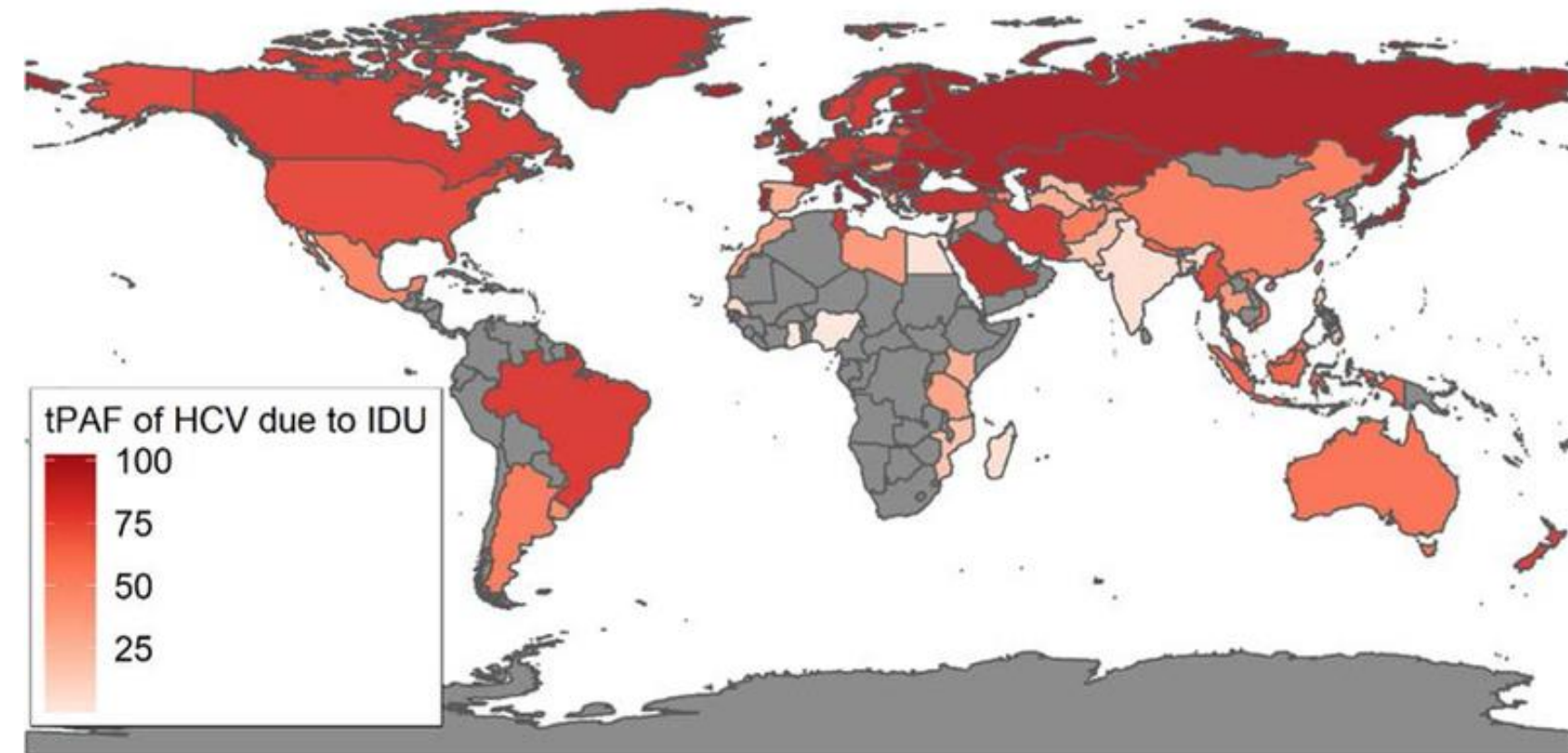# THE HISTORY OF THE DRIVE COHORT: NETWORK RECRUITMENT IN VULNERABLE POPULATIONS: FROM SAMPLING TO INTERVENTION

Prof. Duong Thi Huong, Hai Phong University of Medicine and Pharmacy, Vietnam

Vulnerable Population

- Marginalization
- Stigma
- Prevention access
- Health care access
- Strong exposure

tPAF of HCV due to IDU
100
75
50
25

Mobilisons Nous!

