

Reducing the HIV Burden: The PATH for Triples Intervention (PFT)

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Significance

Serious Mental Illness (SMI) and Substance Abuse (SA) is a high risk profile for HIV/AIDS

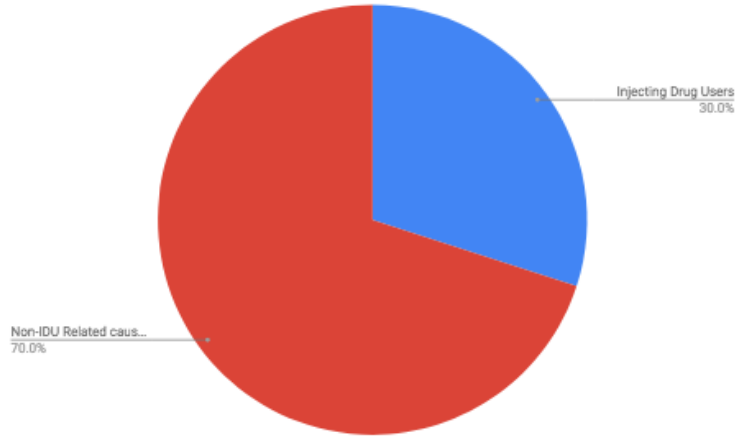
HIV Risk	
SMI Patients	5.2-22.9%
General Population	0.3-0.4%

High-risk behaviors reported as characteristic of people with SMI:

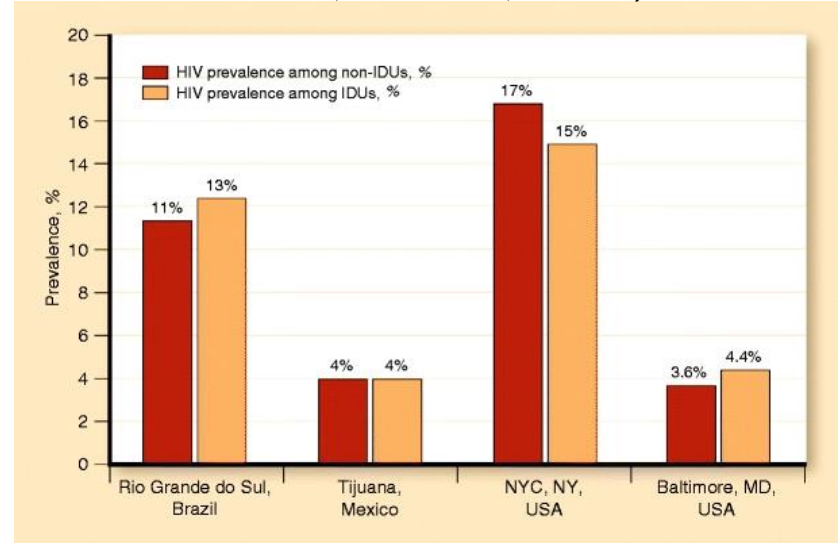
- injection drug use
- sexual activity with multiple partners/high-risk partners
- infrequent condom use
- high rates of sexually transmitted diseases (STDs)
- trading sex for material gain
- engaging in sex while using psychoactive substances

Serious Mental Illness (SMI) and Substance Abuse (SA) is a high risk profile for HIV/AIDS

Dually, those with SMI are more likely to use injection drugs



54% of substance users (non-alcohol) are likely to have a SMI



Bridget F. Grant, Comorbidity between DSM-IV drug use disorders and major depression: Results of a national survey of adults, *Journal of Substance Abuse*, Volume 7, Issue 4, 1995, Pages 481-497, ISSN 0899-3289

Regier DA, Farmer ME, Rae DS, et al. Comorbidity of Mental Disorders With Alcohol and Other Drug Abuse Results From the Epidemiologic Catchment Area (ECA) Study. *JAMA*. 1990;264(19):2511-2518.

