



**HANOI MEDICAL UNIVERSITY  
CENTER FOR TRAINING AND RESEARCH ON SUBSTANCE ABUSE – HIV  
(CREATA-H)**

# **ADDRESSING OPIOID ADDICTION IN VIETNAM: SUCSESSES AND CHALLENGES**

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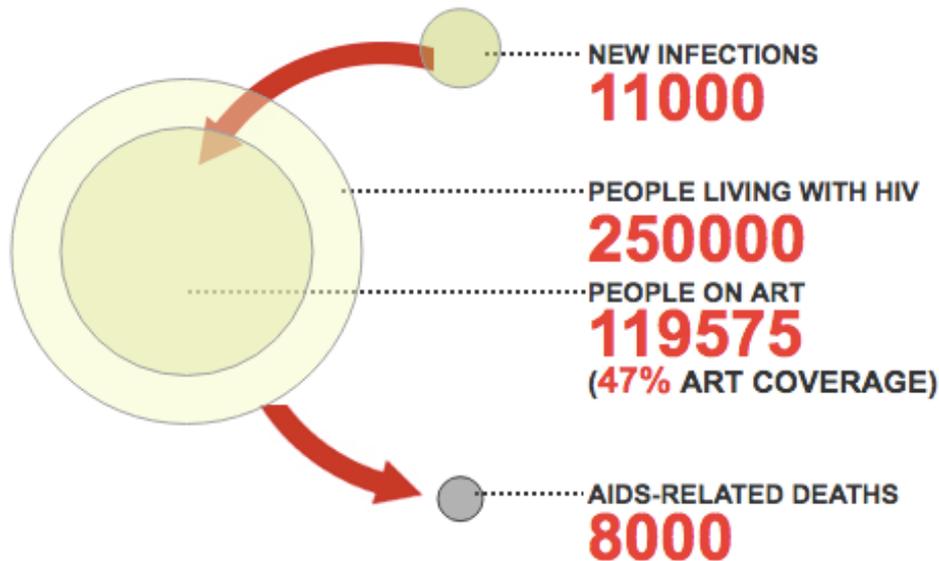
## No Conflict of Interests

**(I have been involved in tackling the linkages between  
substance abuse and HIV in Vietnam  
for 15 years)**



# Vietnam – An overview

## Vietnam HIV 2017



New infections

Declining

PLHIV

Increasing

Deaths

Declining



## VIETNAM SNAPSHOT

Territory: **331, 210 km<sup>2</sup>**

Total population (2017):

**96,491,146**

GDP (2016):

**205.276**

**Billion USD**





# Addressing Opioid Addiction: Ten Years Ago

## Addiction treatment in Vietnam circa 2007

**Compulsory  
Detoxification  
Centers (2 years)  
since 1990, by  
end of 2017  
more than 100  
centers in the  
country**

**Labor, Invalids and  
Social Affairs**

Detoxification

**Health Field**

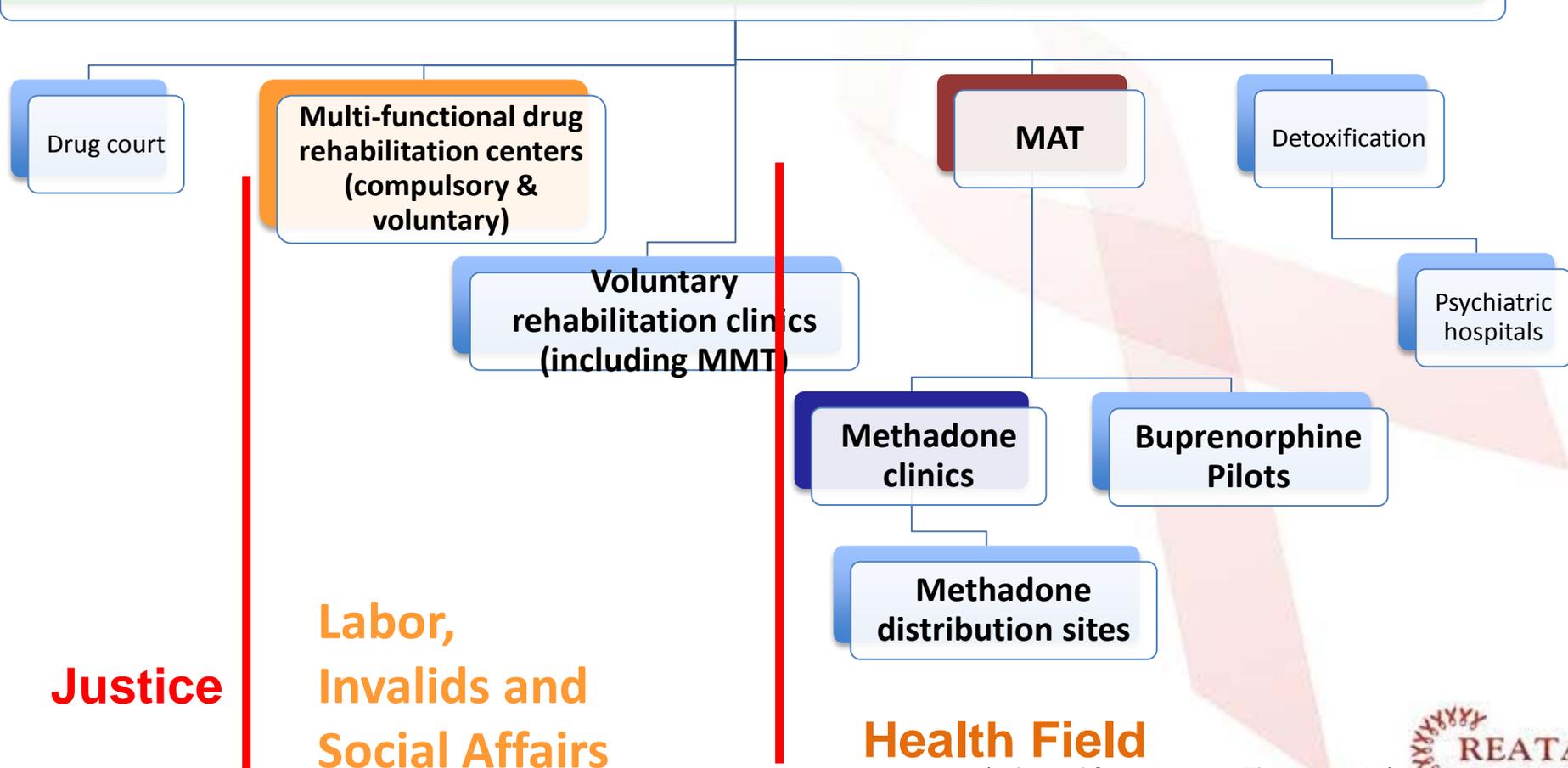
Psychiatric  
hospitals

- 1996 – 2002: Methadone detox experiment in a psychiatric hospital
- 2008: 6 pilot clinics in two provinces supported by PEPFAR



# Addressing Opioid Addiction: Today

Figure 3: Addiction treatment in Vietnam circa 2017



**Justice**

**Labor,  
Invalids and  
Social Affairs**

**Health Field**

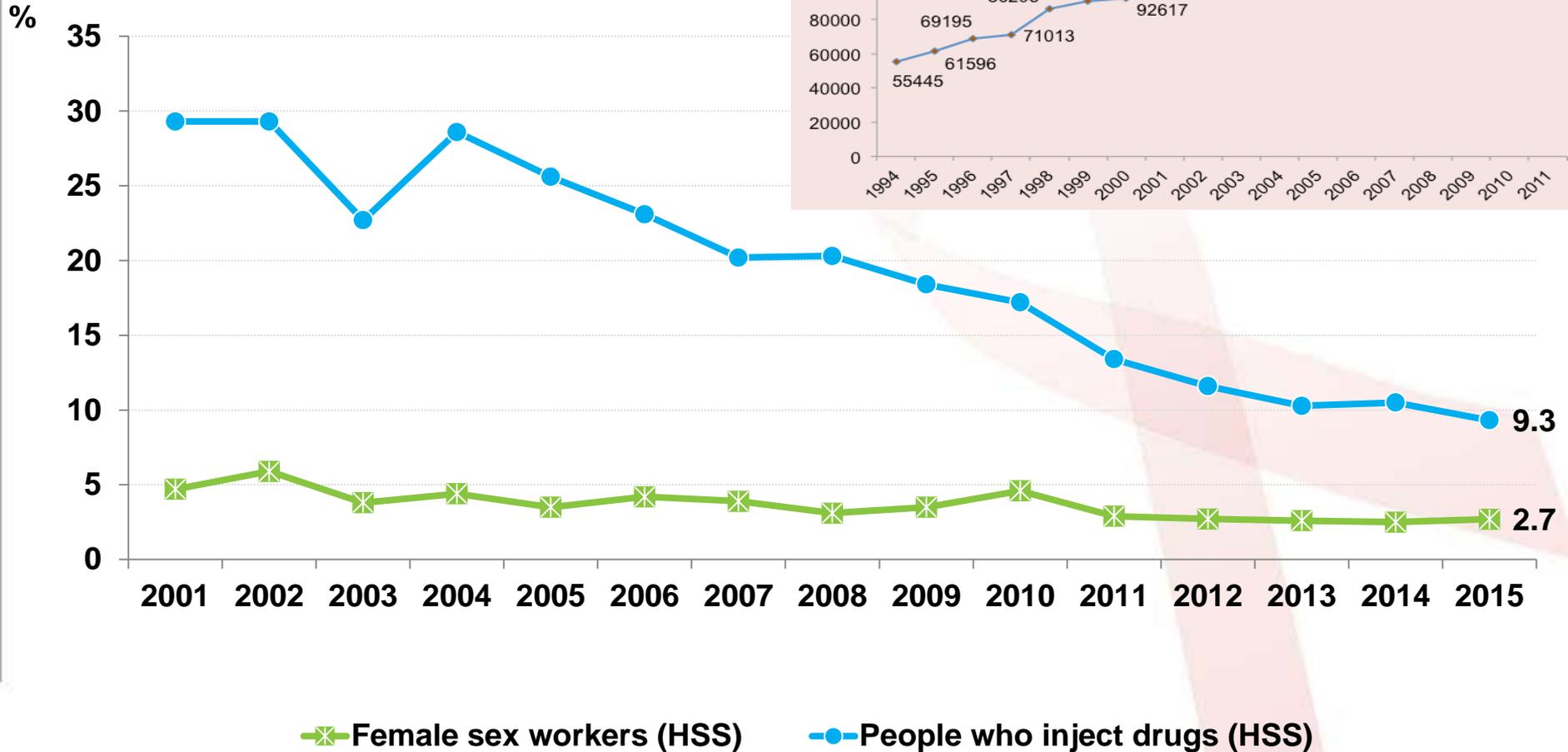
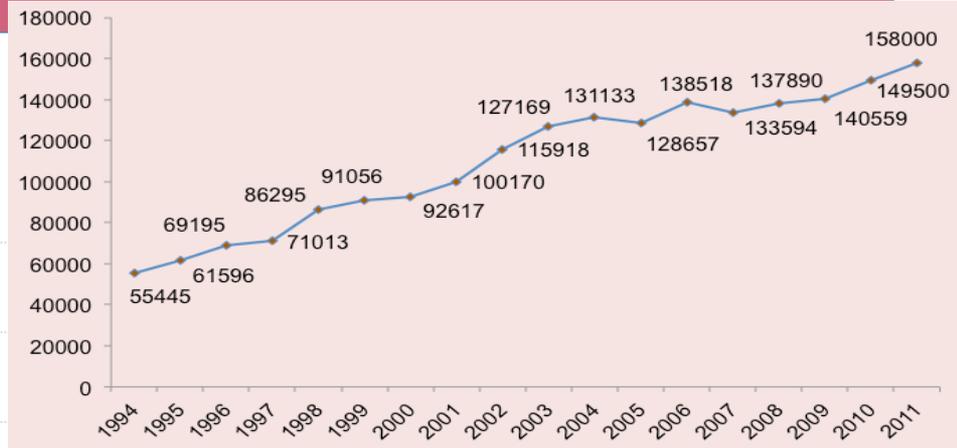
(Adapted from Nguyen Thi Van, 2016)





