Alcohol Behavioral Research and HIV PrEP in Primary Care

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Why integrate alcohol and PrEP care?

- CDC Guidelines recommend visits at least every 3 months
- Patients may not be receiving care in other settings
- Alcohol may impact PrEP eligibility and effectiveness

US Public Health Service

PREEXPOSURE PROPHYLAXIS FOR THE PREVENTION OF HIV INFECTION IN THE UNITED STATES - 2014

A CLINICAL PRACTICE GUIDELINE

Clinicians should also briefly screen all patients for alcohol abuse[41] (especially before sexual activity) and the use of illicit non-injection drugs (e.g., amyl nitrite, stimulants).[42,43] The use of these substances may affect sexual risk behavior[44], hepatic or renal health, or medication adherence, any of which may affect decisions about the appropriateness of prescribing PrEP medication. In addition, if substance abuse is reported, the clinician should provide referral for appropriate treatment or harm-reduction services acceptable to the patient.

Key Finding #1

- **Finding**: Electronic medical record is an important tool for promoting evidence-based alcohol screening and brief interventions

- **Questions:**
  - How should the content be tailored in PrEP care settings?
  - Does this translate into improved patient outcomes?
  - How many brief interventions are the right “dose”?

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Journal of Substance Abuse Treatment

Documented brief intervention not associated with resolution of unhealthy alcohol use one year later among VA patients living with HIV

Emily C. Williams [a,c,f,*], Gwen T. Lapham [a,f], Jennifer F. Bobb [f], Anna D. Rubinsky [a,h], Sheryl L. Catz [e,f], Susan M. Shortreed [f,g], Kara M. Bensley [a,c], Katharine A. Bradley [a,b,c,d,f]

Table 2
Association between receipt of brief intervention and resolution of unhealthy alcohol use at follow-up screening a year later among VA patients living with HIV who had an initial positive screen for unhealthy alcohol use and a follow-up alcohol screen 9–15 months later (n = 2101).

	Incidence rate ratio (IRR)	95% confidence interval (CI)	p-Value
Primary predictor: documented brief intervention 0–14 days after a positive screen			
Unadjusted	0.96	0.90–1.03	0.230
Adjusted*	0.96	0.90–1.02	0.208
Secondary predictor: number of brief interventions received 0–365 days after a positive screen			
Unadjusted			
None	Referent	Referent	
Single brief intervention	0.96	0.90–1.03	0.248
≥2 brief interventions	0.95	0.83–1.08	0.411
Adjusted*			
None	Referent	Referent	
Single brief intervention	0.96	0.90–1.03	0.264
≥2 brief interventions	0.91	0.80–1.03	0.146

* Adjusted for sociodemographic and clinical characteristics, and utilization patterns.

