

# A community-based peer-driven program to reach people who inject drugs, monitor risk behaviours and “test and treat” for infectious diseases in Athens, Greece:

## **ARISTOTLE HCV-HIV**

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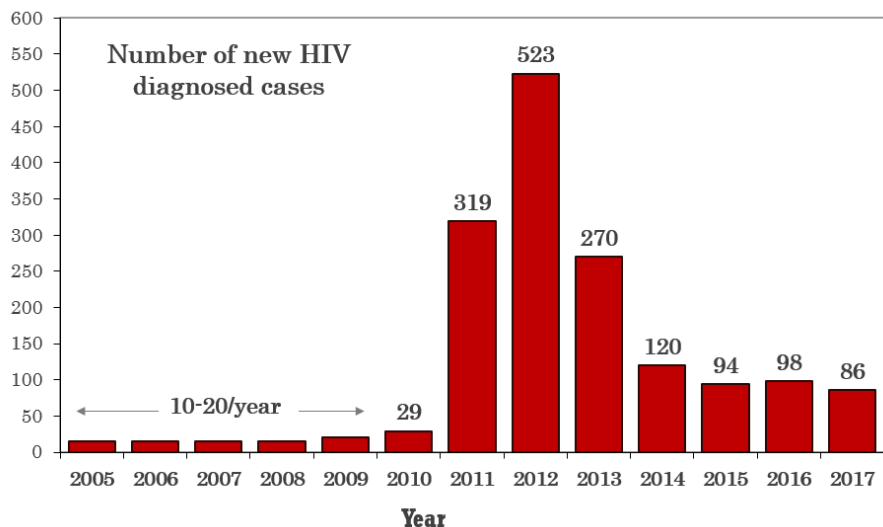
# Disclosures

- Research grants from Gilead & Abbvie



# High burden of HCV and HIV infection among PWID in Athens

## HIV outbreak in 2011 among PWID

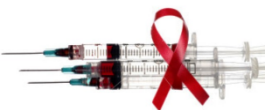


**HIV prevalence  
(2012-2013): 16.5%**

## High HCV prevalence & incidence

**HCV prevalence  
(2018): ~75%**

**HCV incidence  
(2012-2013): ~56 new  
infections/100 pyrs**



# Access to HCV treatment with Direct Acting Antivirals (DAAs) in Greece

- A **national treatment registry** is in place – approval for free DAAs is granted through that registry
  - Necessary info for the registry: social security number, HCV RNA, genotype, biochemical testing, fibroscan (recently removed as a prerequisite)
- **Treatment restrictions:**
  - **July 2017:** HIV-HCV coinfection or liver fibrosis stage  $\geq$ F2
  - **September 2018:** No restrictions



# The problem

8 out of 10 PWID are HCV infected

Continuing HCV transmission in the population

HIV-HCV coinfection



**A small % of PWID access treatment with DAAs  
although treatment restrictions have been removed**



# ARISTOTLE HCV-HIV

## Aim

To increase diagnosis and treatment for HCV and HIV infection among PWID in Athens

