



ROUTINE UNIVERSAL SCREENING FOR HIV INTERVENTION



Center for
Innovation and
Engagement



Background

The Health Resources and Services Administration's (HRSA's) Ryan White HIV/AIDS Program (RWHAP) provides a comprehensive system of HIV primary medical care, essential support services, and medications for low-income people with HIV who are uninsured and underserved. The RWHAP funds grants to states, cities, counties, and local community-based organizations to provide care and treatment services to people with HIV to improve health outcomes and reduce HIV transmission among hard-to-reach populations.

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Stock photos. Posed by models.

Intervention Snapshot

	<p>Priority Population</p>	<p>People 16 and older who are in an Emergency Department (ED) or other clinical setting and have an intravenous line inserted and/or have blood drawn</p>
	<p>Setting</p>	<p>Emergency Department and ambulatory clinic settings</p>
	<p>Pilot and Trial Sites</p>	<p>Ben Taub Hospital and Lyndon B. Johnson Hospital in Houston, TX</p>
	<p>Model</p>	<p>The intervention allows EDs and other clinical settings to embed routine opt-out HIV testing into their existing care services to address retention-in-care gaps. By leveraging an organization's existing staff infrastructure and dedicating staff to facilitating client linkage to care, organizations can identify and retain people with HIV who are unaware of their status or have fallen out of care.</p>
	<p>RWHAP Ending the Epidemic (EHE) Opportunity</p>	<p>RUSH offers a low-cost, low-burden approach to improve retention in care as well as viral suppression in people with HIV. Outcomes from the original RUSH intervention include an increase in client retention in care from 32.6 percent pre-intervention to 47.1 percent post-intervention and an increase in the viral suppression rate from 22.8 percent pre-intervention to 34 percent post-intervention.</p>
	<p>Intervention Funding</p>	<p>Ryan White HIV/AIDS Program (RWHAP) funding for support activities related to service linkage, core medical services, and supportive services. CDC funds may also be used for testing costs.</p>
	<p>Staffing</p>	<p>Staff positions in the original intervention included a Service Linkage Worker (SLW) and Administrative Coordinator.</p>
	<p>Infrastructure Needed</p>	<p>Connections with supportive services (e.g., housing) to facilitate client referrals In-house laboratory with the capacity to process additional samples Dedicated linkage workers A communication network accessible to care continuum staff</p>



Intervention Overview & Replication Tips

Why This Intervention?



When implemented in the emergency department (ED) and ambulatory clinic settings, the Routine Universal Screening for HIV (RUSH) intervention resulted in significantly improved retention in care and viral suppression rates for persons who had received an HIV diagnosis. This intervention facilitates linkage to and retention in care through opt-out HIV testing for clients who receive an HIV diagnosis in the ED or other clinical settings. RUSH includes HIV screening of all clients over the age of 16 who have an intravenous line inserted and have blood drawn for any purpose while in the ED.

RUSH was initially implemented in the EDs at Ben Taub Hospital and Lyndon B. Johnson Hospital in Houston, Texas. Before the intervention, 32.6 percent of clients who visited the ED and received an HIV diagnosis were retained in care. Six months after implementation, 47.1 percent of clients were retained in care (adjusted OR = 2.75, CI: 2.31–3.28, $p < 0.001$) and the viral suppression rate increased from 22.8 percent pre-intervention to 34 percent post-intervention (adjusted OR = 2.61, CI: 2.15–3.16, $p < 0.001$).¹ Another notable benefit of the RUSH intervention is that it leverages existing staff and clinic workflow to embed HIV testing into routine care any time a blood draw occurs, thus reducing the need for extra personnel and limiting client flow disruption.¹

Intervention at a Glance

This section describes the RUSH intervention to help readers assess the steps required for replication. The intervention was conducted in the ED at two publicly funded hospitals within the Harris Health System in Houston, Texas. RUSH is intended to be used in the ED and other care settings, including clinics.

 <p>Step 1</p>	<p>Address Staffing and Workflow Needs</p> <p>Intervention success will depend heavily on a streamlined linkage-to-care process once clients receive an HIV diagnosis. It is crucial to have at least one staff member dedicated to working with clients to ensure that they receive follow-up care. This person should work closely with existing staff on developing an integrated workflow that encompasses lab processing, disclosure of testing rights to clients, post-test counseling for clients, and any other areas where service gaps may exist. Linkage workers should aim to set up follow-up appointments with clients before leaving the clinic setting where their HIV was diagnosed. If you do not currently employ a standalone linkage worker, consider repurposing existing staff to RUSH activities or recruiting a full-time linkage worker to add to your existing team.</p>
 <p>Step 2</p>	<p>Secure Organizational Buy-In</p> <p>Engage leadership and existing staff to gauge their willingness to integrate RUSH strategies into their work and support additional staffing if necessary. Use this opportunity to identify a champion within the organization to advocate for RUSH implementation and sustain buy-in. Because RUSH is designed to be integrated into the existing clinic workflow, discussion of integration and streamlining is crucial to ensure that services are not disrupted.</p>
 <p>Step 3</p>	<p>Establish a Steering Committee</p> <p>An interdisciplinary committee is essential to designing a program that will be broadly accepted and supported throughout the organization and to provide advice about changes as the project develops. Use the committee to assess the feasibility of embedding routine HIV testing into the existing clinic workflow. Conversations should include client consent, lab processing (rapid vs. nonrapid testing), and opt-out procedures.</p>
 <p>Step 4</p>	<p>Determine Funding Streams</p> <p>Determine funding streams for conducting HIV testing with clients regardless of their insurance status. This task should include working with Medicaid or Medicare coverage where possible and identifying additional funding streams if public insurance does not support HIV testing or linkage services. For example, RWHAP funding can be used to pay for linkage services and local health departments funded by the CDC may also have funds for HIV testing.</p>
 <p>Step 5</p>	<p>Recruit Additional Staff</p> <p>Linkage workers dedicated to RUSH are essential. Depending on your organization's size and the anticipated caseload, recruiting additional administrative staff dedicated to supporting logistics for RUSH training, communication, data management, and other processes may also be helpful. Train linkage workers in trauma-informed approaches so they are prepared to assist and support clients who have recently received an HIV diagnosis (see Additional Resources Box).</p>