Contre les violences faites aux
TRAVAILLEUSES DU SEXE

Recruitment in health centers

HIV health centers, MMT clinic, reproductive health

- In France, ICONE study in Montpellier (N=550 PUD): 13.6% HCV RNA+ among those attending CSAPA/CAARUD (N=257)

- In Việt Nam, test approach by HSS in high risk population can not reach PWID who are not in the 'managed PWID population ' in the commune or in the health care system

- => does not reach those not involved in care

=> Very insufficient coverage

Community Recruitment Strategies

- **Community testing**
  - **Go-to strategies tested for screening, then treatment**
  - **DBS, self-tests (HIV, HCV)**
  - **Centered on community centers (e.g.: 'drop in centers', etc.)**
- Referral to care (peer navigators)

  => no intervention evaluated going from screening to cure

  => Low coverage of interventions

Cunningham et al, Lancet G&H 2022

Network recruitment

- Social network analysis and theory
- Information sharing through existing social connections
- Recruitment of vulnerable people among themselves
- Relative simplicity (no going towards)
- High coverage potential
- Widespread, numerous approaches and strategies (snowballing, random walk, RDS, etc.)
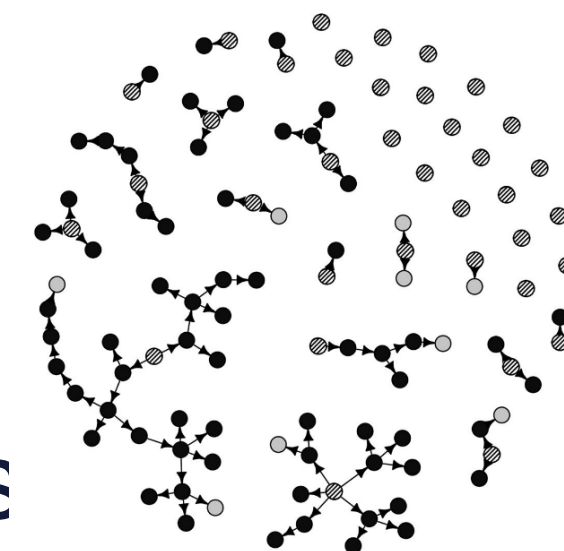
Respondent-Driven sampling (RDS)

- Heckathorn et al., targets vulnerable populations

- Epidemiological aim: obtain a representative sample

- Seed selection, coupons, financial incentives.

- Restricted snowball approach: no network saturation

- => Representative sample of the 'target' population (inclusion criteria)
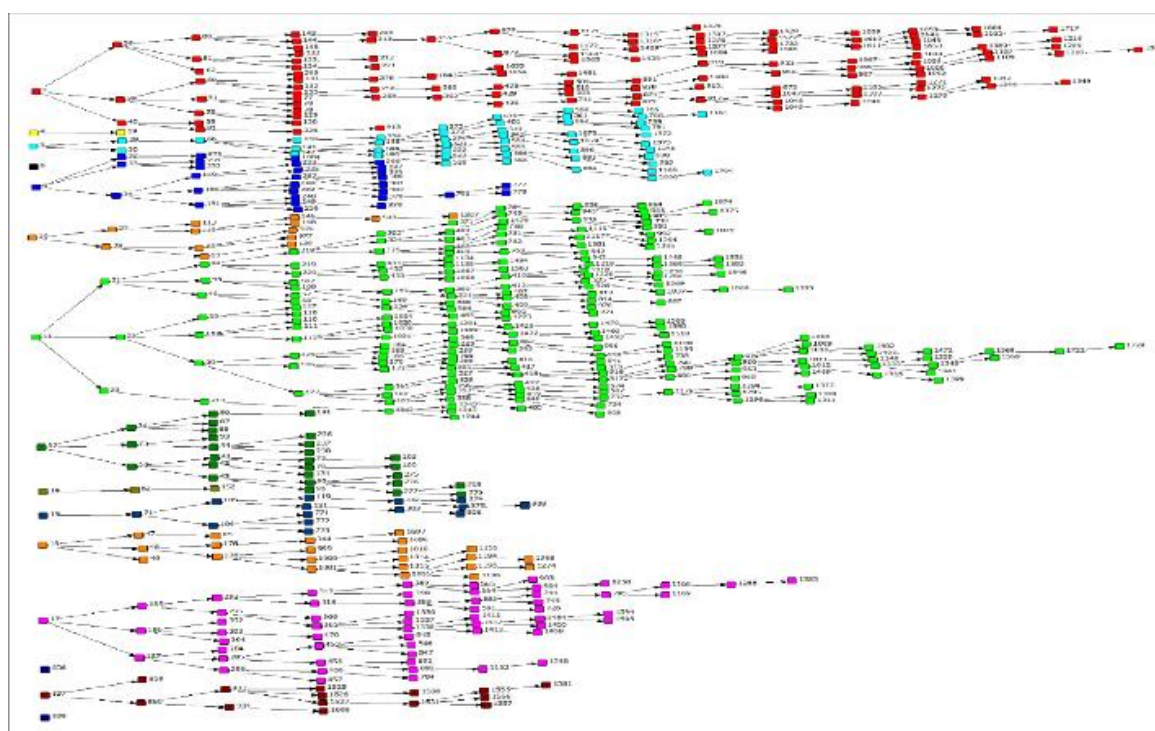
Estimated population size
(capture/recapture)