Steffanie A. Strathdee et al., *Epidemiology of HIV Among Injecting and Non-injecting Drug Users: Current Trends and Implications for Interventions*, [Curr HIV/AIDS Rep](#). 2010 May; 7(2): 99-106.

Screening for HIV in inpatient services is not standard practice

Only 9.4% of general hospital psychiatric departments conduct HIV testing.

Testing is related to:

- Lower educational attainment
- Higher HIV risk behavior
- Greater social support
- Homelessness
- Nonpsychotic disorder
- Borderline personality disorder
- Greater treatment utilization

Desai and Rosenheck Study

SMI Patients Tested	38%
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88.8% returned to receive test results

Triple diagnosis reduces likelihood of medication adherence and viral load suppression

Odds Ratio for HAART Adherence and Viral Load Suppression				
Characteristic	HAART Receipt Odds Ratio	p-value	Viral Load Suppression Odds Ratio	p-value
SMI + SA	0.63	<0.01	0.66	<0.01
SA	0.75	<0.01	0.77	<0.01
SMI	0.93	0.35	0.93	0.24
Neither	1		1	

PATH for Triples Project Overview

Aims

1) *Treatment Adherence*

To test the effectiveness of the PFT Intervention to improve adherence to HIV and mental health treatment regimen and reduce viral loads and improve CD4 counts during the study period.

2) *Cost-effectiveness*

To examine the cost-effectiveness of the PFT intervention using the perspective of the payor

3) *Psychosocial Adjustment*

To demonstrate improvements in HIV knowledge, attitudes and risk behaviors, as well as mental health status and psychological outcomes.

Snapshot

12- month efficacy study that aims to evaluate the potential of **nurse health navigators** and **individualized care** to promote **medication adherence** and **viral load adherence** among **patients triply diagnosed** with HIV/AIDS, serious mental illness, and substance abuse.

Methods

Who?

Individuals diagnosed with HIV/AIDS, mental illness (MI), and substance abuse/addiction (SA) who have at some point participated in inpatient or intensive outpatient treatment for MI and/or SA.

Target N=130; currently enrolled=122

Exclusionary Criteria: HIV -; Persons unable to provide informed consent; inability to speak English; will not provide locator information

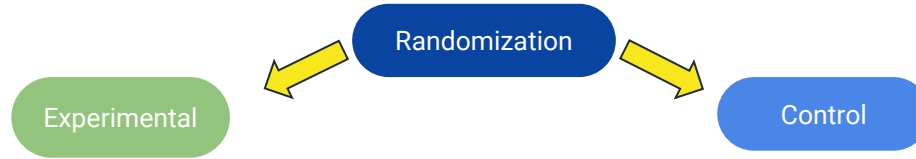
Where?

Originally* 'Wright 4' of Presbyterian Hospital in Philadelphia *and* '4 Spruce' of Pennsylvania Hospital



