

Recruitment Methods for Epidemiologic Research on Hepatitis C among Rural Young Adults who Inject Drugs

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Objective

Rural communities in the U.S. are epicenters of Hepatitis C (HCV), fueled by opioid injection, syringe sharing, and a historically weak harm reduction infrastructure. However, methods for epidemiologic research on HCV among people who use drugs (PWUD) were developed predominantly in urban contexts. This study explores the feasibility of using web-based strategies to recruit rural, young adult PWUD into epidemiologic research.

Methods

Young people who use opioids were recruited from August 2017 to July 2018 in rural Appalachian Kentucky. Inclusion criteria were:

- Being age 18–35
- Living in the 5-county study area
- Recently (past 30 days) opioid use to get high

Study participation involved an online eligibility screening, followed by an online survey about sexual and drug-related behavior.

Recruitment methods

Recruitment of index participants (i.e., seeds) for the web-based respondent-driven sampling (Web-RDS) strategy occurred through a combination of the strategies (listed below). In the Web-RDS strategy, participants were provided a code to share with peers upon completion of the study. Participants could share the code via text message or online messaging, and could be reimbursed \$10 per eligible peer who participated in the survey for up to three peers.

- Recruitment cookouts (i.e., community cookouts held in gas station and grocery parking lots; see Figures 1 and 2)
- “Walkabouts” (walking through neighborhoods and distributing flyers)
- Flyers posted in community social service and health agencies (e.g., health departments, substance use treatment centers, social service organizations, medical clinics)
- Flyers posted in non-traditional community venues (e.g., gas stations, laundromats, cash advance stores, pawn shops, vape and tobacco shops, hair salons, department store billboards, restaurants)
- Referrals from community coalition members (i.e., local stakeholders) involved in another local opioid study.
- Walk-ins to a field office leased for another substance use study that involved recruitment via traditional respondent-driven sampling.

Figure 1. Photo from cookout



Figure 2. Photo of one cookout location



Eligibility Verification for Online Screening

Prospective participants completed an extensive online eligibility screening that involved quizzes assessing knowledge of the local community and opioids to verify residence and substance use, respectively. Quizzes underwent cognitive testing with PWUD.

To verify residence, participants were asked which county they had slept most often in the past 6 months and then were administered a 5-question quiz with multiple choice questions drawn at random from a 10-question bank developed specifically for the 5 eligible counties. Individuals who reported living in a non-eligible county were also administered a similar 5-question quiz, but the quiz was not scored. Quiz questions asked about local landmarks, well-known festivals or recent events, major stores in the county, and cities/towns. Participants were required to get 3 out of 5 questions correct to “pass” the county quiz.

To verify substance use, participants were administered a 3 to 4 question quiz about the opioid they reported using to get high most frequently in the past 30 days. If they did not use an opioid in the past 30 days, they were administered a similar quiz. The quiz involved questions about the dose, price, and image of the drug they reported using most frequently to get high in the past 30 days. Participants were required to get 1 to 2 of the 3 quiz questions correct to “pass” the drug quiz, depending on the drug.

Results

In total, there were 528 entries in the online eligibility screening survey; 410 of those were able to be assessed for eligibility and 57.1% (n=234) of those were eligible. Of those who were eligible, 71.4% (n=167) had valid survey entries (see Figure 3). Figure 4 shows the yield of each recruitment strategy.

Figure 3. Participant Flowchart

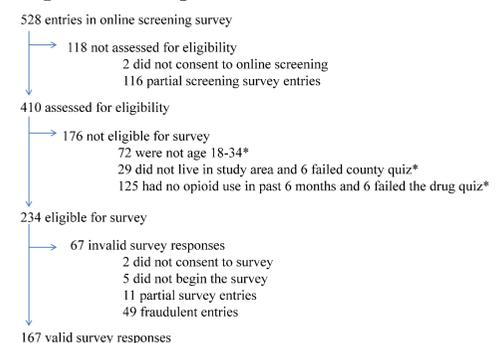
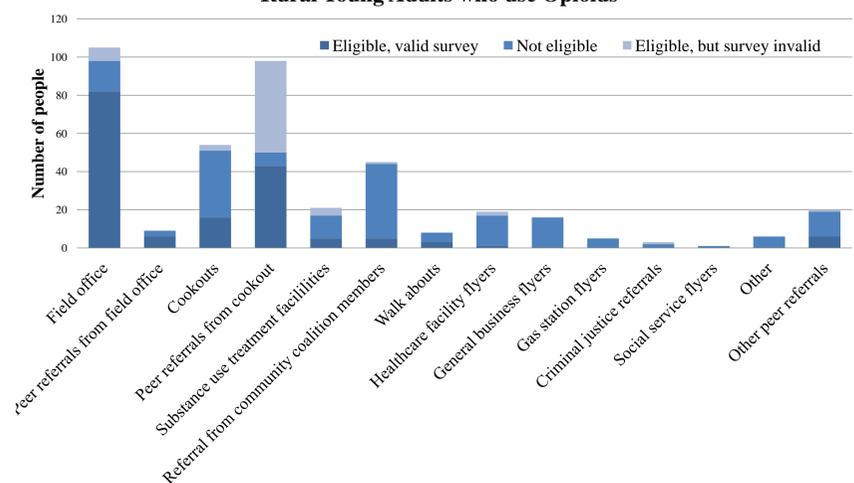


Figure 4. Yield of Recruitment Methods in Study of Rural Young Adults who use Opioids



- Project cookouts were the most effective strategy in generating entries into the online screening process. Of the 410 online screening entries that were assessed for eligibility, 37.1% (n=152) were attributable to cookouts or referrals from cookout-recruited people. Of the 234 who were eligible, 47% were recruited through cookouts and cookout referrals.

- The efficiency (i.e., percent of screening entries that met eligibility criteria) of direct recruitment at cookouts was low (35%), but the efficiency of *peer-referrals* from cookout participants was high (93%). However, just over half of the eligible entries were invalid (i.e., fraudulent or incomplete).

- Field office based recruitment and peer referral from field office participants combined to be the second most effective method in generating entries into the online screening process and yielding eligible entries, accounting for 27.8% of total screening entries and 40.6% of all eligible entries, most of which were complete and non-fraudulent.

Conclusions

- Cookouts and field office recruitment and related peer referrals accounted for 88% (n=147) of the final sample. Other strategies yielded relatively few eligible participants.

- Cookouts yielded the most entries into the online screening survey and the most eligible entries, but many entries were fraudulent. Field office recruitment yielded slightly fewer eligible entries, but a higher proportion of the entries were valid.

- Though web-based recruitment methods have successfully recruited marginalized populations in urban areas, our study indicates that web-based methods need to be complemented by the use of a local field office and staff and/or by context-tailored, street-outreach activities to recruit rural PWUD.

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