# Why change happened?

Number of known drug users known to local authorities 1999 - 2011



**Note:** HSS - HIV sentinel surveillance surveys; IBBS - Integrated biological and behavioral surveys; \* only 6 provinces in HSS in 2014

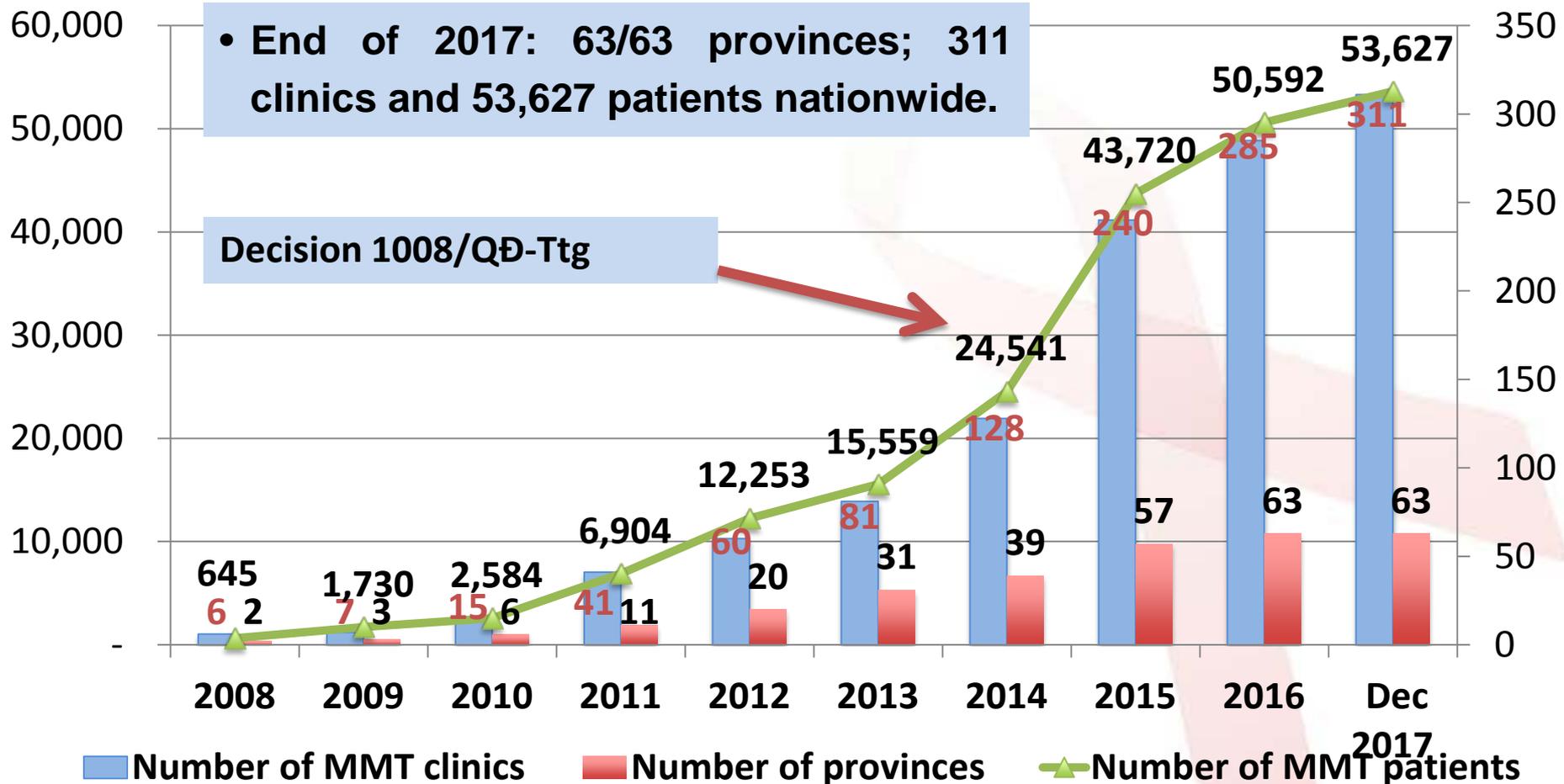
Source: Prepared by [www.aidsdatahub.org](http://www.aidsdatahub.org) based on 1. National Committee for AIDS, Drug and Prostitution Prevention and Control. (2014). Vietnam AIDS Response Progress Report (Country Narrative Report). Following Up the 2011 Political Declaration on HIV/AIDS. Reporting period: January 2012 – December 2013; 2. Integrated Biological and Behavioural Surveys 2006 and 2009; 3. HIV Sentinel Surveillance Reports; and 4. [www.aidsinfoonline.org](http://www.aidsinfoonline.org)





# Addressing Opioid Addiction: Successes

## 1. Rapid MMT program expansion: 2008 - 2017



(Kenneth W. Robertson, 2016; VAAC, 2017b, 2017a)



# Addressing Opioid Addiction: MMT in Vietnam

## **2. Rapid shift in policy framework to support expansion** **Government of Vietnam**

- **Decree 96/2012/NĐ-CP:** Regulations on Treating Opioid Dependence with Replacement Therapy (**Note the language “Replacement”**)
- **Decision 2187/QĐ-Ttg** (12/5/2014): Approval of Renovation Plan for Drug Rehabilitation Sector in Vietnam by 2020 (Reducing the rate of compulsory treatment from **63%** to **20%** in 2015 and **6%** by 2020).
- **Decision 1008/QĐ-Ttg** (6/20/2014): Assigning Target Numbers of Patients to be Treated with MMT (by provinces) in the year 2014 – 2015.
- **Decree 90/2016/NĐ-CP:** Updated Regulations on Treating Opioid Dependence with Replacement Therapy (**two violations could result in forced dropout**)

## **Ministry of Health**

- **Decision No.3509/QĐ-BYT** (8/21/2015): Guidelines on Implementation of MMT Hub and Spoke model
- **Approval of Buprenorphine** in 7 mountainous provinces in 2018 - 2019



