Addressing substance use disorders to accelerate EHE progress: The power of HIV community stakeholder perspectives

Bryan R. Garner, PhD
Professor
The Ohio State University

Heather J. Gotham, PhD
Clinical Associate Professor
Stanford University School of Medicine

Sheila V. Patel, PhD
Implementation Scientist
RTI International

2022

NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

Disclosures

Drs. Garner, Gotham, and Patel do not have any relevant financial interests to disclose.

This continuing education activity is managed and accredited by AffinityCE, in collaboration with the Health Resources and Services Administration (HRSA), LRG, and AffinityCE. AffinityCE, LRG and HRSA staff, as well as planners and reviewers, have no relevant financial interests to disclose. AffinityCE adheres to the ACCME's Standards for Integrity and Independence in Accredited Continuing Education. Any individuals in a position to control the content of a CME activity, including faculty, planners, reviewers, or others, are required to disclose all relevant financial relationships with ineligible entities (commercial interests).

All relevant conflicts of interest have been mitigated prior to the commencement of the activity.
There was no commercial support for this activity.

Learning Objectives

At the conclusion of this activity, participants will be able to:

1. Participants will be able to distinguish the three substance use disorders with the greatest population-level negative impact.
2. Participants will be able to explain which evidence-based substance use disorder interventions are the most promising for integration within HIV service organizations.
3. Participants will be able to compare implementation strategies that AETCs can leverage to improve integrated care for substance use disorders within HIV service organizations.

Which substance use disorders (SUDs) have the greatest population-level negative impact among people with HIV (PWH)?

Bryan R. Garner, PhD

Professor

The Ohio State University

2022

NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

The Substance Treatment Strategies for HIV Care (STS4HIV) Project

- **Aim 1**: Empirically identify one or more Substance-Treatment-Strategy (STS) recommendations for improving the integration of substance use disorder interventions within HIV service organizations across the United States

  For example, a specific Substance [e.g., alcohol], Treatment [e.g., motivational interviewing], and Strategy [e.g., workshop training + feedback + coaching] combination)

- **Aim 2**: Experimentally test the effectiveness of external facilitation (i.e., having a person external to the organization provide interactive problem solving and support to help the organization implement empirically-based innovations) as a strategy to improve the integration of evidence-based interventions within HIV service organizations across the United States, relative to what is achieved via usual dissemination strategies (e.g., mail, email, website postings)

Funded by the National Institute on Drug Abuse (R01-DA044051; PI Garner)

Prior estimates of SUD prevalence among PWH

- **Cannabis** = 31%
- **Alcohol** = 19%
- **Methamphetamine** = 13%
- **Cocaine** = 11%
- **Opioids** = 4%

Hartzler, B., Dombrowski, J. C., Crane, H. M., Eron, J. J., Geng, E. H., Christopher Mathews, W., ... & Donovan, D. M. (2017). Prevalence and predictors of substance use disorders among HIV care enrollees in the United States. AIDS and Behavior, 21(4), 1138-1148.

Stakeholder-engaged Real-Time Delphi (SE-RTD)

- Conducted in May of 2019 as part of the STS4HIV project
- 643 stakeholders participated
  - 115 HIV Planning Council/Body representatives
  - 419 staff at HIV service organizations
  - 109 clients at HIV service organizations
- After explaining the criteria for a substance use disorder, participants were then asked to estimate the percentage of PWH in their area with a use disorder for: 1) **Alcohol**, 2) **Cannabis**, 3) **Methamphetamine**, 4) **Opioids**, and 5) **Cocaine**

Our estimates of SUD prevalence among PWH

- **Cannabis = 42%;** *35% higher than prior estimate of 31%*
- **Alcohol = 42%;** *121% higher than prior estimate of 19%*
- **Methamphetamine = 32%;** *146% higher than prior estimate of 13%*
- **Opioids = 35%;** *775% higher than prior estimate of 4%*
- **Cocaine = 28%;** *155% higher than prior estimate of 11%*

Garner, B. R., Gotham, H. J., Knudsen, H. K., Zulkiewicz, B. A., Tueller, S. J., Berzofsky, M., ... & Gordon, T. (2022). The prevalence and negative impacts of substance use disorders among people with HIV in the United States: A real-time delphi survey of key stakeholders. AIDS and Behavior, 26(4), 1183-1196.

The estimated prevalence of Alcohol Use Disorders among PWH

42% prevalence of Alcohol Use Disorder among people with HIV in developed countries (based on data from 8 studies)

- *121% higher than Hartzler et al. (2017) estimate of 19%*
- *Identical to the Garner et al. (2022) estimate of 42%*

Duko, B., Ayalew, M., & Ayano, G. (2019). The prevalence of alcohol use disorders among people living with HIV/AIDS: a systematic review and meta-analysis. Substance abuse treatment, prevention, and policy, 14(1), 1-9.

Average estimated individual-level negative impact scores

On a scale of 0 to 24 (greater scores indicative of greater negative impact)

- **Methamphetamine** = 19.4
- **Opioids** = 17.6
- **Alcohol** = 16.2
- **Cocaine** = 15.9
- **Cannabis** = 8.1

