Strategies for Implementing Computerized Substance Use, Depression and Anxiety Screening and Behavioral Interventions in HIV Primary Care Settings

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Presentation Overview

- Rationale for the PACE (Promoting Access to Care Engagement)
- Screening and intervention components
- Description of computerized screening tools and supporting systems
- Project progress to date
- Lessons learned / next steps

HIV Care Complications Due to Substance Use and Mental Health Problems

- Poor antiretroviral adherence
- Reduced viral suppression
- Increased infectivity
- Higher rates of sexual HIV transmission risk behaviors
- Greater medical comorbidity and mortality

Williams et al., *ACER,* 2016 Oct; 40(10): 2056–2072.; Azar et al., *Drug Alcohol Depend*. 2010;112(3):178-193; Samet et al., *JAIDS,* 2007;46(2):194-199; Horberg et al., *JAIDS,* 2008;47(3):384–90.

Challenges to Effective Care Integration

- SU and psychiatric screening is not systematic in HIV care
  - Lack of time, stigma, screening questions not asked as intended
- Providers may have limited intervention expertise
- Percentage of HIV patients who initiate specialty care is low:
  - 15% substance use clinic treatment
  - 24% psychiatric clinic treatment

Satre et al. *Psych. Services,* 2013, 64, 745-753.

Promoting Access to Care Engagement (PACE) Project Overview

- Setting: Sequential implementation at KP Oakland, Sacramento and San Francisco HIV primary care clinics
- Design: Hybrid intervention study that evaluates both implementation and effectiveness, pre-post in each clinic, stepped-wedge analysis
- Screening: Self-administered electronic questionnaire completed by patients before or at routine visits every 6 months
- Treatment: Motivational interviewing (MI) and cognitive behavioral therapy (CBT)-based interventions by a trained behavioral health specialist (BHS) embedded in HIV primary care

- Staff-model integrated health care delivery system (medical, psychiatry, & AOD services)
- 4.2 million members (44% of region's market share)

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Kaiser Division of Research (DOR)

- 60+ Investigators, mostly NIH funded
  - Research is based in KPNC health systems
- Drug and Alcohol Research Team at DOR works closely with KPNC clinicians in developing studies
- HIV Team also allied with regional and clinic HIV leadership, and has a role in tracking clinical care
  - Has responsibility for maintaining the HIV registry, which is used to monitor HIV patient care and is also a research resource

Characteristics of KPNC HIV patients in PACE study clinics (HIV registry data)

	Oakland	Sacramento	San Francisco
N	1,092	651	2,857
Men (%)	84	89	97
Mean age, years	50	51	51
Race/ethnicity (%)			
White	42	71	65
African-American	38	14	10
Hispanic	12	11	16
Other	8	5	9
HIV risk (%)			
Men who have sex with men	69	71	87
Injection drug use	7	9	8
Heterosexual or Other	25	20	5
On ART (%)	91	85	92
HIV RNA<75 copies/ml, (%)	92	92	94

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Substance and Psychiatric Disorders among HIV+ KPNC Patients

- 26% substance use disorder (n=2489)
- 25% psychiatric disorder (n= 2472)
- 12% both substance and psychiatric disorder
- Most common psychiatric diagnoses:
  - 81% Major depression
  - 17% Panic disorder
  - 14% Bipolar
  - 8% Eating disorder
- SUDs and psychiatric disorders both predict mortality

DeLorenze, et al., 2010, *AIDS Pt Care STDs*, 24, 705-712

Screening, Identification and Treatment Rates prior to PACE Rollout (Oakland, CA)

	n	%
Total Cohort	1,390	100%
Screened		
PHQ-9	104	7.5%
Depression dx	313	22.5%
Substance Use Disorder dx	17	1.2%
Screened Positive		
PHQ-9 >10	36	2.6%
Depression dx	313	22.5%
Substance Use Disorder dx	17	1.2%
BHS Visits		
Ever Visited BHS	106	7.6%
Total BHS Visits	295	-
Mean BHS visits among those with at least one visit	2.8 (SD=2.6)	-

Sample includes adult (18+) HIV + population active between 8/1/2017 -8/1/2018 (n=1,390).