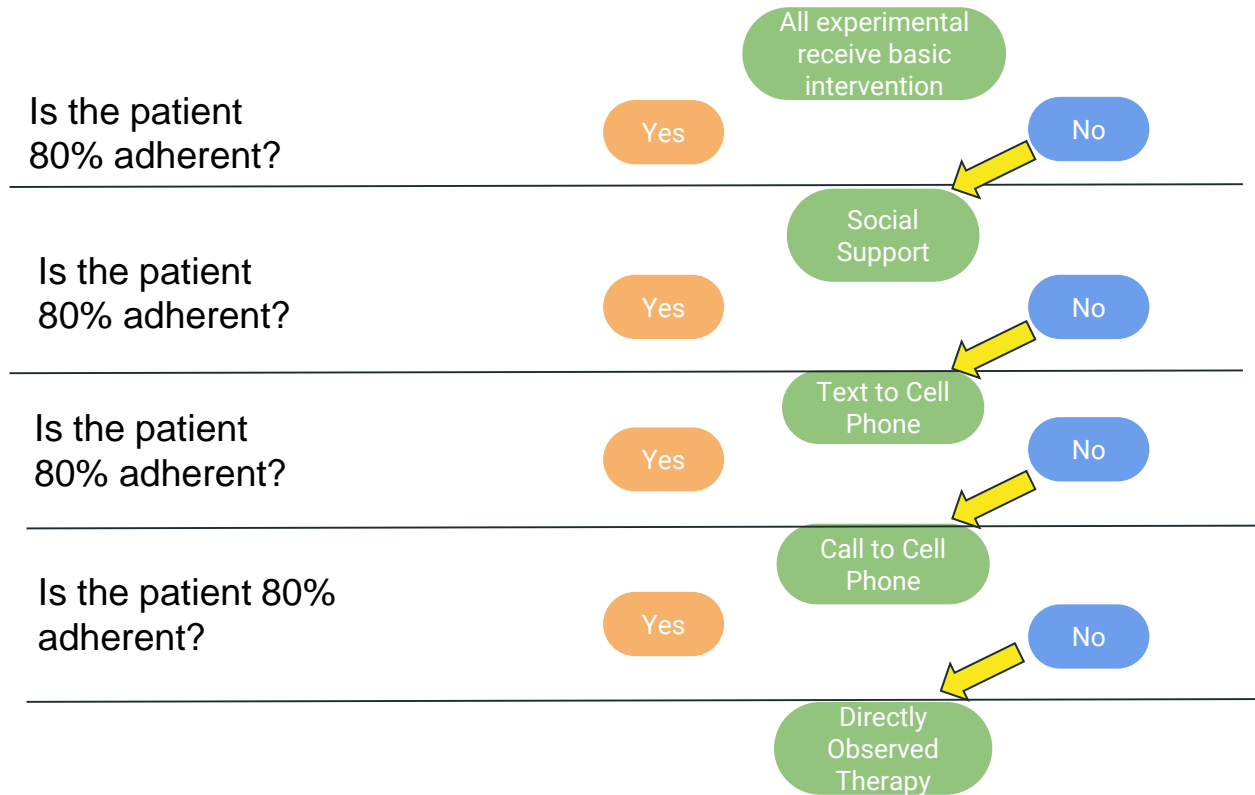
*Recruitment sites were expanded to intensive outpatient units due to low enrollment

Treatment Overview



- **In person baseline, 3-month, 6-month, and 9-month follow-ups for blood draw and psychosocial functions survey**
 - **Nurse health navigator for psychoeducation and drug regimen support**
 - **Intervention cascade for individual based care**
- **In person baseline, 3-month, 6-month, and 9-month follow-ups for blood draw and psychosocial functions survey**

Path for Triples Intervention Cascade



Results

Average Age	
42.6	
Gender (%)	
Male	56
Female	41
Transgender (M to F)	3

Race (%)	
African American	76
Caucasian	18
Asian	3
Multiple races	3

Type of drug used in last 30 days (%)	
Alcohol	73
Cocaine	64
Cannabis	29
Opioids	16

Psychiatric Disorder (%)	
Depression	64
Schizophrenia	21
Bipolar disorder	13
Anxiety	11
Psychotic disorder NOS	10
PTSD	10

Coviello, D.M., Lovato, R., Apostol, K. et al. Prevalence of HIV Viral Load Suppression Among Psychiatric Inpatients with Comorbid Substance Use Disorders, *Community Ment Health J* (2018).

Results: Viral Load Suppression

Univariate Analysis		
<i>Variable</i>	<i>Suppression (%)</i>	<i>p-value</i>
Opiate use in past 30 days	6	.038
Psychotic Disorder (NOS)	3	.099

Logistic Regression		
<i>Variable</i>	<i>Odds ratio</i>	<i>p-value</i>
Opiate use in past 30 days	6.0	.038

My Role

Pre-screening patients

Called referred patients and screened them for our study

Responded to patient queries

Data management

Entered and verified data of patient surveys and biomarkers

Follow-up Interviews

Partially conducted psychosocial function surveys

Lessons Learned

Value and importance of patient privacy

Flexibility of bedside manner

Complexity of co-morbidities and their impact on health

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Questions?