

Medication assisted treatments with counseling in Asian countries

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Prevailing trends in Asia

- Similar patterns of Illicit drug use across many countries
 - Opiates as dominant problem drugs
 - Recently rapidly emerging stimulant use (Amphetamine Type Stimulants, Ketamine)
 - Highly prevalent injection drug use and associated problems (i.e., HIV, Hepatitis C, other infectious diseases)
- Historically, penitentiary-type and inpatient drug rehabilitation models
 - Long-term residential rehabilitation programs
 - Hospital based treatment
- Medication assisted treatments introduced recently
 - Limited availability of medications, implementation challenges, lack of local dissemination models
- Shortage of trained experts/specialists
 - In substance use disorders, addiction medicine
 - In drug counseling or psychotherapy

Medication assisted treatments of opioid use disorder (OUD)

- Methadone maintenance treatment (MMT)
 - Specialty narcotic treatment centers
- Buprenorphine/naloxone maintenance treatment (BMT)
 - Primary care
- Medically supervised detoxification (inpatient or outpatient) followed by naltrexone maintenance treatment (NMT)
 - Daily pills
 - Extended release injections
 - Implants
- OUD patients with medical or psychiatric comorbidities benefit from additional medical or psychiatric services
- Many OUD patients may benefit from additional psychosocial interventions
 - Drug counseling, simple, brief behaviorally oriented interventions;
 - Psychotherapy;
 - Ancillary services (e.g., educational/vocational assistance, childcare)
- Limited medication options for treatment of stimulant use disorders



USM

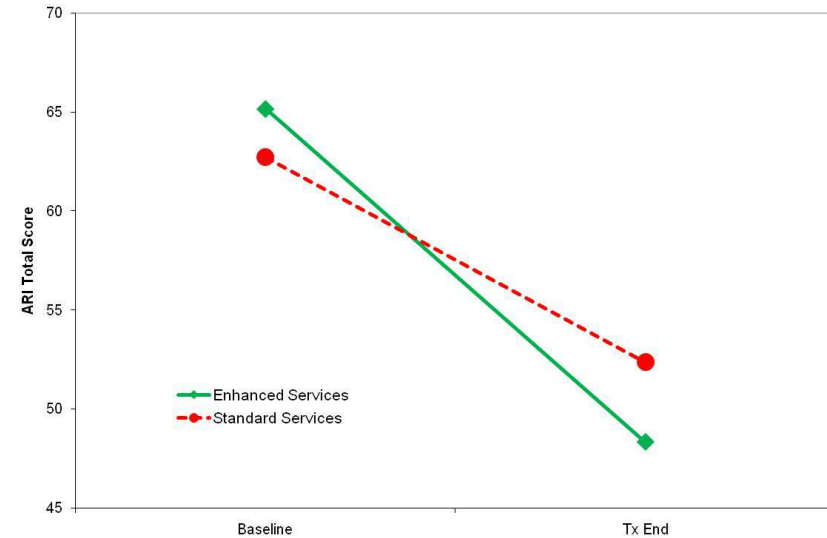
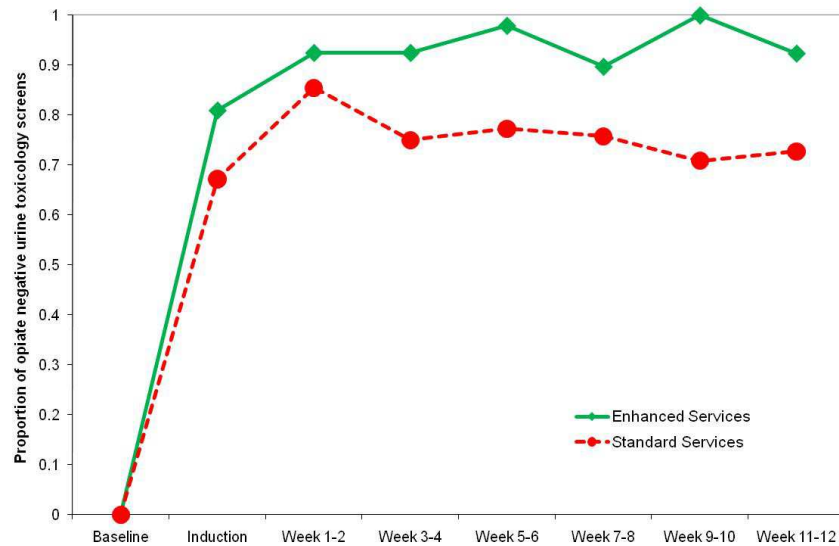
UNIVERSITI SAINS MALAYSIA



Substance Abuse Research Center
Muar, Johor, Malaysia



Pilot RCT in Muar: Summary



- Both groups reduced illicit opiate use during treatment ($F(7, 154)=38.1, p<0.001$); reductions were significantly larger in the BDRC+ACB group than in the PM+Standard BUP group ($F(1, 22)=5.0, p<0.05$)
- Both groups significantly reduced HIV risk behaviors during treatment as compared to pre-treatment assessment ($F(1, 22)=11.4, p<0.05$)
 - Reductions in HIV risks were larger in the BDRC+ACB group than in the PM+Standard group (27% vs. 16% reductions from the baseline levels, respectively) but these differences did not reach statistical significance ($p=0.87$)

Full scale RCT in Muar: Summary

- Specific aims

- To evaluate whether the efficacy of office-based buprenorphine maintenance treatment (BMT) with brief physician management (PM) and weekly medication dispensing in Malaysia is improved by provision of weekly, individual behavioral drug and HIV risk reduction counseling (BDRC), abstinence-contingent provision of take-home doses of buprenorphine (ACB), or the combination of BDRC and ACB

- Methods

- 24 week BMT provided in w GP clinics; enrolling treatment seeking heroin-dependent volunteers (N=234) conducted in Muar, Malaysia – 2007-2011