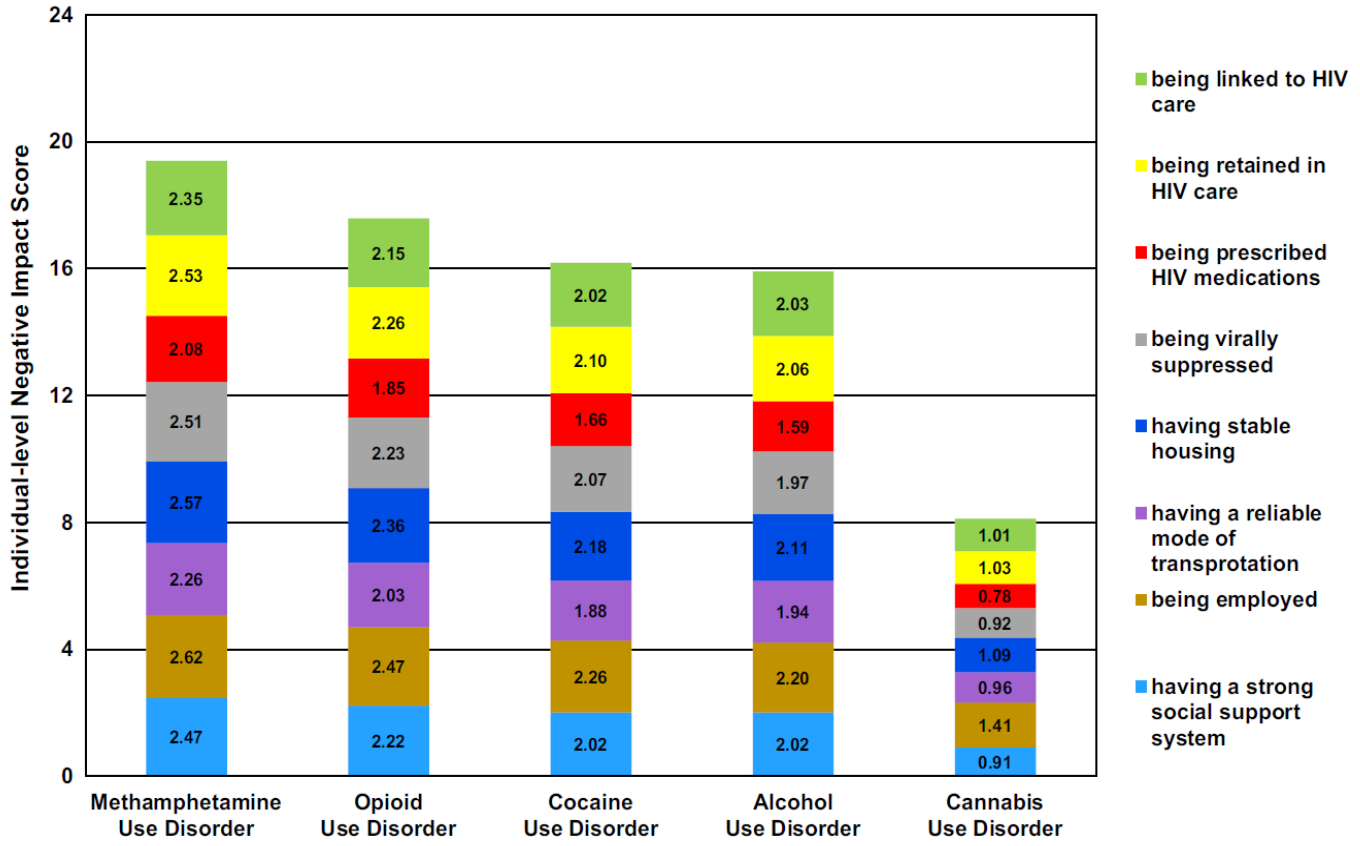


Fig. 2 Contribution of each indicator to the individual-level negative impact scores

Garner, B. R., et al (2022). AIDS and Behavior, 26(4).

Average estimated population-level negative impact scores

- Computed by multiplying the estimated individual-level impact score by the estimated prevalence rate
- Scores range from 0 to 8 (higher-scores indicative of a greater population-level negative impact)
  - **Alcohol** = 6.9
  - **Methamphetamine** = 6.5
  - **Opioids** = 6.4
  - **Cocaine** = 5.0
  - **Cannabis** = 3.7

Garner, B. R., et al (2022). AIDS and Behavior, 26(4).

Conclusions and next step

- The stakeholder-driven estimates from the STS4HIV project provide some of the most recent estimates regarding the prevalence rate and individual-level negative impact of use disorders for five different substances
- From a population-level perspective, the three most problematic use disorders among people with HIV are for: 1) **Alcohol**, 2) **Methamphetamine**, and 3) **Opioids**
- The next step for the STS4HIV project was to identify evidence-based interventions with a good fit for integration with HIV service organizations across the United States

Garner, B. R., et al (2022). AIDS and Behavior, 26(4).

Which SUD interventions are the best fit for integration into HSOs?

Heather J Gotham, PhD

Clinical Associate Professor

Stanford University School of Medicine

2022

NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

2nd STS4HIV SE-RTD Study

- Know there are high levels of need for SUD services among PWH and which substances are the most problematic
  - Alcohol use disorder
  - Methamphetamine use disorder
  - Opioid use disorder
- Now, need to know ***what evidence-based SUD treatment interventions have the best fit for delivery by HIV service organizations?***

Evidence-based interventions for treating SUDs

6 pharmacological interventions:

- Acamprosate
- Disulfiram
- Oral naltrexone
- Injectable naltrexone
- Injectable buprenorphine
- Sublingual buprenorphine

3 psychosocial interventions:

- Cognitive behavioral therapy
- Contingency management
- Motivational interviewing

Pharmacological Interventions

Pharmacological Interventions 2

ORAL NALTREXONE (REVIA®/DEPADE®)

MEDICATION

Effective for ALCOHOL AND OPIOID use disorders

Taken ONCE DAILY for an indefinite length of time

Frequency of CLINICAL VISITS is INDIVIDUALIZED

STAFFING

Prescribing HEALTH PROFESSIONAL

INJECTABLE NALTREXONE (VIVITROL®)

MEDICATION

Effective for ALCOHOL AND OPIOID usedisorders

INJECTED ONCE PER MONTH for an indefinite length of time

Frequency of CLINICAL VISITS is INDIVIDUALIZED

STAFFING

Prescribing HEALTH PROFESSIONAL

NURSING STAFF to provide INJECTION

ORAL BUPRENORPHINE (SUBUTEX® AND GENERICS) AND BUPRENORPHINE/NALOXONE (SUBOXONE® AND GENERICS)

MEDICATION

Effective for OPIOID USE DISORDERS

SUBLINGUAL PILL or FILM TAKEN once daily for an indefinite length of time

Frequency of CLINICAL VISITS is INDIVIDUALIZED

STAFFING

Prescribing HEALTH PROFESSIONAL with a WAIVER

To obtain the waiver

PHYSICIANS 8-hour free training

OTHER PRESCRIBERS 24-hour free training

INJECTABLE BUPRENORPHINE (SUBLOCADE®)

MEDICATION

Effective for OPIOID USE DISORDERS

INJECTED ONCE PER MONTH for an indefinite length of time

Frequency of CLINICAL VISITS is INDIVIDUALIZED

STAFFING

Prescribing HEALTH PROFESSIONAL with a WAIVER

To obtain the waiver

PHYSICIANS 8-hour free training

OTHER PRESCRIBERS 24-hour free training

NURSING STAFF to provide INJECTION

Pharmacological Interventions 3

MOTIVATIONAL INTERVIEWING

PSYCHOSOCIAL TREATMENT

Effective across several **SUBSTANCES**, with strongest evidence for **ALCOHOL AND CANNABIS** use disorders

6 weeks **60**

Delivered in weekly sessions **60 MINUTES FOR 6 WEEKS** or longer

STAFFING

BEHAVIORAL HEALTH PROFESSIONAL

TRAINING: ≥ 32 HOURS TRAINING, CLINICAL EXPERIENCE & competency on a recorded session

