

## Introduction

- Pre-exposure prophylaxis (PrEP) is a two-drug combination of antiretroviral medications that are prescribed to patients without HIV but at risk of infection (Silapaswan, Krakower, & Mayer, 2017).
- The FDA identified PrEP as a safe and effective HIV preventative measure in 2012; however, a minority of those eligible receives PrEP (Silapaswan, Krakower, & Mayer, 2017).
- In the project, the DNP student worked with Newark-based primary care clinic staff to implement the PrEP protocol described by evidence-based guidelines.

## Background/Significance

- PrEP decreases a person's chances of contracting HIV by more than 92%
- PrEP is a crucial intervention in the Ending the HIV Epidemic Initiative; however, implementation has been slow in communities affected by HIV (Chan, Seiler, & Chu, 2020).
- Main barrier in prescribing PrEP in primary care settings is a lack of training in implementation protocols and guidelines (Calabrese et al, 2016).
- The World Health Organization (2018), CDC (2017), and Pacific AIDS Education and Training Center (2018) guideline recommendations for PrEP implementation
  - HIV Screening, provider discusses PrEP offering, patient eligibility, offer PrEP, promoting adherence through follow up and clinical monitoring, and identifying acceptable reasons to stop PrEP.

## Aims

- Increase HIV prevention services in one month by initiating a standardized PrEP implementation protocol.
- Improve staff screening of patients who qualify for PrEP and provide a PrEP cascade, per CDC guidelines, for implementing PrEP after identifying at-risk patients.
- Promote provider ability to identify, manage, and counsel patients by providing a standardized protocol on implementing PrEP.

## Methods

**Design:** Mixed-method design to assess quantitative/qualitative data

**Setting:** Integrated behavioral health in a primary care setting located in an urban city within Essex County

### Sample

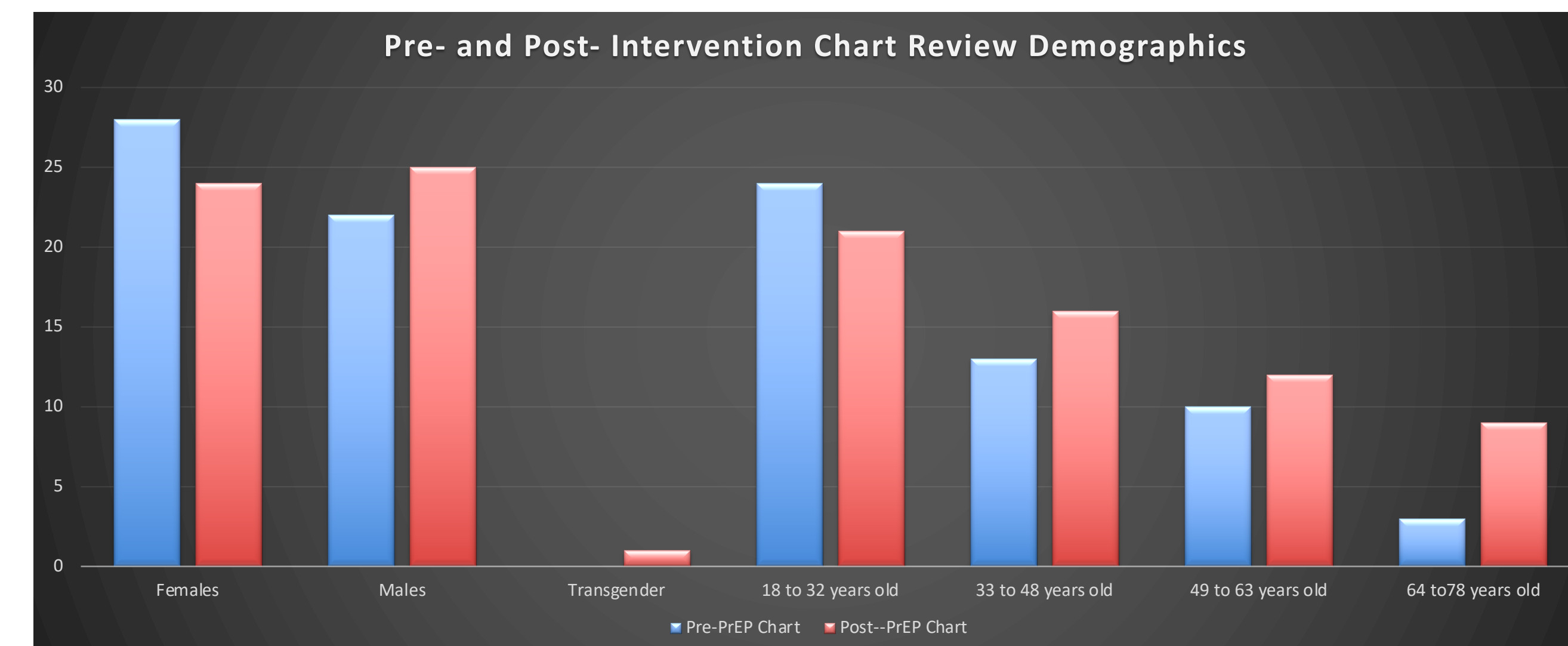
- **Chart review:** 50 Charts: 18 years or older who presented at the clinic one month before and one month after initiating the protocol without an existing HIV/AIDS diagnosis
- **Interviews:** Convenience sampling of the providers at the integrated behavioral health service in the primary care clinic

