



# DRugs and viral I nfections in ViEtnam: Ending the HIV Epidemic among People who Inject Drugs in Hai Phong, Vietnam



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BOLD THINKERS  
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centre de soins, d'accompagnement  
et de prévention en addictologie

# DRIVE STUDY TEAM

Don C Des Jarlais<sup>1</sup>, Huong Duong Thi<sup>2</sup>, Oanh Khuat Thi Hai<sup>3</sup>, Khuê Pham Minh<sup>2</sup>, Jonathan Feelemyer<sup>1</sup>, Giang Hoang Thi<sup>2</sup>, Thanh Nham Thi Tuyet<sup>3</sup>, Kamyar Arasteh<sup>1</sup>, Theodore Hammett<sup>4</sup>, Marianne Peries<sup>5</sup>, Delphine Rapoud<sup>5</sup>, Catherine Quillet<sup>5</sup>, Laurent Michel<sup>6</sup>, Vinh Vu Hai<sup>7</sup>, Marie Jauffret Roustide PhD<sup>8</sup>, Jean-Pierre Moles<sup>5</sup>, Didier Laureillard<sup>5,9</sup>, and Nicolas Nagot<sup>5</sup>

<sup>1</sup> New York College of Global Public Health, New York, NY USA

<sup>2</sup> Hai Phong University of Medicine and Pharmacy, Hai Phong, Vietnam

<sup>3</sup> Supporting Community Development Initiatives, Hanoi, Vietnam

<sup>4</sup> ABT Associates, Boston, USA & Consultant for NYU College of Global Public Health, New York, NY USA

<sup>5</sup> Inserm U1058, University of Montpellier, France

<sup>6</sup> Pierre Nicole Center, Red Cross, Paris, France

<sup>7</sup> Infectious Diseases Department, Viet Tiep Hospital, Hai Phong, Vietnam

<sup>8</sup> Inserm, Paris, France

<sup>9</sup> Infectious Diseases Department, Caremeau University Hospital, Nîmes, France

# DRIVE STUDY TEAM



## MAIN GOALS FOR DRIVE

- Reduce HIV incidence to **0.5/100** person years at risk or less
- Reduce percentage of HIV seropositive PWID not at viral suppression to **5%** or less of PWID in Hai Phong
- Reduce percentage of HIV seropositive PWID not at viral suppression and engaging in distributive sharing of needles/syringes to **2%** or less

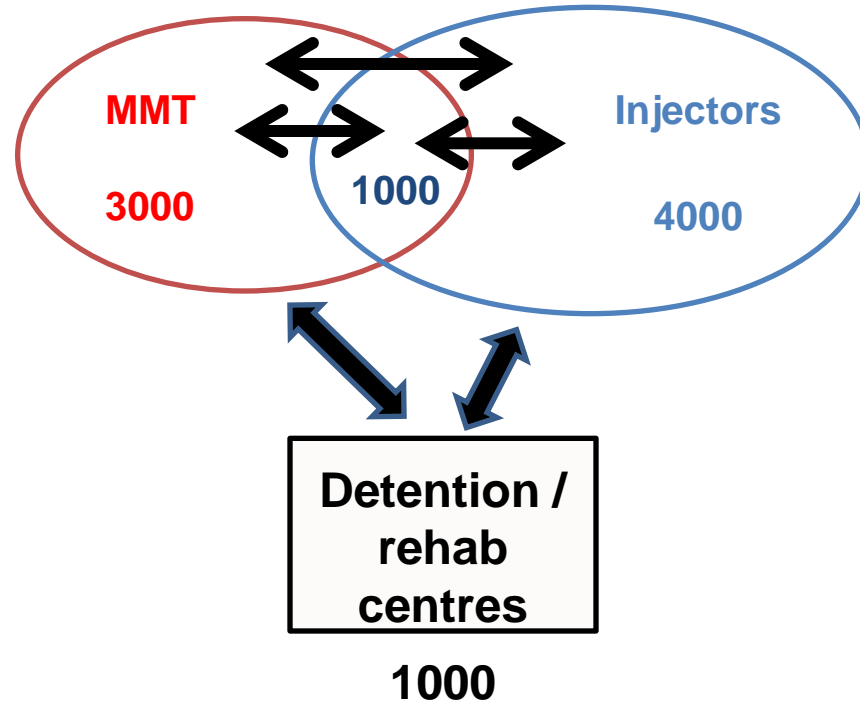
# DRIVE SURVEY OVERVIEW

- Four annual RDS surveys, with risk behavior, HIV, HCV testing and service utilization
- HIV incidence among repeat participants
- Continuous cohort of HIV-s (N = 400), for service utilization (methadone) and HIV incidence
- Continuous cohort of HIV+s, ALL HIV+S, for MMT and ART and viral loads/suppression