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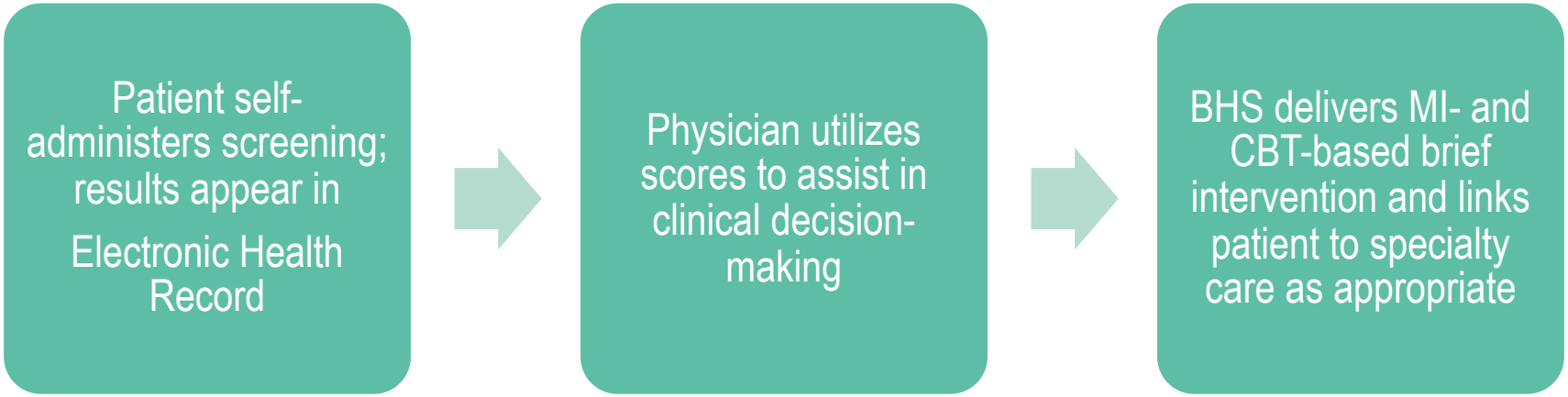
PACE Screening & Intervention Model



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Screening methods

- Secure message via EHR patient portal
- Tablet in waiting room
- Clinic desktop computer

Screening Instrument – Combined TAPS/AOQ

Tobacco, Alcohol, Prescription Medications, and other Substances (TAPS)[1]

Branching, with SUD risk scores for:

1. Tobacco
2. Alcohol
3. Cannabis
4. Stimulants
5. Heroin
6. Rx opioids
7. Rx sedatives
8. Rx stimulants

And information about: Other recent drug use, including injection drug use

KP Adult Outcomes Questionnaire (AOQ)

- PHQ-9 (depression)
- GAD-2 (anxiety)
- 2 functional questions (productivity and focus)

[1]McNeely et al., *Ann Intern Med.* 2016;165(10):690-699.

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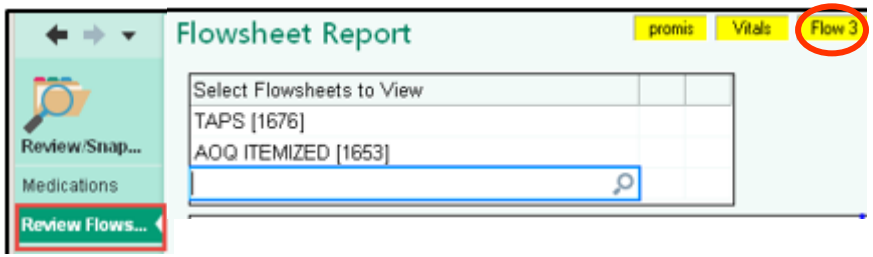
Assisting Routine Screening Via KP.org