Global model based on an RDS

- Triple use of RDS: epidemiological, screening(s) and population size
- Very strong involvement of community groups
- Organization of the RDS site in a 'community' location
- Welcome
- Screening and data collection
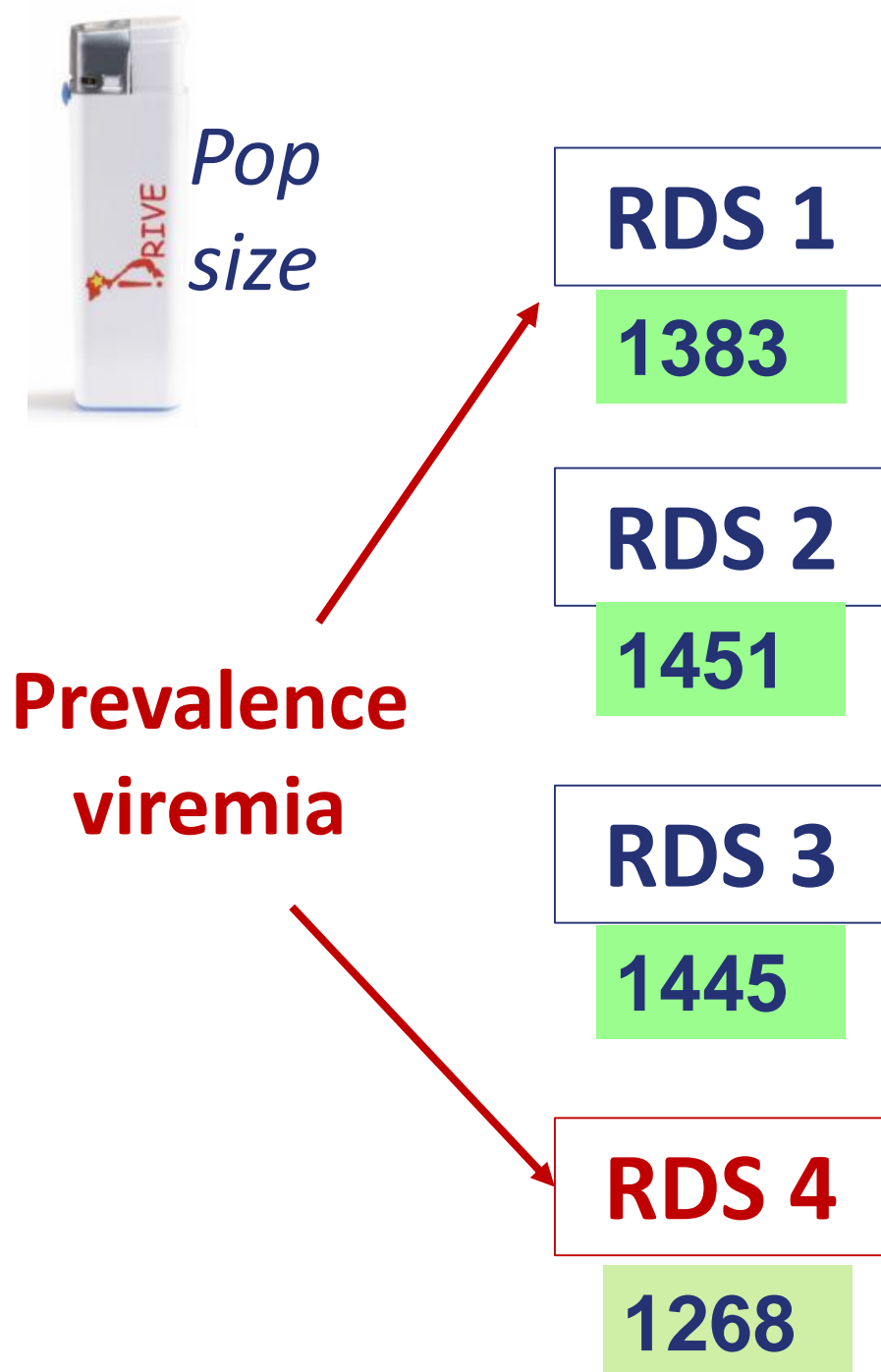- MMT/ prevention / advice
- Referral to care

