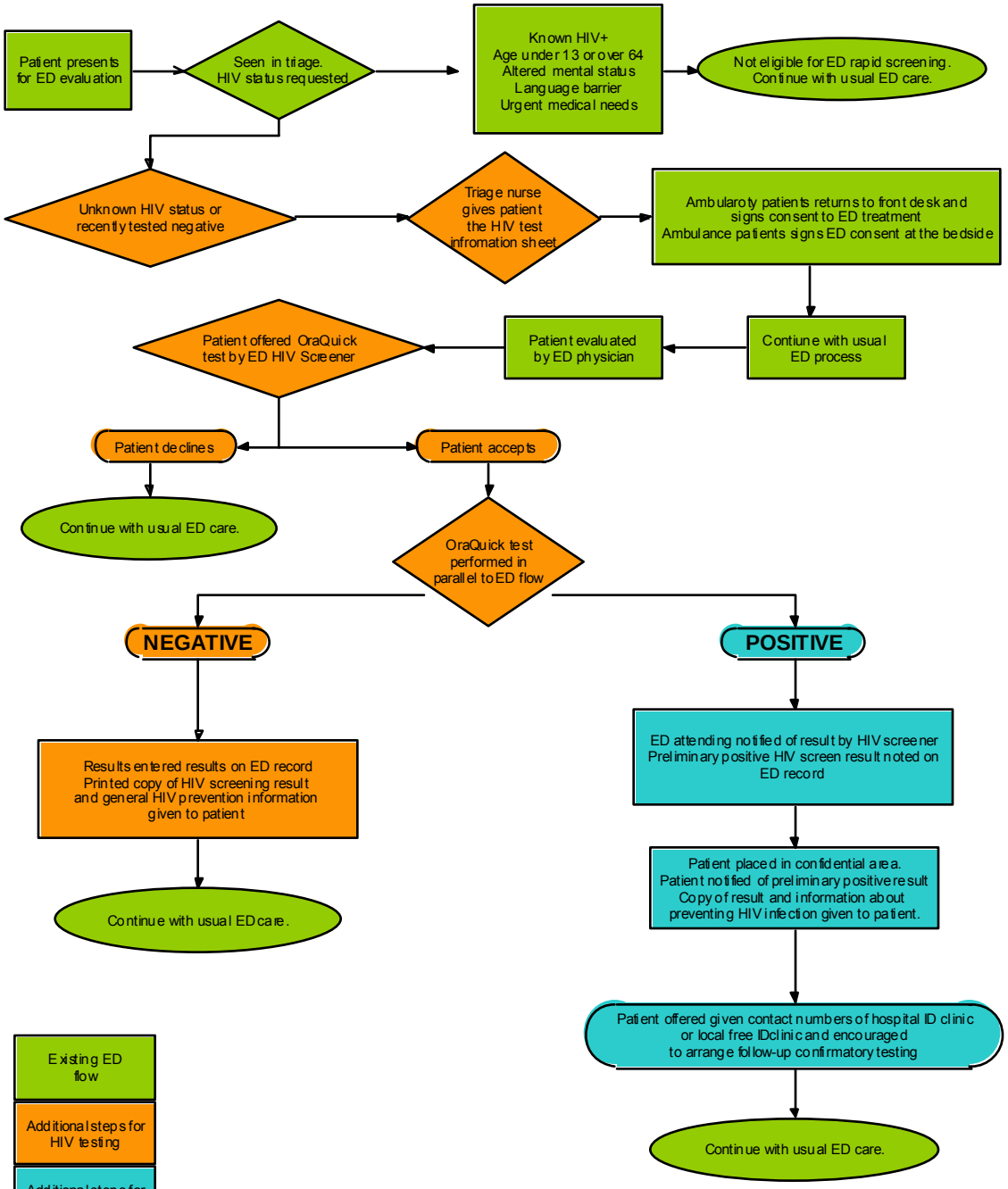

Algorithm of Procedures of Department Emergency Medicine for Routine opt-out HIV Screening