- Clinics requested help in identifying eligible patients and sending questionnaires
- Access database developed at KP Division of Research
- Populated based on HIV registry, clinic location, appointment date, and most recent completion of TAPS/AOQ
- Research assistant reviews list of eligible patients
  - Sends out questionnaires linked to appointments
- Non-responders flagged automatically for clinic-based TAPS/AOQ administration

Viewing Patient Responses

- View all responses in EHR flowsheet
  - Add a TAPS/AOQ shortcut to your Toolbar



- Display latest responses in clinical/progress note using Smartphrase: **.tapsaoqresults**
- Display latest responses in Staff Messages – e.g., to BHS

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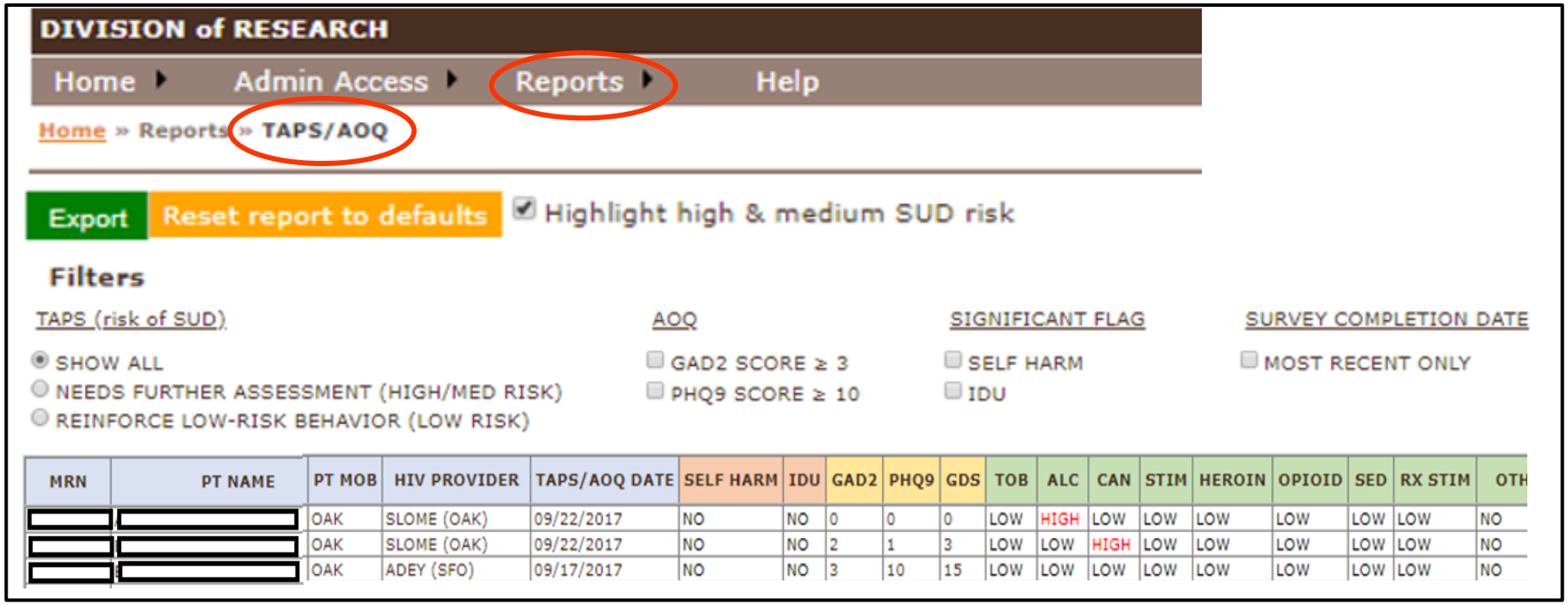
TAPS Score Interpretation