RIVE
DRugs & Infections in ViEtnam
Evaluation of a community approach and a integrated care model in Hai Phong, Vietnam

Methodes

Pop size

Prevalence viremia

RDS 1
1383

RDS 2
1451

RDS 3
1445

RDS 4
1268

Tests HIV
+/- HIV VL

Peer drug use questionnaires

+

CBO support

Methadone / Harm reduction

HIV/ART care
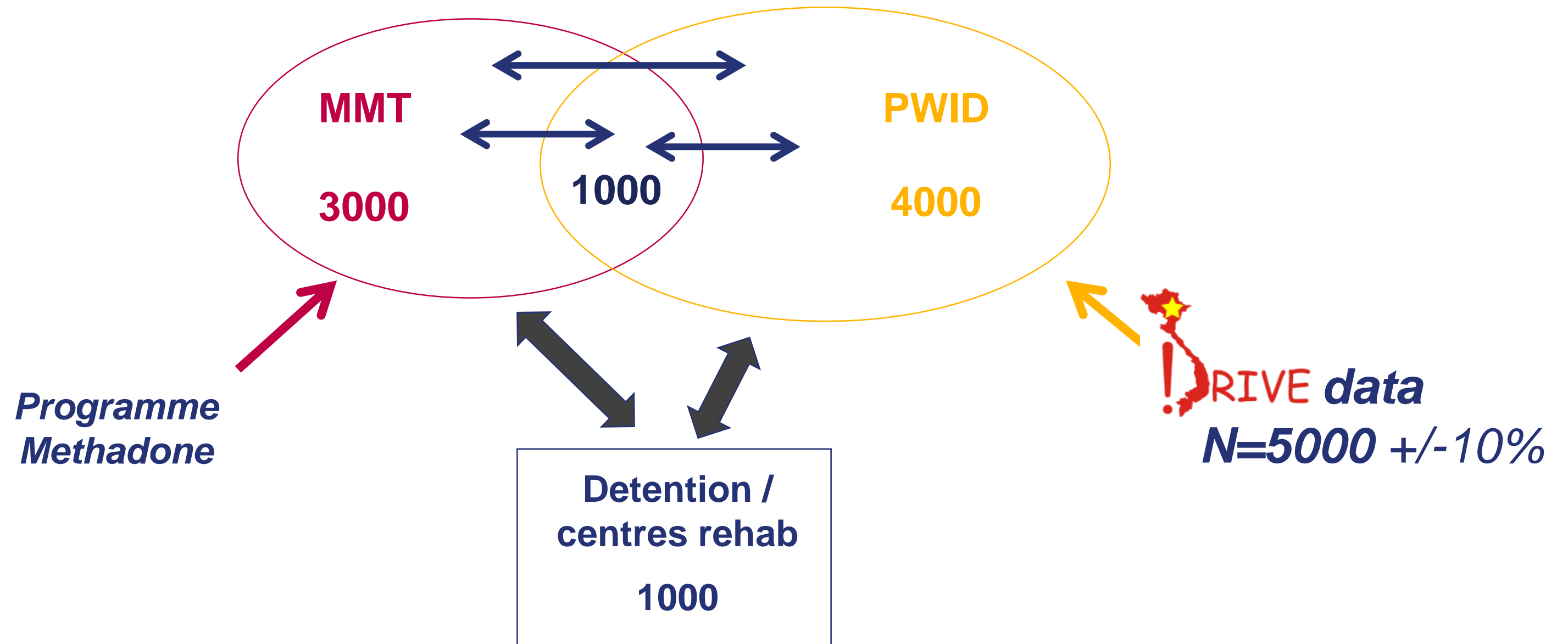
Resultats

Cascades of HIV care, RDS1 & RDS 4

Duong TH. et al., Lancet Reg Health WP 2022
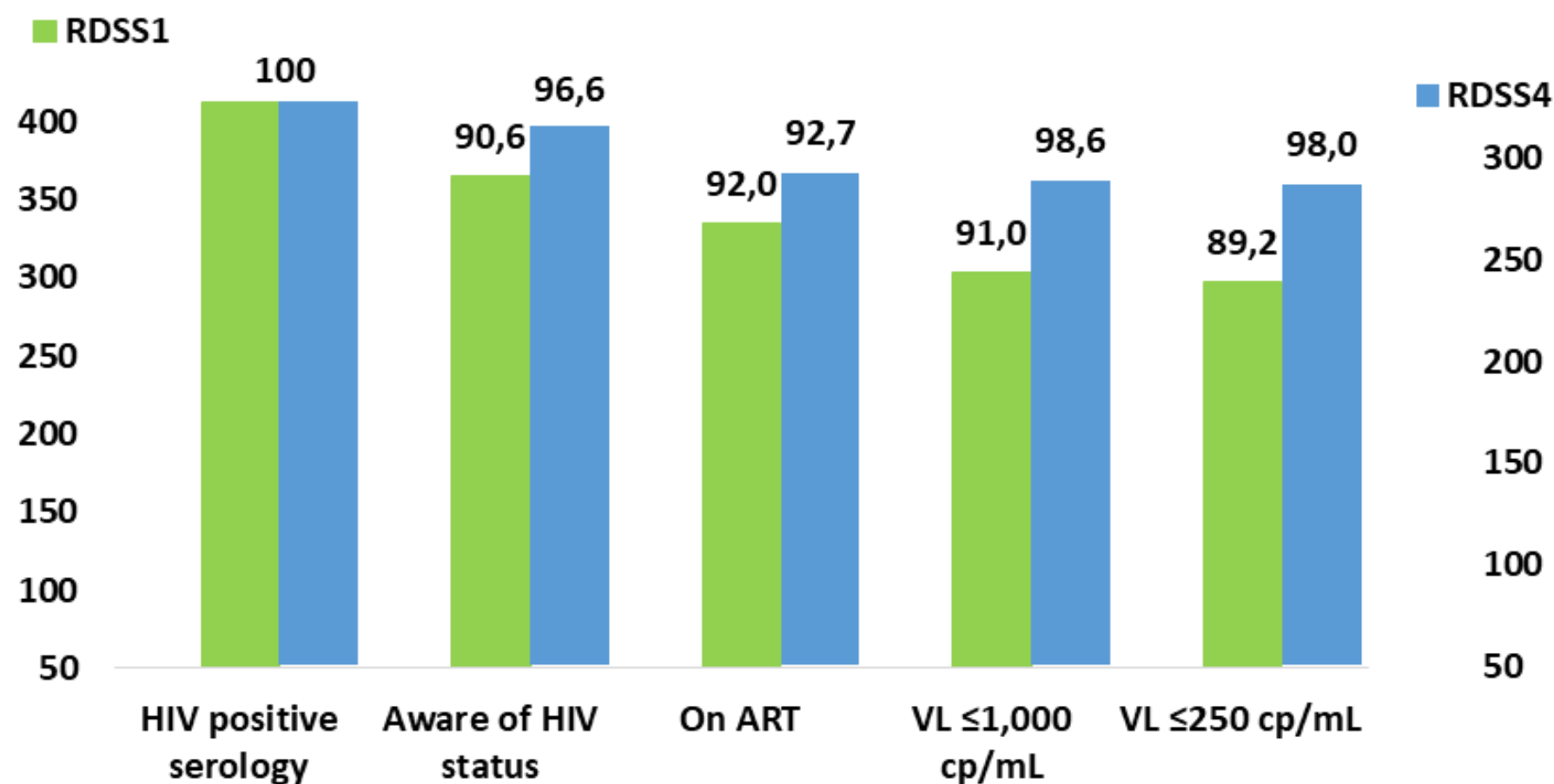
HIV viremia (>1000 cp/mL)