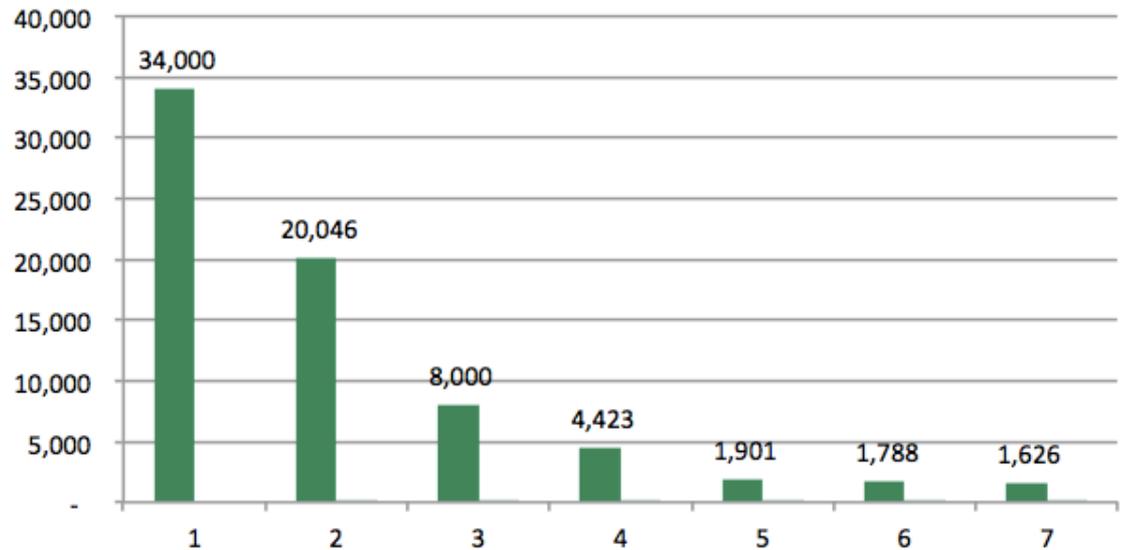
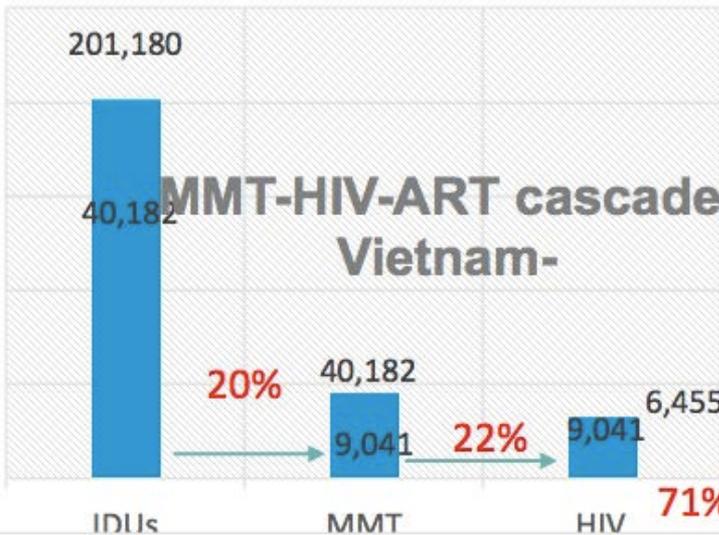


# Addressing Opioid Addiction: MMT in Vietnam

## 3. Linkages with HIV cascade

### Linkages of MMT and ART services in Ho Chi Minh City (2016)

Cascade: Addicts-MMT-VL in HCMC



Estimated addicts	# registered	# of targeted	# on MAT	# HIV+	# on ARV	# VL undetected
34,000	20,046	8,000	4,423	1,901	1,788	1,626
	59%	40%	55%	43%	94%	91%

(Adapted from SAMHSA, 2017)

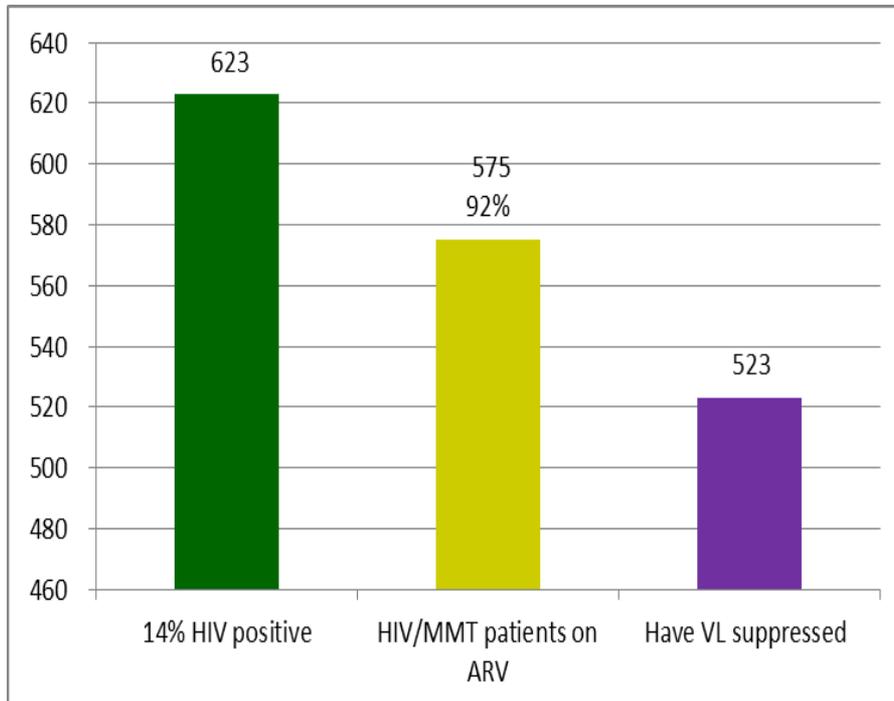




# Addressing Opioid Addiction: MMT in Vietnam

## 3. Linkages with HIV cascade

### Linkages of ART and MMT services in Hanoi (2016)



Estimated a	# registered	# of targeted	# on MAT	14% HIV positive	HIV/MMT	Have VL suppr
24,800	7,788	6,500	4,604	623	575	523
	31%	83%	71%	14%	92%	91%

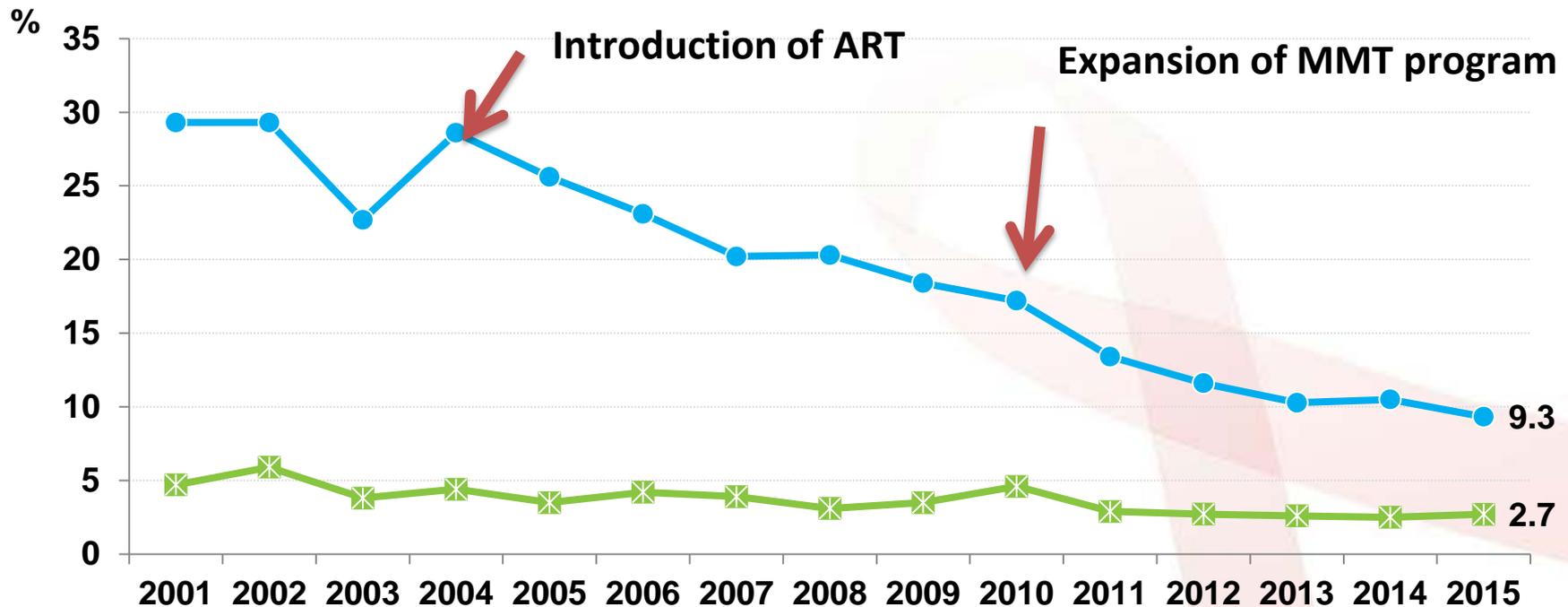
(Adapted from SAMHSA, 2017)





# Addressing Opioid Addiction: MMT in Vietnam

## 4. Contribution to controlling HIV epidemic



**Pilot MMT results 2008 - 2010:** Heroin use decreased from 100% to 15.9% after 24 months in treatment. Only 1 (out of ~ 1000) seroconverted.