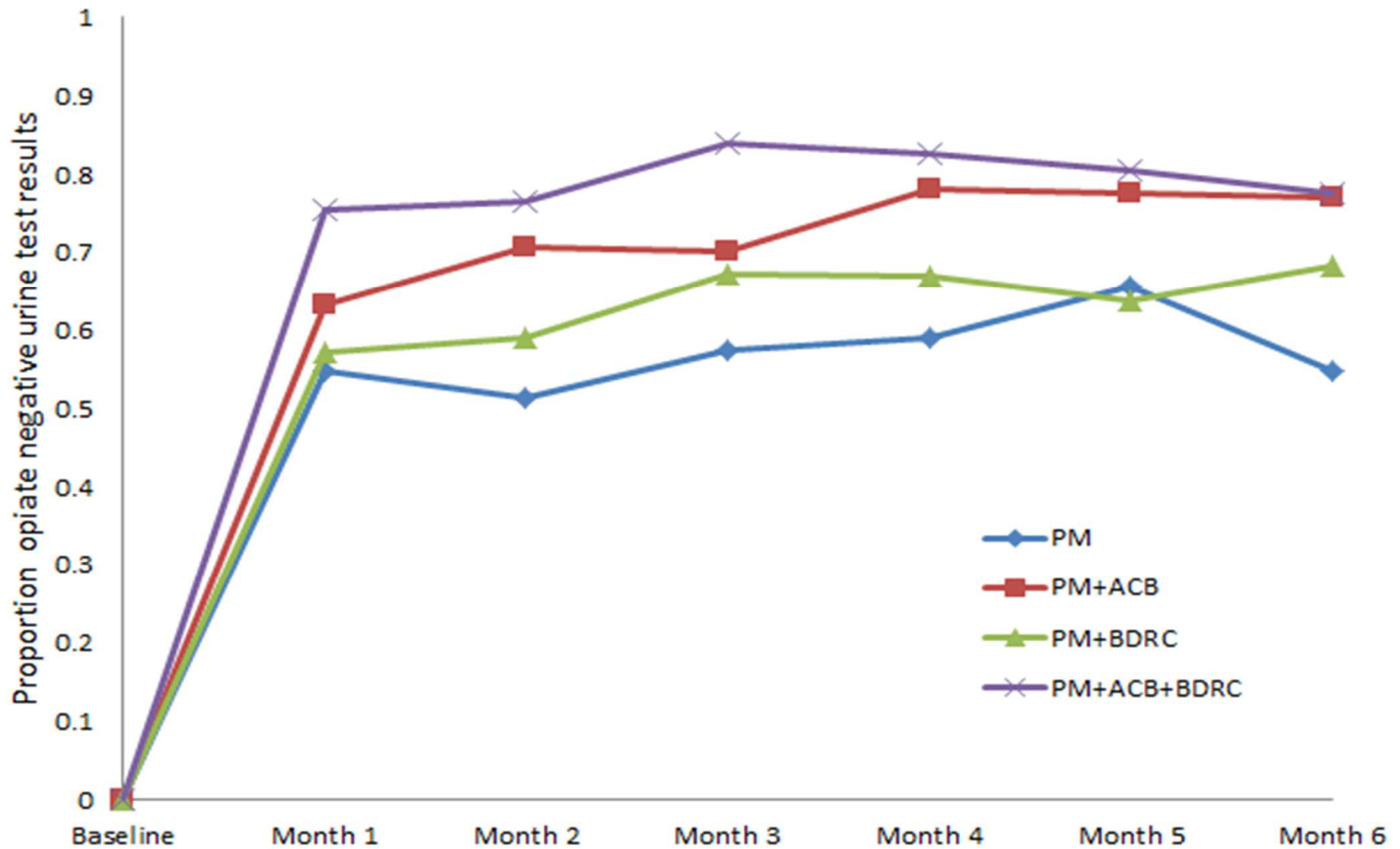
- Primary outcomes

- Proportion of opioid positive urine tests, frequency (days per week) of self-reported drug use, duration of abstinence
- Reductions in HIV risk behaviors
- Treatment failure rates

Study interventions

- PM: Brief (5-10 minutes after initial evaluation) medically focused treatment provided by the GP weekly for first two weeks, then every two weeks for four weeks, and then every four weeks
 - GPs were trained in principles of BMT (i.e., prescribing protocols, basics of addiction medicine) and supervised throughout the study by the study investigators, including a locally based addiction specialist
- ACB: Urine toxicology testing at each visit by an instant test
 - Patients earned 2 days take-home buprenorphine for first urine test negative for opioids and ATS, 4 days supply for 2nd consecutive negative test, and 6-day supply for 3rd consecutive negative test
 - Take-home privileges were suspended if patient tested positive or missed a test, and instead patient received three times per week dosing under direct observation until tested negative and resumed earning take-home doses as per the initial protocol
- BDRC: Structured behavioral counseling provided by trained and supervised nurse counselors
 - Provides education about addiction, rationale for buprenorphine treatment and counseling, and encouragement of medication adherence and completion of specific recovery goals contracted in the counseling; provides cognitive and behavioral coping skills training and includes HIV risk reduction counseling