 <p>Step 6</p>	<p>Develop Promotional Materials</p> <p>Create signage, flyers, legal consent forms, and other documentation that clearly communicates testing procedures to clients and describes their ability to opt-out. Place these materials in the client registration area(s) and at every blood draw station to ensure that clients have multiple opportunities to read about the process and understand that their participation is voluntary.</p>
 <p>Step 7</p>	<p>Train ED Staff on RUSH Procedures</p> <p>Train staff across the workflow to understand testing procedures, opt-out procedures, and consent materials. Providers at the original implementation sites received annual training for the first several years. If the intervention is conducted across several locations, both a linkage worker and a primary care provider are responsible for visiting the sites to ensure fidelity to intervention procedures among clinical providers and other staff. Ensure that staff are knowledgeable and willing to implement affirming strategies (e.g., trauma-informed care) for client linkage.</p>
 <p>Step 8</p>	<p>Implement and Sustain RUSH</p> <p>Embed procedures into your workflow and begin testing individuals for HIV as a part of routine care. Focus on reinforcing organizational culture and identifying a process for relaying institutional knowledge to new staff.</p>

Cost Analysis

The RUSH evaluation was supported by a supplement to the National Institutes of Health (NIH)-funded Baylor College of Medicine-University of Texas Houston Center for AIDS Research, supplemental funds to the District of Columbia Developmental Center for AIDS Research, the Center for Disease Control and Prevention (CDC), the facilities and resources of the Department of Veterans Affairs, and the facilities and resources of the Harris Health System. Within the Health System, RWHAP Part A was predominantly used to support testing and service linkage activities. HRSA’s RWHAP Fact Sheet provides more context on the different parts. Additionally, RWHAP’s Policy Clarification Notice 16-02 outlines details on allowable costs (see [Additional Resources Box](#)).

A more detailed cost analysis was not available for the RUSH intervention when this manual was developed. However, you can use the CIE Cost Calculator to create an estimate of the cost of implementing the intervention at your organization (see [Additional Resources Box](#)).



Resources Assessment Checklist

Before implementing the RUSH intervention, your organization should walk through the following Resources Assessment (or Readiness) Checklist to assess your ability to do this work. If your organization does not have these components in place, you are encouraged to further develop your capacity to conduct this intervention successfully. Questions to consider include:

- Have you identified a strong champion for the intervention?
- Do you have support for RUSH implementation from key leadership staff at the care site?
- Does your clinic have:
 - An in-house laboratory?
 - A data management system for surveillance purposes?
 - A robust process for linking clients to HIV care services if those services are not offered in-clinic?
- Is your clinic committed to integrating into service delivery trauma-informed approaches that affirm and support people with intersectional identities (e.g., transgender patients, young people, Latinx gay men, etc.) who have received a new HIV diagnosis?
- Does your clinic have the capacity to hire a caseworker who is specifically trained to facilitate linking clients to care?
- Can you hire a staff member to coordinate testing consent and organize training for clinical staff?

Setting the Stage

According to the U.S. Centers for Disease Control and Prevention (CDC), there are an estimated 1.2 million people with HIV in the United States.² During 2018, approximately 75.7 percent of people with HIV received HIV medical care, 57.9 percent were retained in care, and 64.7 percent were virally suppressed.³ While significant strides have been made in ensuring that people with HIV effectively progress through the HIV care continuum, these figures demonstrate that retention in care continues to be a critical issue. In 2018, approximately 35 percent of people with HIV were not in care and were, therefore, less likely to have achieved viral suppression.⁴ Improving client engagement and re-engagement in care is a national priority with tailored retention measures established by the the [HIV National Strategic Plan](#) (see [Additional Resources Box](#)), HRSA, and the Ending the HIV Epidemic (EHE) initiative, among others.⁵

In 2006, the CDC released a series of guidelines recommending routine screening for HIV that is intended for all health care providers in both the public and private sectors, including those working in hospital EDs, urgent care clinics, inpatient services, substance abuse treatment clinics, public health clinics, community clinics, correctional health care facilities, and primary care settings.⁶ Routine opt-out screening programs essentially embed HIV testing into a clinic's existing care infrastructure. Such testing programs have proven to be efficient at acceptably increasing the number of clients undergoing HIV testing, particularly in ED settings.¹ Large-volume testing in EDs has helped identify a portion of people with HIV in the United States who were unaware of their positive serostatus.⁷ By providing an opportunity to access testing services earlier in the disease progression, such testing programs may be particularly useful for addressing disparities in HIV testing that people of color experience.⁸