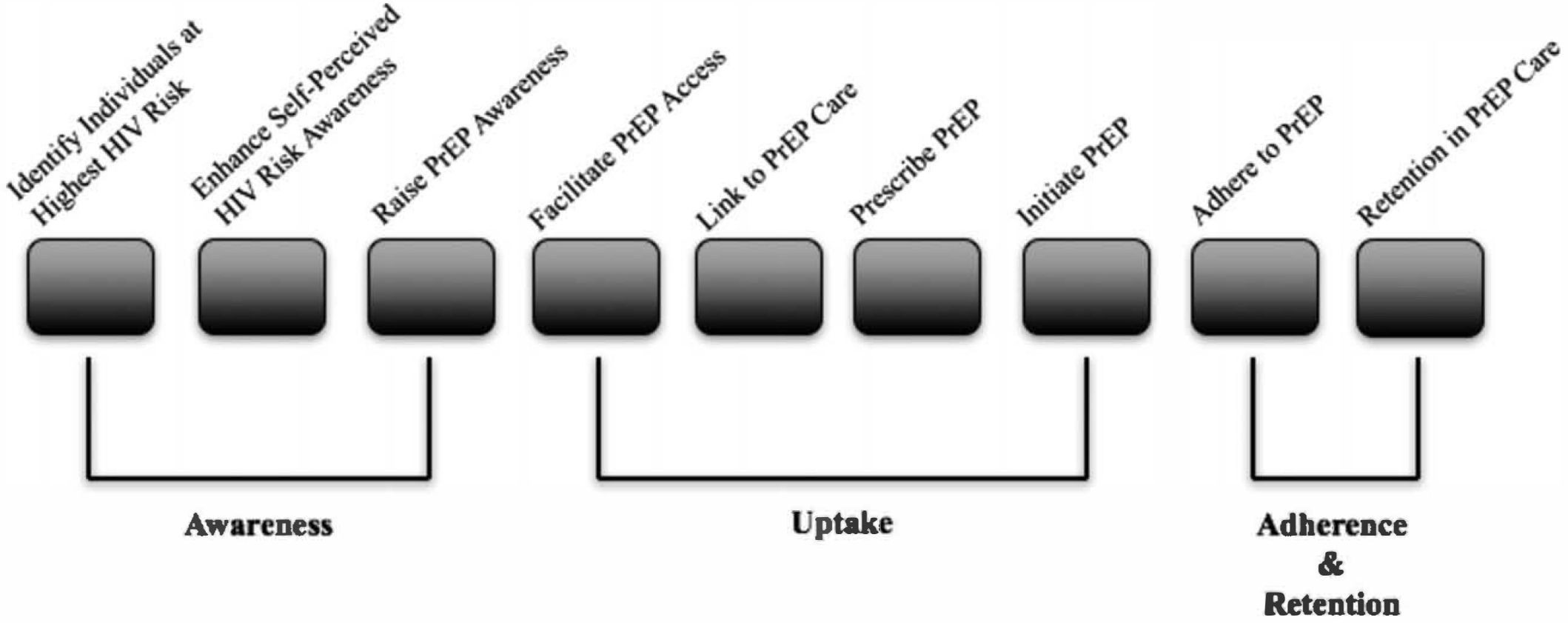
Key Finding #2

Finding: Alcohol use disorder is associated with treatment discontinuation, but not PrEP adherence.

Questions:

- How do we best define PrEP adherence?
- How can we use biomarkers to quantify alcohol exposure and medication levels to add precision to these estimates and complement self-report data?
- How does the spectrum of alcohol use impact the PrEP care continuum?

PrEP Care Continuum



Nunn A, et al *AIDS* 2017

Sociodemographic characteristics, n=171

Characteristic	Unhealthy Alcohol Use n=93 (54%)	No Unhealthy Alcohol Use n=78 (46%)	p value
Age, <25 years old	24%	13%	0.31
Race			0.69
White	66%	62%	
Black	12%	10%	
Multiracial/other/unknown	23%	28%	
Ethnicity, Hispanic/Latino	18%	25%	0.26
Annual income, <$12,000	22%	19%	0.66
Education, high school or less	19%	18%	0.77

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Unhealthy alcohol use and PrEP care, n=156

Outcome	Total	Unhealthy Alcohol Use, n (%) (n=83)	No Unhealthy Alcohol Use, n (%) (n=73)	Odds ratio (95% CI)
Adherent and retained in care	103	51 (61%)	52 (71%)	ref
Non-adherent but retained in care	12	7 (8%)	5 (7%)	1.43 (0.41-5.20)
Not retained in care	41	25 (30%)	16 (22%)	1.59 (0.76-3.38)

Overall Mantel-Haenszel chi-square *p* for trend= 0.23

Adherent defined as missing ≤7 pills/30 days; retention in care based on EMR review of visit at 3 months