## Target population



3,000 PWID in Athens

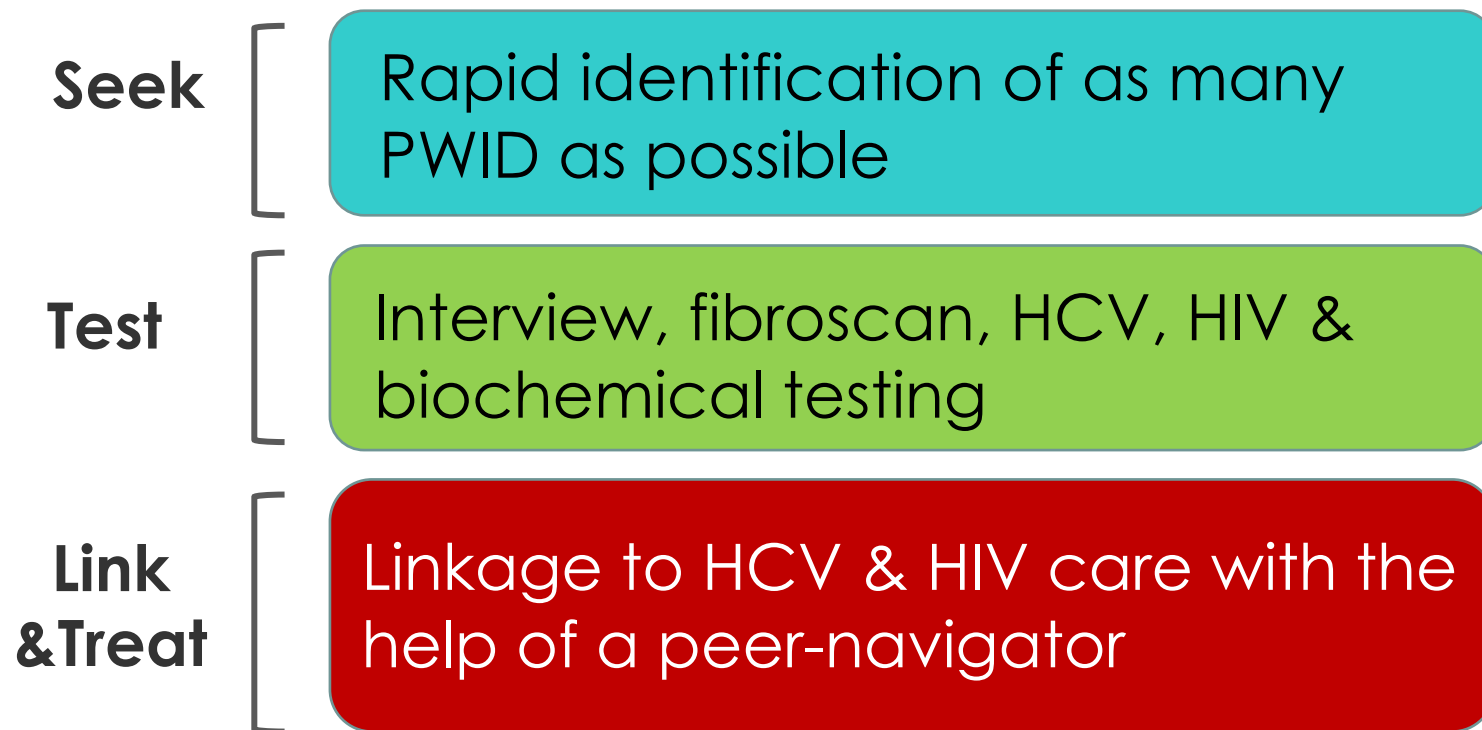
- Injecting drug use in the past 12 months
- $\geq 18$  years old

Based on the design of ARISTOTLE implemented during an HIV outbreak among PWID in Athens (2012-2013) → "Good practice in the health sector response to HIV in the WHO European Region"

*(Sypsa et al, J Inf Dis, 2017, Hatzakis et al, Addiction 2015)*



# ARISTOTLE HCV-HIV: A seek-test-link-treat intervention



Multiple successive recruitment rounds:  
PWID are eligible to participate in each round



# Challenges

## 1. Reaching a hard-to-reach population

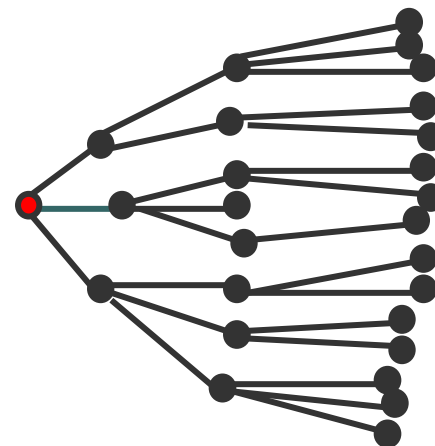
- PWID → **hard-to-reach population**
  - Subgroups even more hard-to-reach:  
e.g. immigrants without documents
- Need to implement the intervention **rapidly** and to achieve **high coverage** in the screening of the target population