TRAINING COSTS vary

COGNITIVE-BEHAVIORAL THERAPY (CBT)

PSYCHOSOCIAL TREATMENT

Effective for **ALCOHOL, CANNABIS, OPIOID, and STIMULANT** use disorders

12 weeks **60**

Delivered in weekly sessions **60 MINUTES FOR 12 WEEKS** or longer

STAFFING

BEHAVIORAL HEALTH PROFESSIONAL

Training: **≥ 40 HOURS TRAINING, & 5 to 10** clinical cases

TRAINING COSTS vary

CONTINGENCY MANAGEMENT

PSYCHOSOCIAL TREATMENT

Effective for **ALCOHOL, CANNABIS, OPIOID, and STIMULANT** use disorders

12 weeks **15**

Delivered **IN WEEKLY** or more frequent visits **15 MINUTES** for **12 WEEKS** or longer

STAFFING

Any health or **BEHAVIORAL HEALTH PROVIDER** or **STAFF**

Training in specific **CONTINGENCY MANAGEMENT** method (e.g., fishbowl, vouchers, points)

TRAINING: ≥ 8 HOURS TRAINING & ongoing consultation from expert

TRAINING COSTS vary

Setting-Intervention Fit

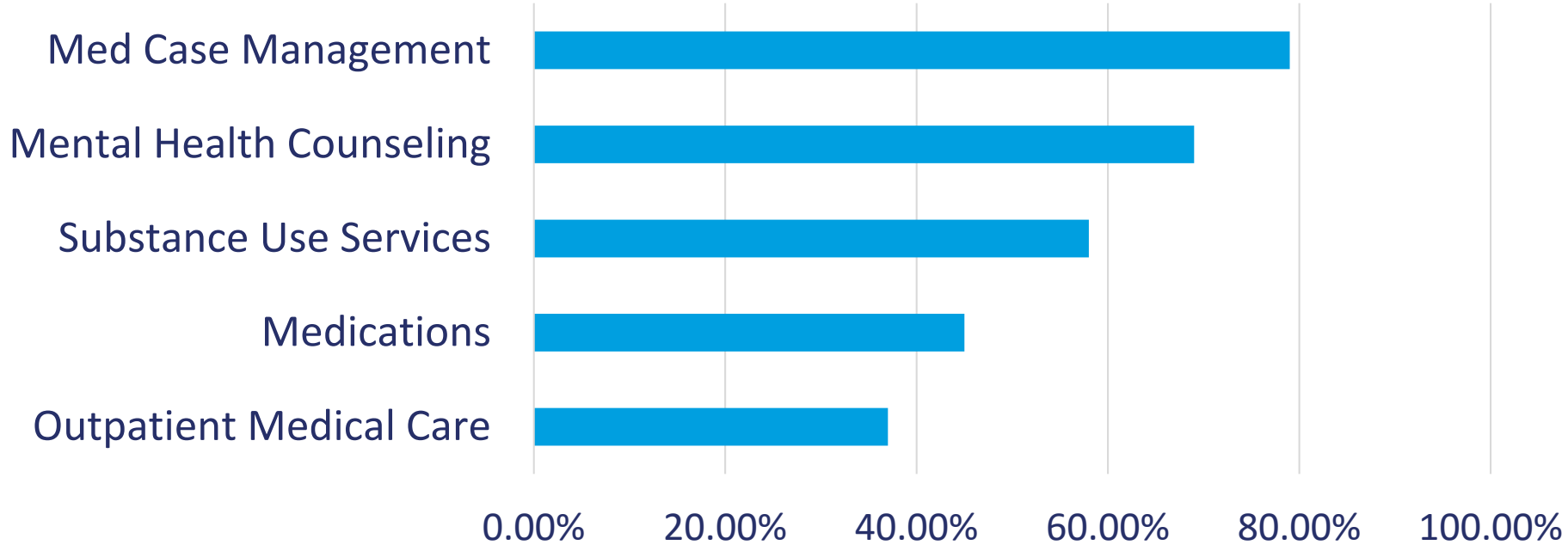
- **F**undable – is ***funding available*** to train or hire a staff to offer the treatment intervention to individuals in need
- **I**mplementable - would a qualified staff have the necessary ***time and support to implement*** this treatment intervention with individuals in need
- **R**etainable - once a qualified staff was trained or hired to offer this treatment intervention, would it be possible to ***keep the staff*** for at least 1 year
- **S**ustainable – after turnover of a staff qualified to offer this treatment intervention, would it be possible for a ***replacement staff*** to be hired or trained
- **S**calable - if there were an increase in client need, would it be possible to ***hire or train more staff*** to offer the treatment intervention
- **T**imely - is having a qualified staff available to offer this treatment intervention within this HIV service organization/site both ***needed and desired***

What we asked of participants

- We created a custom SE-RTD platform that enabled participants to log in at their convenience to participate
- During a two-week period, participants were asked to:
  - Review infographics and animations to learn about the interventions
  - Rate them across six setting-intervention fit criteria
  - Explain their initial responses
  - Review others' responses and comments and responded if inclined
  - Change their final responses if inclined
- Participants were compensated $100 for their time

Participants

- Staff at HIV service organizations nationally were invited to participate
- 202 had complete responses (60% from nonclinical organizations)
- Services provided by the respondents' organizations:



Setting-Intervention Fit of Evidence-Based Interventions of Substance Use

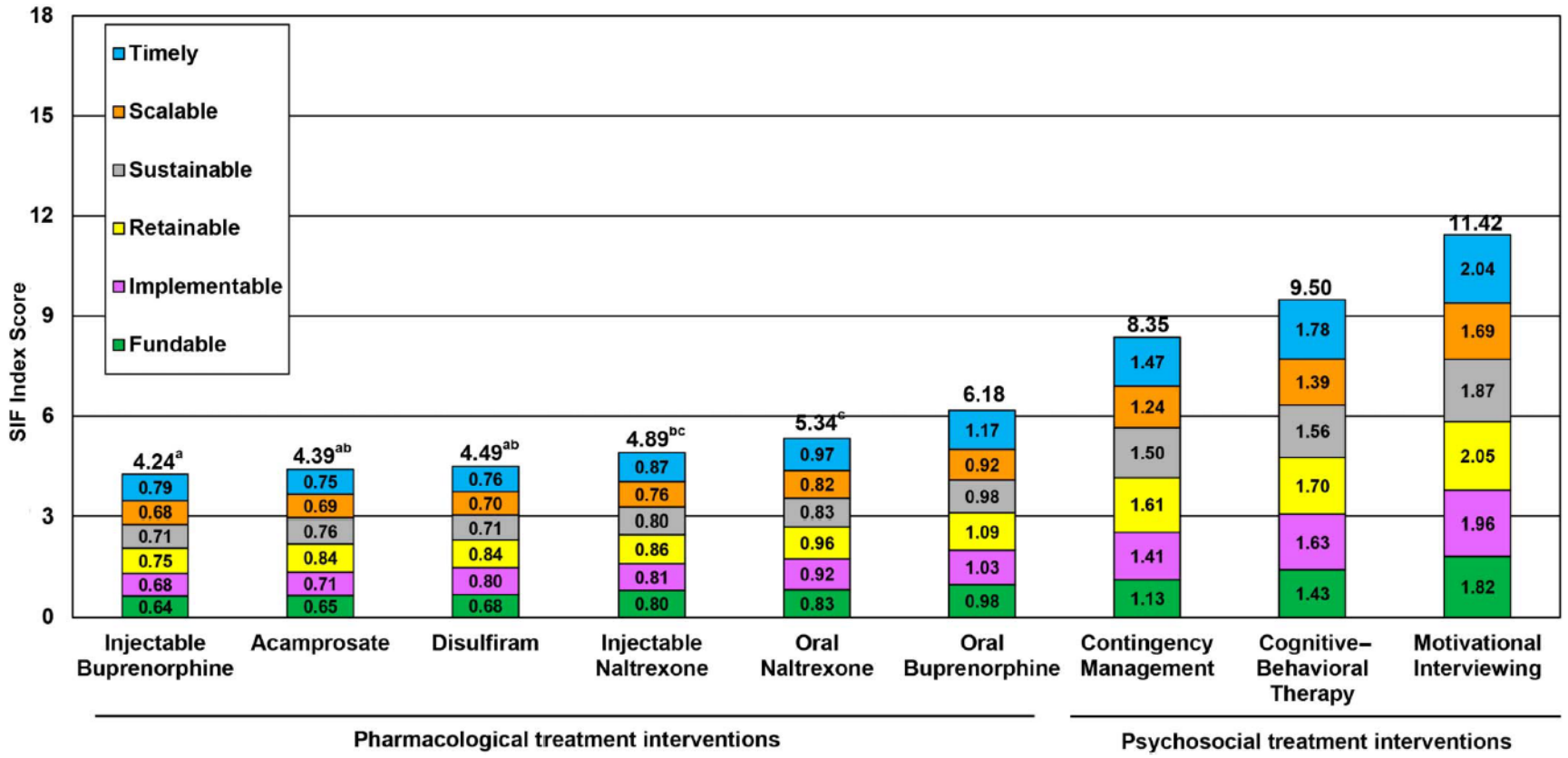


FIGURE 3. Unadjusted setting-intervention fit index scores and dimension contributions.

Garner, B. R., Knudsen, H. K., Zulkiewicz, B. A., Tueller, S. J., Gotham, H. J., Martin, E. G., Donohoe, T., Toro, A. K., Loyd, K., & Gordon, T. (2022). The Setting-Intervention Fit of Nine Evidence-Based Interventions for Substance Use Disorders Within HIV Service Organizations Across the United States: Results of a National Stakeholder-Engaged Real-Time Delphi Study. Journal of acquired immune deficiency syndromes;90(S1).

Predictors of Setting-Intervention Fit

- For the medications, respondents from clinical organizations (versus non-clinical) and from larger organizations (>22 staff) generally rated setting-intervention fit higher
- For the psychosocial interventions, organizations and respondent characteristics generally did not predict setting-intervention fit
- Offering substance use services was only a predictor of fit for injectable/oral buprenorphine and motivational interviewing

Garner, B. R., et al (2022). Journal of acquired immune deficiency syndromes; 90(S1).

Summary

- The 3 psychosocial interventions were rated higher on setting-intervention fit than the 6 pharmacological interventions
  - Motivational interviewing was the only intervention rated above the midpoint in fit for both clinical and nonclinical organizations
  - Cognitive behavioral therapy and oral buprenorphine were rated above the midpoint in fit for clinical organizations
- HIV service organizations see the need to offer SUD services but are uncertain of how to fund them
  - Timely (having a qualified staff available to offer this intervention was both needed and desired) was generally the highest rated criterion
  - Fundable (availability of funding to train or hire a staff) was generally the lowest rated criterion

Garner, B. R., et al (2022). Journal of acquired immune deficiency syndromes;90(S1).

Conclusions and next step

- It is critical to overcome financing, workforce, and training issues to enable HIV service organizations to provide essential substance use services
  - Financing – billing for services, funding medical or SUD counselor positions
  - Workforce – finding and retaining qualified staff
  - Training – understanding what training is required, locating free or affordable training, supervision of trained staff if needed
- The next step for the STS4HIV project was to identify what strategies can be offered by intermediaries to help HIV service organizations explore, prepare for, and implement the interventions

Which strategies are the most promising for supporting integration of SUD interventions into HSOs?

Sheila V. Patel, PhD

Implementation Scientist

RTI International

2022

NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

3rd STS4HIV SE-RTD Study

- Know which substances are the most problematic for PWH
  - Alcohol use disorder
  - Methamphetamine use disorder
  - Opioid use disorder
- Know which evidence-based SUD treatment interventions that have the best fit for delivery by HIV service organizations
  - Cognitive behavioral therapy
  - Motivational interviewing
  - Contingency management
- Now, need to know ***what strategies have the greatest promise for supporting integration of the interventions into HIV service organizations***

Strategies to support integration of psychosocial SUD interventions

NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

3 exploration strategies:

- Disseminate information about the inteverntion
- Conduct a formal needs or readiness assessment
- Obtain a formal commitment

4 preparation strategies:

- Develop an implementation plan
- Provide access to asynchronous trainings
- Conduct interactive training workshop
- Assess provider proficiency in intervention skills

