4th HEPATITIS C TECHNICAL ADVISORY GROUP

TAG Meeting

ESTABLISHING A GEORGIAN PWID COHORT STUDY TO ESTIMATE INCIDENCE OF HCV INFECTION

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Background

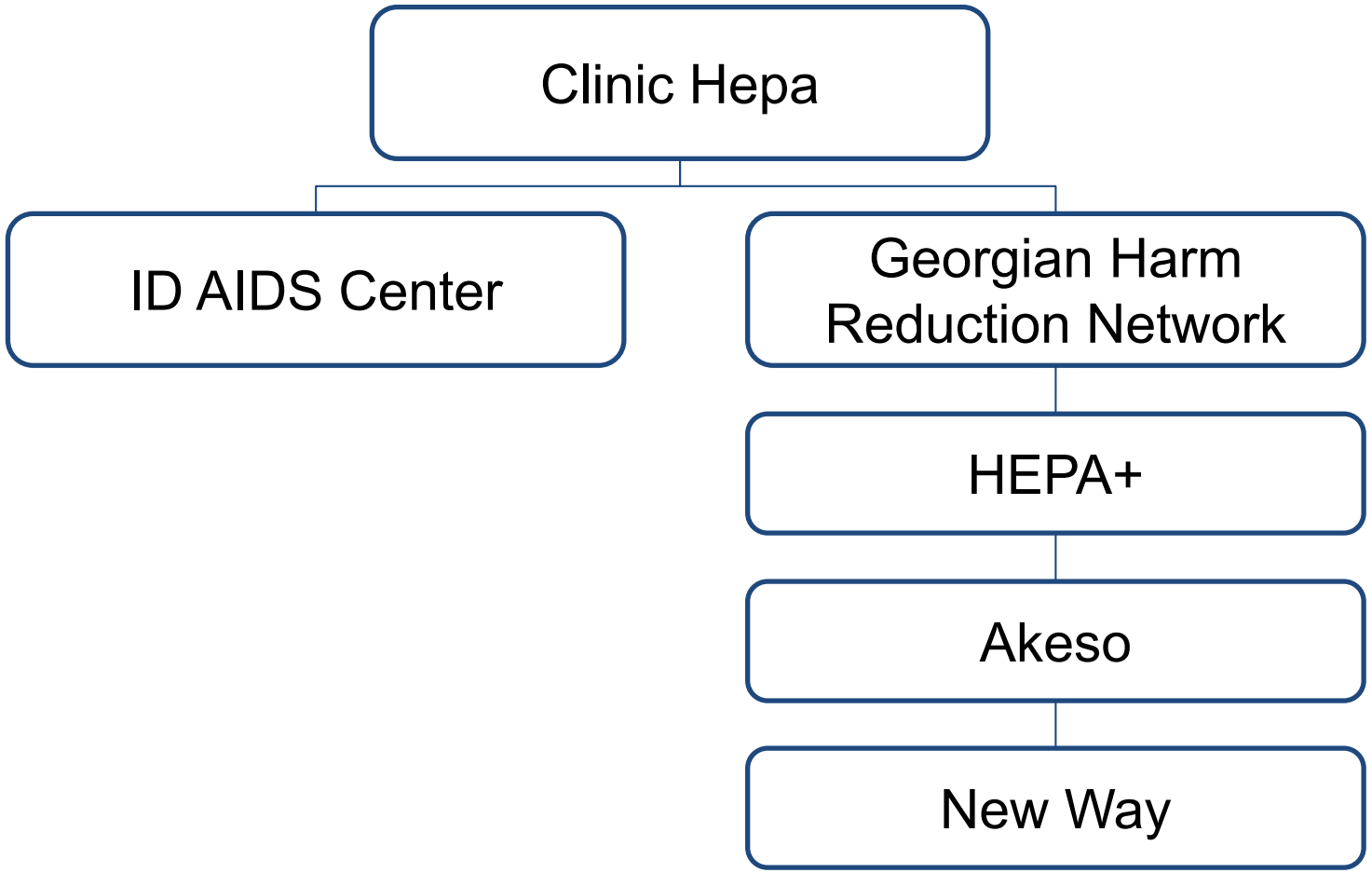
- People who inject drugs (PWID) are at highest risk of hepatitis C
- 38.2% of HCV infections in Georgia is attributed to injection drug use
- Estimated size of PWID population in Georgia: 52,500
- anti-HCV prevalence among PWID: 57.1%-91.9%
- HCV incidence is unknown