# Reaching the target population: Respondent-driven sampling (RDS)

- An initial number of recruits (seeds) from the target population receive coupons and are asked to draw from their existing injection networks to identify up to 3 potential recruits → Chains of recruits are accrued



*Heckathorn et al,  
Social Problems 1997*

- Monetary incentives to:
  - Participate
  - Recruit others
  - Linkage to care
- Study site: Located in the centre of Athens



# First recruitment round

During April 2018-February 2019 (10 months):

**N=1,365 PWID participated to the program**

The first 1,000 were recruited in 4 months



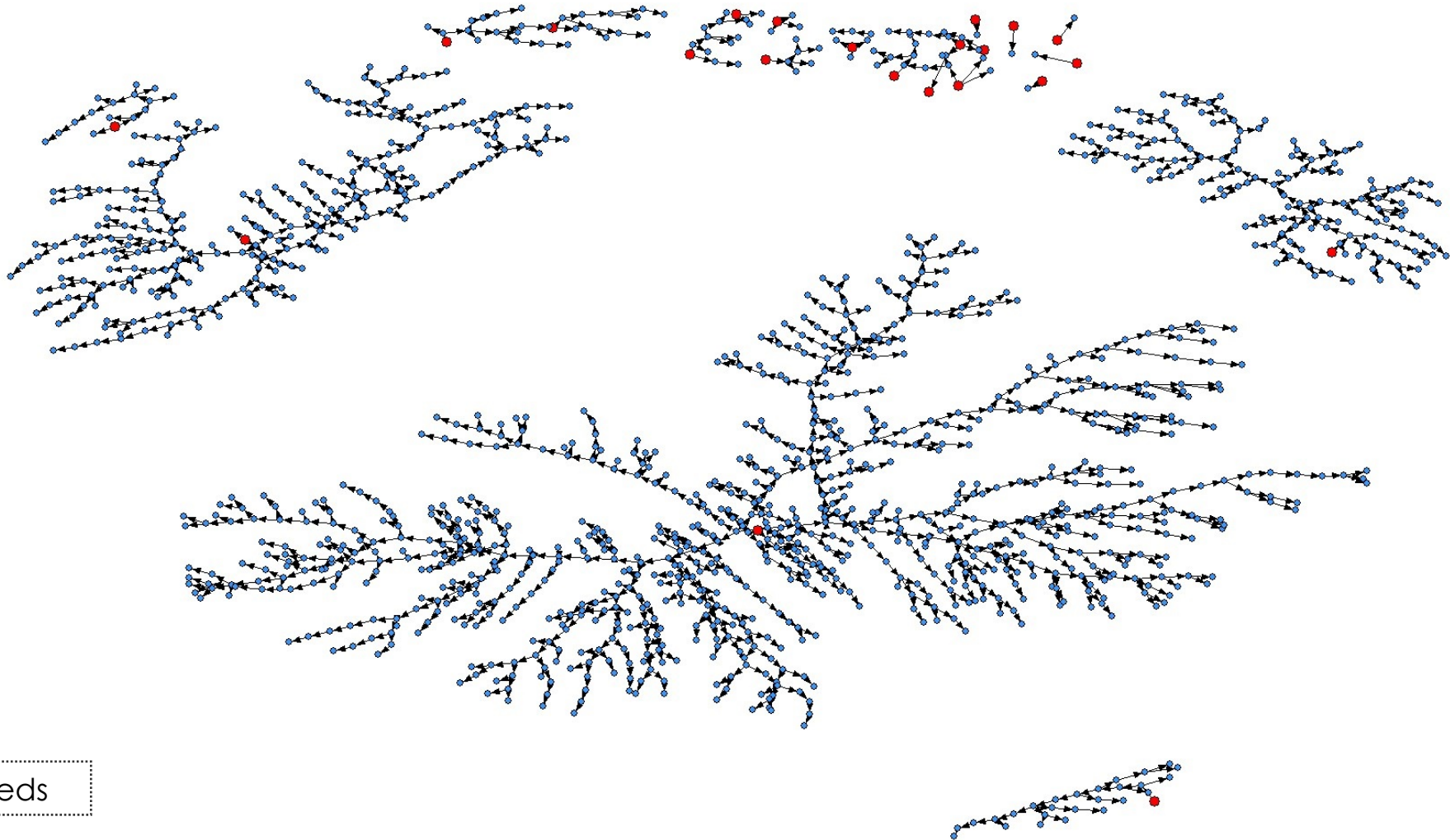
# Population coverage

Coverage of the population of  
active PWID:  
**95% (61%-100%)**

(based on the official capture-recapture estimate of the population size of PWID with injecting drug use in the last 30 days provided by the Greek Monitoring Centre for Drugs)