**Note:** HSS - HIV sentinel surveillance surveys; IBBS - Integrated biological and behavioral surveys; \* only 6 provinces in HSS in 2014





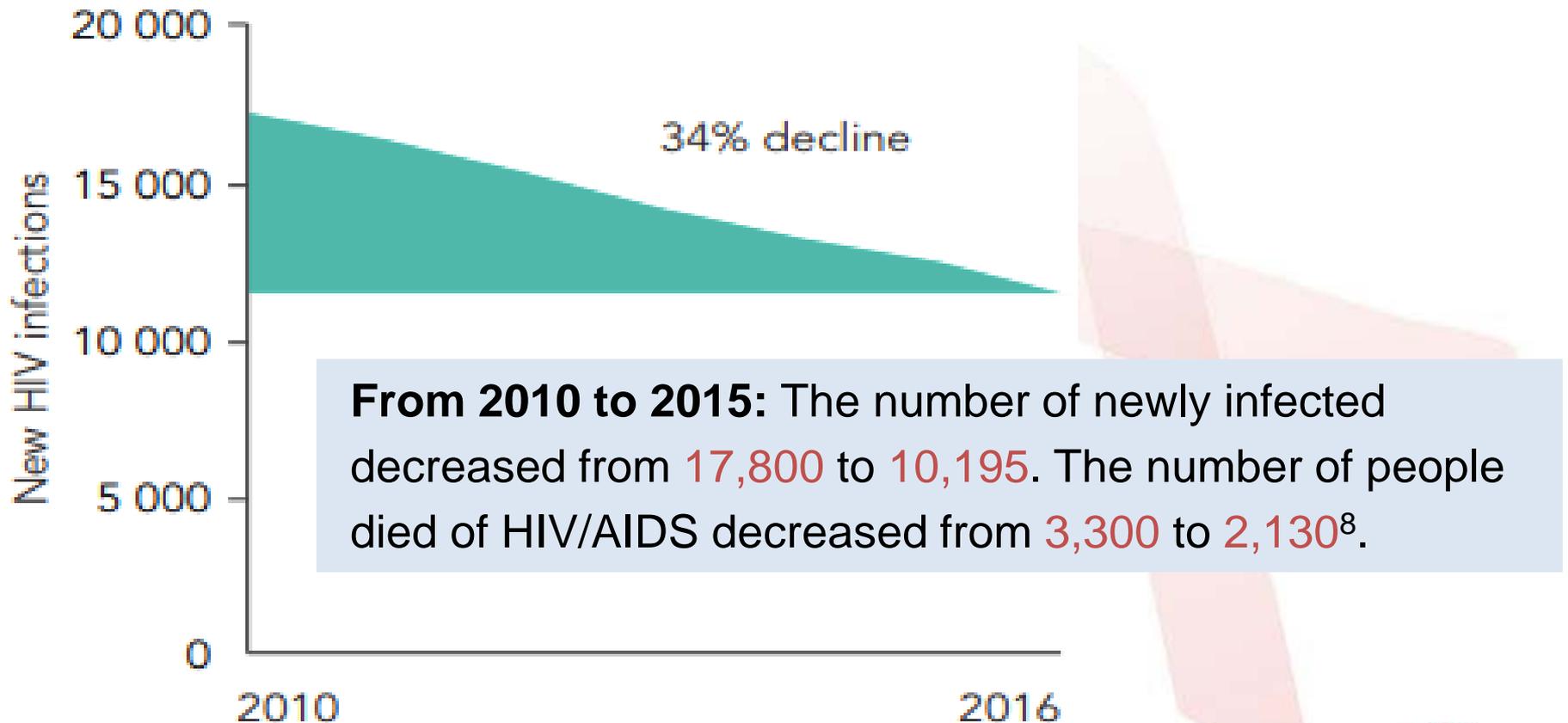
## Prospect of ending HIV epidemic among PWIDs in Haiphong (2015)

- Community-based cohort study (DRIVE-IN) with 603 PWIDs
  - Respondent-driven sampling
  - Interventions: Peer referral to HIV care and Methadone maintenance treatment
- HIV incidence
  - No seroconversion in 206 person-years of follow-up
  - Estimated HIV incidence ranged between 0 and 1.8/100 person-years (similar to incidence in New York City around 2005)



# Addressing Opioid Addiction: MMT in Vietnam

## 4. Contribution to controlling HIV Epidemic



(Adapted from UNAIDS & HIV and Data Hub for Asia Pacific, 2017; 8. VAAC, 2017;)





# Addressing Opioid Addiction: MMT in Vietnam

## 3. Other significant results

- Retention in Pilot MMT: **88.3** % (852/965) at 12 months and **77.8** % (751/965) at 24 months<sup>9</sup>
- **Earlier ART uptake** and **higher retention** on ART compared to those not receiving MMT (n=663)<sup>18</sup>
- **95.5%** patients were **willing to pay** monthly at an average of US\$ 32<sup>10</sup>
- **High preference** for the integrative (**66.7%**) and decentralized MMT service delivery models (**66.8%**) respectively (n=510)<sup>15</sup>
- **Highly satisfied with MMT services**, especially in capacity of health workers & responsiveness (score **9.2/10** (SATIS instrument; n=1016)<sup>16</sup>
- **High employment rate (90%)** in some remote areas of Northern Vietnam (n=241)<sup>17</sup>

9. T.V. Hoang et al., 2015; 18. Pham et al., 2017; 10. Tran et al., 2016; 15 Tran, Nguyen, Phan, Nguyen, & Latkin, 2015; 16. Tran, Nguyen, Phan, & Latkin, 2015b; 17. Nong et al., 2017





# Vietnam-HIV Addiction Technology Transfer Centers

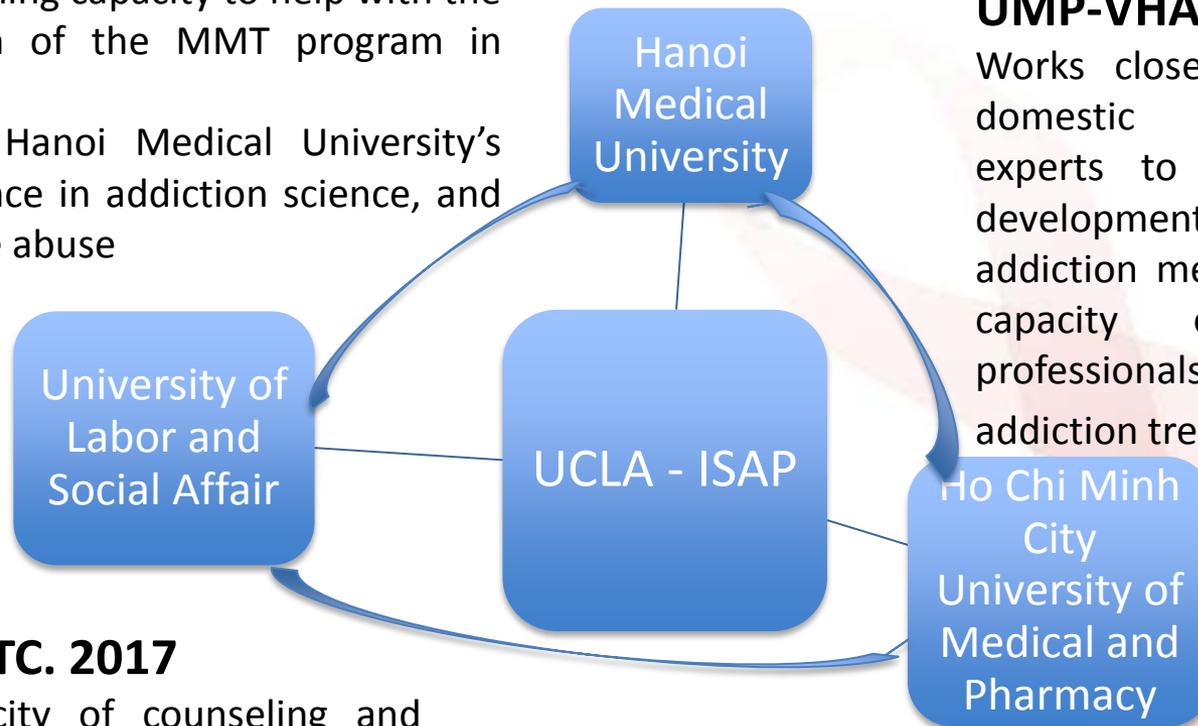
**Funded by PEPFAR/SAMHSA and tech. support by ISAP since 2011**

## HMU-VHATTC. 2011

- Build training capacity to help with the expansion of the MMT program in Vietnam
- Enhance Hanoi Medical University's competence in addiction science, and substance abuse

## UMP-VHATTC. 2014

Works closely with HMU, and domestic and international experts to contribute to the development of science in addiction medicine, improve the capacity of health care professionals the field of addiction treatment.



## ULSA-VHATTC. 2017

Improve capacity of counseling and social support in drug treatment, HIV prevention through capacity building for staff working in treatment of addiction in Vietnam.



# Vietnam-HIV Addiction Technology Transfer Centers





# MMT in Vietnam: Challenges

## 1. Treatment dropouts

- Adherence issues: **17.7%** of MMT patients (n=510) reported incomplete MMT adherence in the last 30 days<sup>25</sup>.
- **Nationwide:** Statistics from 63/63 provinces and cities during the first 6 months of 2017 showed that **9,813 new patients** enrolled in the program and yet **8,067 left (~ 82%)** the program<sup>7</sup>.
- During the same period, the total number of dropouts from 10 provinces and cities with highest drop-out rates is **4,036** (or ~ **50%** of the total number nationwide)<sup>7</sup>.