Liang TJ, Ward JW. N Engl J Med. 2018;378:1169-1171. Baliashvili D et al. Abstract THU-203; EASL 2017. Shapatava E, et al. Drug Alcohol Depend. 2006;82(Suppl 1):S35-8. CIF. IBBSS Surveys 2015, 2017. Bouscaillou J, et al. Int J Drug Policy. 2014;25:871-8.

Objectives

- Establish Georgian PWID Cohort Study
- Estimate prevalence and incidence of HCV infection in PWID
- Validate assay-based recent infection testing algorithm for indirect estimation of HCV incidence
- Evaluate engagement in HCV care continuum and health outcomes among HCV positive PWID

Participating Organizations



Methods: Design

- Prospective observational cohort study
  - Baseline cross-sectional survey
  - 6 monthly follow-up of anti-HCV negative persons
- Location: Tbilisi
- Duration: 18 months
- Main outcome measure: anti-HCV status
- Eligibility
  - Injected drugs within 6 months, ≥18 years, both genders, able to communicate in Georgian, informed consent
- Recruitment
  - Incentivized chain-referral sampling with max 5 peers recruited by each participant

Methods: Baseline Survey

- Rapid anti-HCV test
- Structured questionnaire
  - Socio-demographic information
  - Injection practice
  - Non-injection related risk factors
  - Knowledge about HCV
  - History of HCV treatment
  - Risk assessment battery (RAB)
  - Health status using EQ-5D-5L

Methods: Risk Assessment Battery (RAB)

- Self-administered instrument that assesses needle sharing practices and sexual activity
- Composite risk scores calculated:
  - Drug risk score
  - Sex risk score
  - Total risk score
- Scaled risk score with a range from 0 to 1

Navaline HA; et al. AIDS Res Hum Retrovir 1994;10 Suppl 2:S281-S283.

