



# Missed Opportunities for HIV Testing in an Urban Academic Emergency Department



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## Introduction

- 2006 CDC guidelines for universal HIV testing, opt-out, non-targeted fashion<sup>1,2</sup>
- All patients, especially where prevalence is > 1% of the population<sup>1</sup>
- Less than 50% of academic EDs nationwide have programs for HIV testing<sup>1</sup>
- Patients not screened due to low perceived risk and lack of formal screening (i.e. missed opportunities for HIV testing)
- Seropositive population could be diagnosed earlier if HIV testing was more universally widespread<sup>1,3,4</sup>
- Earlier diagnosis of HIV is associated with decreased morbidity and mortality, and prevents population spread<sup>1</sup>

## Methods

- Patients > 18 visiting MedStar GUH ED June – August 2015, n=351
- Provided opt-out, oral HIV testing
- Offered 44-item electronic survey including healthcare engagement, HIV risk behaviors, attitudes/knowledge about HIV, previously validated survey items
- HIV risk calculated using Denver HIV Risk Score (DHRS)<sup>5</sup>
- Logistic regression to determine whether lack of healthcare engagement was associated with increased HIV risk

## Discussion

The DHRS categorization suggests that patients with an increased risk of HIV were less likely to have recent healthcare exposure. Patients who did not see a healthcare provider in the prior year (pOR 5.03; 95% CI 2.58-9.83) or who were uninsured (pOR 3.95; 95% CI 1.57-9.93) had a higher risk of HIV infection. Conversely, patients who had visited a primary care provider in the past year (pOR 0.24; 95% CI 0.13-0.45) a clinic or other health center (pOR 0.38; 95% CI 0.20 – 0.72), or an ED (pOR 0.48; 95% CI 0.25-0.90) were associated with having decreased odds of high HIV infection risk.

## Results

### Denver HIV Risk Score

Variables	Answers	Score
Age	< 22 or > 66	0
	22-25 or 55-60	+4
	26-32 or 47-54	+10
	33-46	+12
Gender	Female	0
	Male	+21
Race/Ethnicity	Black	+9
	Hispanic	+3
	White	0
	Other	0
Sexual Practices	Sex with a male	+22
Injection Drug Use	IDU History	+9
HIV Testing	Prior HIV test	-4