Key Finding #3

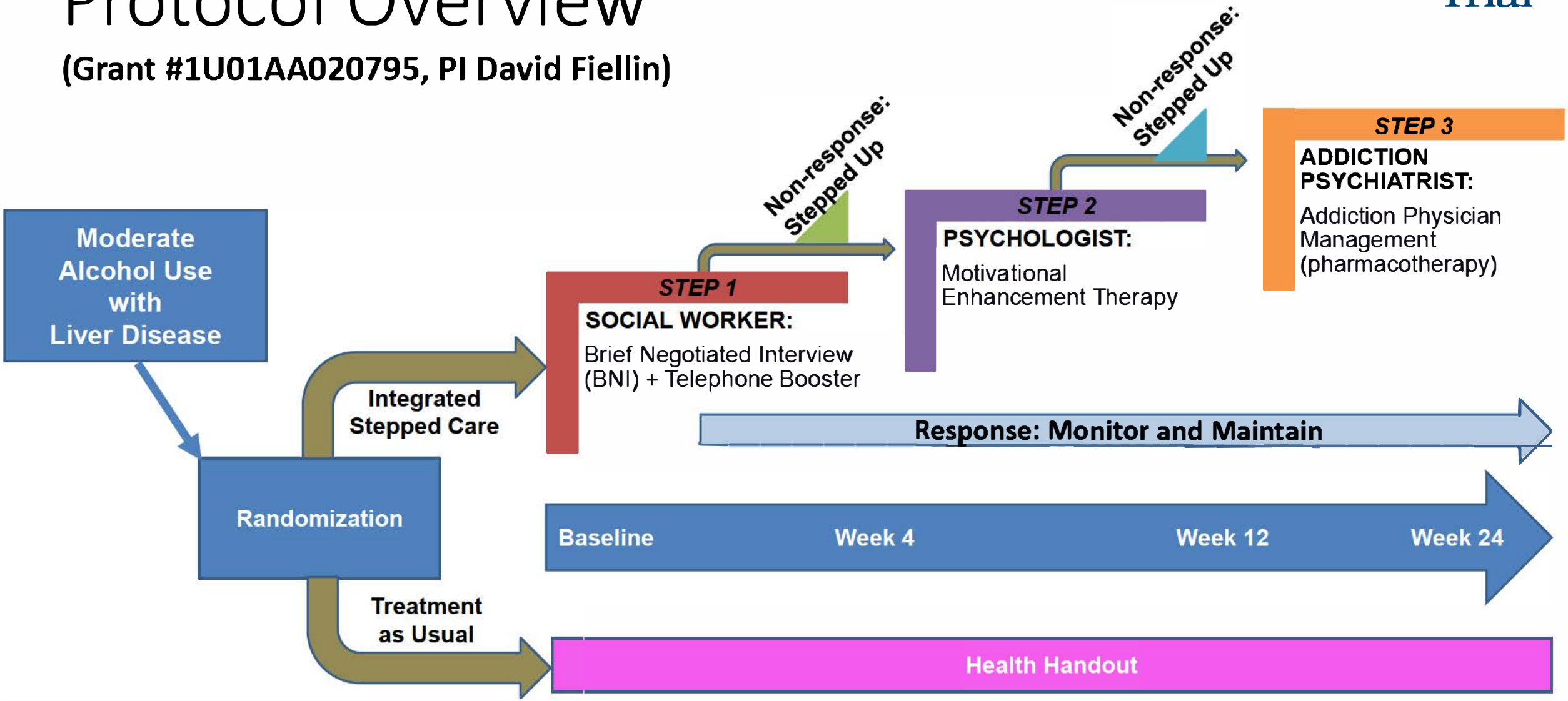
Finding: Psychologist delivered motivational interviewing and emailed feedback are feasible interventions in HIV [PrEP] treatment settings [awaiting efficacy data]

Questions:

- How do we adapt interventions to meet patient needs?
- If not electronically delivered feedback, who should be delivering the alcohol-related intervention?
- What else do we include in our “combination prevention interventions” toolkit?