## RESPONDENT DRIVEN SAMPLING (RDS) AND “SUPER-RECRUITERS” UTILIZED IN HAI PHONG TO RECRUIT PWID

- Recruitment of seeds used to recruit other PWID into study based on large networks
- PWID who participated in the survey were then given numbered coupons to recruit additional PWID
- Also used “super-recruiters” to recruit additional participants
- Collaboration with multiple community organizations (CBOs) to assist in seed identification and RDS recruitment

# DRIVE POPULATION



## SEVERAL CONCERNS/CHALLENGES IN LOW/MIDDLE INCOME COUNTRIES:

- Police activities interfering with PWID utilizing services
- Lack of financial resources
- Lack of trained personnel
- Intense stigmatization of drug use and HIV infection
- Counter productive policies, e.g., “detention” centers, quotas for arresting drug users, denial of drug use and HIV as public health problems



# MEASURING HIV INCIDENCE METHODS

- HIV recency testing was used to identify possible seroconversions in the window period prior to study entry
- A cohort of HIV seronegative participants with 6-month follow-up visits was recruited from the RDS surveys conducted each year
  - RDS conducted in 2016, 2017, 2018, and 2019 (Ns = 1383, 1451, 1444 and 1268)
  - HIV seronegative participants recruited: 480 from 2016, 233 from 2017, and 213 from 2018

# HIV INCIDENCE RESULTS

- There were **3** seroconversions in 1483-person years at risk (PYAR) in the cohort study
- **0** seroconversions in 696 PYAR among repeat survey participants
- **0** seroconversions in 1344 PYAR in recency testing
- Overall HIV incidence was **0.085/100 PYAR**, 95% CI 0.02 - 0.25/100 PYAR.

# HIV INCIDENCE

- Our data shows that it is possible to achieve very low HIV incidence and end an HIV epidemic among PWID in a middle-income country
- Implementation of combined prevention and care for HIV among PWID has been limited in low/middle income countries and funding for HIV prevention in low/middle income countries has been declining
  - Even with these limitations, HIV incidence was very low among PWID in Hai Phong

## THE END OF THE HIV EPIDEMIC AMONG PWID

- **Data on 75% of the whole active PWID population:**
  - Cascade of care  $> 90 / 90 / 90$
  - Incidence  $< 1/1000$  person-years (i.e. meet WHO criteria)
  - Less than 5% of active PWID can transmit HIV
  - Syringe/Needle sharing  $< 5\%$
  - High methadone coverage ( $\sim 40\%$ )
- **HIV program in Hai Phong should focus on retaining PWID in care (not case-finding anymore):**
  - Main challenges: wide methamphetamine use, absence of take-home methadone, mental health

# SUSTAINABILITY OF THE “END OF AN HIV EPIDEMIC AMONG PWID”

- Maintain supportive policy environment
- Maintain prevention and care programs
- Adapt to changes in drug use

