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- Extant REF literature in U.S. mainly focuses on urban environments
- Appalachian Kentucky is at the epicenter of epidemics of opioid misuse and related harms (HCV, overdose)
- Prior studies demonstrate roles of social networks in HCV transmission and injection risk behaviors among people who inject drugs (PWID) in Appalachia Kentucky (e.g. Havens et al. 2013; Young et al. 2013; Young et al. 2014;)

Presentation Aims

Aim 1. Guided by Rhodes' Risk Environment Model, examine how features of the social environment shape vulnerabilities to HCV and HIV transmission across ecologic levels in a rural setting (Rhodes 2002; 2009)

Aim 2. Discuss implications for harm reduction interventions



Methods

- Eligibility criteria: recent use (past 30 days) of heroin or prescription opioids (POs) to get high; aged 18-34; live in one of five rural counties in Eastern Kentucky.
- **Recruitment:** combination of street outreach and peer-driven recruitment strategies.
 - Poster #71 covers this in depth.

Methods

• **Data collection**: exploratory, in-depth qualitative interviews about participants' perceptions of the local risk environment and its relationship to vulnerability to HCV, HIV, and overdose.

Analysis

- Audio-files transcribed verbatim and doubled coded
- Thematic analysis conducted in Nvivo v.11

Participant Characteristics		
Participant Demographics	Self-reported drug use among sample in past <u>30 days</u>	
 19 non-Hispanic white adults 42% (n= 8) women & 58% (n=11) men Mean age = 26 years (range 18-34 years) Lived in study area for avg. of 11 years (range 0.5-27 years) Reported knowing an average of 41 people in the study area who used 	 81.3%(n=13) reported injecting at least one type of drug in past 30 days 90% reported recent use of POs 47% reported using heroin 	
heroin and/or POs	 Other drugs: methamphetamine, cocaine, sedatives 	

Features of Social Environment

Community Level	 Fatalism Stigma toward PWUD, overdose, and HIV Lack of social enrichment across lifespan Absence of community activism
Networks of People who use drugs (PWUD)	 Low knowledge of HCV/HIV risks Injecting norms Fear of police Interfamilial drug use
Individual behaviors	 Sharing equipment Bleaching/cleaning equipment Rushing injections Condomless sex Reluctance to seek testing & Tx

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Lack of access to sterile syringes

• Participants reported lack of access to clean syringes, despite acknowledging risks of sharing.

• Sources of syringes:

- Dealers
- Diabetic friends or family members
- · Littered syringes in trap houses or public spaces
- Pharmacies
- Few reported using newly established SEP with mixed reporting on access and satisfaction

• KY legalized SEPs in 2015

- Health-department operated
- Expanding significantly in study area

How features of social environment influence individual risk behaviors



Implications for interventions

- 1. Inform SEP Implementation:
 - Satellite and secondary exchanges to leverage social networks of PWUD to expand reach, access, and utilization of SEP services
 - Education and trainings for law enforcement
 - Public/community education on benefits and urgency of SEPs and as mode for drug treatment outreach
- 2. Targeted health education for young adults and families on HCV and HIV transmission risk
 - PWUD education on perils of sharing cookers, cottons, water

Implications for public health interventions

- 3. Advance local advocacy and community organizing for PWUD
 - Organize local events, cookouts, and community forums to support PWUD and sex workers.
 - Collaborations with national and regional harm reduction organizations to build capacity for organizing
 - Advocate for social enrichment programs for children and young adults
- 4. Stigma reduction interventions around substance misuse, HCV, HIV, and ODs

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 - **Project Title**: Novel Methods For Research On Young Rural Opioid Users At Risk Of HIV, HCV & OD
 - Grant number: 5R21DA042727-02 (PIs: Cooper, Young)
- Study staff
- · Authors report no conflicts of interest

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