# RDS recruitment





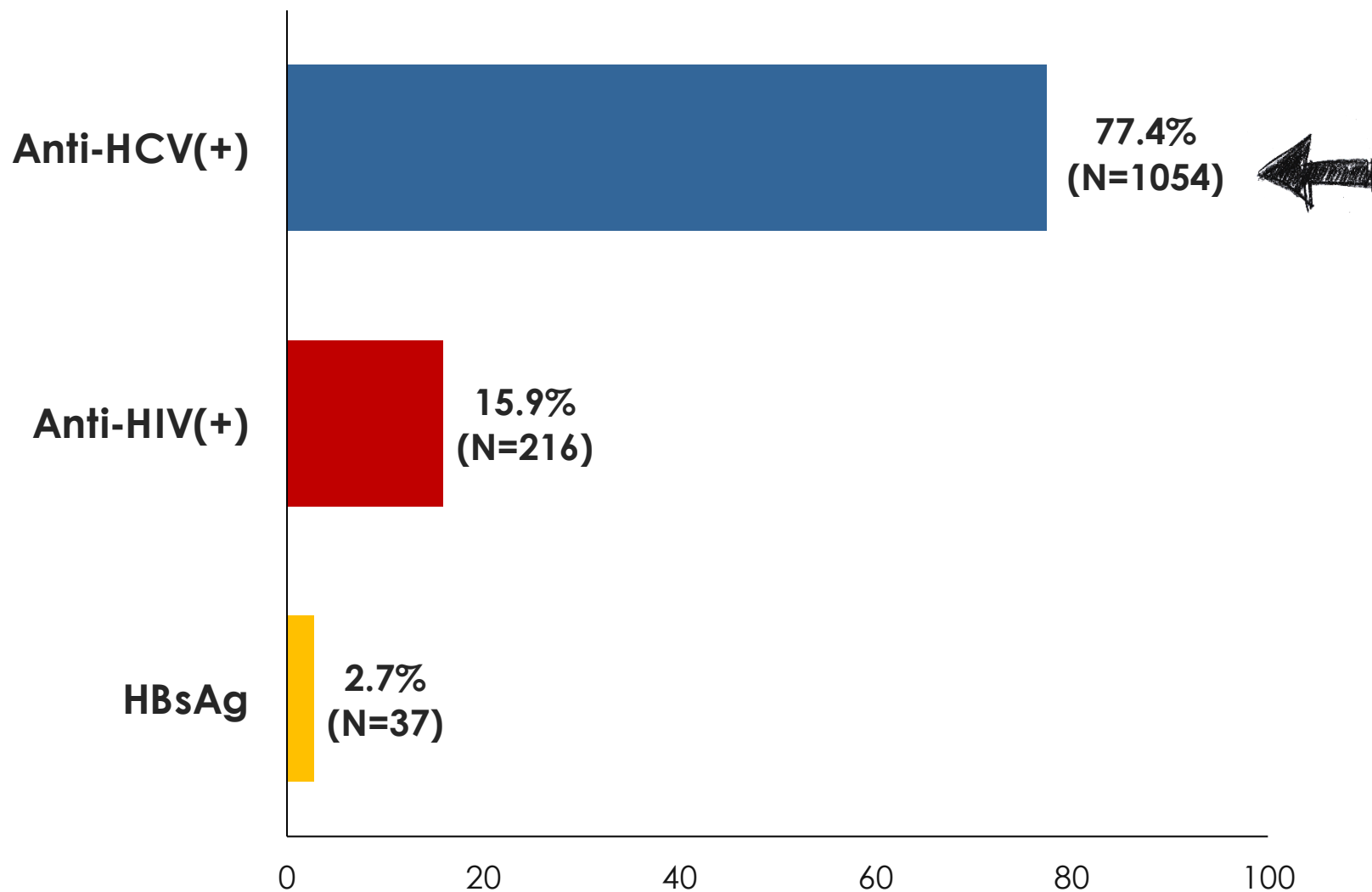
# Participants' characteristics

**N=1,365 participants**

<b>Age, mean</b>	39 years
<b>Gender</b>	
Male	83.9%
Female	16.1%
<b>Nationality</b>	
Greek	84.5%
Other	<b>15.5%</b>
<b>Injecting drug use in the past 30 days</b>	<b>78.1%</b>