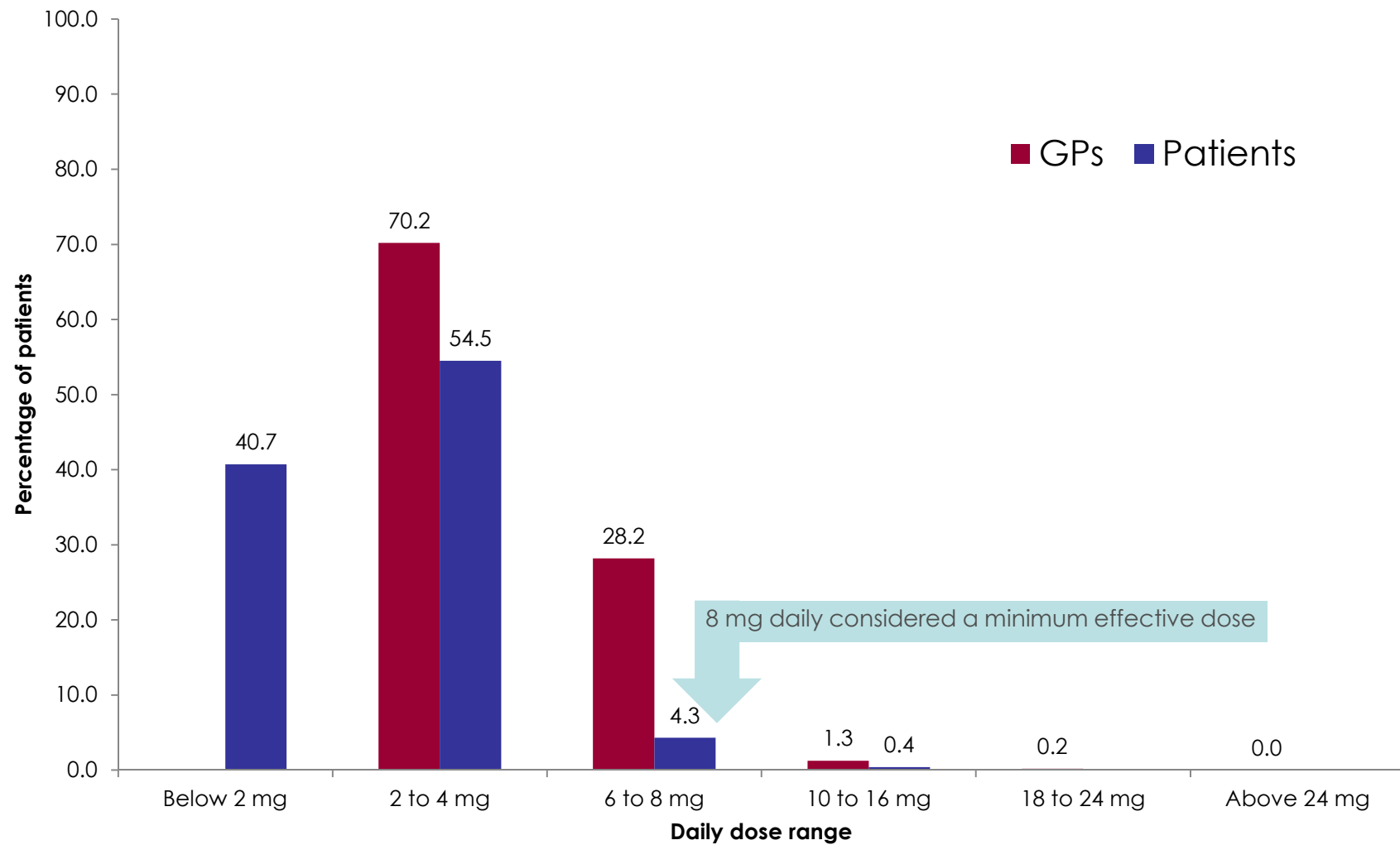
Full scale RCT in Muar: Main findings



BMT in general medical practice settings: Malaysia

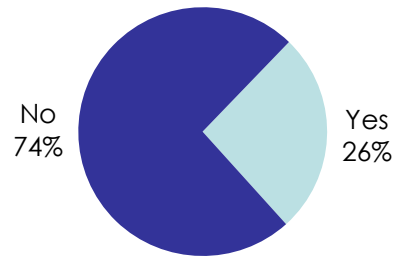
- Aims
 - To evaluate BMT characteristics (medication dosing, frequency of therapeutic interactions and their content) and potential efficacy indicators (ongoing drug use during treatment)
- Survey of GPs prescribing buprenorphine/naloxone (Suboxone)
 - 101 of ~380 currently prescribing physicians participated
- Survey of current Suboxone patients
 - 253 (252 Male, 1 Female) interviewed at their point of care clinics in 11 peninsular states

BMT Survey Findings: Suboxone dosing

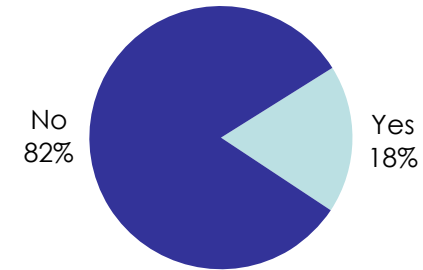


BMT Survey Findings: GP past month

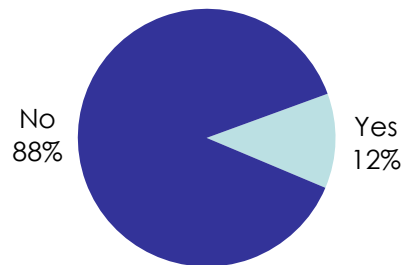
Received counseling, advice, education from GP