Substance	Score	Interpretation	Recommended action*
* Any score >0? Other drugs? Recent IV drug use?			*Consider* warm handoff or referral to BHS for assessment, motivational intervention, and personalized referral to specialty treatment
Tobacco	0	No current use	Reinforce low-risk behavior
	1	Problem use	Continue current practice - e.g. Advice, Rx, Health Ed
	2-3	High-risk use/likely SUD	
Alcohol	0	No current use	Reinforce low-risk behavior
	1	Problem use	Continue current practice - e.g. brief intervention, handoff to BHS, or referral to specialty care
	2-4	High-risk use/likely SUD	
Marijuana	0	No current use	Reinforce low-risk behavior
	1	Problem use	Brief intervention
	2-3	High-risk use/likely SUD	Assessment & treatment for SUD
Cocaine, Methamphetamine	0	No current use	Reinforce low-risk behavior
	1	Problem use (possible SUD)	Brief intervention & assessment for SUD
	2-3	High-risk use/likely SUD	Assessment & treatment for SUD
Heroin	0	No current use	Reinforce low-risk behavior
	1	Problem use (possible SUD)	Brief intervention & assessment for SUD
	2-3	High-risk use/likely SUD	Assessment & treatment for SUD
Rx opiate	0	No current use	Reinforce low-risk behavior
	1	Problem use (possible SUD)	Brief intervention & assessment for SUD
	2-3	High-risk use/likely SUD	Assessment & treatment for SUD
Rx sedative	0	No current use	Reinforce low-risk behavior
	1	Problem use (possible SUD)	Brief intervention & assessment for SUD
	2-3	High-risk use/likely SUD	Assessment & treatment for SUD
Rx stimulant	0	No current use	Reinforce low-risk behavior
	1	Problem use (possible SUD)	Brief intervention & assessment for SUD
	2-3	High-risk use/likely SUD	Assessment & treatment for SUD
Recent other drug(s)	Write-in	--	Review with patient
Recent IV drug use	Y/N	--	Assessment & treatment for SUD, testing and treatment for blood-borne diseases

Viewing panel/clinic responses in iHIV



MRN	PT NAME	PT MOB	HIV PROVIDER	TAPS/AOQ DATE	SELF HARM	IDU	GAD2	PHQ9	GDS	TOB	ALC	CAN	STIM	HEROIN	OPIOID	SED	RX STIM	OTH
[redacted]	[redacted]	OAK	SLOME (OAK)	09/22/2017	NO	NO	0	0	0	LOW	HIGH	LOW	LOW	LOW	LOW	LOW	LOW	NO
[redacted]	[redacted]	OAK	SLOME (OAK)	09/22/2017	NO	NO	2	1	3	LOW	LOW	HIGH	LOW	LOW	LOW	LOW	LOW	NO
[redacted]	[redacted]	OAK	ADEY (SFO)	09/17/2017	NO	NO	3	10	15	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	NO

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Summary: Project Status as of September 2018

- ✓ Developed and integrated electronic, self-administered screening tool in KP HealthConnect – the combined TAPS/AOQ
- ✓ Created EHR-based screening reports (flowsheet, smartphrase) and online iHIV reports so clinicians can easily review patient scores
- ✓ Developed back-end patient tracking system to be utilized by Division of Research to ID patients due for questionnaire
- ✓ Trained Oakland BHS and HIV clinicians and staff; currently rolling out routine use of TAPS/AOQ in Oakland (Site #1)
- ✓ Sacramento rollout scheduled for Winter 2018/19
- ✓ San Francisco projected rollout Spring/Summer 2019

Challenges in Implementing Routine Screening Via Secure Message

- Clinic staffing and resources
- Patient eligibility tracking
- Technical limitations of systems
- Determining whether patient completed questionnaire
- Identifying high-risk patients, e.g., suicidal ideation
- IRB issues:
  - technology can blur lines between implementation / and human subjects concerns
  - Role of the study team in facilitating implementation