	RDS1	RDS4
Bully	7.2% (5.8-8.6)	2.9% (2.0-3.9)
Corrected	**8.3% (7.8-9.0)**	**3.2% (2.9-3.5)**

=> Reduction 61%

Contribution of the intervention to the reduction of viremia

- 3150 distinct PWIDs included (60% pop)

Contribution of 30-51% **to the reduction in the prevalence of viremie**

- No other external intervention

Community RDS

↓

HIV epidemic among PWID under control?
(> 90/90/90 and behavioral data)

OUI ← → **NON**

- HIV PWID retention in care - Maintains MMT	- Evaluate cascade gaps - Community involvement? - Consider repeating RDS for coverage

DRIVE: Model potential

Hepatitis C

Mental Health

Tuberculosis
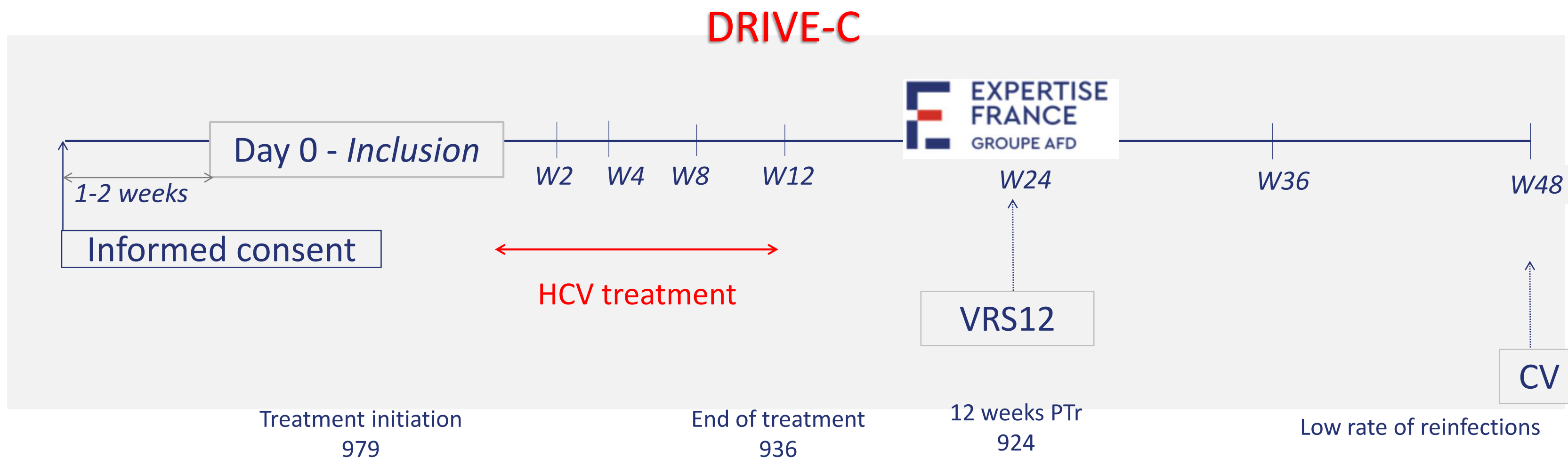
DRIVE-MIND

Context

- No access to mental health care
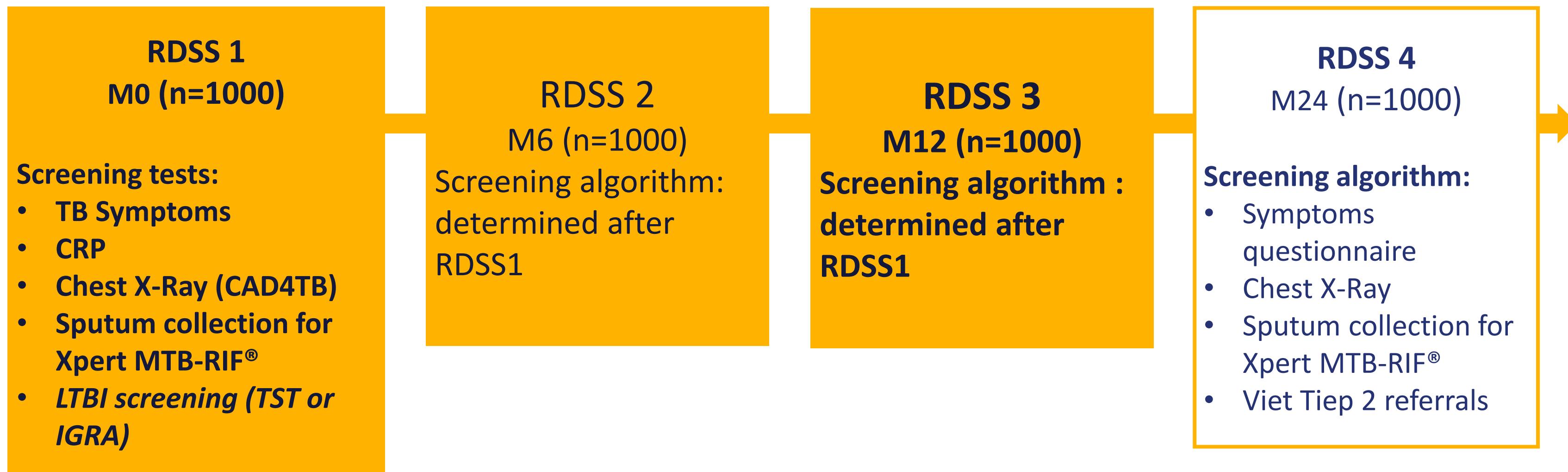- If diagnosis, no acceptability of referral to psychiatric consultation

Assessment of a psychiatric intervention at community level for people who inject drugs in a low-middle income country: the DRIVE-Mind cohort study in Hai Phong, Viet Nam

Laurent Michel,[a]* Sao Mai Le,[b] Giang Hoang Thi,[b] Philippe Trouiller,[a] Huong Duong Thi,[b] Oanh Khuat Thi Hai,[c] Khue Pham Minh,[b] Roselyne Vallo,[d] Delphine Rapoud,[d] Catherine Quillet,[d] Thuy Linh Nguyen,[b] Quang Duc Nguyen,[b] Tuyet Thanh NhamThi,[c] Jonathan Feelemyer,[e] Vinh Vu Hai,[f] Jean-Pierre Moles,[d] Hong Quang Doan,[a] Didier Laureillard,[d,g] Don C. Des Jarlais,[e] and Nicolas Nagot,[d] on behalf of the DRIVE Study Team

Michel L. et al., Lancet Reg Health WP 2022

Participants: 233 PUDI with dis. psychotic/severe depression/suicidal risk