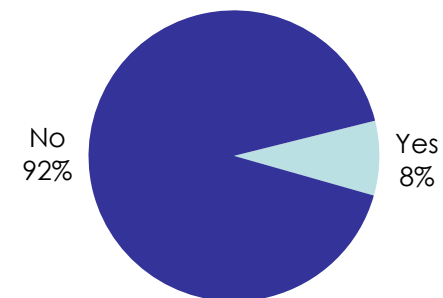
Given urine test by GP



GP checked for injection marks

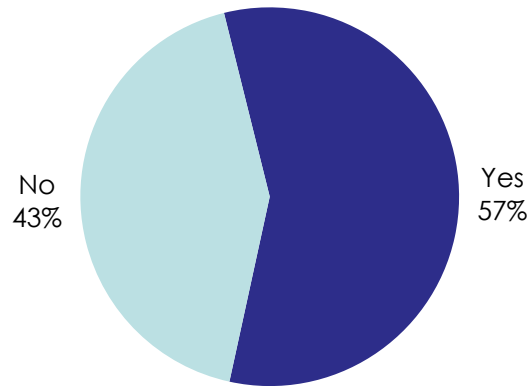


Directly observed medication taking

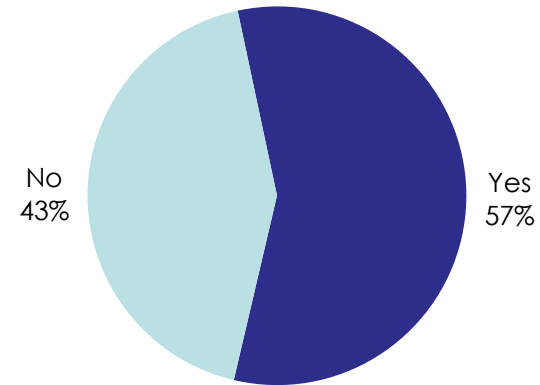


BMT Survey Findings: Drug use

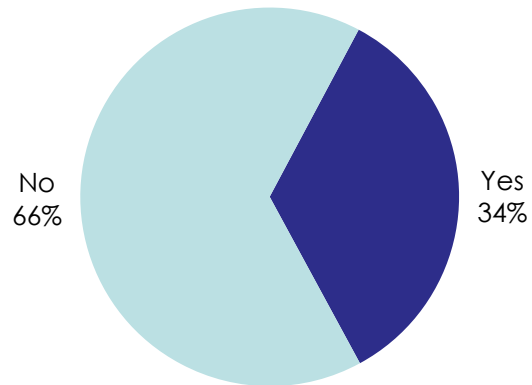
Urine positive for illicit drugs



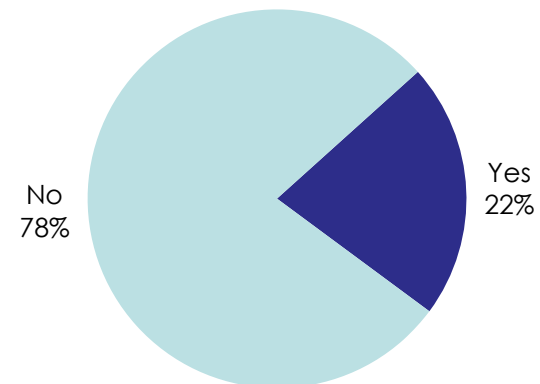
Lifetime Suboxone IDU



Urine positive for illicit opiates

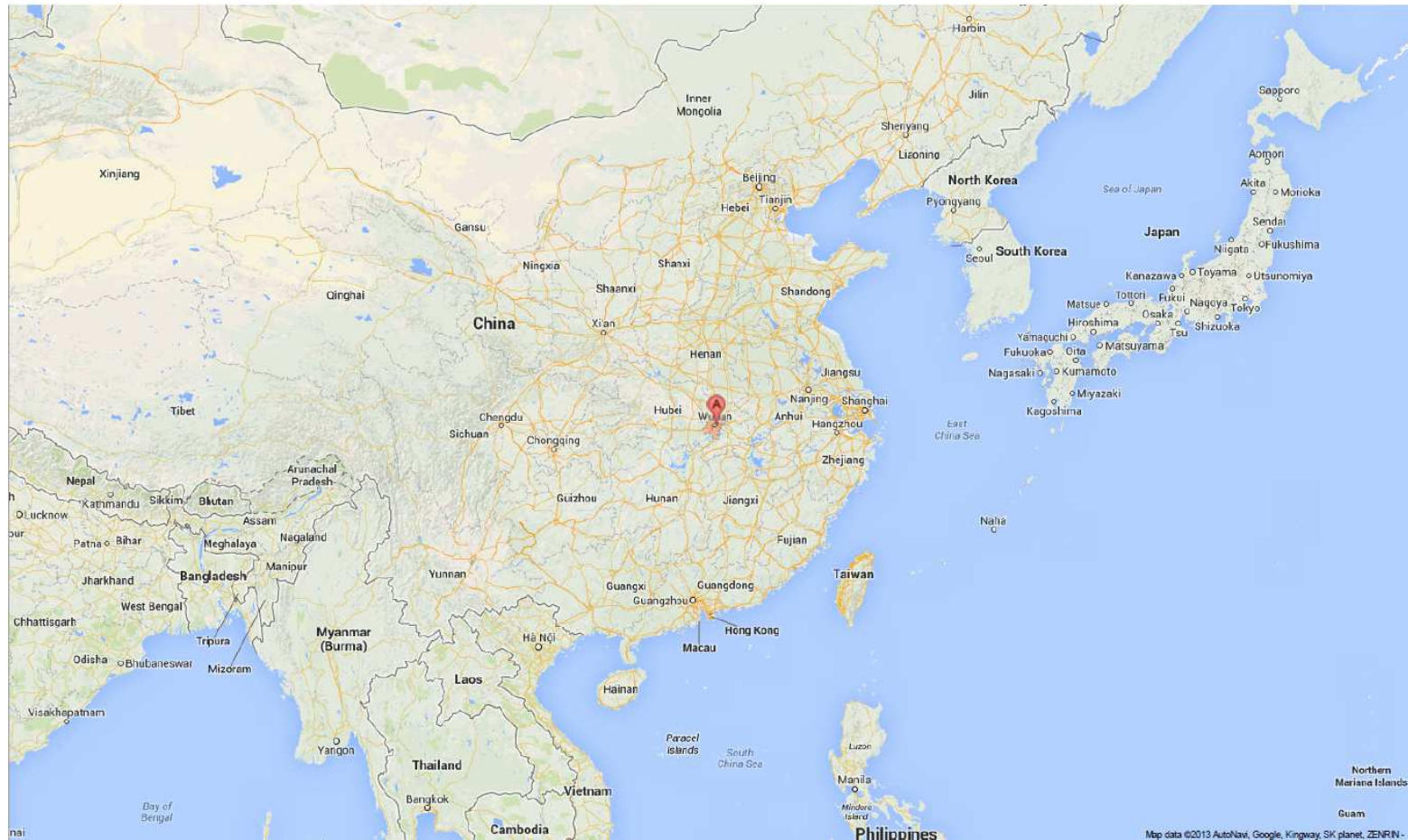


Current Suboxone IDU



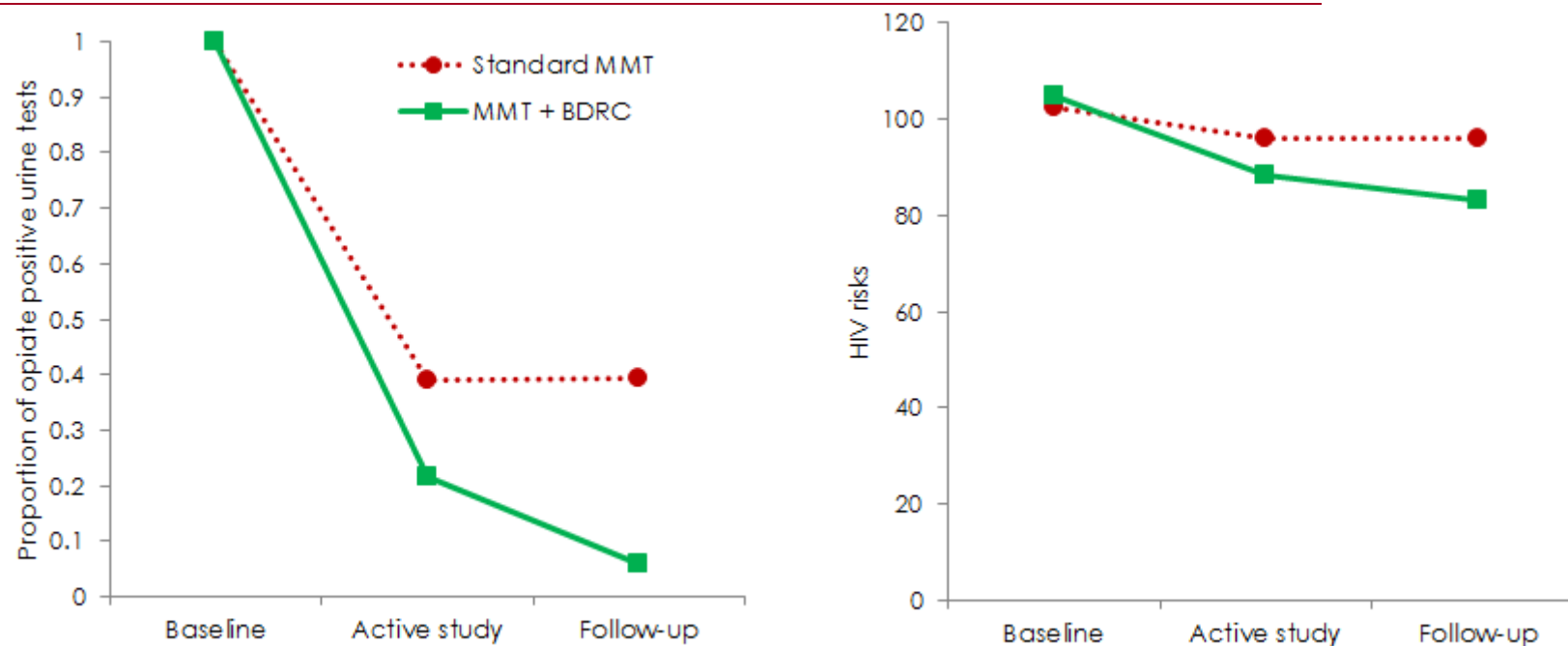
43.2% report heroin or other illicit opiate use in the past 30 days