The RUSH intervention was originally implemented at two publicly funded hospitals within the Harris Health System in Houston,



Texas. The largest publicly funded health system in Texas, the Harris Health System, provides healthcare for uninsured and underinsured clients.¹ The initial intervention sites were EDs at Ben Taub and Lyndon B. Johnson hospitals. The intervention was later expanded to include 13 community health centers, a community hospital, 12 homeless shelter clinics, and one mobile unit, which collectively performed 100,000 HIV tests annually.⁷

RUSH was evaluated in a retrospective cohort study that reviewed charts of people who received an HIV test in the ED between 2008 and 2012 and who had received a documented positive HIV test result a year or more before their ED visit.¹ Test records were extracted from electronic laboratory databases and were cross-checked with local surveillance data from the City of Houston Department of Health and Human Services to identify previously diagnosed cases. Data on visits provided by RWHAP-funded clinics in the surrounding Eligible Metropolitan Area were extracted from the Centralized Patient Care Data Management System. Outcomes of interest from the time just before a client's ED visit were compared with outcomes just after the client's "index visit" (e.g., the first ED visit between 2009 and 2012 with an HIV positive test result). These outcomes included retention in care (defined as two HIV primary care visits separated by at least 90 days within a 12-month period) and viral suppression (defined as an HIV viral load of less

than 200 copies/mL at any point in a 12-month period). During the RUSH implementation period, retention in care increased from 32.6 percent to 47.1 percent (adjusted OR = 2.75, CI: 2.31–3.28,

$p < 0.001$) and viral suppression increased from 22.8 percent to 34 percent (adjusted OR = 2.61, CI: 2.15–3.16, $p < 0.001$).¹

Description of the Intervention Model

The RUSH intervention facilitates linkage to and retention in care through routine opt-out HIV testing performed in the ED or other clinical setting, paired with linkage to services for clients with diagnosed HIV. Embedding HIV testing in the clinic workflow serves to identify clients who may be unaware of their HIV status and effectively retain them in HIV care. The implementors of RUSH utilized a mixture of research-specific funding for the evaluation of the intervention described here but leveraged RWHAP Part A funding to support activities related to testing and service linkage. Other RWHAP funding can be useful to potential replicators for activities related to core medical services (e.g., AIDS Drug Assistance Program or ADAP, treatments, early intervention services, mental health services, substance abuse outpatient care, etc.) and supportive services (e.g., medical transportation, food banks, housing, psychosocial support, etc.). The intervention is implemented in seven phases:

1. Address Staffing and Workflow Needs

RUSH is designed to embed HIV testing into the existing clinic care workflow by utilizing existing staff while reducing any additional time burden. However, the success of RUSH is heavily dependent on a robust linkage-to-care process and the availability of in-house lab services. Internal laboratory services allow for a rapid turnaround time and improved engagement in care. This is because clients typically receive their test results and meet with a linkage worker before leaving the ED. Similarly, a dedicated service linkage worker (SLW) creates a bridge between routine care and HIV-specific services, especially if those services are not already embedded into an organization's care continuum. SLWs work closely with physicians to deliver HIV test results to clients and provide HIV counseling and non-medical case management services to clients with newly or previously diagnosed HIV. Tailor linkage services

to the client's needs and retain clients on an SLW's caseload until they are linked or re-linked to care. SLWs should be familiar with trauma-informed care, Motivational Interviewing (MI), or other strategies to assist in affirmingly linking clients to care.

2. Secure Organizational Buy-In and Establish a Steering Committee

It is critical to engage organizational leadership and existing staff to ensure support for additional staffing and training. Identify a champion in your



Adaptation

Although not utilized by the RUSH implementors in Houston, rapid testing may be an option for preliminary and confirmatory testing as a way of eliminating the need for blood draws and laboratory processing when an in-house lab is not available.

leadership structure who can help sustain the buy-in and support needed from all stakeholders, including agency directors, supervisors, frontline providers, and clinic staff. To secure buy-in, consider highlighting the benefits of RUSH reaching national HIV goals, such as potentially bridging the late HIV diagnosis gap experienced by many people of color across the United States.⁸

Identify individuals to form a broad-based steering committee that includes an intervention champion who influences various leadership levels across the care continuum. The steering committee should consist of upper-level administrative staff, clinical staff, laboratory technicians, information technology (I.T.) staff, nursing management leaders, and, where feasible, members of the legal and communications teams. The original RUSH intervention's steering committee included nurses, lawyers, medical directors, and a corporate

communications professional, which was vital in “selling” the intervention to higher-level executives.

A broad-based steering committee can aid in quickly normalizing the integration of HIV testing, addressing reluctance from clinic staff, and remedying concerns about confidentiality and consent that may arise in a discussion of implementation feasibility. A robust steering committee will also help minimize disruptions in-clinic services and identify staff at key points in the care continuum who can ensure intervention fidelity.

The steering committee should prioritize discussions about the type of testing (e.g., rapid vs. nonrapid), coordination strategies for relaying lab results, client consent, client financing, anticipated caseload, and incorporation of data into existing electronic medical record (EMR) systems to assess possible obstacles when seeking buy-in.

Delineate I.T. needs to ensure a widespread understanding of data entry and migration needs. The establishment of a robust data management system before implementation is also critical.