Socio-Demographic Characteristics

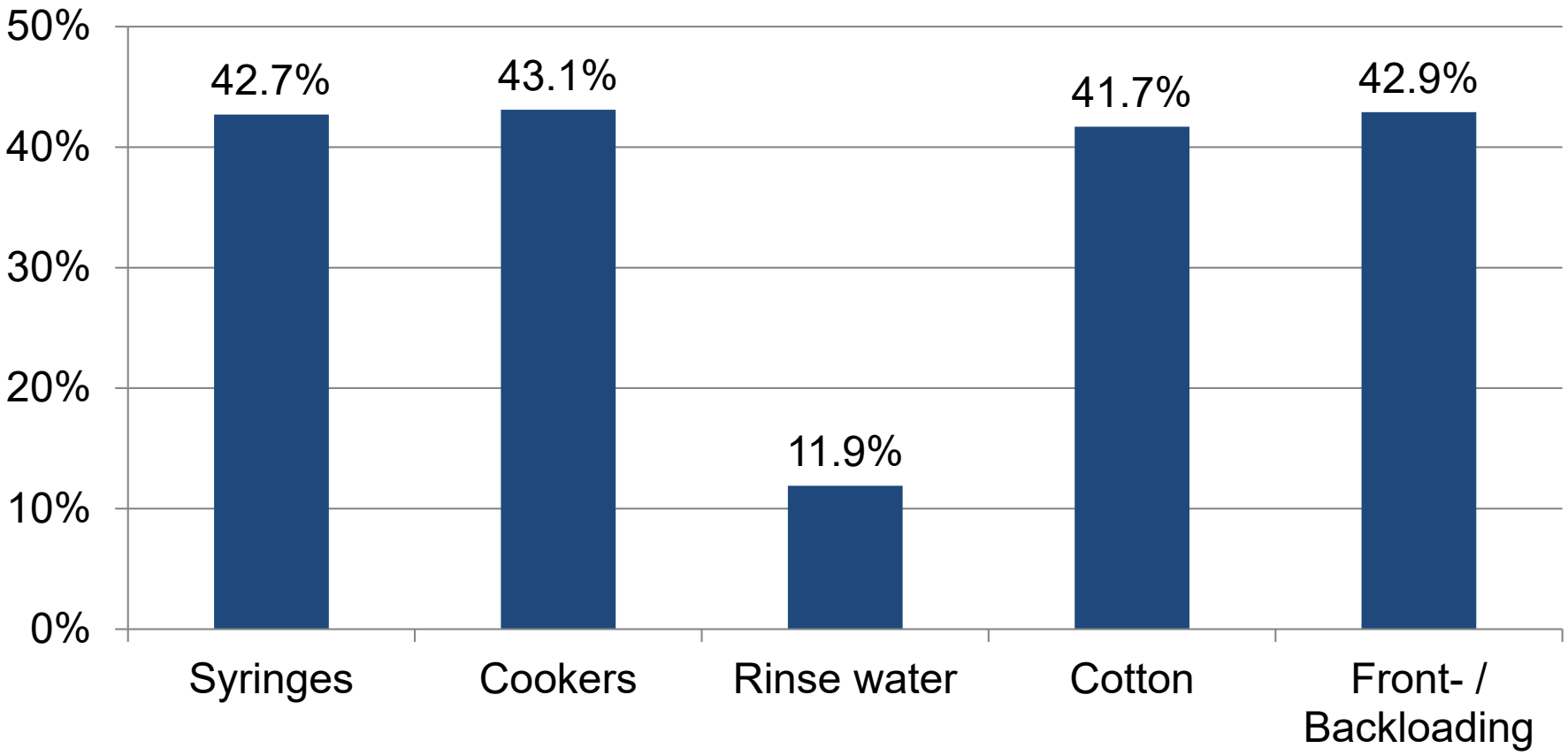
1,744 PWID Enrolled in the Cohort

Characteristic	n (%)
Age, median years (IQR)	40 (33-49)
Men	1655 (94.9%)
High-school education	1011 (58.0%)
Unemployed	897 (51.5%)
Monthly income	
<300 GEL	438 (25.1%)
300-<500 GEL	578 (33.2%)
500-<700 GEL	564 (32.4%)