<b>Currently homeless</b>	<b>27.0%</b>
<b>In OST program (now)</b>	<b>22.0%</b>



# Prevalence of HCV, HBV, HIV





# Challenges:

1. Reaching a hard-to-reach population

## 2. Linkage to HCV care

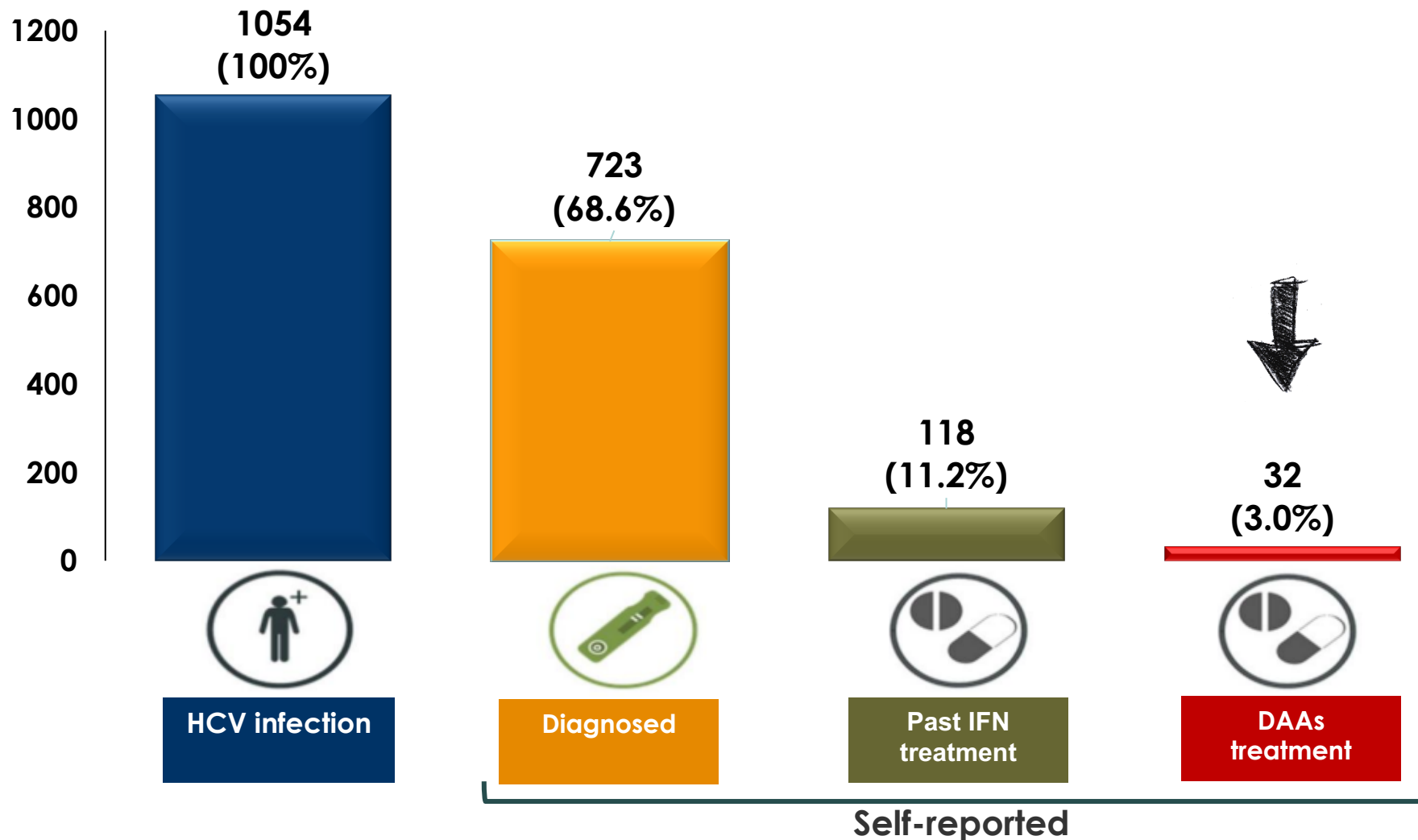
Several intermediate steps:

- All necessary testing is performed
- Participants obtain their test results
- Patients are entered to the chronic hepatitis C registry for DAAs approval
- First appointment with the hepatologist
- Visit to the pharmacy to obtain DAAs

**Treatment restriction applied  
for the first 5 months of the program**



# Diagnosis and treatment of HCV infection among PWID in Athens, Greece before their participation to the program







# Actions to improve linkage to care in ARISTOTLE HCV-HIV

**1**

All necessary testing is performed in ARISTOTLE HCV-HIV in a single visit

**2**

The program staff seeks actively social security numbers from participants (reminders through SMS etc)

**3**

A network of collaborating clinicians was set up

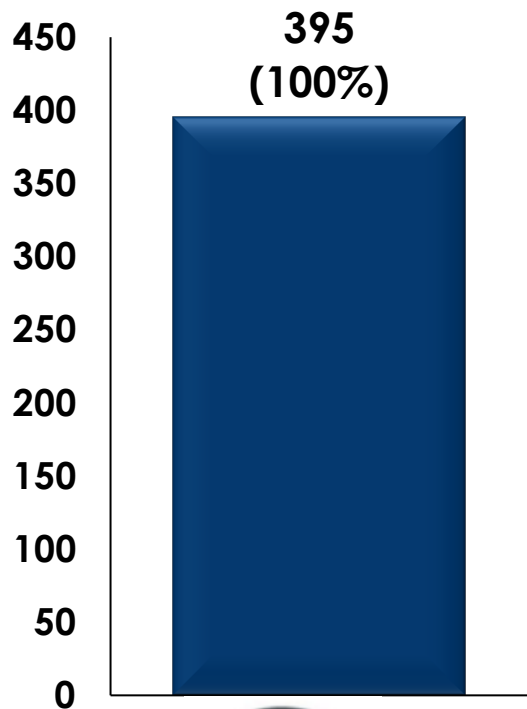
**4**

A peer-navigator accompanies patients to their first visit to liver or infectious diseases clinics – now clinicians visit the program.



# The impact of ARISTOTLE HIV-HCV program: Cascade of care among participants

(for PWID with HCV mono-infection who fulfilled treatment criteria)