Intervention: Psychological consultation and on-site treatment

	Dis. psycho	Depression	*suicidal risk*
Incl.	44,7%	80,6%	42,4%
M12	21,8%	15,9%	22,9%

RIVE TB: overview of study & objectives

RDSS 1
M0 (n=1000)

Screening tests:
- **TB Symptoms**
- **CRP**
- **Chest X-Ray (CAD4TB)**
- **Sputum collection for Xpert MTB-RIF®**
- *LTBI screening (TST or IGRA)*

RDSS 2
M6 (n=1000)
Screening algorithm: determined after RDSS1

RDSS 3
M12 (n=1000)
Screening algorithm : determined after RDSS1

RDSS 4
M24 (n=1000)

Screening algorithm:
- Symptoms questionnaire
- Chest X-Ray
- Sputum collection for Xpert MTB-RIF®
- Viet Tiep 2 referrals

Location: 2 community sites (Friendship Arm & Lighthouse)

DRIVE TB: FIRST RESULT

1080 PWID enroled in RDS1 (from 02/10 to 24/11/23)

47 confirmed TB cases => 4.4% prevalence (95%CI: 2.8-6.4)

Implication for RDS2 :

    'CXR for all first' - **CXR/CAD4TB based algorithm**

From Project to programme…

CHEER

Conclusions

- **Recruitment by networks very effective in terms of screening coverage**

- **Screening strategy not widespread enough in France and Europe**

- **Strong community involvement and link to essential care**

- **Model capable of detecting several pathologies (HIV, HCV, STIs, TB, mental health, addiction care, etc.)**

- **Valuable epidemiological data 'in population' and population size**

- **Very strong adaptability to the context (vulnerable population, country)**

- **Very cost-effective, especially since we integrate several screenings/identifications**

Acknowledgement