



## Research Topic for Summer Internship 2016

### 2. Size estimation among Key Population

CIF conducted **Population Size Estimation (PSE)** study among **men who have sex with men (MSM)** in 2014 using novel methods, including Network Based Capture-Recapture (proposed by Dombrowski et al. Among methamphetamine users in New-York city in 2012). In 2015 Bio-Behavioral Surveillance (BBS) study recruited 400 MSM in two major cities of Georgia using respondent driven sampling. Data from the Network Based Capture-Recapture study was also obtained during the BBS survey.

The dataset, study tools of the current study and report of the previous study are available in English. CIF intends to analyze PSE data, update MSM size estimations and produce a paper for high impact peer reviewed journal.

**The intern will be expected** to contribute a quantitative analysis of PSE data. The work requires specific knowledge, such as use of Lincoln-Peterson method to find matches, use of marginal and joint probability of attributes, developing a range of estimates.

**The intern could contribute to the specific sections of the paper** (depending on their interest and capabilities) and will be named as co-author depending on the quality of their output.

Applicants interested in this research topic, however, not having proficiency in the skills, **are strongly encouraged** to upgrade their theoretical knowledge and practical skills prior to the internship term by enrolling in respective courses in their schools. Applicants will be expected to adequately reflect this weakness in their application/motivation letter and describe how they intend to advance their knowledge and skills prior to undertaking internship. Failure to do so will have a negative impact on internship evaluation, if accepted in our program.