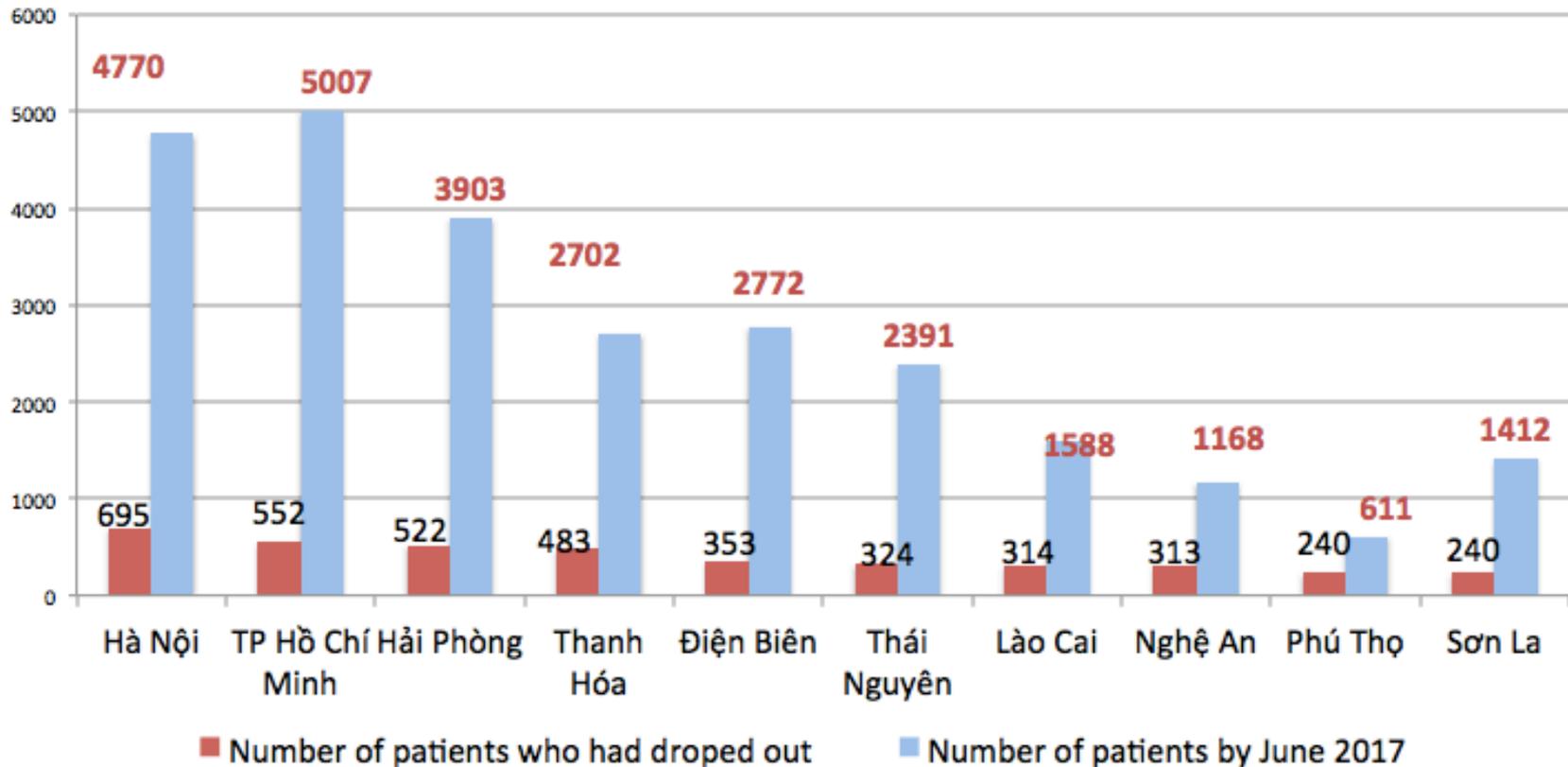




# MMT in Vietnam: Challenges

## 1. Treatment dropouts

Top ten provinces with highest dropout numbers from Jan to Jun 2017



Patients in treatment by June 2017	Hà Nội	TP Hồ Chí Minh	Hải Phòng	Thanh Hóa	Điện Biên	Thái Nguyên	Lào Cai	Nghệ An	Phú Thọ	Sơn La
26,324	4770	5007	3903	2702	2772	2391	1588	1168	611	1412
	15%	11%	13%	18%	13%	14%	20%	27%	39%	17%



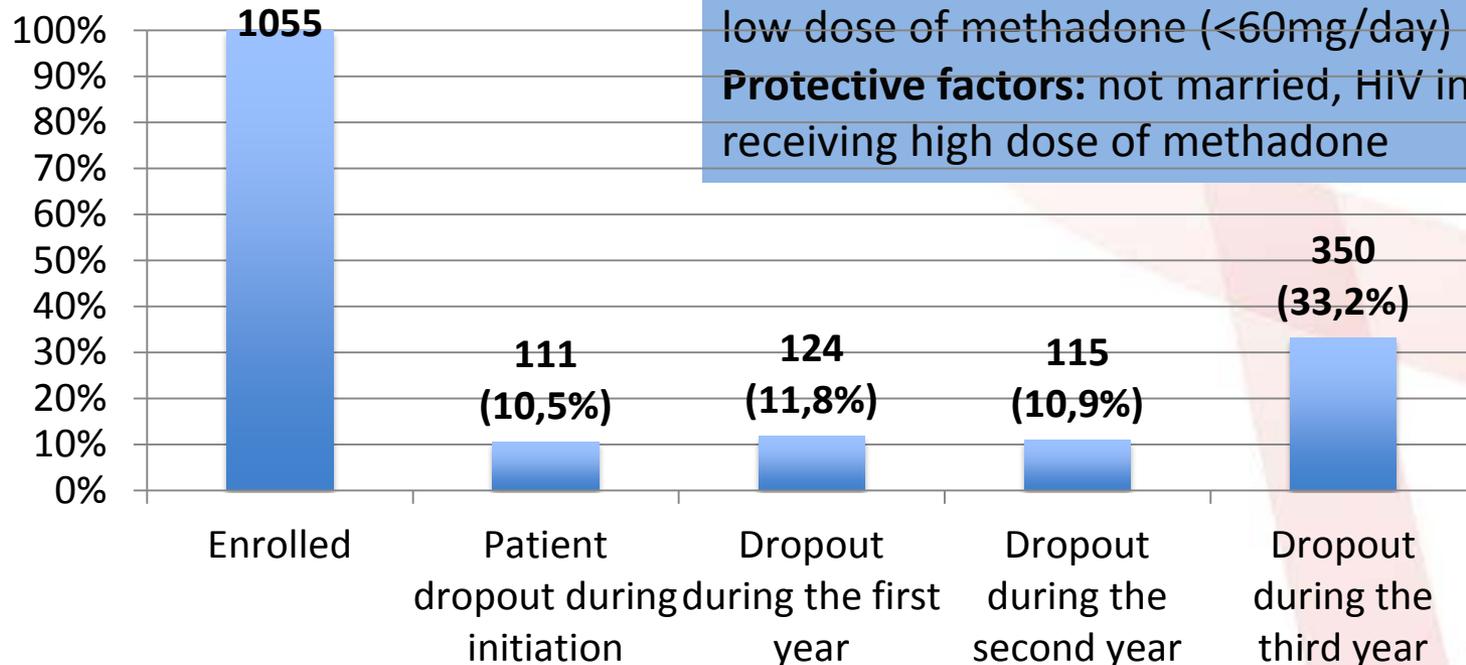
# MMT in Vietnam: Challenges

## 1. Treatment dropouts

Patient dropout during 3 years in treatment, Hai Phong (2008 – 2011)

**Correlates of dropouts:** continued use of heroin (aOR=12.4, 95%CI=4.2-36.8); self-report of mental health issue (OR=1.9, 95%CI=1.1-3.29); receiving low dose of methadone (<60mg/day)

**Protective factors:** not married, HIV infected and receiving high dose of methadone



(19. Khue et al., 2017)