Wuhan, Hubei province, China



- By the end of 2015, there were 785 MMT clinics in all provinces, with 160,000 active patients
- In Wuhan, there are 18 MMT clinics, with approximately 4,000 active patients

Pilot RCT in Wuhan in 2008



- Both groups significantly reduced their drug use during MMT, but the overall proportion of opiate-positive urine tests was significantly lower in the MMT+BDRC group than in the Standard MMT group during both in the 3 month active phase of study and during the 3 month follow up ($p < 0.001$)
- Both groups significantly reduced HIV risk behaviors ($p < 0.001$) and the reductions were significantly greater for the MMT+BDRC group than for the Standard MMT group ($p < 0.05$)

MMT in Wuhan, China

- First clinic opened in 2006; by 2010, 23 clinics with a total of over 16,000 patients enrolled
- In collaboration with investigators from Wuhan CDC, we evaluated several key treatment characteristics and potential treatment efficacy indicators
 - Treatment compliance and adherence
 - Methadone dosing
 - Ongoing drug use during MMT
 - Behavioral and infectious diseases risks among MMT patients

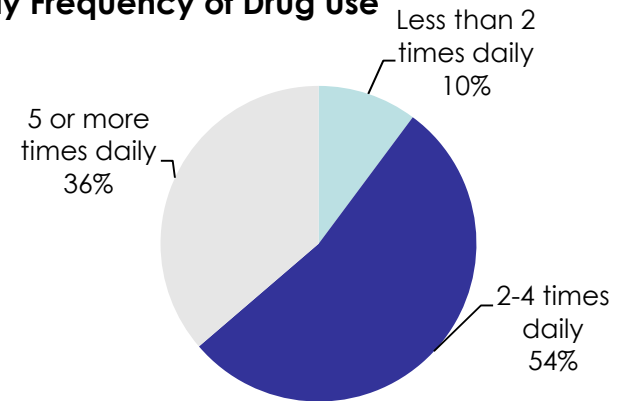
Data from Wuhan MMTs

- China CDC operates a nationwide computerized database consisting of key treatment and clinical records on all MMT patients
 - Demographic and drug use data collected at baseline with follow-up updates every 6 months
 - Daily methadone dosing
 - Urine test results (monthly)
 - HIV, HCV, STD, and TB test results (every 3 months)
- Using data available in CDC database, we evaluated selected outcomes on all patients enrolled by Dec of 2011, and on a subset of 1,200 HCV negative at MMT entry who were followed in MMT for several years

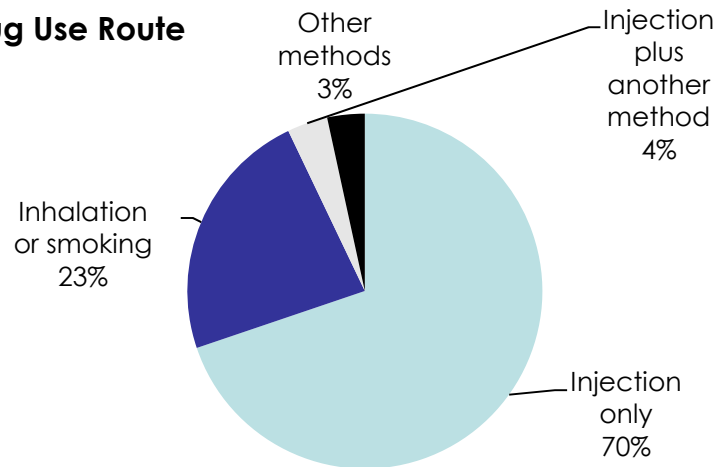
Patients in Wuhan MMTs in 2010 (N=8,811)

Mean Age (SD; range)	41 (7.3;18 to 72)	
Gender	72.3% Male	27.7% Female
Education	72 % Less than high school	
Financial support in the past 6 months	Family or friends	59.1 %
	Temporary income	25.1 %
	Salary from job	11.5 %
	Government assistance	1.6 %
Married	44%	
HIV+	0.32% (23/7269)	
HCV+	72%	