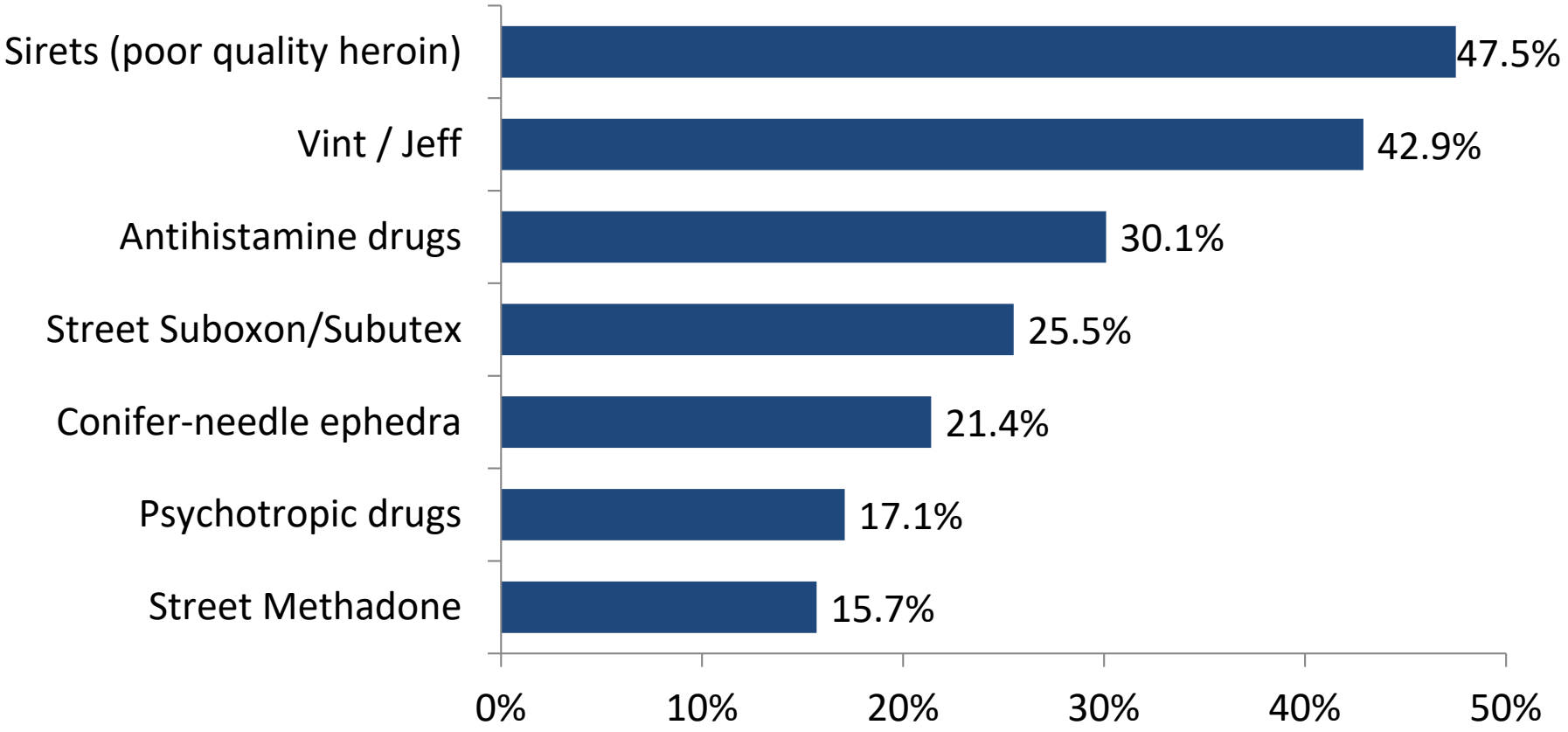
Drug Use

Characteristic	n (%)
Age at first injection, median years (IQR)	19 (16-22)
Duration of injection, median years (IQR)	12 (9-18)
No history of OST	1269 (72.8%)
# injections within 30 day, median (IQR)	7 (5-10)
# different persons injected with, median (IQR)	3 (2-5)

Sharing Injection Paraphernalia Within 6 Months



Injectable Drugs Used Within 30 Days



Other Risk Factors

Characteristic	n (%)
History of imprisonment	444 (25.5%)
Ever been homeless	40 (2.3%)
History of blood transfusion	123 (7.1%)
History of surgery	384 (22.0%)
History of dental procedure	1244 (71.4%)