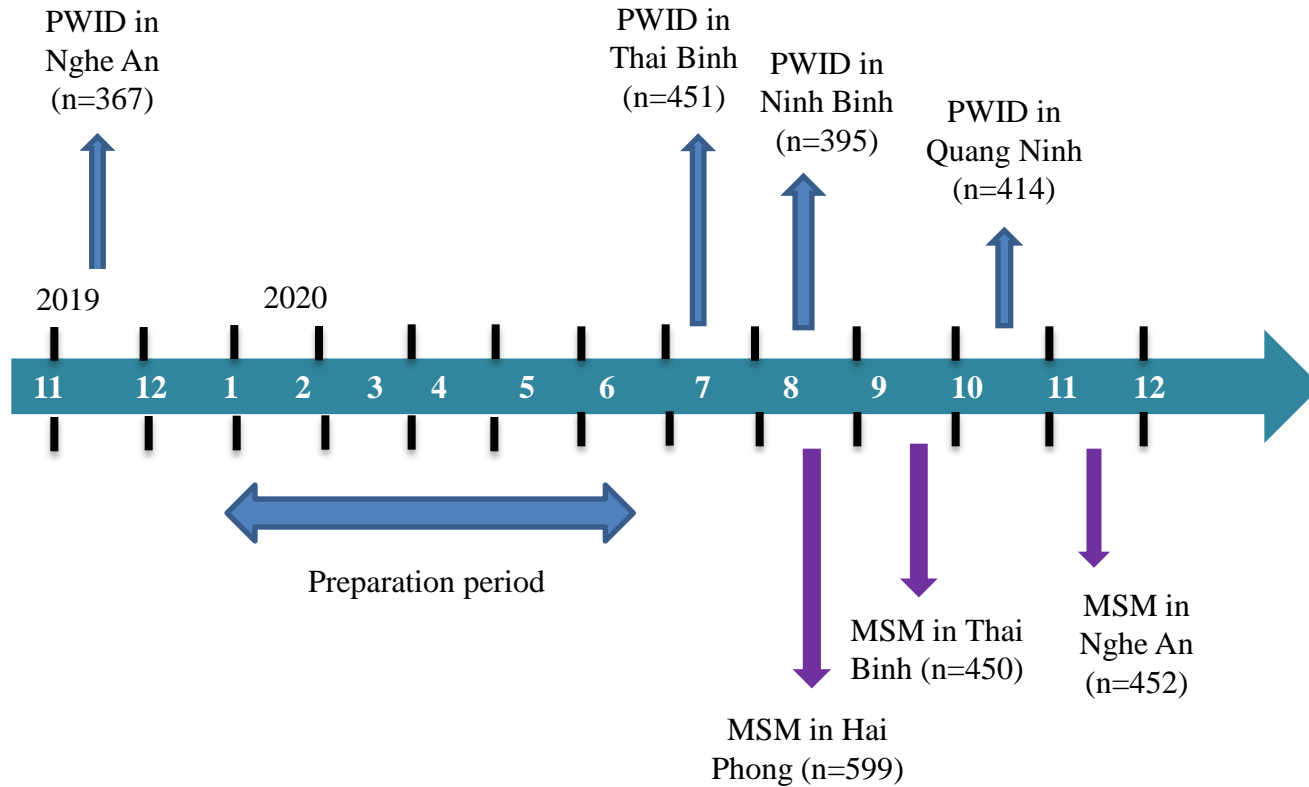
# NEXT STEP FOR DRIVE: TRANSFERRING DRIVE METHODS TO NEW AREAS

- Rapid Assessment—analyses of available data and qualitative interviews with key informants, including PWID
- Large scale RDS or RDS/SR (population size estimate, HIV recency testing, assessment of potential biases using RDS analytics, and comparison of RDS vs. SR components)

# CHEER (DRIVE MODEL REPLICATION) OBJECTIVES

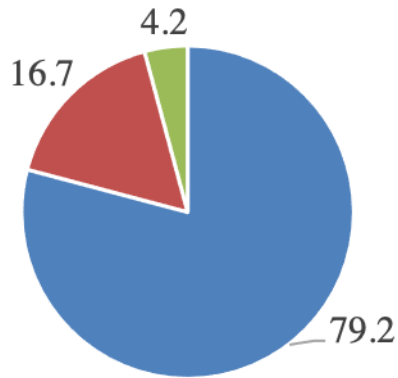
- To estimate PWID / MSM population
- Estimate the prevalence/incidence of HIV infection
- Co-morbidities in MSM: syphilis, chlamydia
- HIV cascade of care
- MMT program coverage
- Evaluate the risk of HIV infection

# Timing of CHEER STUDIES

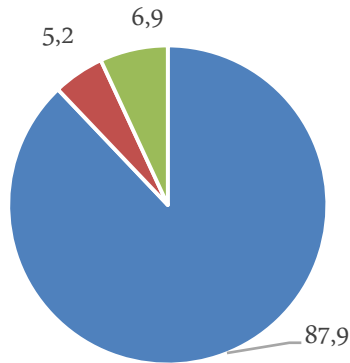




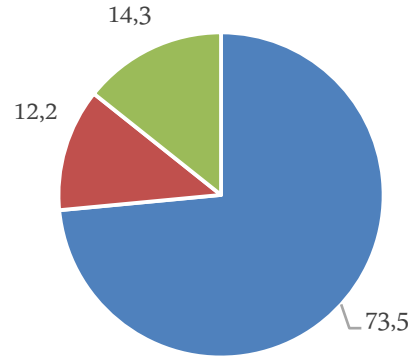
- <20 copies/mL
- 20 - 1000 copies/mL
- > 1000 copies/mL



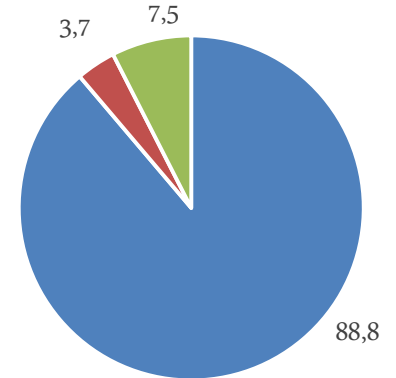
Nghe An (n=24)



Ninh Binh (n=58)



Thai Binh (n=49)



Quang Ninh (n=107)

# CONCLUSIONS

- Many high-income locations have achieved the end of the HIV epidemic among PWID. The results from Hai Phong demonstrate it is possible to achieve the same results in a low/middle income location
- We have successfully implemented the DRIVE project protocol to other locations in Vietnam, evaluating HIV epidemics in different parts of the country, allowing for a better picture of situation in the country

Thank you!