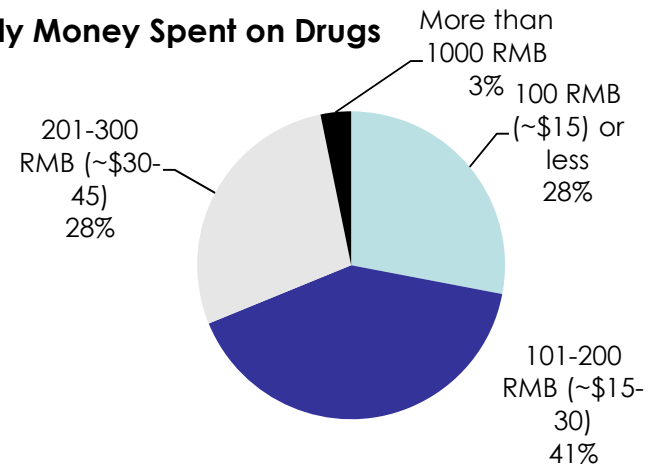
Daily Frequency of Drug Use



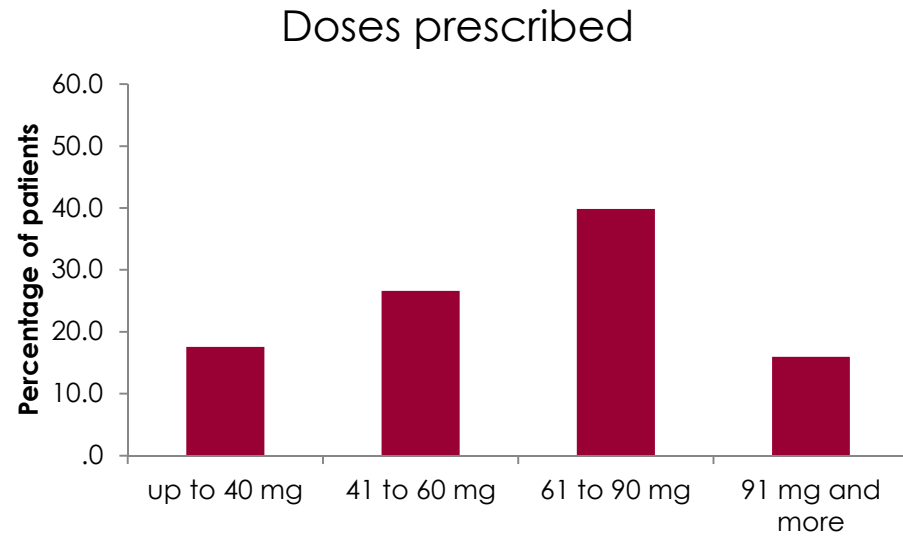
Drug Use Route



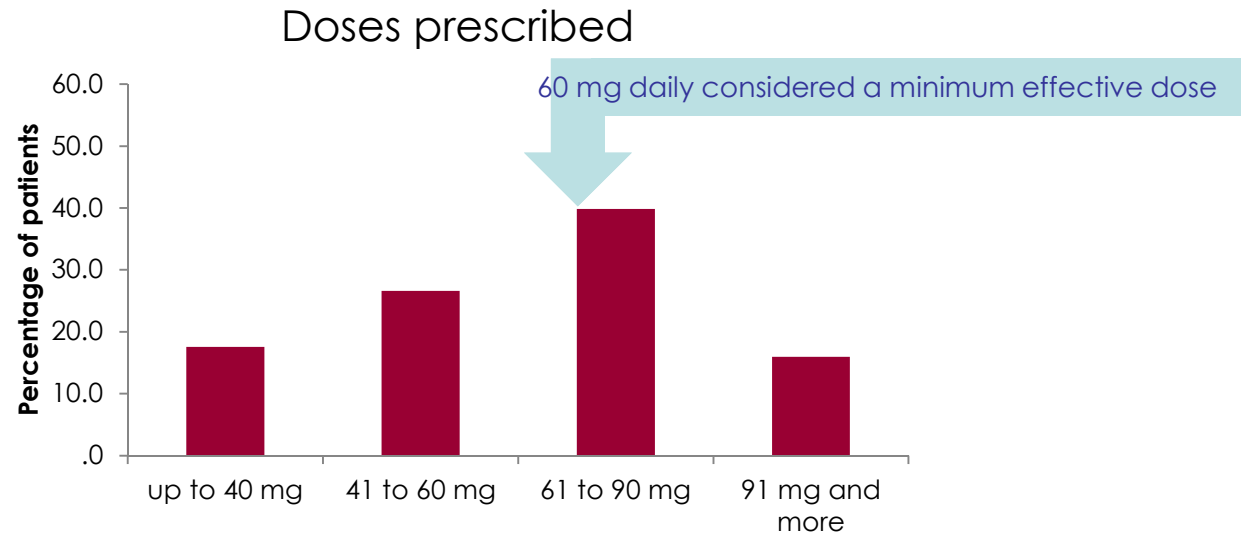
Daily Money Spent on Drugs



MMT characteristics in 2010

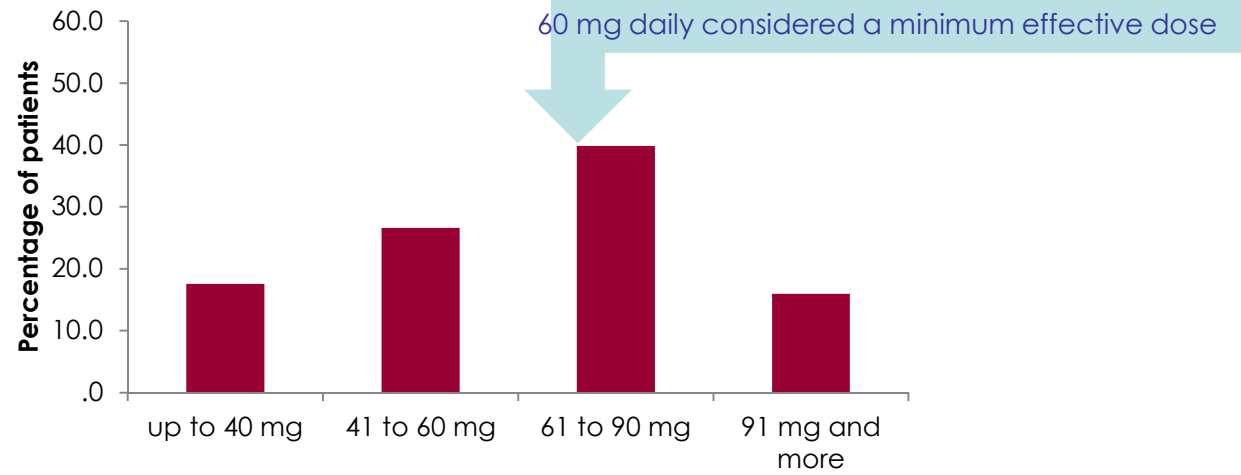


MMT characteristics in 2010

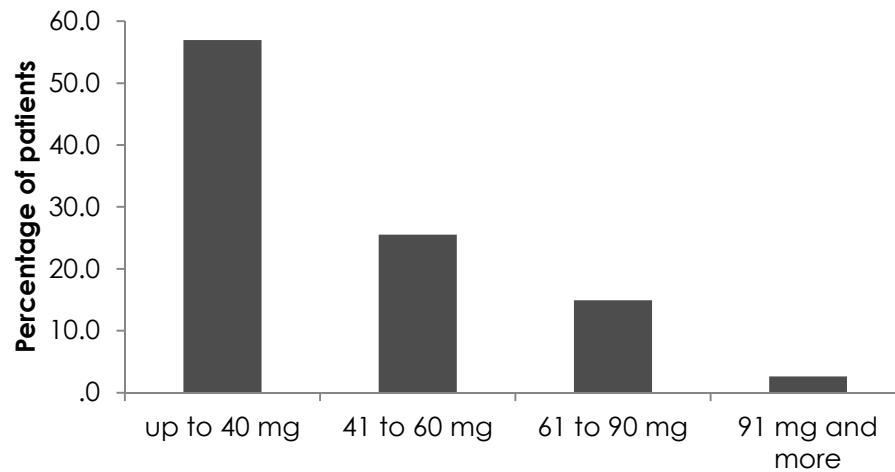


MMT characteristics in 2010

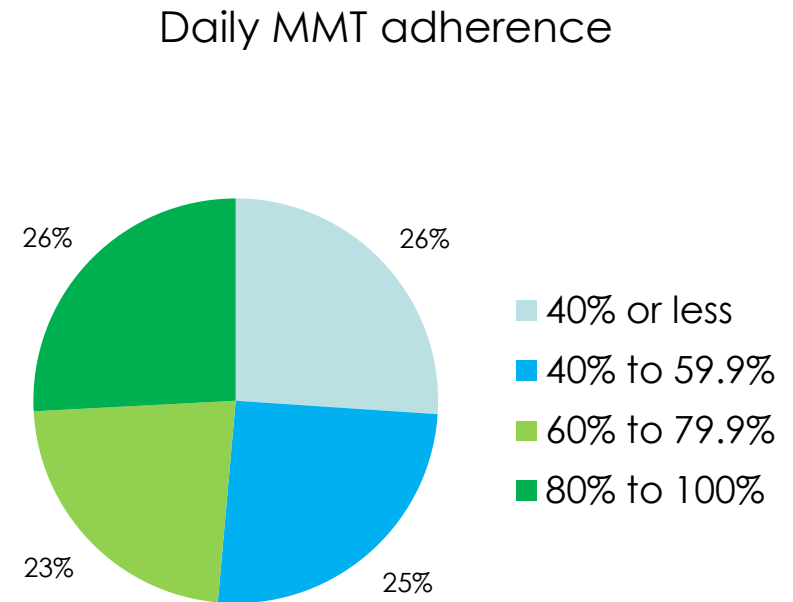