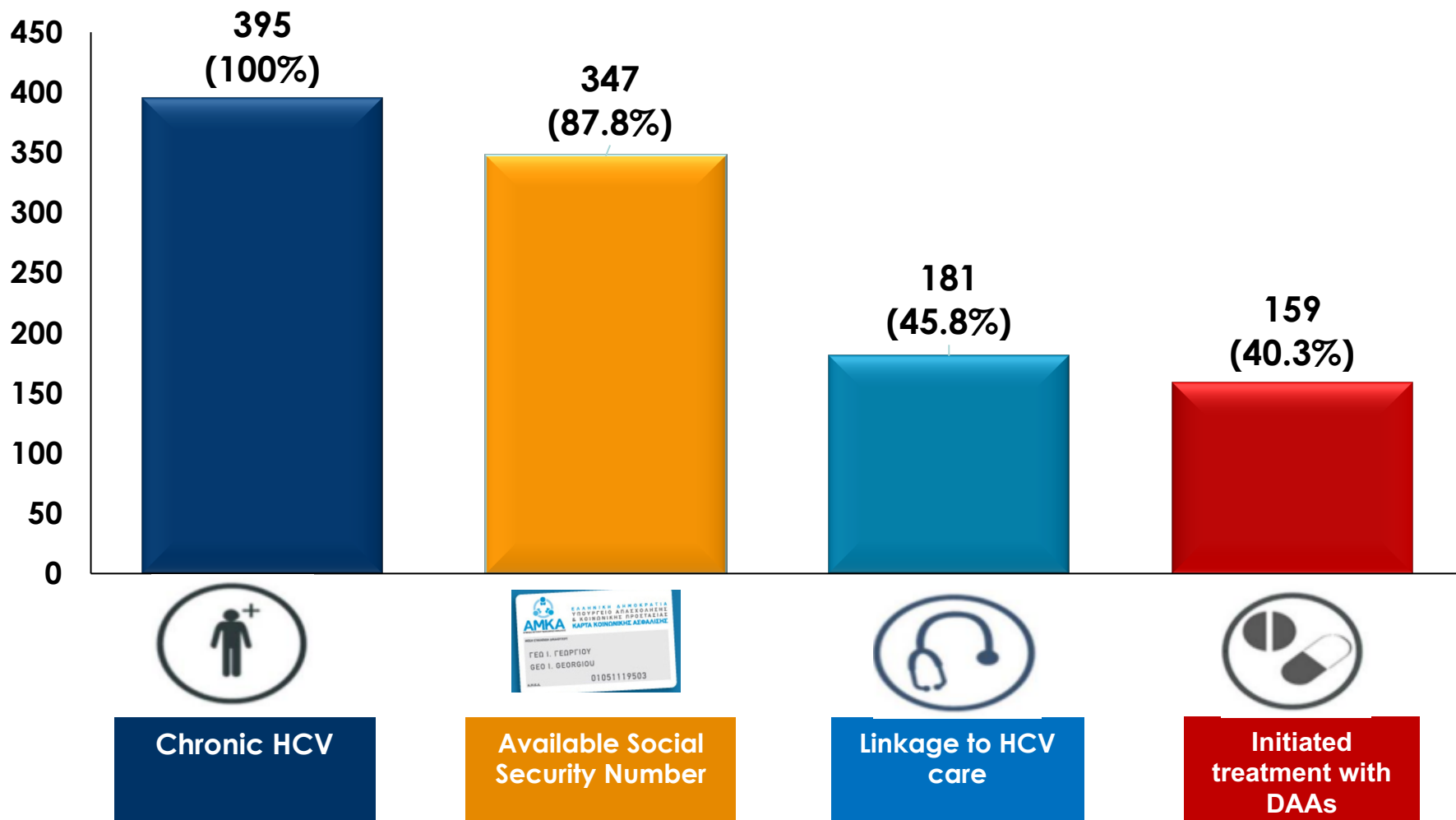


Chronic HCV



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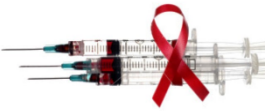


(data on linkage to care up to September 2019)



# Discussion

- Community-based peer-driven chain referral allowed to reach rapidly a large number of PWID most in need:
  - High HCV prevalence - Active PWID - Homeless - Not linked to OST
- 2 out of 3 HCV-infected PWID were already aware of their infection BUT low proportion reported treatment with DAAs before the program
- 4 out of 10 participants fulfilling treatment criteria for HCV initiated treatment with DAAs after their participation to ARISTOTLE HCV-HIV
  - Based on modeling, CHC prevalence would reduce to below 10% within the next 4–5 years in Athens if 16–20% of PWID were treated per year (Gountas et al, Addiction 2017)



# Challenges and the future

## ○ Challenges

- Retention to treatment → linkage to OST, peers --to support patients throughout treatment etc

## ○ Multiple recruitment rounds are needed to increase coverage and linkage to care

(Sypsa et al, J Inf Dis 2017)

- A second round started in August 2019

## ○ A similar program was initiated in September 2019 in another city in Greece (Thessaloniki) - Program ALEXANDROS



# Support

- Supported by Gilead, Abbvie and the Hellenic Scientific Society for AIDS and STDs



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