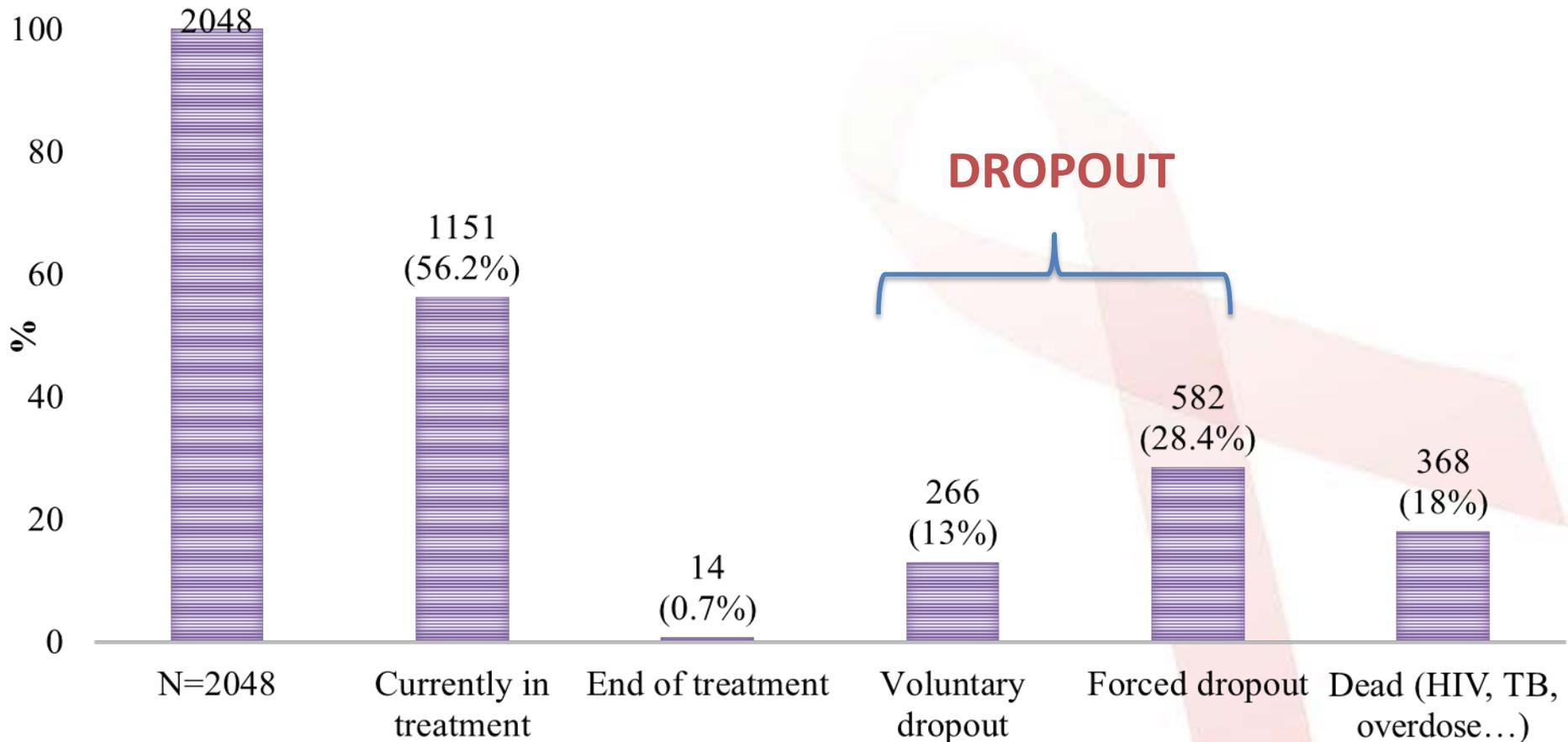




# MMT in Vietnam: Challenges

## 1. Treatment dropouts

Status of MMT patients by the end of 2017 in Lao Cai

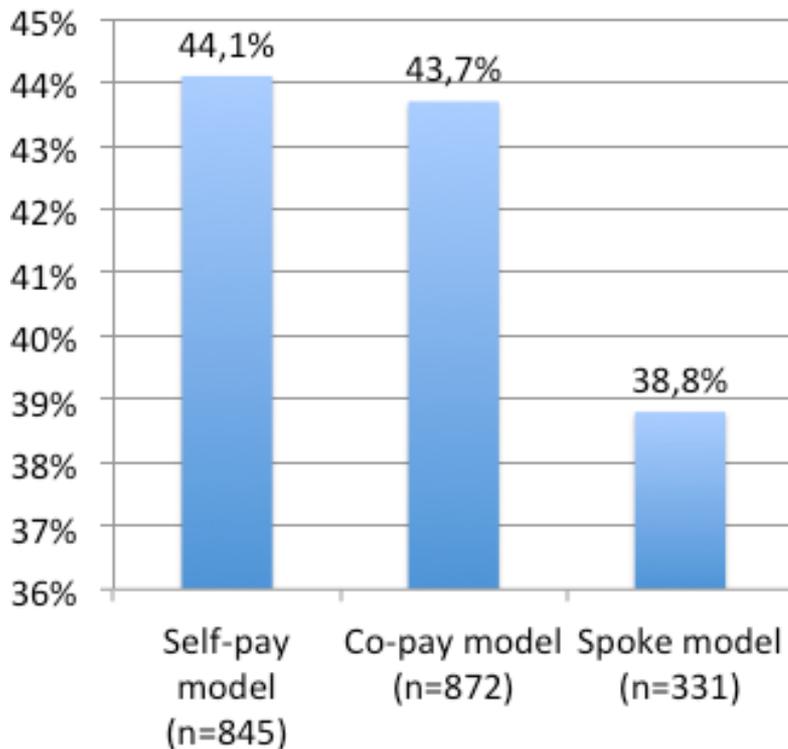




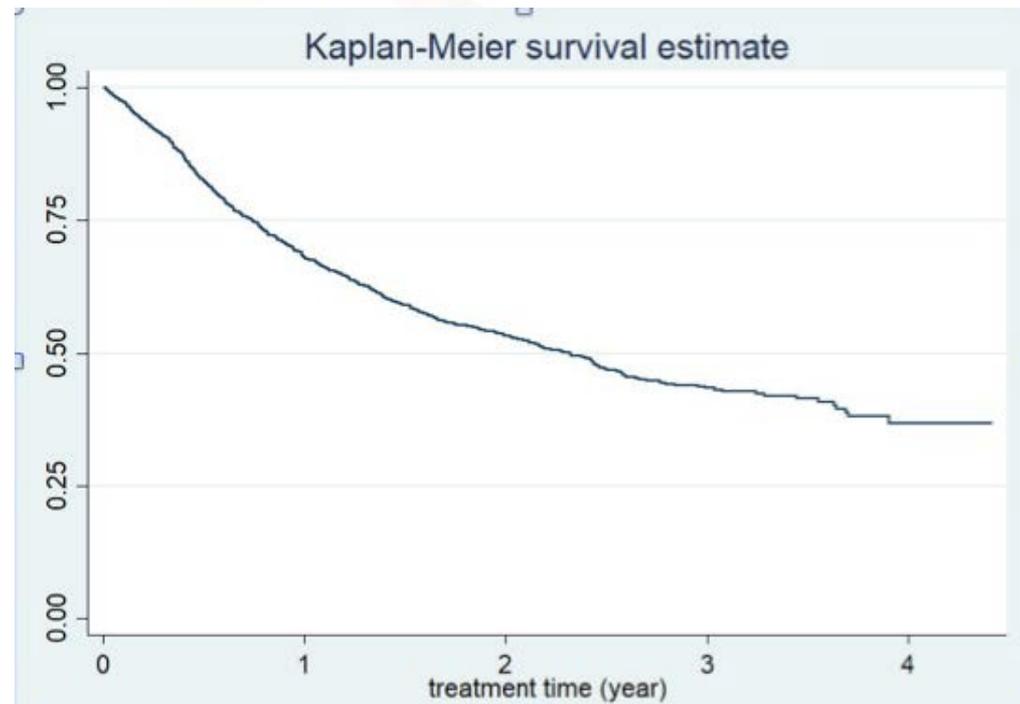
# MMT in Vietnam: Challenges

## 1. Treatment dropouts

Dropout rates by treatment models, Lao Cai, 2017



Retention by number of years in treatment Lao Cai, 2017





# MMT in Vietnam: Challenges



STT	Tên	Ngày	Giới tính	Đang điều trị	Đã điều trị	Đã cai nghiện
1	Nguyễn Văn A	15/10	M	Đang	Đã	Đã
2	Nguyễn Văn B	15/10	N	Đang	Đã	Đã
3	Nguyễn Văn C	15/10	M	Đang	Đã	Đã
4	Nguyễn Văn D	15/10	N	Đang	Đã	Đã
5	Nguyễn Văn E	15/10	M	Đang	Đã	Đã
6	Nguyễn Văn F	15/10	N	Đang	Đã	Đã
7	Nguyễn Văn G	15/10	M	Đang	Đã	Đã
8	Nguyễn Văn H	15/10	N	Đang	Đã	Đã
9	Nguyễn Văn I	15/10	M	Đang	Đã	Đã
10	Nguyễn Văn J	15/10	N	Đang	Đã	Đã

**Distance to MMT clinics and distribution sites in mountainous areas is a major factor leading to dropouts →**

**Decision to implement Buprenorphine since 2018 in 7 mountainous provinces with hub and spoke model to village level**





# MMT in Vietnam: Challenges

## 2. Concurrent heroin use.

- **Nationwide:** A study among 500 patients in 10 MMT clinics, the estimated percentage of patients who used heroin concurrently was **54.9%** during the first three months, **18.9%** the first six months, **14.5%** the first twelve months, and **15.4%** the first 24 months<sup>20</sup>.
- **Hai Phong:**
  - Among 603 PWIDs initiated methadone, **66.2%** still screened positive for heroin at **week 52**<sup>23</sup>.
  - About a quarter (**27.8%**) reported no longer injecting at week 52 but non-injecting heroin use increased (from 2.4% at baseline to 8.2% at week 52)<sup>23</sup>
- RDS: Respondent-driven Sampling



## 2. Concurrent heroin use.

**Factors associated with concurrent heroin use during 24 months of treatment among a national representative sample of patients who enrolled in MMT from 2008 to 2013**

- No family support at baseline (AOR = 2.03; 95% CI = 1.17–3.53)
- Using heroin for < 15 years versus  $\geq 15$  years (AOR=1.55; 95% CI=1.01–2.38)
- Methamphetamine use before treatment initiation (AOR=2.68; 95% CI=1.08–6.65)
- Being HIV positive/not on ART enrollment at baseline (AOR = 1.79; 95% CI = 1.07–2.98)

### **Only in unadjusted analysis**

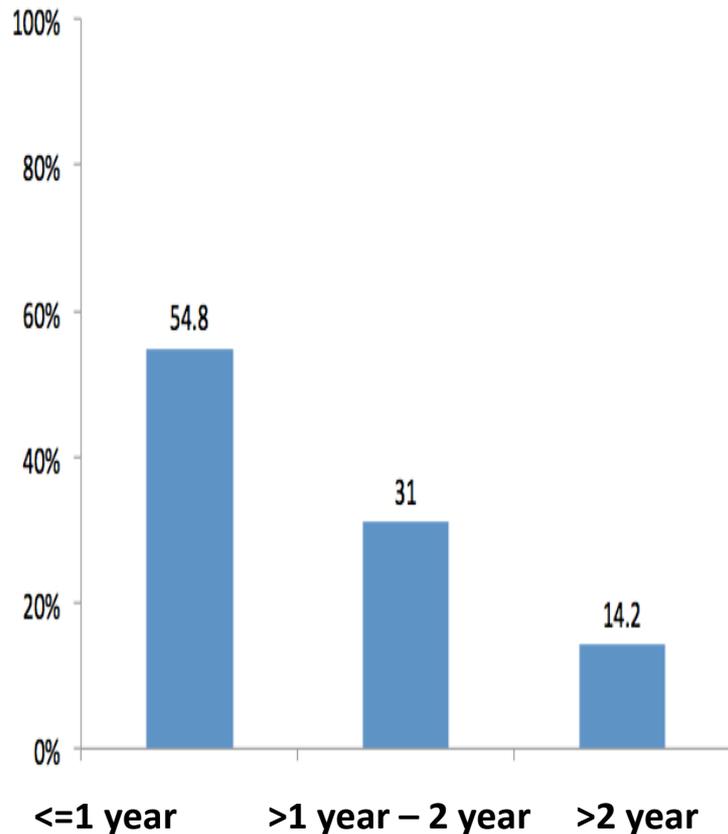
- Having a methadone dose of over 100 mg/day (OR=1.75; 95% CI = 1.12-2.72)
- Missed any dose-day (OR=1.5; 95% CI = 1.02-2.21)