Protocol Overview

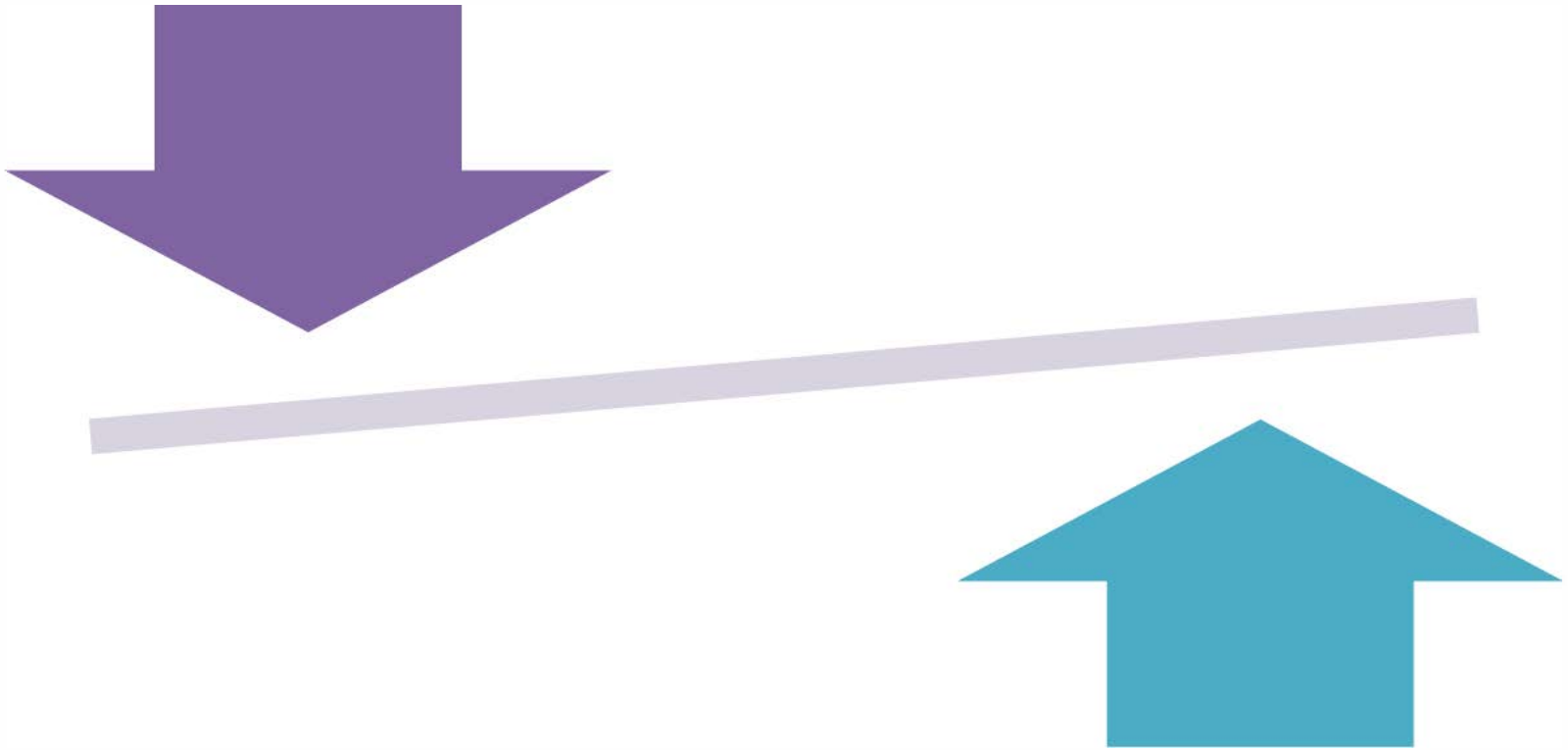
(Grant #1U01AA020795, PI David Fiellin)



Patients stepped up if any reported alcohol use in the prior 14 days at week 4 or week 12 assessment.