### Measures & Analysis

- **Chart review:** Descriptive statistics and paired statistical tests compared the data for the two sets of outcomes
  - Number of PrEP prescriptions written
  - HIV risk factors: Sexual orientation, HIV positive sexual partners, recent bacterial STI, number of sexual partners, a history of inconsistent condom use, commercial sex work, IV drug use, sharing injection equipment, and HIV positive injection partner
- **Structured Phone interview:** Measured providers' perspectives regarding implementation of the protocol in everyday practice though using the grounded theory approach

## Results

### Chart Review

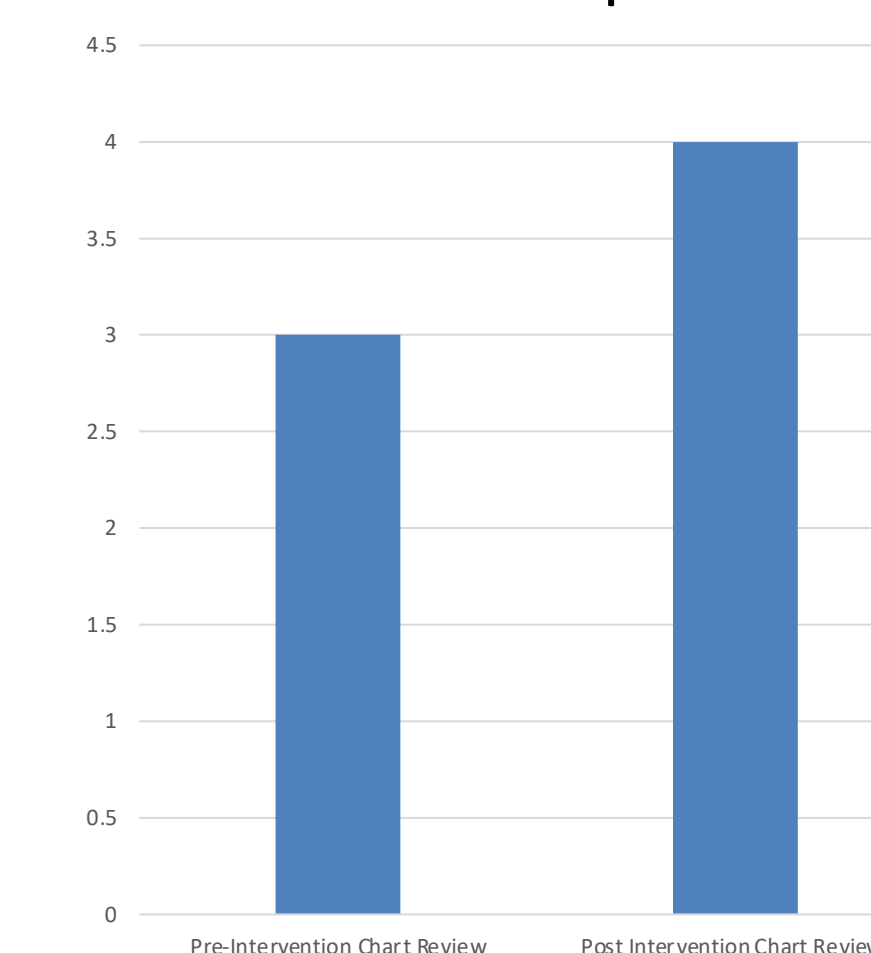


- **Non-Parametric Statistics:** McNemar test was used to determine the difference in the number of charts that included the HIV risk behaviors assessment between the pre- and post-intervention periods
  - **Conclusion:** No evidence of significant increase in screening
- Summary score for the overall number of HIV risk behaviors assessed was create and used a Wilcoxon signed-rank test
  - **Conclusion:** Overall number of HIV risk behaviors increased by 11% in the Post-PrEP period, but increase was not statistically significant,  $Z = -1.25$ ,  $p = .211$
- **PrEP Prescriptions:** After the introduction of the PrEP implementation protocol there was an 33% increase in PrEP prescriptions

### Assessment of HIV Behavioral Risk Factors

Outcome Measure	Number of Charts with Measure Assessed		p-value
	Pre	Post	
Sexual Orientation	33	37	$p = .503$
Bacterial STIs	12	14	$p = .791$
Number of Sexual Partners	15	20	$p = .405$
Condom Use	21	19	$p = .845$
IV Drug Use	38	44	$p = .238$
HIV High Risk Behaviors	38	41	$p = .629$

### PrEP Prescriptions



## Structured Phone interview

- Effectiveness of Education Module: "Effective," "comprehensive," and "detailed"
- HIV Risk Screening: Policy served as a reminder for HIV screening daily practice
- Determining Patient Eligibility for PrEP: Broadened their view of candidates for PrEP
- Offering PrEP: Encourage more providers to offer PrEP
- Promoting Adherence Through Follow-up: Policy was effective in organizing the process of PrEP follow-up
- Continued Follow-up barriers: Patient ambivalence about taking PrEP, "lifestyle changes," and high no show rates