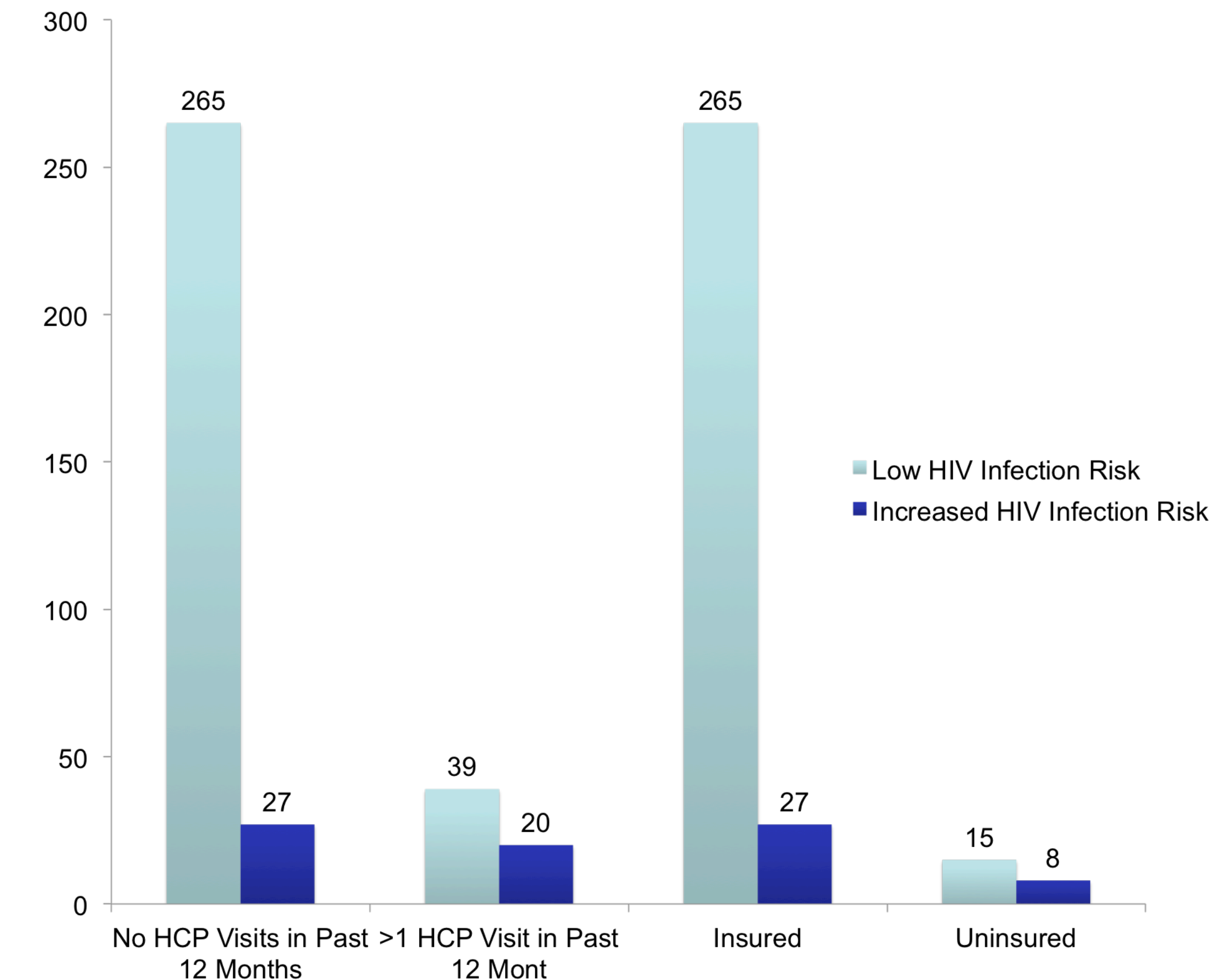
### Score Classification

0-40: Low Risk of HIV infection, n=304

≥40: Increased Risk of HIV infection, n=47

	Total N = 351 n (%)	High risk (HRS ≥40) N = 47 n (%)	Moderate to low risk (HRS <40) N = 304 n (%)	$\chi^2$	Crude pOR (95% CI) <sup>A</sup>	p-value
Currently have health insurance				9.71		
Yes	328 (93.5)	39 (83.0)	289 (95.1)		1.00	
No	23 (6.6)	8 (17.0)	15 (4.9)		3.95 (1.57 – 9.93)	0.0034
Seen a doctor, nurse or health care provider in the past 12 months				25.72		
Yes	292 (83.2)	27 (57.5)	265 (87.2)		1.00	
No	59 (16.8)	20 (42.6)	39 (12.8)		5.03 (2.58 – 9.83)	<0.0001
Visited a primary care provider in the past 12 months				21.94		
No	84 (23.9)	24 (51.1)	60 (19.7)		1.00	
Yes	267 (76.1)	23 (48.9)	244 (80.3)		0.24 (0.13 – 0.45)	<0.0001
Visited a clinic or healthcare center in the past 12 months				9.31		
No	145 (41.3)	29 (61.7)	116 (38.2)		1.00	
Yes	206 (58.7)	18 (38.3)	188 (61.8)		0.38 (0.20 – 0.72)	0.0029
Visited an emergency department in the past 12 months				5.48		
No	161 (45.9)	29 (61.7)	132 (43.4)		1.00	
Yes	190 (54.1)	18 (38.3)	172 (56.6)		0.48 (0.25 – 0.90)	0.0211

<sup>A</sup> Logistic regression of variables associated with a high HIV infection risk (HRS ≥ 40)



## Conclusions

Patients with an increased risk of HIV were less likely to have regular healthcare encounters and were more likely to be uninsured. Patients with increased risk of HIV may be more likely to have missed opportunities for HIV testing due to decreased healthcare engagement, and should be targeted for more prompt, frequent HIV screening beyond the general CDC recommendations. Insurance status may serve as a proxy variable for identifying this population in the ED.

## References

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