3. Determine Funding Streams

HIV testing has a grade A recommendation from the U.S. Preventive Services Task Force (USPSTF),

meaning it is covered by health insurance plans. However, intervention financing is an important consideration for clients who are uninsured as well as to cover personnel and other linkage and testing services costs. Assess state and local funding sources available to your organization and discuss opportunities for coordinating different funding streams to ensure sustainability. For example, RUSH intervention developers used RWHPA Part A and Part C and CDC funding to support linkage, testing, personnel, counseling, staff training, promotional materials, and other intervention costs.

4. Assess Staffing Needs

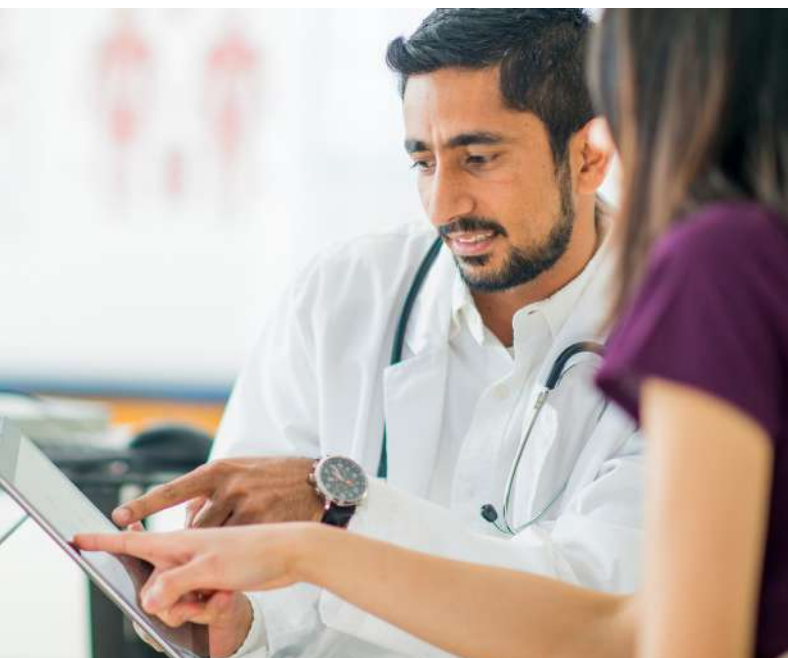
RUSH is designed to leverage your organization’s existing staff, so explore ways to dedicate current staff to RUSH. However, if existing staff are not available to provide dedicated support to RUSH, recruit SLWs who can be readily embedded into your care workflow. Ideally, newly recruited SLWs will be familiar with supportive services in your jurisdiction, be representative of or have experience working with the communities you serve, and have both (MI) skills and knowledge of trauma-informed care strategies.

Recruiting additional staff may allow you to increase staff diversity and more readily reach marginalized groups who may experience compounded barriers to testing access and care engagement. Consider, for example, hiring individuals with diverse cultural backgrounds, language skills, and lived experiences similar to those of the populations you serve.

Depending on your organization’s size and anticipated caseload, you may want to consider hiring more than one SLW. The ED in Houston dedicated two SLWs to work directly with RUSH. Because many clinic staff managing caseloads have significant time constraints, consider recruiting administrative staff dedicated to training, communication, and other logistical aspects of the RUSH program.

5. Develop Promotional Materials

Develop materials that clearly communicate the updated testing procedures and highlight that participation is voluntary. Materials may include signage, flyers, and legal consent forms. Materials



should be designed with accessibility and inclusivity in mind (e.g., written in multiple languages, using accessible vocabulary, adhering to accessibility standards for people with disabilities, etc.). When possible, get community members' feedback on the accessibility and appropriateness of the materials to ensure that the content is understood by a diverse audience and reaches those most in need of RUSH services. Place materials at client registration sites and blood draw locations, and anywhere else deemed relevant or useful. Consider placing permanent signage in waiting rooms to inform clients that they will receive an HIV test as a part of their routine care.

Consider distributing HIV testing information pamphlets during client registration. The original RUSH implementers adapted content from the Red Cross and basic information on HIV testing and care from CDC pamphlets. You may also consider developing promotional items such as pens and key chains to distribute to staff as a way of subtly reinforcing the RUSH program and building morale.

6. Train ED Staff on RUSH Procedures

Train all ED staff to understand HIV testing and linkage-to-care procedures to ensure streamlined support for clients who receive an HIV diagnosis. The structure of training and the participants who require training will vary depending on your organizational needs. However, all clinical staff should receive training on specific procedures such as consent, testing, linkage, and opting out. Registration workers should be trained to draw client attention to signage and other RUSH resources and connect clients with an SLW if they have additional questions.

To maintain intervention fidelity, conduct refresher training sessions for clinic staff at least annually during the first several years of implementation. SLWs should receive training in MI strategies if they are not already certified and should receive Anti-Retroviral Treatment and Access to Services (ARTAS) training if they have not already done so (see [Additional Resources Box](#)).

Staff who directly engage with clients (e.g., SLWs, providers, front-desk workers) should be knowledgeable about and comfortable implementing trauma-informed care strategies

because these strategies are useful for affirming clients throughout the care continuum. Ensure that staff are versed in any specific training topics required by funders or jurisdictional regulations (e.g., RWHAP Part A cultural competence training, mandatory emergency response training).