Edelman EJ et al. *Contemporary Clinical Trials*. 2017; Edelman EJ et al. *Addiction Science and Clinical Practice*. 2016

PrEP provider or others team members?



A missing tool in the HIV prevention toolkit: Alcohol pharmacotherapy

- Three Food and Drug Administration approved medications for alcohol use disorder
  - Naltrexone in oral and injectable formulations
  - Effectively decrease heavy drinking days (4-5% fewer heavy drinking days vs placebo)
  - Naltrexone can be delivered in HIV treatment settings [PrEP?]

- Injectable PrEP in phase III clinical trials opportunity to couple these interventions + behavioral interventions

- Need efforts that lead to sustained effects and translate into HIV risk reduction

Jonas DE *JAMA* 2014

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A CLINICAL PRACTICE GUIDELINE

1. How do we best screen patients for alcohol use?
2. How do we talk about alcohol use effectively in screening and interventions?
3. What is the impact of alcohol use on sexual risk behaviors, PrEP adherence and retention over time?
4. How does alcohol use impact patient eligibility for PrEP?
5. When is referral appropriate and to where?

Clinicians should also briefly screen all patients for alcohol abuse[41] (especially before sexual activity) and the use of illicit non-injection drugs (e.g., amyl nitrite, stimulants).[42,43] The use of these substances may affect sexual risk behavior[44], hepatic or renal health, or medication adherence, any of which may affect decisions about the appropriateness of prescribing PrEP medication. In addition, if substance abuse is reported, the clinician should provide referral for appropriate treatment or harm-reduction services acceptable to the patient.