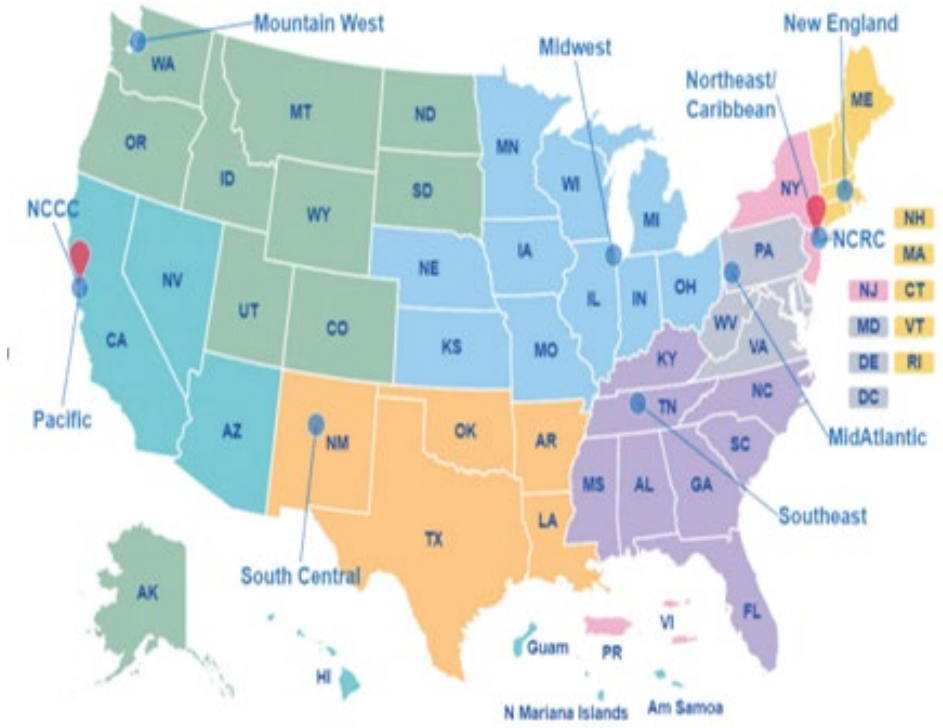
3 implementation strategies:

- Provide ongoing clinical consultation
- Provide ongoing implementation support
- Facilitate ongoing learning collaborative

AIDS Education & Training Centers (AETCs) as implementation purveyors

NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

The AETC Program's regional centers and special projects provide training, capacity-building support, and expertise along the HIV care continuum nationally.



Regional AETC Centers

- MidAtlantic
- Midwest
- Mountain West
- New England
- Northeast/Caribbean
- Pacific
- South Central
- Southeast

Special Projects

- University of Washington AETC National HIV Curriculum (NHC)
- Howard University National HIV Curriculum Integration Project (H-NIP)
- University of Illinois Midwest Integration of the National HIV Curriculum (MINHC)

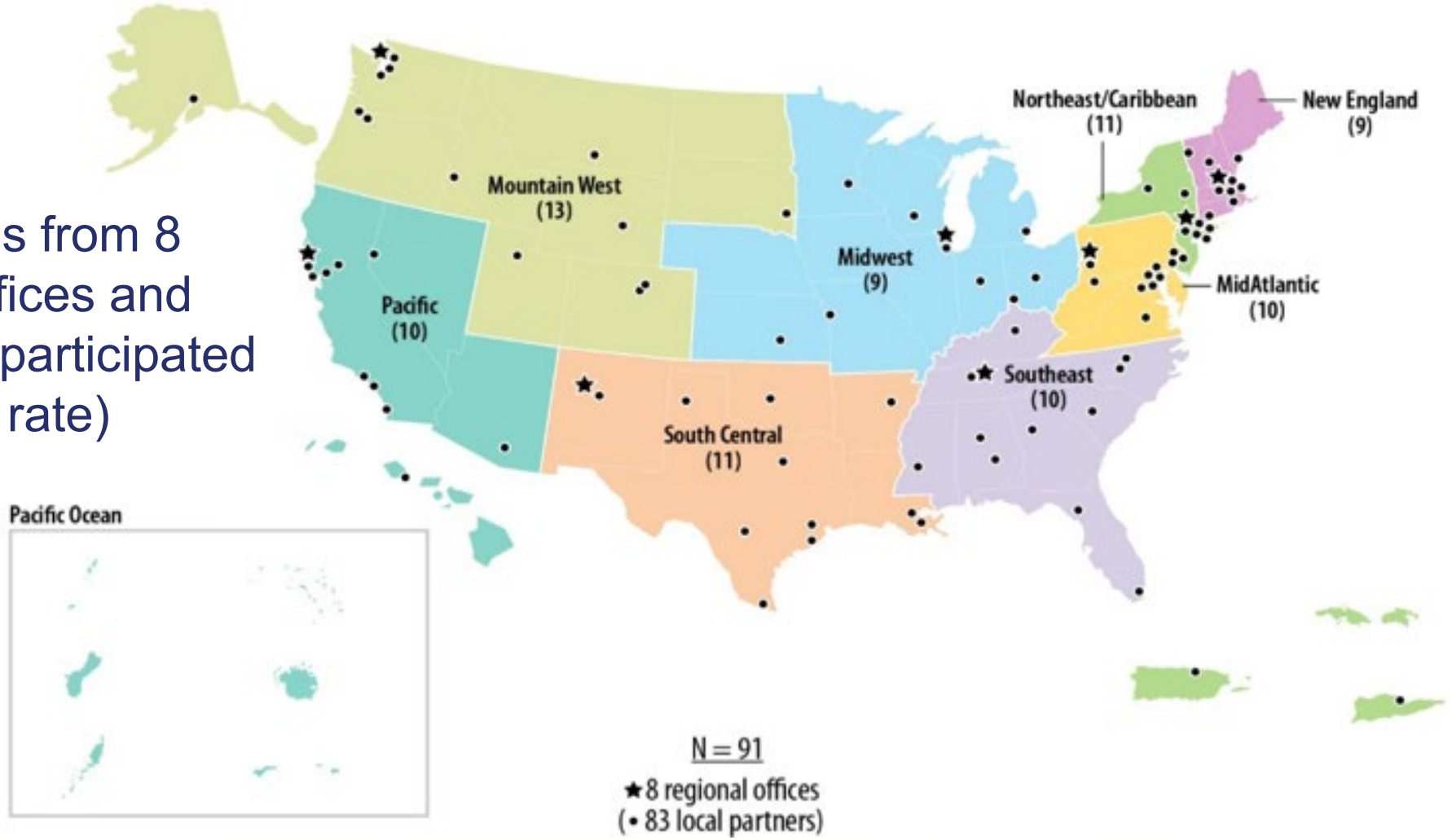
What we asked of participants

NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

- We created a custom SE-RTD platform that enabled participants to log in at their convenience to participate
- During a two-week period, participants were asked to:
  - Review infographics and animations to learn about the strategies
  - Rate them across five dimensions
  - Explain their initial responses
  - Review others' responses and comments and responded if inclined
  - Change their final responses if inclined
- Participants were compensated $100 for their time

