HIV prevention and control in injecting drug users in West Java, Indonesia: an evidence based approach

Final report Aids Fonds project
Bandung and Nijmegen, May 2012

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This report and appendices can be found at: www.nispa.nl
We hope that the lessons shared and recommendations given in this report will lead to policy and service improvements to the benefits of the injecting drug users, their families and the community.

Bandung/Nijmegen, April 2012
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ART</td>
<td>AntiRetroviral Therapy (HIV treatment)</td>
</tr>
<tr>
<td>ASI–X</td>
<td>Addiction Severity Index</td>
</tr>
<tr>
<td>CST</td>
<td>Care Treatment and Support (HIV)</td>
</tr>
<tr>
<td>DHO</td>
<td>District Health Office</td>
</tr>
<tr>
<td>FGD</td>
<td>Focus Group Discussion</td>
</tr>
<tr>
<td>FK–UNPAD</td>
<td>Medical Faculty at the Padjadjaran University in Bandung</td>
</tr>
<tr>
<td>GD</td>
<td>Global Fund</td>
</tr>
<tr>
<td>HCPI</td>
<td>HIV Coordination Program for Indonesia</td>
</tr>
<tr>
<td>HCV</td>
<td>Hepatitis C Virus</td>
</tr>
<tr>
<td>HR</td>
<td>Harm Reduction</td>
</tr>
<tr>
<td>IDU</td>
<td>Injecting Drug Users</td>
</tr>
<tr>
<td>IMPACT</td>
<td>Integrated Management of Prevention and Control &amp; Treatment of HIV/AIDS</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>ISCAN</td>
<td>Indonesian Short Course in Addiction Medicine</td>
</tr>
<tr>
<td>K-10</td>
<td>Kessler Psychological Distress Scale</td>
</tr>
<tr>
<td>mi</td>
<td>Motivational Interviewing</td>
</tr>
<tr>
<td>mini</td>
<td>Mental International Neuropsychiatric Interview</td>
</tr>
<tr>
<td>mmt</td>
<td>Methadone Maintenance Treatment</td>
</tr>
<tr>
<td>moH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>moU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>MPeq-i</td>
<td>MMT Program Evaluation Questionnaire Indonesia</td>
</tr>
<tr>
<td>nac</td>
<td>National AIDS Commission</td>
</tr>
<tr>
<td>ngo</td>
<td>Non governmental organization</td>
</tr>
<tr>
<td>nispa</td>
<td>Nijmegen Institute for Scientist–Practitioners in Addiction</td>
</tr>
<tr>
<td>nsp</td>
<td>Needle and Syringe Program</td>
</tr>
<tr>
<td>pho</td>
<td>Provincial Health Office</td>
</tr>
<tr>
<td>rshs</td>
<td>Hasan Sadikin Teaching Hospital in Bandung</td>
</tr>
<tr>
<td>sop</td>
<td>Standard Operational Procedure</td>
</tr>
<tr>
<td>std</td>
<td>Sexually Transmittable Disease</td>
</tr>
<tr>
<td>tb</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>thd</td>
<td>Take Home Dose (methadone)</td>
</tr>
<tr>
<td>vct</td>
<td>Voluntary Counseling and Testing (HIV)</td>
</tr>
<tr>
<td>who</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
BACKGROUND

Injecting drug use and HIV in Indonesia
The last decade, Indonesia had a fast growing injecting drug users (IDUs) driven HIV epidemic [1]. In 2007 Indonesia (population 232 million) had an estimated 219,000 IDUs [2], with HIV rates above 50% found in IDUs, and current as well as former IDUs were engaged in unprotected sex potentially spreading HIV to the non-injecting population [3,4]. Through the years, the proportion of IDUs contributing to the official reported Indonesian HIV/AIDS cases increased up to 52% in 2009 [1], whereas the last years a decreasing trend has been reported [5].

Methadone and HIV treatment in Indonesia
In Indonesia evidence-based interventions to avoid HIV transmission have been established, such as needles and syringe programs (NSP), methadone maintenance treatment (MMT) and residential addiction treatment. However, coverage of addiction and HIV services for IDU was low: in 2007 about 30% of the Indonesian IDU used a NSP program and only 1% of the IDUs were covered by MMT programs. Only 6% of the HIV positive IDUs received anti retroviral treatment (ART) [1]. In June 2011, there were 68 MMT programs treating around 2,500 patients [5]. Exact data on the numbers of residential treatment centers and specific treatment methods were not available.