Unmet challenges

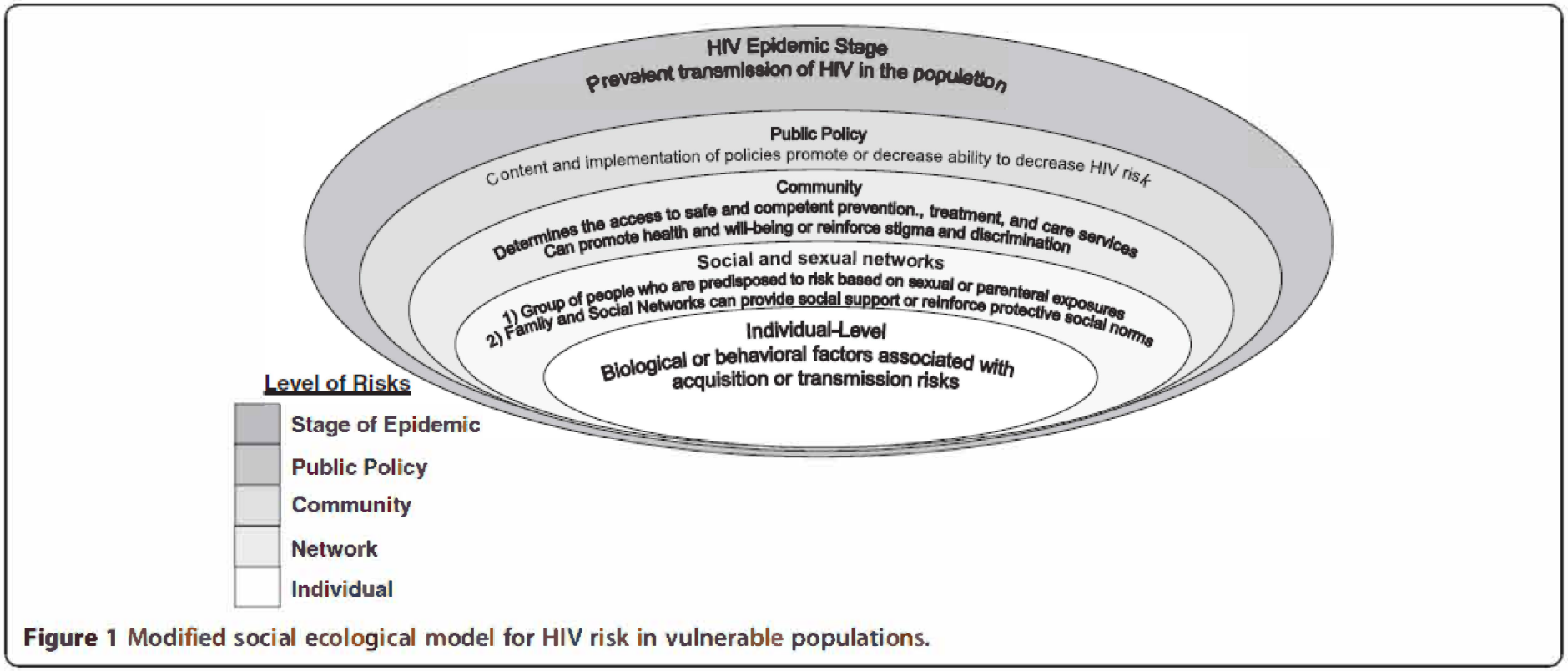
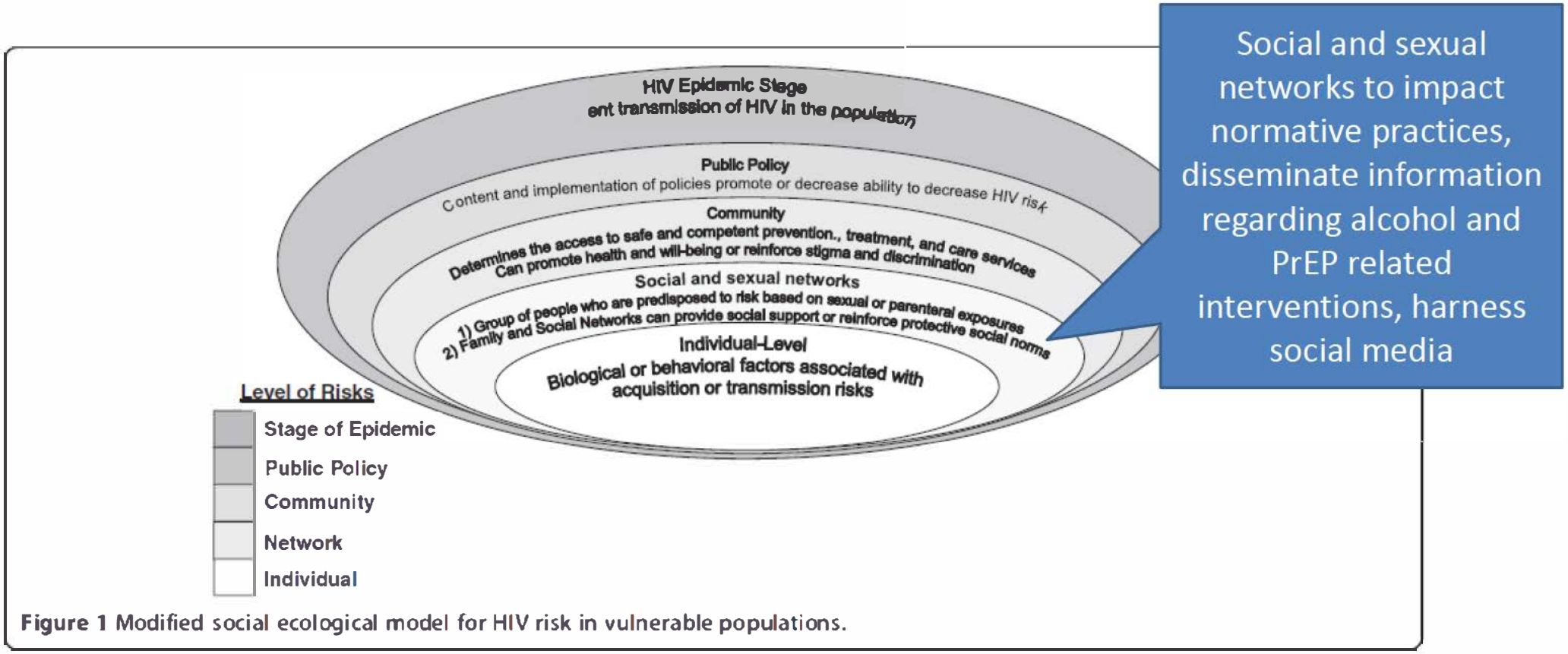