Participants

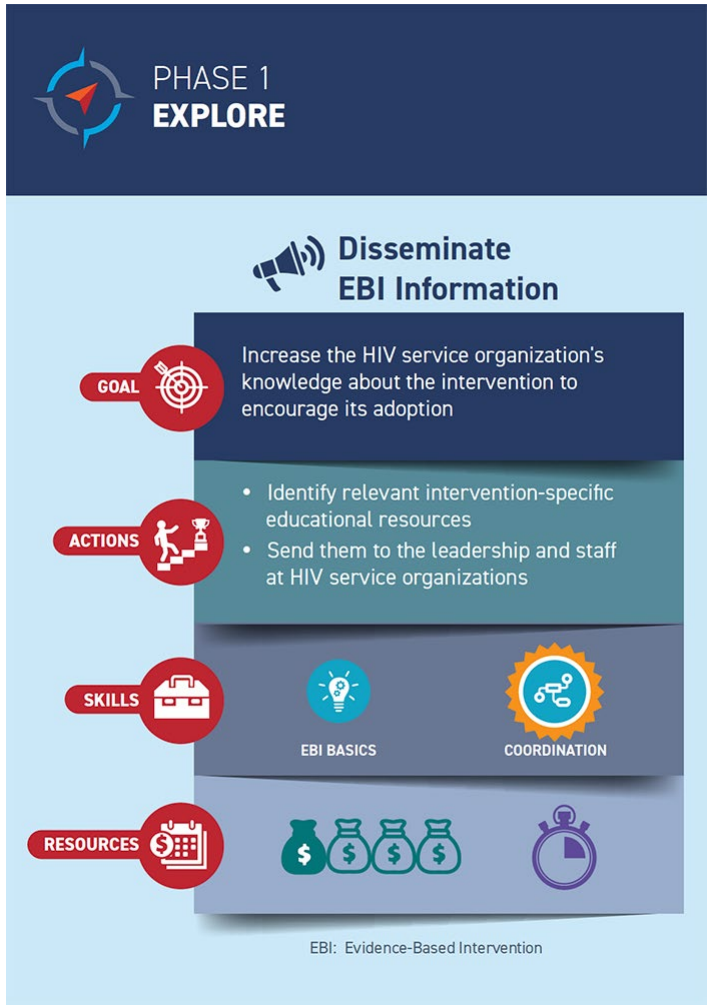
64 representatives from 8 regional AETC offices and 66 local partners participated (a 70% response rate)

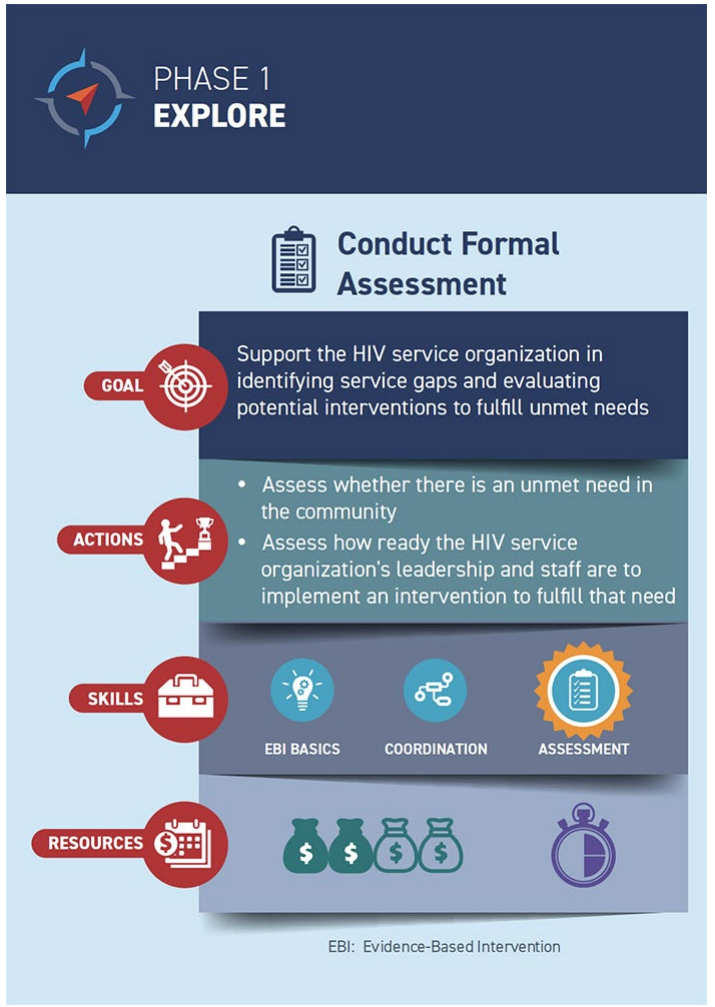


Participants

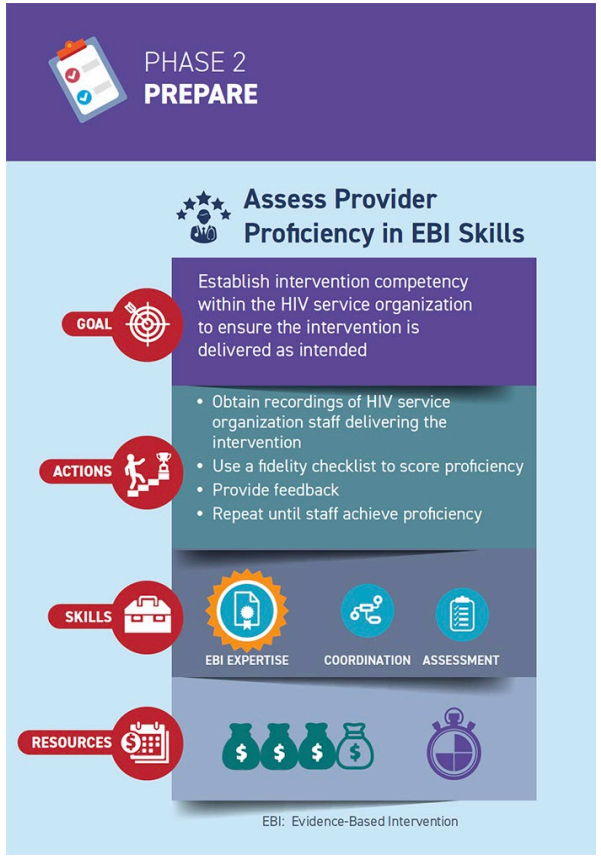
- All participants reported a moderate or great extent of knowledge regarding their AETC
- Most believed to a great extent that it is important for SUD-related services to be integrated into HIV service organizations, but that they were currently integrated only to a moderate or minor extent
- Only 20.3%, 37.5%, and 7.8% of the respondents reported that their AETC is ***expected***, ***supported***, and ***rewarded*** **to a great extent** to help HSOs integrate SUD-related services, respectively

