

# ROUTINE UNIVERSAL SCREENING FOR HIV (RUSH) PROGRAM

Evidence-Informed for Engagement in HIV Care

Evidence-Informed for Retention in HIV Care

Evidence-Informed for Viral Suppression

Evidence-Informed Structural Intervention

## INTERVENTION DESCRIPTION

### Goal of Intervention

- Improve engagement in HIV care
- Improve retention in HIV care

### Target Population

- Previously-diagnosed HIV patients

### Brief Description

The *Routine Universal Screening for HIV (RUSH)* program provides non-medical case management services, opt-out HIV testing and linkage to care for emergency department (ED) patients. The program entails automatically adding an HIV screening for any patient aged 16 years or older, having an IV inserted, or having blood drawn for other reasons, unless the patient opts out. Service linkage workers (SLWs) work closely with physicians to deliver HIV test results to patients and provide linkage to HIV medical care and social services. SLWs attempt to contact all ED patients who test positive for HIV, regardless of whether the SLW believes the patient is newly diagnosed or was previously diagnosed with HIV infection. Linkage services are tailored to the patient's needs, but most often include posttest counseling, transportation assistance, appointment scheduling, and help with applications for medical care, Ryan White assistance, and HIV drug assistance. SLWs retain a patient in their caseload until the patient is linked or relinked to care. After completion of an outpatient visit with a provider with antiretroviral prescribing privileges, a patient is transferred to a SLW based at an HIV clinic.

### Theoretical Basis

- None reported

### Intervention Duration

- Ongoing until patient has successfully completed a medical appointment at an HIV clinic

### Intervention Setting

- Publicly funded emergency departments in two hospitals

### Deliverer

- Service linkage workers

### Delivery Methods

- Case management
- HIV testing
- Linking to HIV care

### Structural Components

- Access
  - Increased access to HIV testing and linkage to HIV care
- Policy/Procedure—Institutional policy/procedure
  - Implemented routine universal HIV testing, linkage to HIV care, and case management services in hospital emergency departments

## INTERVENTION PACKAGE INFORMATION

**An intervention package is not available at this time.** For intervention materials, please contact **Siavash Pasalar**, Harris Health System, Thomas Street Health Center, 2015 Thomas Street, Houston, Texas 77009.

**Email:** [siavash.pasalar@harrishealth.org](mailto:siavash.pasalar@harrishealth.org) for details on intervention materials.

## EVALUATION STUDY AND RESULTS

### Study Location Information

The original evaluation was conducted in Houston, Texas between 2008 and 2012.

### Key Intervention Effects

- Increased engagement in HIV care
- Increased retention in HIV care
- Increased viral suppression

### Recruitment Settings

HIV test results and medical records from the RUSH testing program at two general hospital emergency rooms were evaluated. Test records and results were extracted from electronic laboratory databases.

### Eligibility Criteria

Persons who were previously diagnosed with HIV who had an ED visit at either hospital between 2009 and 2012 and a positive HIV test result at the visit. The cohort was restricted to persons with an original date of diagnosis that was at least 1 year before the ED visit.

### Study Sample

Study participants in the intervention cohort (n = 2,068) had the following characteristics:

- 68% black or African American, 17% Hispanic/Latino, 13% white, 2% other
- 65% male, 35% female
- 4% 16-24 years old, 19% 25-34 years old, 32% 35-44 years old, 32% 45-54 years old, 13% over 55 years old

### Comparison

The 1,396 patients who were diagnosed previously and had an ED visit between 2009 and 2012 (post-RUSH) were compared on outcomes for a 12-month period to 672 patients who were diagnosed previously and had an ED visit between 2004 and 2007 (pre-RUSH) when there were no HIV testing recommendations; tests were ordered at discretion of the provider; no embedded SLWs; and passive referral for linkage to HIV care.

Demographic data for the study cohort (n=1396) are not available; however, demographic data for the total study cohort (n=2068) and the comparison cohort (n=672) which is a subset of the total study cohort, were similar.

### Relevant Outcomes Measured

- Engagement in HIV care was measured as having completed an HIV primary care visit at any point in a 6-month period.
- Retention in HIV care was measured as having completed 2 HIV primary care visits in a 12-month period, with the 2 visits being at least 3 months apart.
- Viral suppression was measured as having an HIV viral load below 200 copies per milliliter at any point in a 12-month period.

### Participant Retention

Because participant retention is not a criterion for the Linkage to, Retention in and Re-engagement in HIV Care (LRC) chapter, the PRS project does not evaluate that information.

### Significant Findings on Relevant Outcomes

- A significantly greater improvement in the proportion of intervention cohort (post-RUSH) patients completed a HIV primary care visit within 6 months before and after a given ED visit compared to historical cohort (pre-RUSH) patients ( $p < 0.017$ ).
  - During the RUSH era, the percentage of intervention study participants completing a HIV medical visit within 6 months increased from 41.3% pre-ED visit to 58.8% post-ED visit (adjusted OR = 3.74, 95% CI: 3.09-4.53,  $p < 0.001$ ).
    - Significant positive intervention effects were also seen in the following intervention subgroups: females; males; black or African American; Hispanic or Latino; white; 16-24 year olds; 25-34 year olds; 35-44 year olds; 45-54 year olds; persons 55 years old and older; patients with a clinic visit in 2009, 2010, 2011, 2012; patients diagnosed with HIV 1-5 years ago, 6-10 years ago, 11-15 years ago, 16-20 years ago and 21 years or more.
- A significantly greater improvement in the proportion of intervention cohort (post-RUSH) patients were retained in care compared to historical cohort (pre-RUSH) patients ( $p < 0.01$ ).
  - During the RUSH era, retention in care increased in intervention study participants from 32.6% pre-ED visit to 47.1% post-ED visit (adjusted OR = 2.75, 95% CI: 2.31-3.28,  $p < 0.001$ ).
    - Significant positive intervention effects were also seen in the following intervention subgroups: females; males; black or African American; Hispanic or Latino; white; 16-24 year olds; 25-34 year

olds; 35-44 year olds; 45-54 year olds; patients with a clinic visit in 2009, 2010, 2011, 2012; patients diagnosed with HIV 1-5 years ago, 6-10 years ago, and 11-15 years ago.

- A significantly greater improvement in the proportion of intervention cohort (post-RUSH) patients achieved viral suppression compared to historical cohort (pre-RUSH) patients ( $p < 0.001$ ).
  - During the RUSH era, viral suppression increased in intervention participants from 22.8% pre-visit to 34.0% post-visit (adjusted OR = 2.61, 95% CI: 2.15-3.16,  $p < 0.001$ ).\*
    - Significant positive intervention effects were also seen in the following intervention subgroups: females; males; black or African American; Hispanic or Latino; white; 16-24 year olds; 25-34 year olds; 35-44 year olds; 45-54 year olds; patients with a clinic visit in 2009, 2010, 2011, 2012; patients diagnosed with HIV 1-5 years ago, 6-10 years ago, and 11-15 years ago.

\*Intention to treat analysis

### **Strengths**

- Baseline characteristics for the intervention and historical cohorts were similar.
- Sample size was greater than 100.
- The retention in care outcome and follow-up assessment occurred at 12 months.

### **Considerations**

*Non-significant findings on relevant outcomes*

- None reported

*Other related findings*

- This intervention is also determined to be evidence-informed for the Structural Interventions (SI) Chapter

*Implementation research-related findings*

- None reported

*Process/study execution-related findings*

- None reported

*Adverse events*

- None reported

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## REFERENCES AND CONTACT INFORMATION

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