

## Introduction

- 1.1 million people currently living with HIV in the US with an estimated 14% who are unaware (US Dept Health & Human Services, 2020)
- HIV is an STI
- CDC (2006) and USPSTF (2013) have established guidelines for HIV screening in ED patients presenting with STI symptoms
- American College of Emergency Physicians (2014) supports these findings

## Background & Significance

- Who is affected:** High correlation between STI and HIV infections (Hashemi- Shahri et al., 2016; Taylor et al., 2015)
- Why should we care:** High prevalence of HIV in Hudson County (NJ Dept Health & Human Services, 2018)
- What we know:** Current practice ineffective- “missed opportunities” (Klein et al., 2014)

## Research Questions:

- What is the educational impact on providers knowledge and attitudes towards HIV?
- What is the educational impact on the number of HIV testing in the presence of another STI diagnosis in ED patients?

## Methodology

### Design:

- QI protocol with a retrospective and prospective data analysis at 6-weeks and 3-months intervals post implementation

### Sample:

- ED Providers

### Outcomes:

- Measurement of HIV tests ordered for each STI diagnosis made after the intervention utilizing a chart review
- Impact of the educational intervention on the knowledge and attitudes of the ED Providers utilizing pre and post questionnaires

## Results

- The results yielded statistical significance for the questionnaires with an averaged mean (M) and standard deviation (SD) for the pretest scored M=8.92, SD=1.26 and for the posttest scored M=7.75, SD=1.16 ( $p < .05$ ).
- On the ordering HIV tests, the order rate increased to 3.7 % at 6 weeks and 3.2% at 3 months from a 1.4% at baseline ( $p < .05$ ).
- The providers reported barriers to testing for HIV such as time, patient flow and congestion, patient refusal and blood versus oral swabs.

## Discussion

Results displayed statistical significance

- Increased testing post intervention
- Positive impact on provider knowledge and attitudes

Findings consistent with previous literature

- Missed opportunities (Klein et al., 2014)
- Providers’ knowledge and attitudes (Bares et al., 2016; Hansoti et al., 2017; Martinez Sanz et al., 2019)
- Barriers to performing HIV testing (Arbelaez et al., 2012; Bares et al., 2016; Hansoti et al., 2017)
- Re-education possibly needed

## Implications

- Early diagnosis can have an influence on the mitigation of transmission rates and potentially driving future costs down
- Practice guidelines ensure a public safety standard and quality care

## References

- American College of Emergency Physicians. (2014). Policy Statement: HIV Testing and Screening in the Emergency Department. <https://www.acep.org/globalassets/new-pdfs/policy-statements/hiv-testing-and-screening-in-the-emergency-department.pdf>
- Arbelaez, C., Wright, E., Losina, E., Millen, J., Kimmel, S., Dooley, M., Reichmann, W., Mikulinsky, R., & Walensky, R. (2012). Emergency Provider Attitudes and Barriers to Universal HIV Testing in the ED. *Journal of Emergency Medicine*, 42(1), 7-14. Doi: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2889192/pdf/nihms152931.pdf/?tool=EBI>
- Bares, S., Steinbeck, J., Bence, L., Kordik, A., Acree, M., Jih, J., Farnan, J., Watson, S., Rasinski, K., Schneider, J., & Pitrak, D. (2016). Knowledge, Attitudes, and Ordering Patterns for Routine HIV Screening among Resident Physicians at an Urban Medical Center. *Journal of the International Association of Providers of AIDS Care*, 15(4), 320-327

## References

- Branson, B., Handsfield, H., Lampe, M., Janssen, R., Taylor, A., Lyss, S. & Clark, J. (2006). Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings (MMWR, 55 [RR-14]: 1-17). Center for Disease Control and Prevention.
- Hansoti, B., Hill, S. E., Whalen, M., Stead, D., Parrish, A., Rothman, R., Hsieh, Y. H., & Quinn, T. C. (2017). Patient and provider attitudes to Emergency Department- based HIV counselling and testing in South Africa. *South African Journal of HIV Medicine*, 18(1), 707. Doi: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5843014/>
- Hashemi- Shahri, S., Sharifi-Mood, B., Kouhpayeh, H., Moazen, J., Farrokhan, M., & Salehi, M. (2016). Sexually Transmitted Infections Among Hospitalized Patients With Human Immunodeficiency Virus Infection and Acquired Immune Deficiency Syndrome (HIV/AIDS) in Zahedan, Southeastern Iran. *International Journal of High-Risk Behaviors and Addiction*, 5(3). doi: [10.5812/ijhrba.28028](https://doi.org/10.5812/ijhrba.28028)
- Klein, P., Martin, I., Quinlivan, E., Gay, C. & Leone, P. (2014). Missed Opportunities for Concurrent HIV-STD Testing in an Academic Emergency Department. *Public Health Reports*, 129(Suppl 1), 12–20. [https://doi: 10.1177/00333549141291S103](https://doi.org/10.1177/00333549141291S103)
- NJ Department of Health and Human Services. (2018). County and Municipal HIV/AIDS Statistics, 2018. <https://www.state.nj.us/health/hivstdtb/hiv-aids/statmap.shtml>
- Taylor, M., Newman, D., Gonzalez, J., Skinner, J., Khurana, R., & Mickey, T. (2015). HIV Status and Viral Loads Among Men Testing Positive for Rectal Gonorrhea and Chlamydia, Maricopa County, Arizona, USA, 2011-2013. *HIV Medicine*, 16, 249-254 doi:10.1111/hiv.12192
- U.S. Department of Health and Human Services. (2020). HIV Basics: Overview: Data & Trends: U.S. Statistics. <https://www.hiv.gov/hiv-basics/overview/data-and-trends/statistics>
- U.S. Preventive Services Task Force. (2013). Final Recommendation Statement: Human Immunodeficiency Virus (HIV) Infection: Screening. U.S. Preventive Services. <https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/human-immunodeficiency-virus-hiv-infection-screening#consider>

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