Figure 1 Modified social ecological model for HIV risk in vulnerable populations.

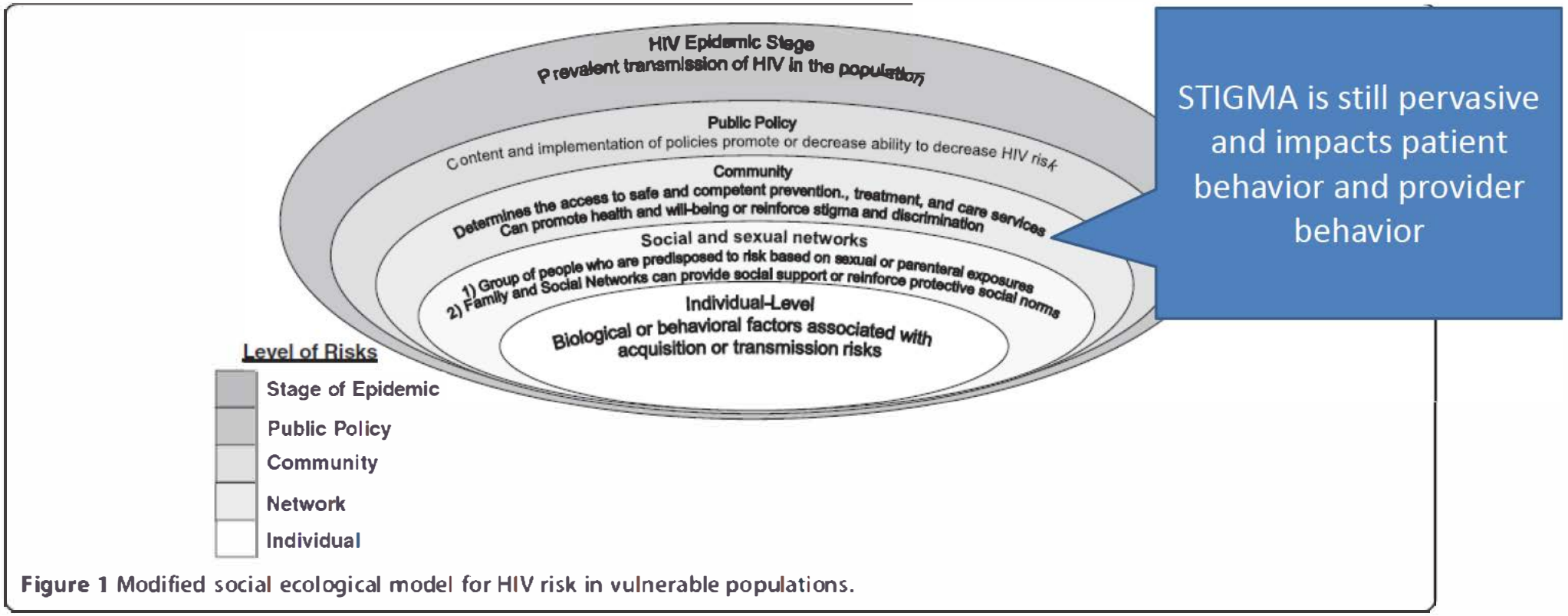
Unmet challenges



Social and sexual networks to impact normative practices, disseminate information regarding alcohol and PrEP related interventions, harness social media

