

# ESTIMATING THE NUMBER OF PEOPLE WHO INJECT DRUGS IN ATHENS, GREECE: IMPLICATIONS FOR THE BURDEN OF HEPATITIS C INFECTION AND THE COVERAGE OF HARM REDUCTION PROGRAMS

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## **Background:**

Estimates of the population size of people who inject drugs (PWID) are important to assess harm reduction coverage and HCV burden. In Greece, extant estimates are based on capture-recapture applied yearly to three drug treatment sources. We aim to provide estimates for Athens based on data from a community-based program and to assess implications concerning HCV burden and harm reduction coverage.

## **Methods:**

ARISTOTLE was a seek-test-treat intervention implemented during an HIV outbreak in 2012-2013. During five Respondent-Driven Sampling (RDS) rounds, 3,320 unique PWID were recruited; 81% had injected in the past month. Two methods were used: 1) Capture-recapture (CRC) based on five RDS rounds, 2) Multiplier method (MM) based on the number of newly diagnosed HIV cases during 2009-2013 and the HIV prevalence estimate from ARISTOTLE (HIV prevalence was negligible before 2009).

## **Results:**

Based on CRC, the estimated number of PWID who reported heroin as main substance of use in the past year was 4,731 in 2013 (95%CI: 4,175–5,287). The number of persons with injecting drug use in the past month was 4,367 (95%CI: 3,893–4,840]. Based on this estimate, the coverage of needle and syringe programs in Athens in 2013 is 97 syringes/PWID/year (vs. 216 syringes/PWID/year based on the existing population size estimate). As HCV prevalence in the target population is 80.4%, the number of active PWID with HCV infection in Athens is estimated 3,500 (vs. 1,600 based on the existing population size estimate). Under the MM approach, the size of PWID for the period 2009-2013 was 6,964 (95%CI: 6,455–7,559); the estimated total number of HCV infected PWID for this period is 5,600.

## **Conclusion:**

The estimate of the population size of PWID in Athens based on a community-based program indicates increased needs concerning the prevention of harm and the reduction of HCV burden in the population.