- Barriers in Patient's Access to PrEP: Lack in provider familiarity and confidence to prescribe PrEP, Insurance coverage, deficit in providers time, building trust
- Suggested Improvements to Policy: HIV testing, involvement of nurses in follow-up care, and case-management element
- Strengths of Policy: Easy adaptability and inclusion of psychosocial elements

## Discussion

- The objective of creating a standard PrEP implementation protocol was achieved
  - Project goal of increasing PrEP prescriptions by 25% was achieved, but the goal to increase the assessed HIV risk behaviors by 25% was not met
  - The chart review did not provide statistically significant results, but the results identified the need for future research and interventions in this field
  - The interviews assessed the PrEP training's effectiveness, but only half of the clinic providers agreed to participate in the interviews
- The clinic no longer includes the behavioral health component and incorporated a primary care model during the implementation process
  - No changes made to the project protocol or objectives

## Implications/Recommendations

- **Clinical Practice:** Even when a standardized policy is in place a clinic still faces implementation barriers such as: (1) providers' lack confidence in PrEP prescription, (2) failure to integrate the full team in care, (3) concerns about PrEP follow-up care
- **Healthcare Policy:** Identify policies effecting PrEP implementation
  - Address the state-level social policies that affect how PrEP is implemented and viewed
- **Quality & Safety:** Future research indicated in PrEP telehealth and Develop and validate highly accurate risk assessment tools for identifying people at high risk of HIV
- **Education:** Continuous education recommended for providers, clinical staff, and students on HIV prevention practices
- **Economic:** Case management telehealth to address economic concerns with follow-up.
  - Advocate for future policies and laws reducing the medication cost of PrEP

## Summary

- The DNP student will use the project's findings to re-design the protocol and educational module to build on a potentially successful model that could increase access to HIV preventative care in a high-risk community.

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