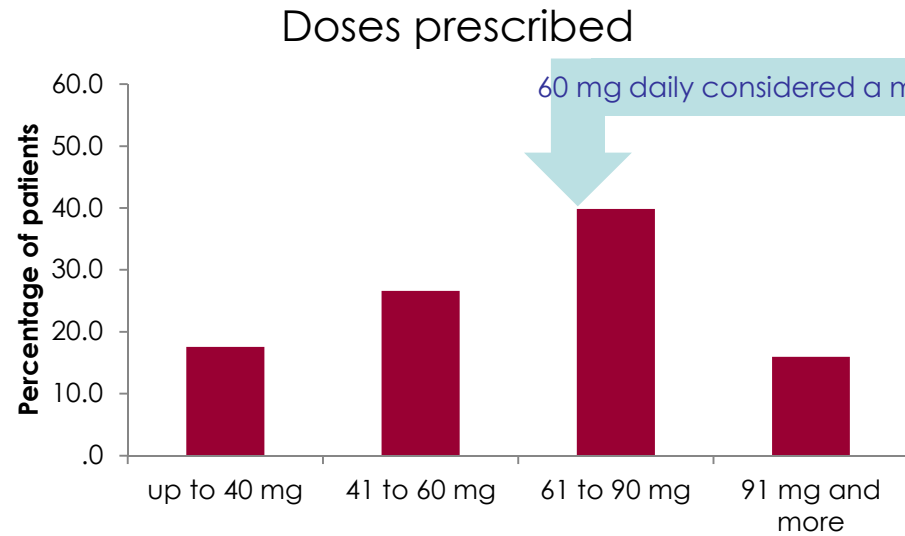
Doses prescribed



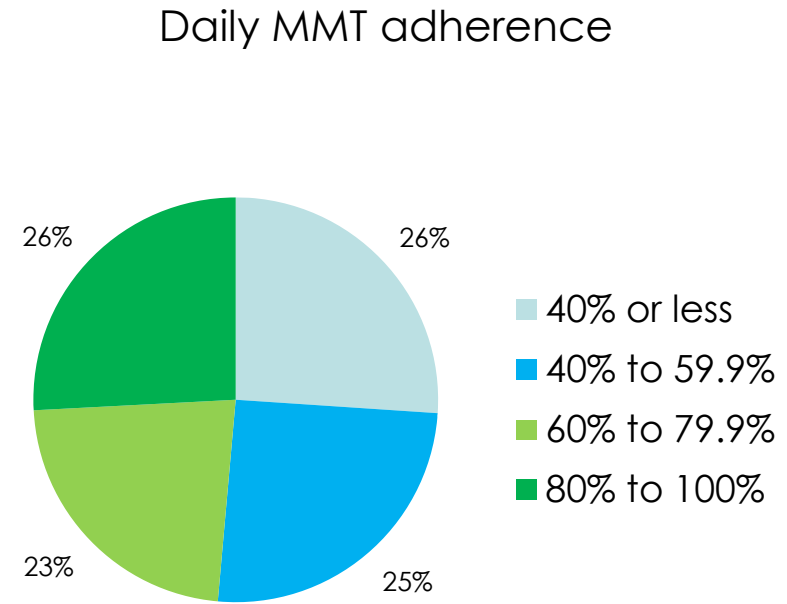
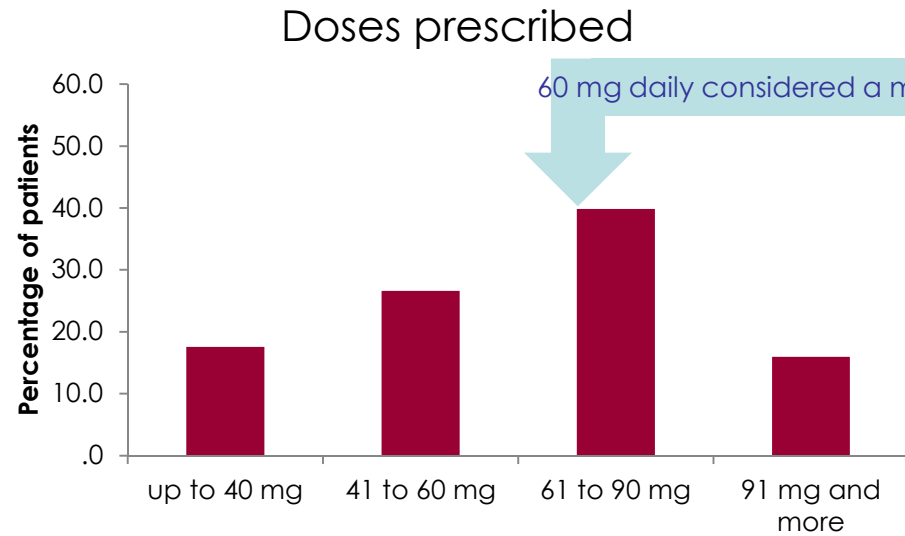
Doses taken



MMT characteristics in 2010



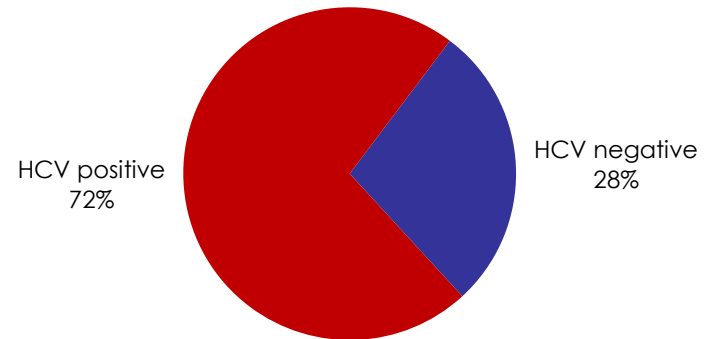
MMT characteristics in 2010



The overall rate of opiate positive tests was 20%; 45% of patients had at least one opiate positive test; 29% reported past month drug use and 53% of them reported past month IDU.