Addiction medicine in Indonesia
In Indonesia, addiction medicine is not yet recognized as a medical (sub-)specialism and there is neither an addiction medicine curriculum available nor a formal addiction medicine training. There were about 200 professionals working in addiction care of which about 17% never received any training on addiction [6]. Most of these addiction care professionals only received a short training in MMT (consisting of a few days training in methadone prescription and dispensing) and/or NSP program management. Only 30% of Indonesian addiction professionals considered addiction as a brain disease while about 70% considered faith-based and long-term residential treatments to be the most appropriate treatment modalities [6]. It can be concluded that very few Indonesian health professionals were trained in comprehensive and evidence-based addiction treatment.

International academic support and the IMPACT program
With support from the European Union and Cordaid, a 5-year program called ‘IMPACT’ (Integrated Management of Prevention and Control & Treatment of HIV/AIDS), ran between 2007 and 2011. IMPACT was a multi-disciplinary program developed and implemented by professionals from Padjadjaran State University (UNPAD) in Bandung, Maastricht University, Radboud University Nijmegen and Antwerpen University. IMPACT was based at the health research unit of the UNPAD faculty of medicine (FK-UNPAD) and Hasan Sadikin Teaching Hospital (RSHS). It integrated HIV-prevention, care and treatment by combining research and program implementation. Biomedical, public health and social-behavioral expertise were used for educational programs for adolescents, scaling-up HIV-testing and addiction and HIV/AIDS care strategies at hospital and community level and in prisons. IMPACT aimed to strengthen the capacity of institutions as well as individual professionals related to HIV/AIDS and opportunistic infections [7]. For addiction medicine expertise the Nijmegen Institute for Scientist-Practitioners in Addiction (NISPA) has been involved.

International addiction medicine and harm reduction support
During the first two years of IMPACT, additional needs for harm reduction and HIV-prevention and control were identified: reliable data about injecting drug use were scarce, quality of harm reduction and HIV-prevention was suboptimal, and expertise and standards of care were insufficient. Therefore, NISPA, together with infectious disease specialists in the Netherlands and professionals at FK-UNPAD and IMPACT designed a project to fulfill this need (Appendix 1).
Aids Fonds project

The project ‘HIV-prevention and control through evidence-based harm reduction in injecting drug users; toward a client-oriented and comprehensive approach in West Java’ was supported by the Dutch Aids Fonds. It was based on the fact that: 1) drug use is not a single entity, and propagating opioid substitution, such as methadone maintenance treatment (MMT), for all IDU may be ineffective or even counterproductive; 2) systematic evaluation of the effectiveness of addiction services in Indonesia is still lacking; 3) professionals in addiction care services are under-trained, and 4) there are no evidence-based guidelines for care for IDU in Indonesia.

With Aids Fonds support, a Dutch addiction medicine specialist (embedded in the Dutch Addiction Health Service Iriszorg and subcontracted at NISPA) started working in Bandung in March 2010, for a period of 2 years. In September 2010 and October 2011 project progress reports were shared with Aids Fonds representatives and program partners.
AIDS FONDS PROJECT OBJECTIVES

This project aimed to contribute to an increased understanding and a more effective response towards IDU driving the HIV/AIDS epidemic in West Java, with the following objectives. Based on the project proposal and the local setting and circumstances, a logical framework was designed to initiate, develop and execute activities in line with the indicators of achievement (Appendix 2).

1. To describe IDUs characteristics and co-morbidities
   1.1 Literature review and review of information collected in the IMPACT program.
   1.2 To describe the characteristics and social medical problems of IDU in the community, MMT clinic and prison in Bandung.
   1.3 To describe the individual determinants of risk injecting practices among MMT patients in Indonesia.

2. To measure the effectiveness of MMT programs in West Java, Indonesia
   2.1 To evaluate and describe the effectiveness of the MMT clinic in Bandung and the satellite MMT clinics in West Java.
   2.2 To describe the organizational determinants of risk injecting practices among MMT patients in Indonesia.

3. To improve care for IDUs in West-Java
   3.1 To develop an evidence and standard-based treatment approach, among addiction and HIV service providers, and stakeholders, that better fits the IDU treatment needs.
   3.2 To develop and introduce standard operational procedures (SOPs) for effective / evidence based harm reduction / addiction services, including referral systems.

4. To draft evidence-based guidelines for care of IDUs in Indonesia
   4.1 To support the development of West Java and potential national clinical guidelines for IDU care.
   4.2 To facilitate the translation of evidence based addiction care and best practices into local treatment protocols and standards.