If you conduct the intervention at several locations, hold an SLW or primary care provider responsible for visiting the sites to ensure intervention fidelity. Ensuring intervention fidelity can also help with establishing forward-facing consistency for clients across implementation sites. During the initial intervention ramp-up, ensure that SLWs liaise with clinic staff at every shift change to reinforce intervention procedures and establish rapport by providing small incentives (e.g., a box of donuts; promotional items such as RUSH pens or key chains).

RUSH implementers recommend that, if possible, you visit and observe sites in your jurisdiction that are conducting routine HIV testing. These visits can help you to gauge potential barriers and facilitators to implementation and identify useful training strategies for your staff.

Although not utilized by the RUSH implementers in Houston, rapid testing may be an option for preliminary and confirmatory testing as a way of eliminating the need for blood draws and laboratory processing when an in-house lab is not available.



7. Implement and Sustain RUSH

With staff and resources in place, begin universal HIV testing and linking clients who receive an HIV diagnosis to care. It is important to closely monitor workflow during the initial ramp-up to address barriers as they arise proactively. Check-in with staff to gauge where it may be possible to optimize procedures and reduce clinical staff burdens. Staff check-ins may also help to reinforce the integration of RUSH into your organizational culture.

The implementation phase of an intervention like RUSH offers an excellent opportunity to use trauma-informed and MI strategies with clients and to promote the positive elements of these strategies within your staff culture. MI can encourage your staff to use more compassionate and affirming communication styles across teams, improving the efficiency of team collaborations. Similarly, trauma-informed approaches can help build team resiliency by encouraging vulnerability

and understanding in the workplace, which organically translates into better provider-client interactions.

It is important to note that protocols for opting out of routine HIV testing will vary depending on Electronic Medical Record (EMR) structure and care workflow. Identifying an appropriate point in your care continuum for client consent and questions is crucial. RUSH implementers in Houston worked closely with departments across the Harris Health System and throughout the RWHAP system of care to share client information and appropriately link clients to supportive services (e.g., housing, transportation, food pantries).

You will also want to develop a process for disseminating RUSH-specific content during periods of staff turnover. Having a staff champion (e.g., an SLW or administrative coordinator) and having support from a champion in leadership may be useful for this purpose.

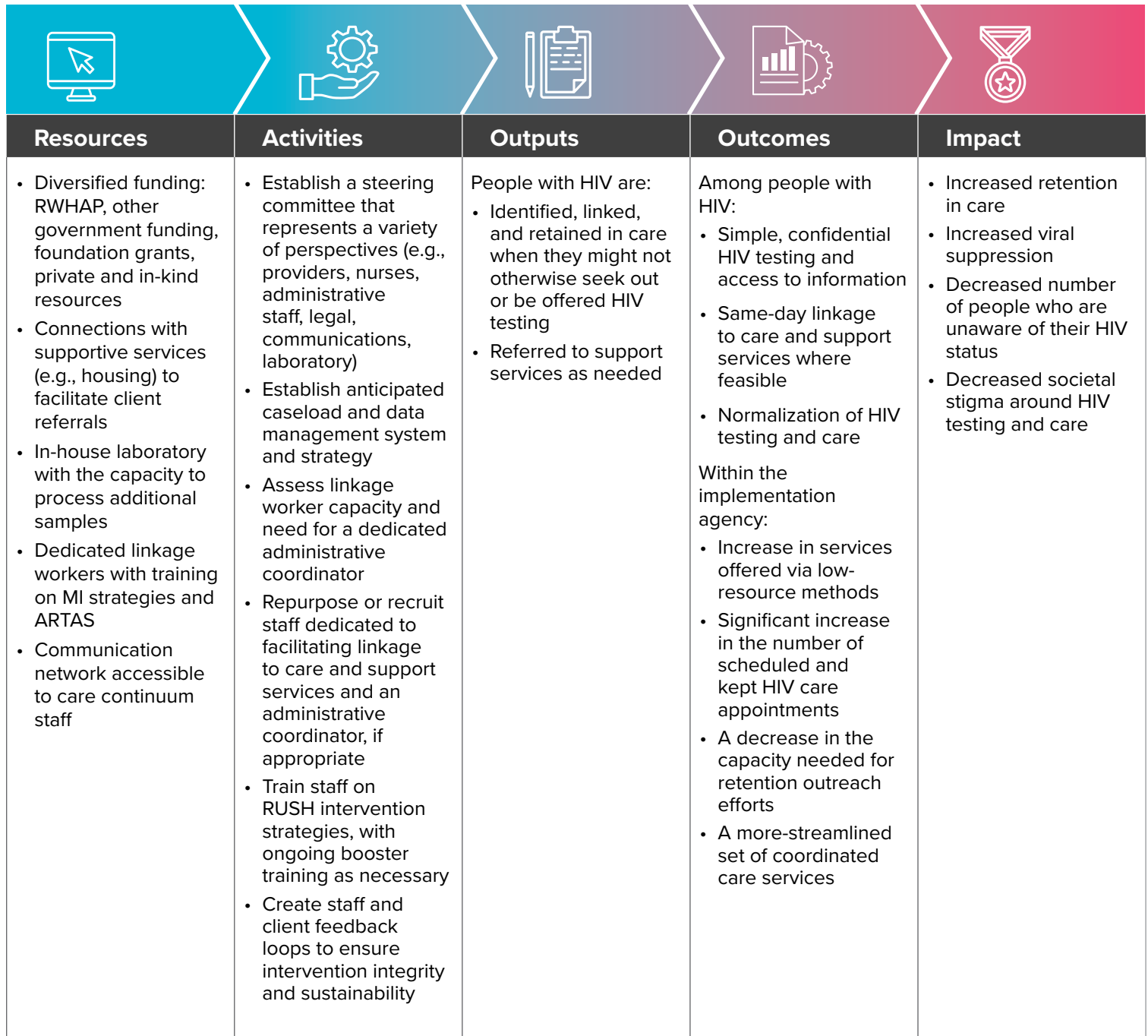
[On the importance of reinforcing RUSH procedures and building morale]

