

# A Quality Improvement Project: Increasing Universal Human Immunodeficiency Virus Screening in Primary Care

Sheena T. Estifanos, MSN, RCP, APRN, FNP-C

Dr. Eric Roberts, DNP, APRN, FNP-BC, ENP-BC, Dr. Audrey Klopp, PhD, RN, NHA, Dr. Eric Naifeh D.C, MSN, APRN, FNP-C, PMHNP-BC

Loyola University of Chicago Marcella Niehoff School of Nursing

## Scope of Problem

- There are an estimated 1.2 million persons diagnosed with HIV and an estimated 162,000 unknowingly living with HIV in the United States.
- More than one-third of the population infected with HIV live in a southern state. Southern states region accounts for more than one-half of all HIV diagnosis in the United States.
- It cost approximately \$237 for a HIV test for the uninsured versus \$397,173 for lifetime cost of new HIV diagnosis.
- Patients are seen in a health system 4-5 times within 3 years of being diagnosed with HIV.

## Purpose/Objectives

- For providers and patients in primary care at Superior Healthcare Centre, does implementing an electronic medical record alert and providing education increase universal human immunodeficiency virus screening in patients 13-64 years old, compared to current practice of risk targeted assessment screening?

Objectives:

- Increase universal HIV screening in patients between the ages of 13-64 per the CDC, by implementing an EMR alert.
- Examine relationships between the patients' demographics and acceptance or refusal of testing.

## Evidence-Based Initiative

- Studies have shown that increasing universal HIV screening in primary care can provide patients with an early diagnosis, linkage to care to provide early treatment, reduce transmission, and reduce mortality.
- Using an electronic medical record alert to remind providers increases screening rates.
- Increased screening was reported with patient and provider education.

### Theoretical Framework:

Plan, Do, Study, Act (PDSA)



## Methods

- Staff at Superior Healthcare Centre were provided education on the following:
  - The importance of the CDC and USPSTF recommendations on HIV screening.
  - Who meets criteria to be screened.
  - The location of the HIV alert
  - Who receives an HIV educational pamphlet
  - Every qualifying patient receives a patient HIV survey to fill-out.
  - Follow-up process and patient referral if HIV positive.
- Patients between the ages of 13-64 are universally screened for HIV; with verbal consent.
- The provider will utilize the Quality section in the EMR to locate the HIV alert and order the HIV-1/HIV-2 AB/AG PCR test.
- The patient will receive a HIV educational pamphlet
- At discharge, the patient will autonomously fill out the HIV patient survey.
- Chart audits are conducted 1-2 times weekly.
- Re-Education provided on an as needed basis.
- Project Timeline:
  - January 2021: project started; January-April data collection.
  - Results to be disseminated in July 2021.

## Evaluation

- Pre/Post EMR data collection: comparison of screening before and after alert and to measure HIV status.
- Measure the patients' decision to be screened for HIV based on their demographics using the patient HIV survey.
- Data Analysis: T-Test and Chi square will be used.

## Practice Implications

- Increase patient HIV status awareness.
- Provide early diagnosis so that early treatment can be provided.
- Decrease transmission rates
- Decrease mortality and morbidity
- Decrease healthcare cost
- Practice improvement for APRNs and Mas as interventions are evidenced-based.
- Compliance with the CDC and USPSTF recommendations.

## References

- Anim, M., Markert, R. J., Okoye, N. E., & Sabbagh, W. (2013). HIV Screening of Patients Presenting for Routine Medical Care in a Primary Care Setting. *Journal of Primary Care & Community Health* 4(1) 28-30.
- Centers for Disease Control and Prevention. (2020). *Statistics Overview*. <https://www.cdc.gov/hiv/statistics/overview/index.html>
- Centers for Disease Control and Prevention. (n.d). HIV Screening Patient brochure.
- Harmon, J. L. (2014). HIV Testing survey.
- Harmon, J. L., Collins-Ogle, M., Bartlett, J. A., Thompson, J., & Barroso, J. (2014). Integrating Routine HIV Screening into a Primary Care Setting in Rural North Carolina. *Journal of the Association of Nurses in AIDS Care*, 25 70-82.
- HIV/ STD Epidemiology and Surveillance Branch. (2019). Texas HIV Surveillance Report 2018 Annual Report. *Texas Health and Human Services*
- Kershaw, C., Taylor, J. L., Horowitz, G., Brockmeyer, D., Libman, H., Kriegel, G., & Ngo, L. (2018). Use of an electronic medical record reminder improves HIV screening. *BMC Health Services Research* 18:14
- Liggett, A., Futterman, D., Umanski, G. I., & Selwyn, P. A. (2016). Missing the mark: ongoing missed opportunities for HIV diagnosis at an urban medical center despite universal screening recommendations. *Family Practice*, 33(6), 644-648.
- HIV/ STD Epidemiology and Surveillance Branch. (2019). Texas HIV Surveillance Report 2018 Annual Report. *Texas Health and Human Services*.
- US Preventive Services Task Force (2017). *Human Immunodeficiency Virus (HIV) Infection: Screening*

## Results

- Project ongoing.
- Data collection underway.
- 1/2019-09/2020
  - 770 patients seen, 14,568 encounters, 15 patients tested for HIV.
- 12/2020-01-2021
  - 100% of staff completed education.