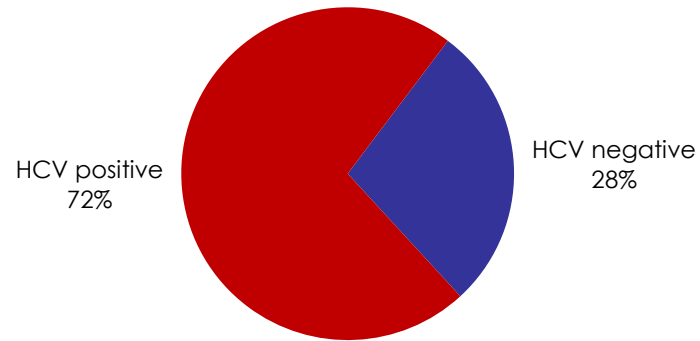
Behavioral risks of MMT patients in Wuhan

HCV status at MMT entry
(N=12,755)

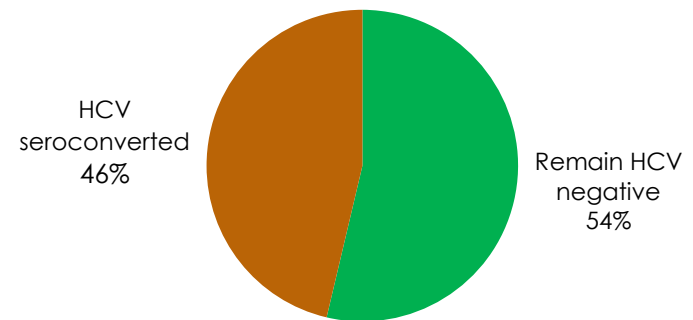


Behavioral risks of MMT patients in Wuhan

HCV status at MMT entry
(N=12,755)

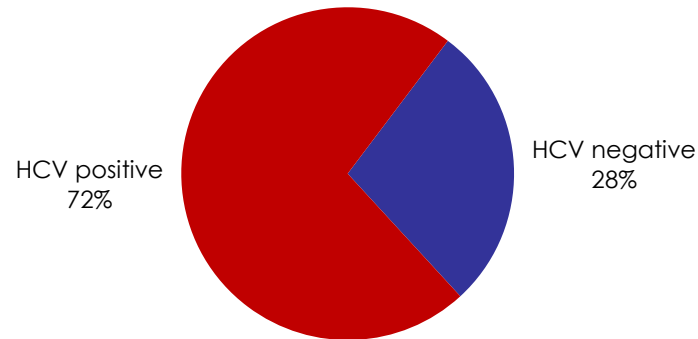


HCV seroconversion during MMT
(N=1,200)

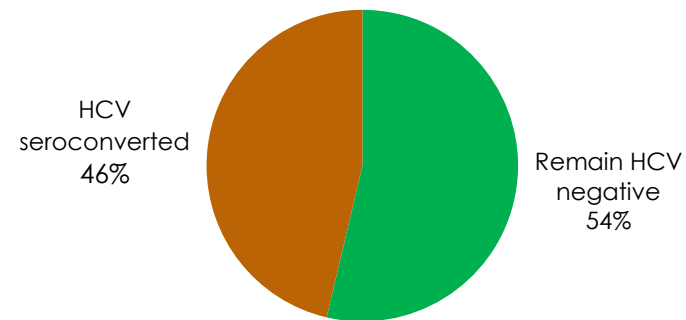


Behavioral risks of MMT patients in Wuhan

HCV status at MMT entry
(N=12,755)



HCV seroconversion during MMT
(N=1,200)



- HCV seroconversion predicted by:
 - Injection drug use in the past 30 days (2.83, 95% CI, 2.15 – 3.72, $p < 0.001$)
 - Syphilis seroconversion (2.38, 95% CI, 1.40 – 4.04, $p < 0.001$), and
 - Unrestricted/easy access to the MMT services (0.50, 95% CI: 0.26 – 0.96, $p < 0.05$)
- 79.5% of 1,200 initially HCV-negative study participants also had at least one opiate positive urine toxicology test during MMT

A training program and ongoing supervision

Acad Psychiatry

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COLUMN: EDUCATIONAL RESOURCE

Teaching Psychosocial Interventions for Opioid Use Disorder in Low and Middle Income Countries: Malaysia and China

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- UNODC sponsored training workshops for addiction specialists from Iran; in collaboration with USM
- UNODC sponsored training workshops for addiction specialists from Maldives
- UNODC and WHO sponsored training workshops for addiction specialists from Iraq
- Training of addiction specialists in the context or research collaboration in Taiwan, Indonesia, Thailand, and Turkey

Training of non MD/PhD personnel

- Didactic components
 - Education about drugs, drug effects on brain, development of OUD, and effective recovery strategies
 - Understanding medications and the roles of all treatment components
- Skills learning components
 - General professional skills when treating drug using patients
 - Specific counseling skills, tools, interventions
 - Didactic lectures, Interactive discussion sessions, video demonstrations, role-playing exercises, live patients demonstrations, case discussions
- Practicum
 - Supervised provision of learned intervention to minimum of 2-3 patients
- Ongoing supervision
 - Educational and supportive

Summary

- While many OUD patients may benefit from additional psychosocial interventions (e.g., drug counseling, or other simple, brief behaviorally oriented interventions; psychotherapy; other ancillary services), provision of such interventions in medication assisted treatments in Asia is limited
 - Shortage of trained experts/specialists
 - Implementation challenges
 - Lack of local dissemination models
- Co-occurring use of stimulants by OUD patients complicates and challenges treatment provision and is likely to adversely affect treatment outcomes
 - Lack of effective medications
 - Limited psychosocial interventions with demonstrated efficacy for co-occurring opioid and stimulant use disorders
- There is an urgent need to train more treatment specialists and to develop efficacious treatments and implementation models addressing drug use problems in the local contexts in Asia