“... Our service linkage coordinator would go over to Ben Taub at six or seven o’clock in the morning when their shifts changed, and he would take a box of donuts and just do a five-minute reminder or a quick refresher training with the nurses ... We had these pens, ballpoint pens that look like a hypodermic needle that said ‘RUSH,’ with a red top that referred to the tube of blood they used for the HIV tests ... everybody loved those pens.”

– HIV PROJECT MANAGER AT THE THOMAS STREET HEALTH CENTER AND ORIGINAL IMPLEMENTOR OF RUSH IN THE HARRIS HEALTH SYSTEM

Logic Model

Logic models are effective tools to assist in planning, implementing, and managing an intervention. Below is a logic model highlighting the resources, activities, outputs, outcomes, and impact of the RUSH intervention referenced throughout this guide.



Your Planned Work

Your Intended Results

Staffing Requirements and Considerations

Staff Capacity

The RUSH intervention leverages existing staff and clinic workflow to embed HIV testing into routine care every time a blood draw occurs while heavily relying on a dedicated SLW to effectively link and retain clients in care. Administrative staff dedicated to the RUSH intervention can also help to build accountability and streamlined communication across different healthcare roles in the care continuum.

The following are descriptions of the roles that RUSH intervention developers recommend to promote successful RUSH replication. However, it is important to think about specific organizational needs to identify additional roles that can improve intervention outcomes (e.g., data managers, staff who are representative of the communities you serve and have expertise in intersectional client needs, etc.).

- *Service Linkage Worker:* An SLW who is dedicated to engaging with clients is essential to achieving improved client outcomes. The SLW should be trained in ARTAS and MI strategies and will ideally have experience working with the communities you serve and a thorough knowledge of the support services available in your community. The SLW should be familiar with trauma-informed approaches and comfortable applying these approaches when interacting with clients. Depending on your organization's caseload, you may consider hiring more than one SLW. Core responsibilities for this role include:
 - Delivering HIV test results using a trauma-informed approach (see [Additional Resources Box](#));
 - Providing non-medical case management services (e.g., scheduling appointments, determining eligibility, assisting with transportation, connecting clients to social support services);
 - Providing HIV counseling and education;
 - Facilitating linkage to care for clients with a new or previous HIV diagnosis; and
 - Facilitating client outreach and retention efforts.
- *Administrative Coordinator:* Although this role is not required, hiring a dedicated administrative staff member to streamline RUSH-specific logistics across the care continuum is recommended. The person in this role should be well versed in your organizational workflow and RUSH procedures. Responsibilities for this role may include:
 - Planning and coordinating staff training sessions;
 - Hiring and supervising SLWs;
 - Communicating with providers and clinic staff about intervention procedures or changes;
 - Working with the legal department to develop consent forms;
 - Liaising with steering committee members to ensure broad-based input into program development, adherence to regulatory and clinical requirements, and system-wide acceptance of the intervention; and
 - Working with and training new staff on RUSH procedures.

Staff Characteristics

Core competencies for RUSH intervention staff should include:

- Excellent organizational and team-building skills;
- Experience working with people with HIV, particularly those belonging to marginalized communities;
- Knowledge and experience working with social support services in your organization and community;
- An attitude of acceptance, compassion, and support for autonomy;
- Commitment to learning and readiness for change; and
- Passion for improving the lives of people with HIV.

Core competencies for all staff should include:

- Commitment to learning and readiness for change;
- Adaptability;
- Willingness to embed HIV-specific work into their routine-care workflow;
- Understanding of the consent and confidentiality rights of people with HIV; and
- Excellent organizational and team-building skills.



Replication Tips for Intervention Procedures and Client Engagement

Ideally, instituting certain actions will enable organizations to replicate RUSH intervention procedures successfully:

- Ensure your organization has the necessary staff to facilitate linkage to care;
- Utilize an effective data tracking system for surveillance purposes; and
- Work with health department partners to ensure that staff undergoes the necessary training required by funders and local regulations to conduct testing in a culturally competent and affirming manner.

Because the ED is more likely to be a source of primary care for people with HIV than in other settings, EDs are uniquely suited to intercept people with undiagnosed HIV and people with diagnosed HIV who are not engaged in care.⁷ Using the ED as a source of primary care is particularly true for people of color and other marginalized groups, who have historically engaged with HIV testing and care services much later than other groups.⁸ Late-stage diagnosed HIV can result in increased morbidity and mortality, which compounds the risks faced by marginalized communities who may already experience barriers in accessing healthcare.