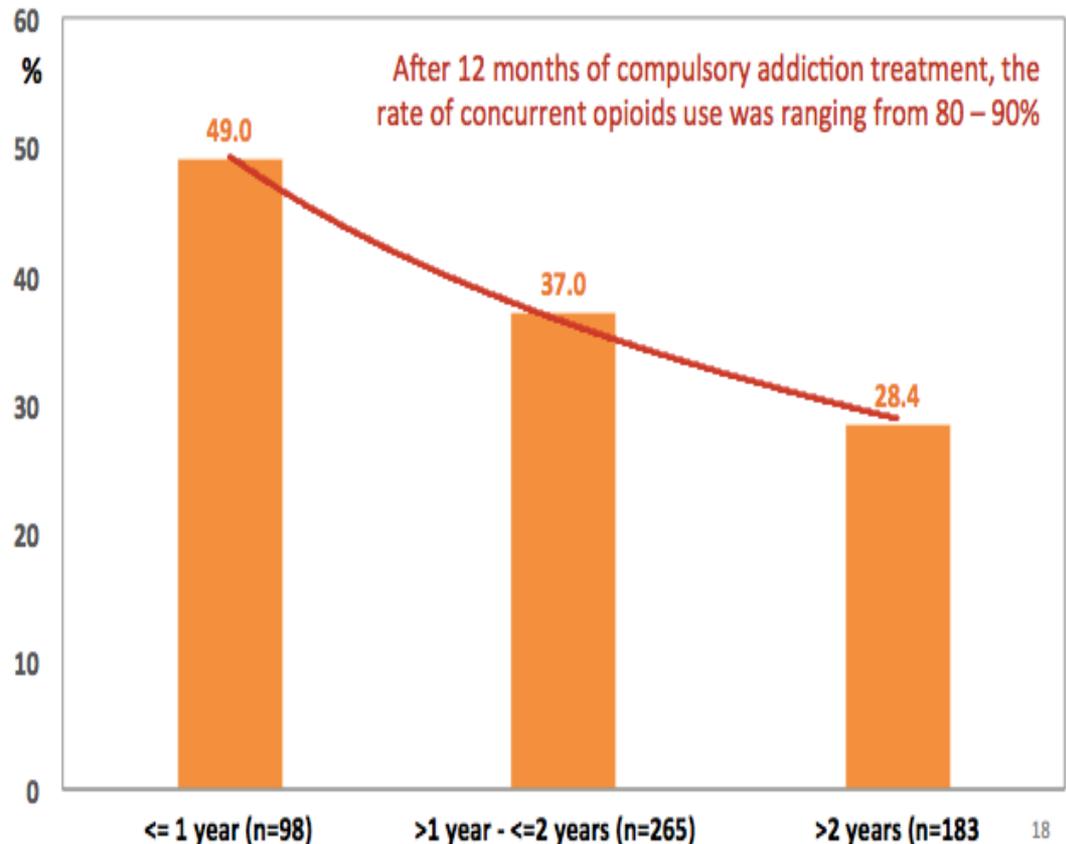
# MMT in Vietnam: Challenges

## 2. Concurrent heroin use.

Urine test positive with heroin by year in treatment among MMT patient in Lao Cai, 2017



Concurrent heroin use in the last 30 days by year in treatment, Lao Cai, 2017

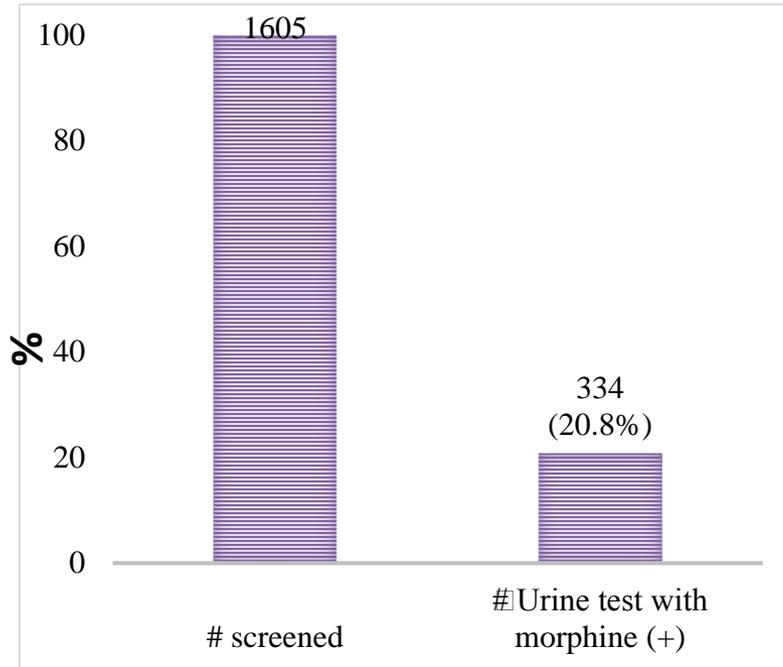




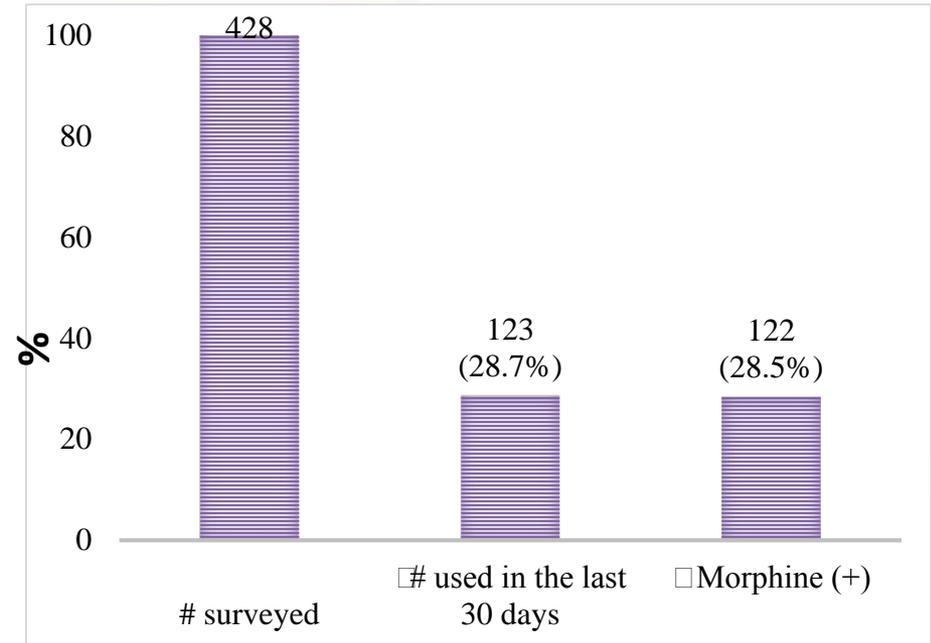
# MMT in Vietnam: Challenges

## 2. Concurrent heroin use

Concurrent heroin use in five largest MMT clinics in Hanoi, 2017 among all screened patients (left) and among meth. using patients (right)



Patients screened	Urine positive
1605	334
	20.8%



Patients using meth.	Self-report use in the last 30 days	Urine positive
428	123	122
	28.7%	28.5%



# MMT in Vietnam: Challenges

## 3. ATS use among patients in MMT

- In Hai Phong:
  - At baseline **24%** of the participants (n=603) recruited by RDS reported ever using methamphetamine, including 3 (0.5%) through injection. **17.1 %** had positive urine test.
  - Among cohort participants, **30.4%** (76) were using methamphetamine at the baseline while.
  - At week 52, on the basis of either self-report or urine testing, **49.0%** (N=95) of participants using methamphetamine

\*RDS: Respondent-driven sampling

(20.Michel et al., 2017)

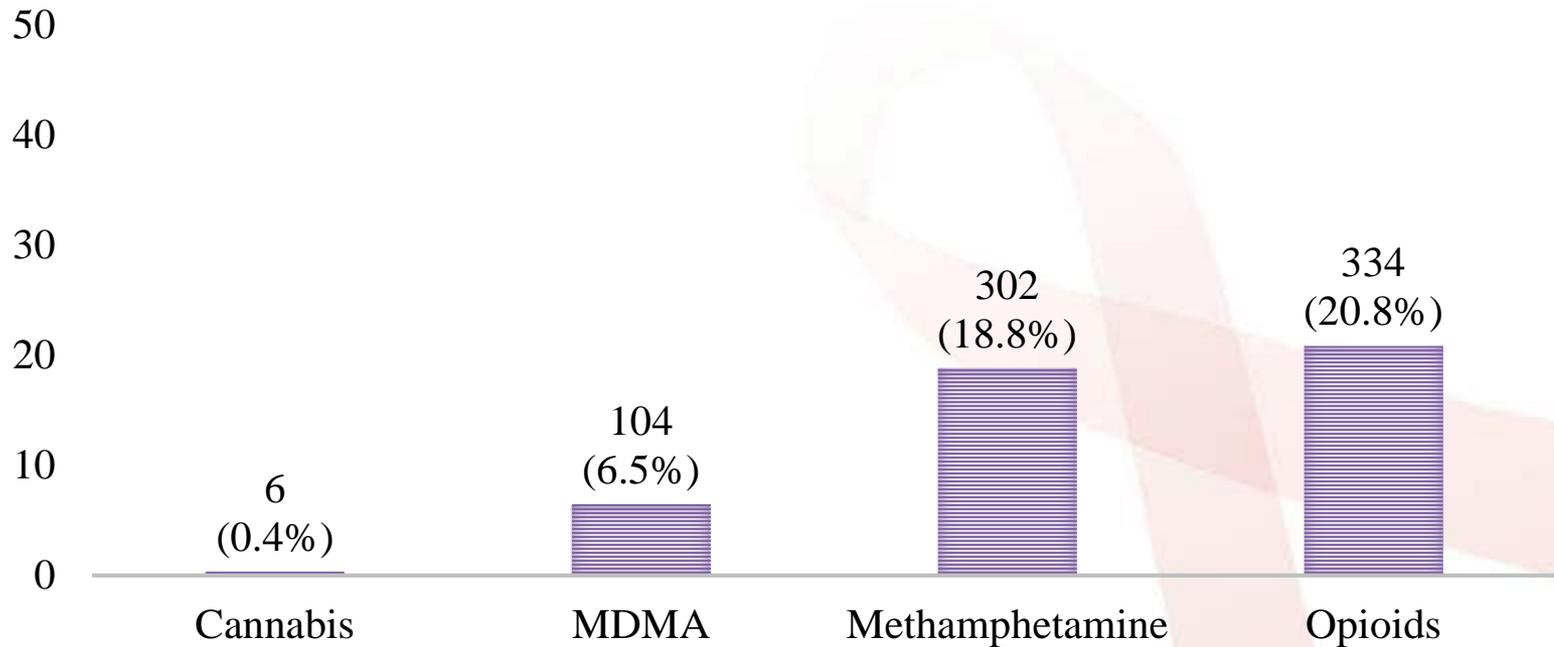




# MMT in Vietnam: Challenges

## 3. ATS use among patients on MMT

Urine test results among patients in five MMT clinics in Hanoi, 2017 (n=1604)