Exploration strategies



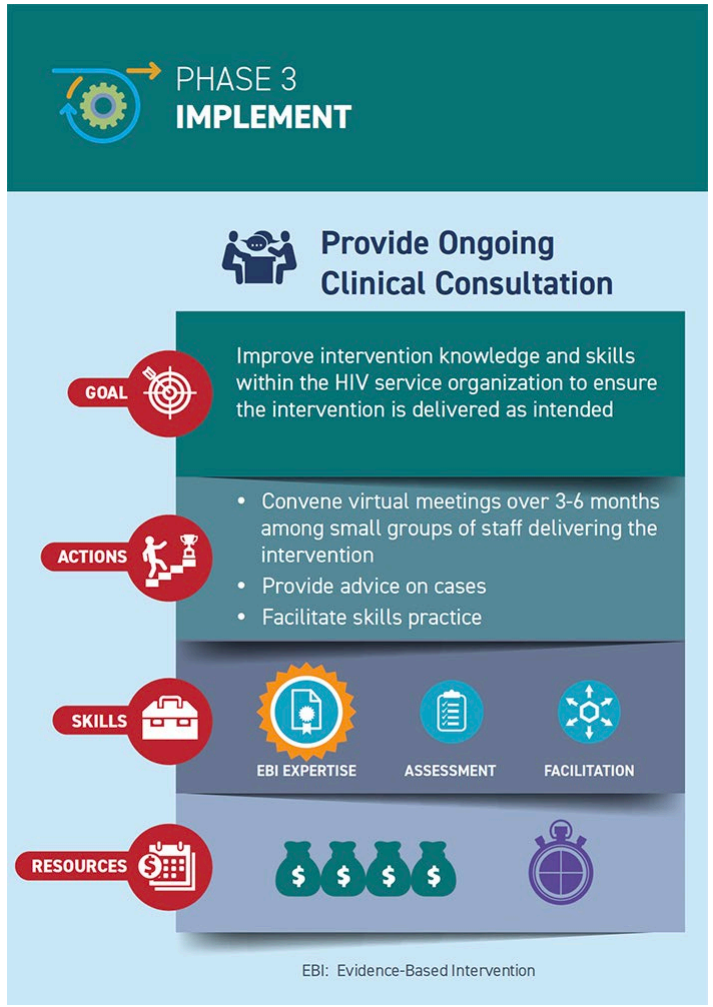


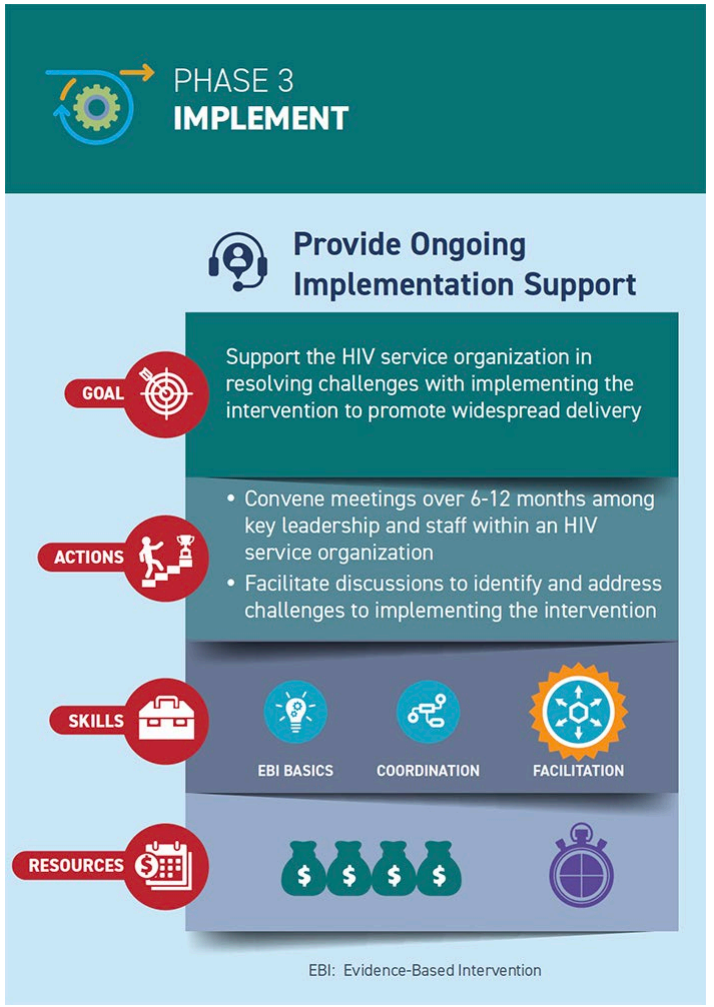
Preparation strategies

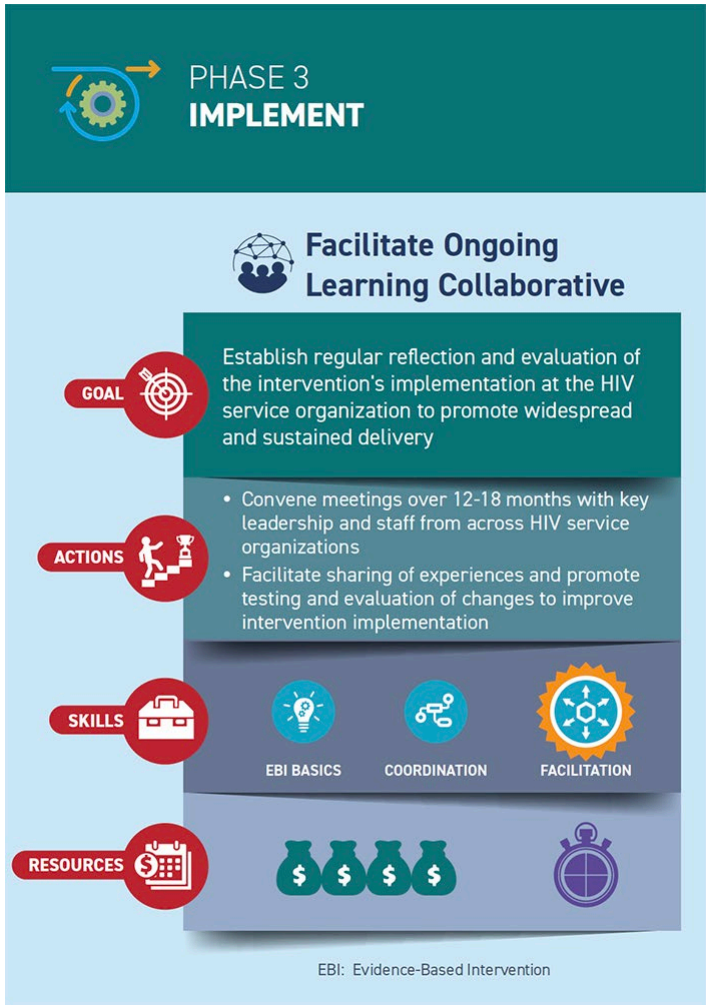


Implementation strategies

NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT







Purveyor-Strategy Fit Index

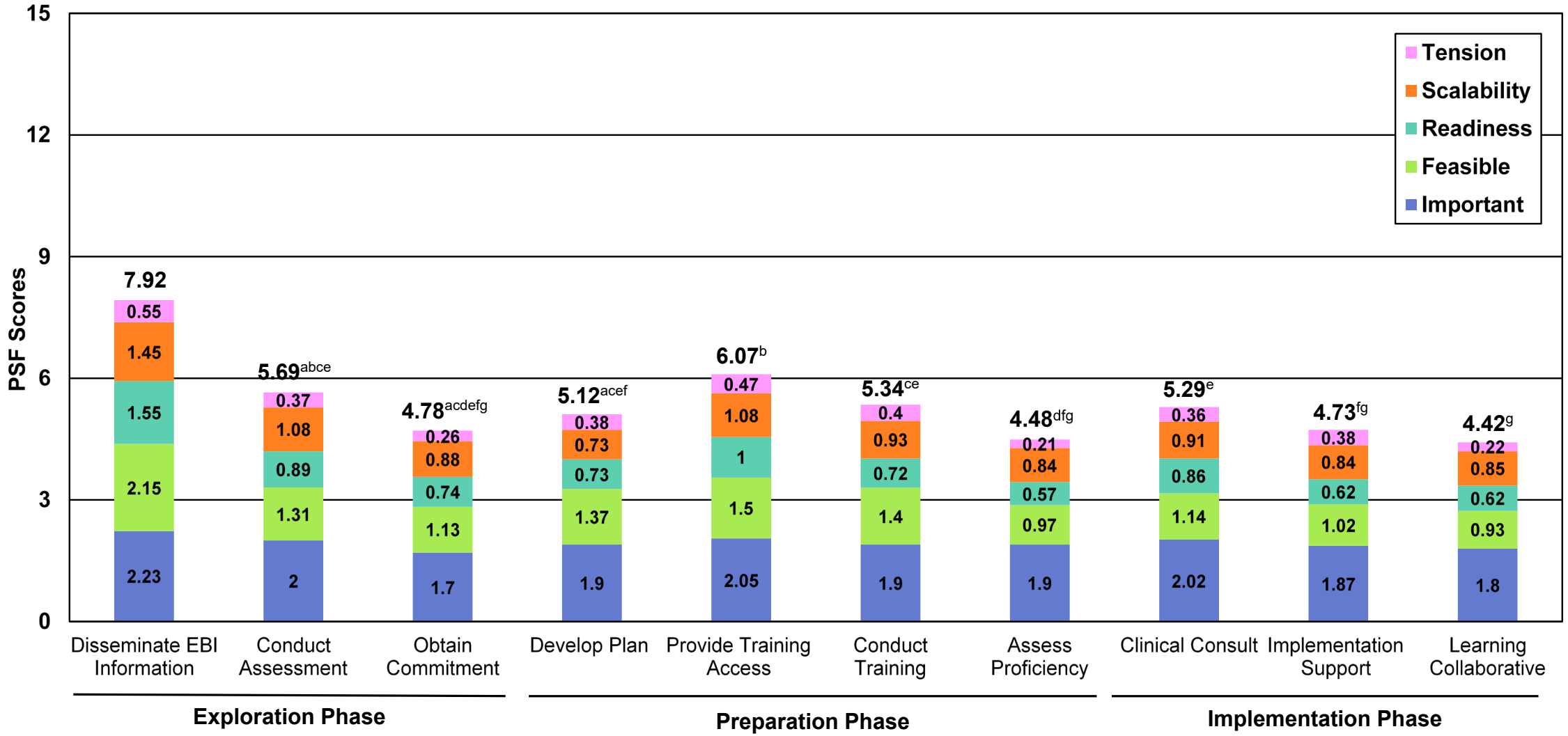
NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

- We worked with our AETC and other Technology Transfer Center partners to develop relevant questions that would help us identify which strategies are currently the most promising for AETCs to offer HIV service organizations in their jurisdiction
- We ultimately asked each AETC participant to rate whether the different strategies are ***Feasible*** and ***Important***, whether AETCs are ***Ready*** to provide them and could do so at ***Scale***, and whether AETCs encounter ***Tension*** to provide them
- Based on responses, we calculated an index score to reflect Purveyor-Strategy Fit (PSF) for each strategy, out of 15

Purveyor-Strategy Fit Index 2

- **Feasible** – To what extent would it be ***feasible (doable)*** for your AETC to offer [strategy] to help at least one HIV service organization implement a psychosocial intervention for SUD?
- **Important** – To what extent does your AETC consider [strategy] ***important (critical)*** for implementing a psychosocial intervention to address substance use disorder (SUD) at HIV service organizations?
- **Readiness** – To what extent is your AETC ***ready (prepared)*** to offer [strategy] to help at least one HIV service organization implement a psychosocial intervention for SUD during the next quarter?
- **Scalable** – How many of the HIV service organizations served by your AETC could you offer [strategy] to over the next 12 months to support ***broad implementation*** of a psychosocial intervention for SUD?
- **Tension** – To what extent does your AETC feel ***pressure (demand)*** to offer [strategy] to support implementation of a psychosocial intervention for SUD at the HIV service organizations you support?

Purveyor-Strategy Fit index scores and dimension contributions



These findings are being drafted for publication.

Conclusion and next step

- AETCs are not currently prepared or feel pressure to use effective strategies to support HIV service organizations integrate SUD interventions for PWH
- We are using this input to guide a pragmatic trial seeking to improve integration of SUD interventions into HIV service organizations
  - Participating HIV service organizations will be asked to implement the best fitting SUD intervention (***motivational interviewing***)
  - As the current most promising strategy for AETCs to offer, ***disseminating information*** about motivational interviewing will be the control strategy
  - We will assess how ***ongoing implementation support*** compares to improve implementation consistency and quality
- Better preparing AETCs to offer effective strategies to support integration of SUD interventions into HIV service organizations

How to claim CE credit

If you would like to receive continuing education credit for this activity, please visit:

ryanwhite.cds.pesgce.com