When someone receives a positive HIV test result, EDs should have the capacity to quickly link people to care in a way that promotes client retention. Therefore, a specific staff person (e.g., an SLW) should be designated to coordinate linkage-to-care services for the ED. If clients need to be referred to outside services, the SLW will facilitate that process to ensure the successful provision of services and a warm handoff outside the clinic.

Establishing and maintaining an effective data tracking system alongside a dedicated SLW will prove crucial to ensuring efficient client linkage. Obtain consensus among organizational leadership regarding the expected data parameters and surveillance outcomes to streamline data collection as much as possible once testing is underway. Also, establish a clear



structure for how and when data is reported and who can access the information.

Intervention replication necessitates establishing protocols for training clinical staff to ensure fidelity to RWHAP guidelines and ongoing training for case managers and linkage workers. Due to the confidential nature of HIV testing and the opt-out component of this intervention, there should be a staff person who is not an SLW, who obtains client consent for HIV testing, communicates with providers regarding updates on training protocols, and coordinates MI training for staff. Please note that some training requirements are variable and specific to the clinic's jurisdiction. Consider collaborating with the Health Departments and other local health agencies that have experience meeting federal training requirements for clinical and non-clinical staff. Local health agencies may also offer strategies and recommendations for implementing testing programs and maintaining staff engagement.

Securing Buy-In

The RUSH intervention's success will rely on securing buy-in from stakeholders at both the leadership and staff levels to ensure the streamlined integration of intervention procedures. Consider employing the following strategies to secure buy-in:

- **Develop a working relationship between leadership and staff through the formation of a steering committee:** A committee will help establish clear lines of communication between different sectors of the care continuum and ensure that any concerns are heard and addressed. Similarly, establishing strong relationships among SLWs and administrative and other clinic or laboratory staff will foster smoother cross-collaboration and facilitate linkage activities for clients with newly diagnosed HIV. It is also important for the steering committee to welcome contributions from all major disciplines (e.g., legal, nursing, communications, and finance departments).
- **Conduct comprehensive staff training:** Include front-desk staff, registration workers, and everyone involved in client intake in RUSH training, so they are well equipped to discuss HIV testing with clients. At the very least, intake staff should highlight existing HIV testing resources and know how to connect a client to an SLW to answer any other questions. Trained intake staff can help promote client buy-in by ensuring that clients can make autonomous and informed decisions.
- **Decrease the time burden for clinical staff wherever possible by leveraging staff dedicated to the RUSH intervention:** This can be achieved by having an SLW provide reminders for clinical staff during shift changes, hiring a dedicated logistics coordinator, and working with providers and clinic staff to identify opportunities to avoid extra work. Staff will be more interested in adopting a new intervention if they consider the intervention to be something that organically embeds itself into their work.



- **Highlight the advantages that the RUSH intervention can offer the organization:**
 - Minimal resource requirements and potential for financial savings, particularly if implemented in a public hospital setting by leveraging existing staff resources and hospital networks.
 - Inherent potential for implementation without a significant impact on staff workload or client flow. For example,
 - The use of existing clinic staff to obtain samples reduces the need for extra personnel to administer HIV tests;
 - If you are using serum-based testing, automated sampling methods can reduce reporting errors; and
 - Sample collection strategies limit client flow disruption because clients are already having their blood drawn for other tests.
 - Incorporating routine testing into hospital settings enables medical staff to identify a large percentage of the population who have been out of care or unaware of their HIV status and link them to medical and other support.
 - Routine testing may help address racial and ethnic gaps in late HIV diagnoses, ultimately reducing health disparities.



Overcoming Implementation Challenges

It is important to consider potential barriers specific to your organization during the initial discussions with leadership about implementing RUSH. Some anticipated challenges, as well as possible solutions, are noted below.

- **Lack of Buy-In:** You cannot effectively implement RUSH across your organization without obtaining buy-in at the leadership and managerial levels. Replicators must identify a champion within the organization who believes in the intervention and can promote it to leadership. Highlighting the benefits of using RUSH, including the well-established cost-effective nature of routine HIV screening, is important to achieving buy-in.^{1,7}
- **Lack of Off-Hours SLW Coverage:** Lack of an SLW who is available to see clients during off-hours can impede client contact and follow up the next day, particularly for sites that are open 24 hours, such as EDs. Consider expanding SLW coverage of after-hours visits or hiring an SLW who is dedicated to following up with clients who are not linked to care after receiving an HIV diagnosis.
- **Staff Turnover and Ongoing RUSH Training:** RUSH training can be an issue when integrating the intervention across different organizational levels. Replicators are encouraged to discuss potential issues or ongoing barriers to delivering the training with the steering committee and develop a strategy for disseminating RUSH training to new staff. Organizations should also coach RUSH-focused staff members to create institutional knowledge that can be easily disseminated to new staff.
- **Lack of Diverse Funding:** A lack of diverse funding may make it difficult to allocate funds to the intervention's testing and linkage components, particularly in ED settings. Ask about the availability of RWHAP, CDC and local health department upfront so that teams can strategize about ways to offset costs if such funding is not available. Where feasible, discuss repurposing existing funding and petitioning for more sustainable funding with organizational leadership. Consider partnering with other agencies that may have RWHAP funding or other diverse funding streams available.
- **HIV Testing Laws:** Legal issues around consent for HIV testing may be pervasive, especially if public activism about testing for HIV or other sexually transmitted infections (STIs) is stigmatized. Learn from organizations that have implemented similar interventions to identify approaches that may work well in your jurisdiction. Also, become aware of testing laws in other jurisdictions that promote access to routine opt-out HIV testing. For example, in 2010, New York State amended its laws to make routine HIV testing more readily available across a variety of health care settings while also making it easier for patients to give their consent. This policy allowed people aged 13 years and over to access routine opt-out HIV testing in outpatient and primary care settings. Please visit the CDC website to learn about HIV testing laws in your state (see [Additional Resources Box](#)).