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KPNC Adolescent Chemical Dependency Coordinating Committee
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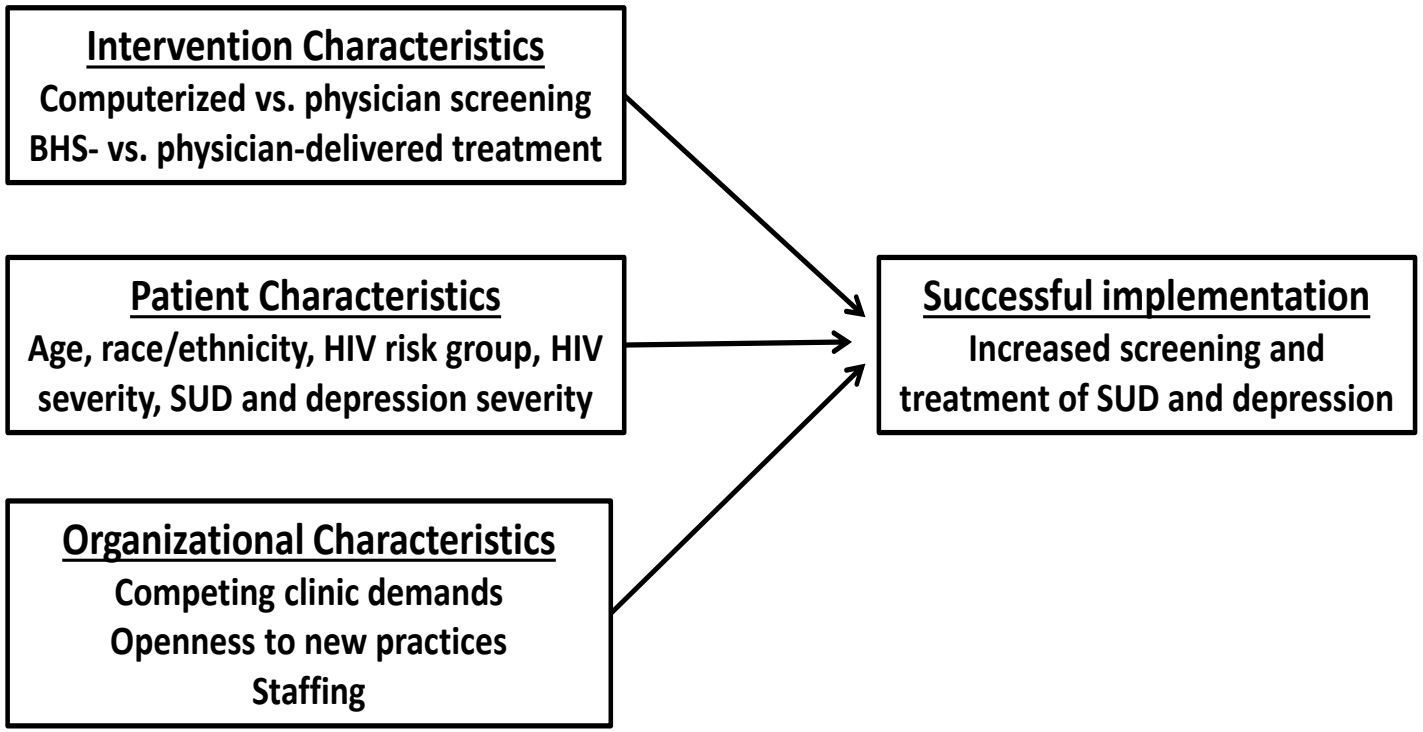
Conceptual Model for Evaluating Implementation



Adapted from the PRISM implementation model. Feldstein & Glasgow, *Jt Comm J Qual Patient Saf.* 2008;34(4):228-243.

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Key Study Outcome Measures

- Aim 1 (implementation pre-post intervention)
  - SUD, depression and anxiety screening rates
  - Primary care-based brief interventions
- Aim 2 (effectiveness pre-post intervention)
  - Specialty care treatment initiation
  - SU and depression level based on repeated screenings
  - Antiretroviral adherence, HIV viral control
- Aim 3 (cost)
  - Training, screening and intervention costs
- Aim 4 (implementation barriers and facilitators)
  - Qualitative interviews

Administering the TAPS/AOQ - Method #3: On clinic computer, via Suspended Hyperspace

- Patients complete TAPS/AOQ via an office or exam-room desktop computer
- “Suspended” refers to limiting patient access to **only** the HealthConnect questionnaire
- Availability date still TBD