Patients screened	Cannabis (+)	MDMA (+)	Methamphetamine (+)	Opioids (+)
1604	6	104	302	334
	0.4%	6.5%	18.8%	20.8%

ATS: in this study, combining Amphetamine/Estacy/Methamphetamine

(22.Creata, 2017)

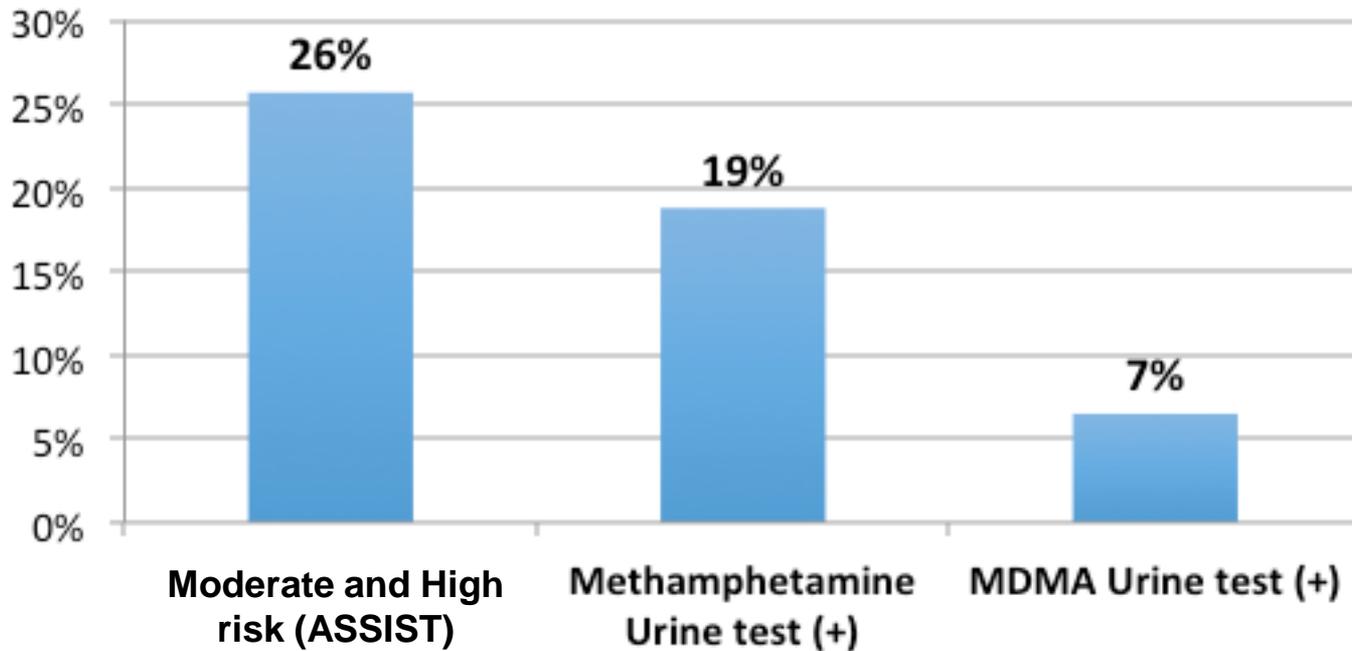




# MMT in Vietnam: Challenges

## 3. ATS use among patients on MMT

ATS use among patients in five MMT clinics in Hanoi, 2017 (n=1605)



Patients screened	Moderate/ high risk	Methamphetamine urine test (+)	MDMA urine test (+)
1605	413	302	104
	25.7%	18.8%	6.5%

(Creata, 2017)

ATS: in this study. combining Amphetamine/Ecstasy/Methamphetamine

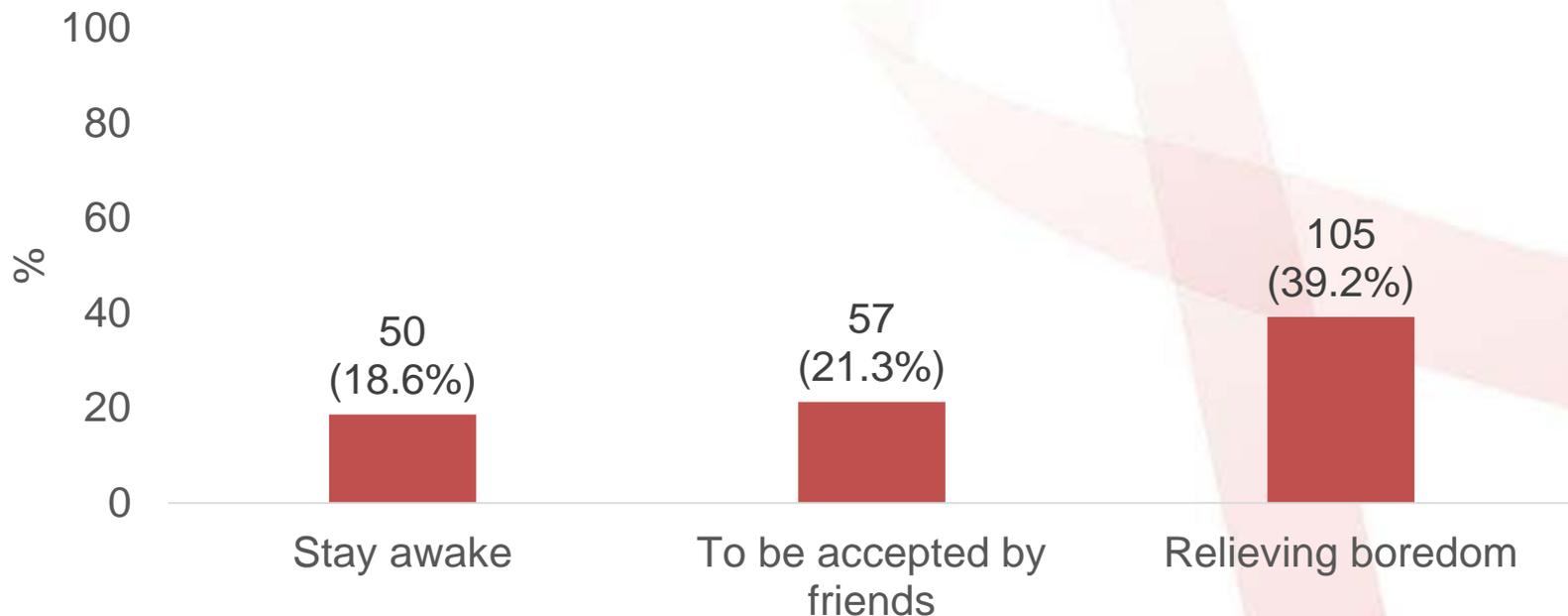




# MMT in Vietnam: Challenges

## 3. ATS use among patients on MMT

Reasons for using methamphetamine in the last three months in MMT patient in Hanoi, 2017 (n=428)



*ATS: in this study. combining Amphetamine/Estacy/Methamphetamine*

*(CreatA, 2017)*



# MMT in Vietnam: Challenges

## 5. Other Structural Challenges

- Lack of integrated services given high level of mental health issues: 26.8% of MMT patients in mountainous areas, 16.7% in urban setting reported psychological distress (n=241) <sup>24</sup>.
- Limitation of knowledge among Commune Health Workers in decentralized MMT service model, including misconceptions toward the benefits, procedures, and side effects of MMT <sup>27</sup>.
- Difficulties in accessing social health insurance: Nearly 80% (n=1003) MMT patients in northern Vietnam were not currently enrolled in health insurance <sup>26</sup>.
- Reduction of financial support from donors<sup>28</sup>.



## 5. Other Structural Challenges “Fences” are major structural barriers for the development of addiction services in Vietnam





## SUMMARY

- Vietnam has made significant progress in addressing substance abuse, especially opioid addiction, in the past ten years
- The expansion of MMT clinics and the integration of MMT and ART services have contributed significantly to controlling the HIV epidemic among PWIDs
- A lot still have to get done to address three major challenges (dropout; concurrent heroin use; ATS use) that may hamper the progress to tackle both substance abuse and HIV
- Major structural “fences” preventing Vietnam moving forwards include lack of a unified policy environment, societal stigma, health system issues, and lack of recovery pathways and support system for patients on MMT.



# THANK YOU FOR YOUR ATTENTION

Questions and comments please contact:

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