[On the importance of having a champion]

“We were fortunate to have a really staunch champion in ... the doctor who was the head of the ED at Ben Taub at that time, and he spearheaded the efforts to get standing delegated orders written, which included all that was needed to do the HIV test.”

– HIV PROJECT MANAGER AT THE THOMAS STREET HEALTH CENTER AND ORIGINAL IMPLEMENTOR OF RUSH IN THE HARRIS HEALTH SYSTEM

Promoting Sustainability

Successful replication of the RUSH intervention may require organizations to explore various funding sources, particularly sources that support linkage services and testing for clients with varying insurance coverage.

During initial conversations with leadership and the steering committee, discuss anticipated testing volume, types of data to be collected, and strategies for effectively managing novel data. This will ensure that data collection is accurate and timely and will promote a healthy flow of information between providers and the RUSH team.

Clinics can also gather feedback directly from linkage specialists, providers, staff, and clients in various ways (e.g., group or individual check-ins or surveys). By creating a consistent and intentional feedback loop, clinics can ensure that outreach efforts are effective and that concerns are prioritized as they arise.



SWOT Analysis

SWOT is an acronym for Strengths, Weaknesses, Opportunities, and Threats. A SWOT analysis is a structured planning method that can assess the viability of a project or intervention. By conducting a SWOT analysis in advance of an intervention, organizations can proactively identify challenges before they occur and think through how to best leverage their organizational strengths and opportunities to improve future performance. A SWOT analysis of the RUSH intervention identified the following:



STRENGTHS

RUSH increases viral suppression in people with HIV and retains them in care by:

- Embedding HIV testing services into existing care services,
- Providing quick turnaround times for sample processing and test result dissemination, and
- Employing a dedicated linkage worker who retains the client on their caseload until the client has been linked to care and other supportive services.



WEAKNESSES

Agencies will find it challenging to implement the RUSH intervention without:

- Flexible and receptive clinical staff who are willing to integrate the intervention into their day-to-day work,
- Stakeholder buy-in and funding to adequately support ongoing testing and linkage efforts,
- An in-house laboratory (if nonrapid testing is used) and dedicated linkage workers, and
- Access to rapid testing equipment or training (if rapid testing is used).



OPPORTUNITIES

The RUSH intervention offers opportunities to:

- Streamline linkage and retention services using linkage workers who are connected to the broader clinical team,
- Provide a cost-effective, low-resource method of embedding HIV testing services,
- Decrease societal stigma around HIV and HIV testing,
- Decrease health inequities by providing accessible testing to address the late HIV diagnosis gap between marginalized and nonmarginalized communities, and
- Support the “Ending the HIV Epidemic” initiative by decreasing the number of people who are unaware of their HIV status.



THREATS

Threats to the success of the RUSH intervention at an organization may include:

- Inability to secure ongoing funds to support testing and linkage efforts,
- Lack of strategies to mitigate the impact of staff turnover,
- Failure to identify, recruit, and secure buy-in from key stakeholders,
- Unwillingness to integrate routine testing into daily workload, and
- Lack of familiarity with or unwillingness to use strategies that link people with newly diagnosed HIV to care in affirming ways (e.g., trauma-informed care).



Conclusion

The RUSH intervention allows EDs and other clinical settings to embed routine opt-out HIV testing into their existing care services to address retention-in-care gaps. By leveraging an organization's existing staff infrastructure and dedicating staff to facilitating client linkage to care, organizations can identify and retain people with HIV who are unaware of their status or have fallen out of care. CDC has recommended routine HIV screening for over a decade. Routine HIV screening is also considered an effective and acceptable method of screening people who may not otherwise seek out HIV testing or are not offered testing in other settings.

RUSH provides a low-cost, low-burden approach to improving retention in care and viral suppression in people with HIV. Outcomes from the original RUSH intervention include an increase in client retention in care from 32.6 percent pre-intervention to 47.1 percent post-intervention and an increase in the viral suppression rate from 23 percent pre-intervention to 34 percent post-intervention.¹

Additional Resources

Ryan White HIV/AIDS Program Fact Sheet

<https://ryanwhite.hrsa.gov/sites/default/files/ryanwhite/resources/program-factsheet-program-overview.pdf>

Ryan White HIV/AIDS Program Services: Eligible Individuals & Allowable Uses of Funds Policy Clarification Notice 16-02

<https://ryanwhite.hrsa.gov/sites/default/files/ryanwhite/resources/hrsa-justice-tep.pdf>

CIE Cost Analysis Calculator

CIEhealth.org/innovations

NASTAD Trauma-Informed Approaches Toolkit

nastad.org/trauma-informed-approaches

Anti-Retroviral Treatment and Access to Services (ARTAS)

cdc.gov/hiv/effective-interventions/treat/artas?Sort=Title%3A%3Aasc&Intervention%20Name=ARTAS

Endnotes

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