Baral S 2013 BMC Public Health

Unmet challenges



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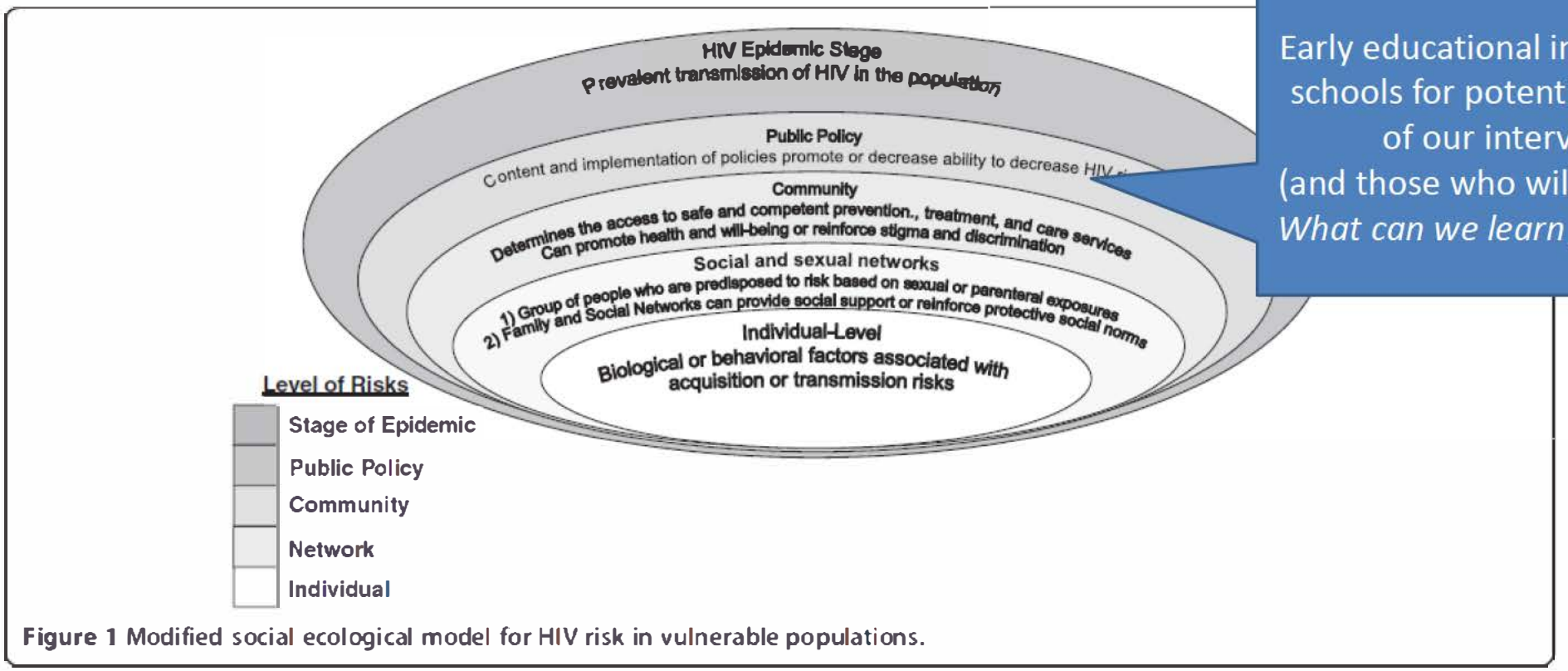

Figure 1 Modified social ecological model for HIV risk in vulnerable populations.

Early educational interventions in schools for potential receipients of our interventions (and those who will deliver them) *What can we learn from Sweden?*

Baral S 2013 BMC Public Health

Thank you!