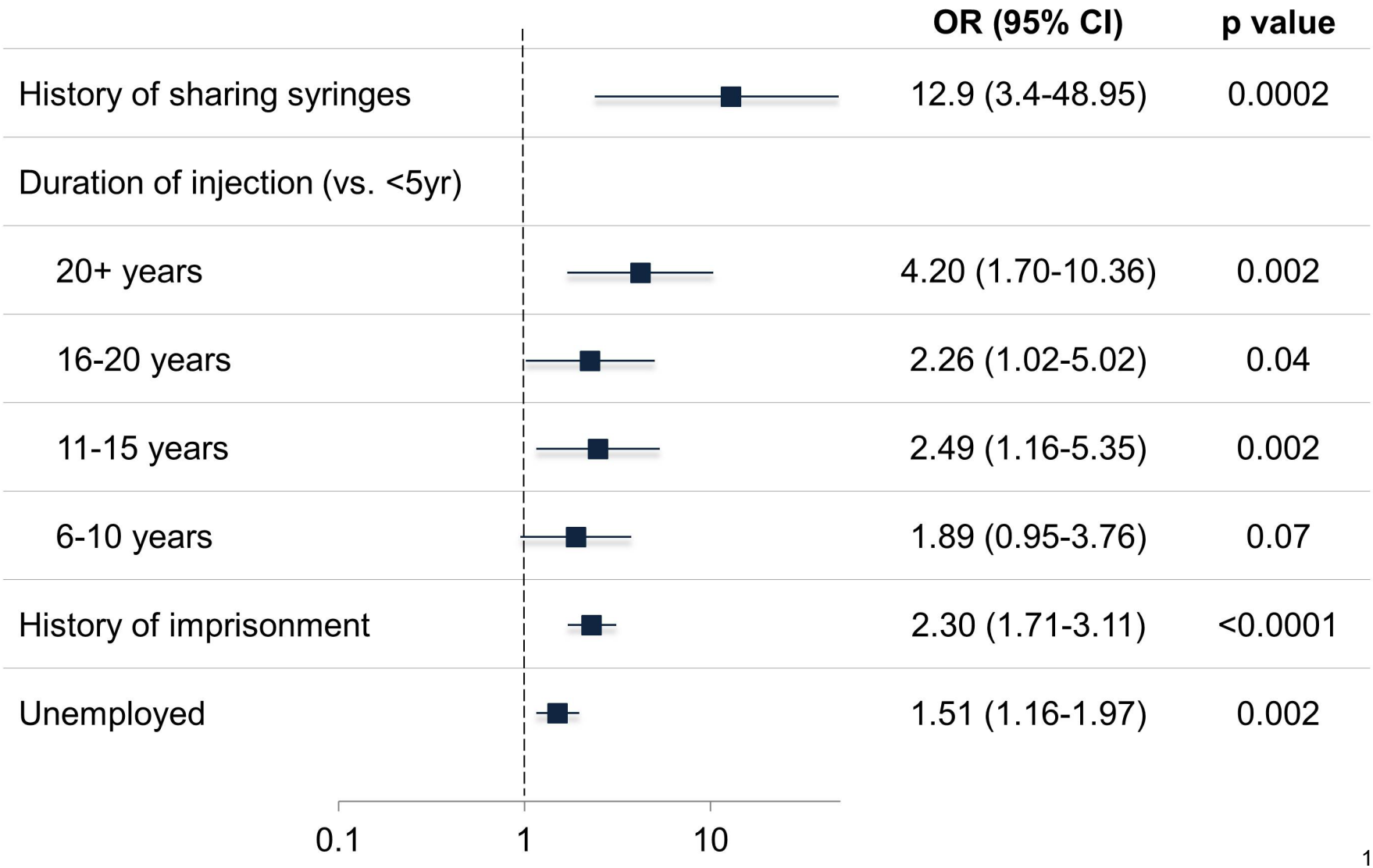
Risk Assessment Battery (RAB)

- Drug related risk score: 0.25 (range: 0.05-0.77)
- Sex related risk score: 0.27 (range: 0.06-0.61)
- **Total risk score: 0.26 (range: 0.05-0.53)**

Baseline anti-HCV Prevalence

32.3% (563/1744)

Risk Factors for Anti-HCV+



HCV Treatment History Among anti-HCV+

Self-reported data among 563 anti-HCV+ persons

	% (n/N)
Treated for HCV	**46% (259/563)**
Completed treatment	97% (252/259)
Achieved SVR	97% (244/252)
Not treated for HCV	**51% (287/563)**
Currently on a waitlist	21% (47/224)
No active infection	24% (54/224)
Too expensive	35% (78/224)
Potential side-effects	12% (27/224)
Treatment history unknown	**3% (17/563)**

Summary

- Limitations
  - Limited to Tbilisi, not nationally representative
  - Potential sampling bias
  - No HCV RNA testing
- Conclusions
  - 32.3% Anti-HCV prevalence lower than in previous studies
  - Substantial proportion of PWID engage in high risk behaviors
  - Treatment outcomes were similar to national data

Next Steps

- Complete 2 follow-up examinations by June 2019
- Continuation
  - Proposal submitted to Gilead's Conquering Hepatitis via Micro-Elimination (CHIME) Program
  - 2-year period
  - Expand cohort to other regions of Georgia
  - Enroll additional 1,000 PWIDs

Acknowledgement

- Funding: CDC Foundation #807-17 SC
- Participating organizations
- All persons enrolled in the cohort
- Peter Vickerman, Josephine Walker