In the next four chapters the methods, outcomes, challenges and lessons for policy and practice are presented per objective. The appendices mentioned can be found at www.nispa.nl. In chapter 3, an overview is summarized of research on IDUs and co-morbidities in Indonesia and IMPACT research with a detailed characterization of drug use patterns, somatic and psychiatric problems in Bandung. In chapter 4, the functioning of six MMT clinics and patient characteristics in West Java are presented. In chapter 5, the efforts are addressed to explore and strengthen collaboration with NGOs and healthcare professionals in the field, to improve MMT data monitoring, and to develop integrated standard operational procedures and an Indonesian addiction medicine course. In chapter 6 the development of evidence-based clinical IDU guidelines are discussed. The last chapter 7 gives conclusions and recommendations to improve care for IUD and HIV treatment in West Java.
INJECTING DRUG USERS
CHARACTERISTICS AND CO-MORBIDITIES

Background
Insight in the characteristics and co-morbidities in Indonesian IDUs will lead to increase understanding of the complexity and diversity of the IDUs as a population and the distinct patterns of injecting drug use, and the related psychiatric and somatic disorders. These characteristics are important in the development of an evidence-based approach that better fits the IDUs treatment need.

Expected outcomes
An overview of research on IDUs and co-morbidities in Indonesia summarized and reported. An IMPACT research overview with a detailed characterization of drug use patterns, somatic and psychiatric problems in 350 IDUs in the community (n=200), MMT clinic (n=75) and prison (n=75) in Bandung.

Methods

1 Peer reviewed articles and official reports on Indonesian IDUs and HIV were collected. PubMed, official government and academic reports, and websites of relevant organizations (Family Health International, National AIDS Commission Indonesia, UNAIDS, USAID, WHO) were used. Data collected included IDUs socio-demographics, drug use, mental and physical health conditions.

2 In IMPACT studies [16-20], IDUs were defined as anyone who had ever injected drugs. Recruitment of IDUs took place in the community, by respondent-driven sampling, and in patients enrolled at the MMT clinic and HIV clinic at RSHS, and inmates in Bandung prison. A total of 1,236 (former) IDUs were recruited. Subjects in the community (n=210) were interviewed regarding drug use and HIV risk behavior using the European Addiction Severity Index (EuropASI) and the Blood Borne Virus Transmission Questionnaire (BBV-TRAQ). Drug use and HIV transmission risk behavior were compared between current and former IDUs [16]. At the MMT clinic, structured questionnaires (n=223) and laboratory blood test, urine drug test and chest X-ray results were retrieved from medical records [17]. In another study, patients enrolled in the MMT clinic (n=108) were interviewed using the EuropASI, the Mini International Neuropsychiatric Interview (MINI), and the EuroQol-5D (EQ-5D). Prison inmates (n=140 with a history of IDU) were interviewed using a structured questionnaire and data on socio-demographics, medical history, physical status and risk behavior related to HIV infection were recorded, and a physical examination was carried out, and blood was collected for serological testing [19]. At the Teratai HIV clinic patient characteristics (n=633 with history of IDU) and response to ART were recorded [20].

3 To describe the individual determinants of risk injecting practices among MMT patients in Indonesia a mixed method was used. In total 266 patients at MMT services in 5 hospitals and 6 community health centers across Indonesia were interviewed. Data collection included: socio-demographics, exposure to other harm reduction programs, perceived severity of drug addiction, perceived risk of acquiring or transmitting HIV, perceived benefits of MMT program, experiences with MMT program, self-confidence to control injecting drug use, social support, risk environment and perceived satisfaction on MMT services.

Outcomes
An overview of studies on IDUs and co-morbidities in Indonesia, in different cities, settings and time frames, is presented in Appendix 3.

1 In studies conducted among Indonesians with a history of IDU [3,8-11], the socio-demographic characteristics showed more similarities than differences. Most were male, in their mid to late twenties, with a high education level, and they were often married and employed. In general, most were young boys when they started taking
drugs at junior high school and injecting heroin around the age of 18, and they used drugs in groups and shared contaminated needles, whereas unprotected sex was common [3,9,12]. Poly drug use, a mix of opiates, sedatives, amphetamines, cannabis and alcohol, were also common [9-11,13]. Apart from the IMPACT studies presented below, no information was found on mental health issues in Indonesian IDUs. Some studies showed data on HIV and Hepatitis C in IDUs, whereas limited data on hepatitis B and TB were available. In one study [13] nine out of 19 IDUs were found HIV positive. In two studies [3,14] the number of IDUs tested for HIV were 8 and 21, but the test results were not mentioned. In two studies at MMT clinics in Indonesia, with 43 and 65 participants, the HIV prevalence was 28-57% and Hepatitis C prevalence 72-92%, respectively [8-9]. Among 836 IDUs in ten communities in West Java, 21% reported having had a HIV test of which 1% reported being HIV positive, and the most common health problems reported were skin abscess in 20%, (not specified) hepatitis in 20%, and overdose in 18% [15]. Mortality data in IDUs were lacking.

2 Cross-sectional data on IDUs and co-morbidities, retrieved from IMPACT studies [4,16-19] conducted in Bandung community, MMT and HIV clinics, and prison, between 2007 and 2010, are presented in table 1 and in Appendix 3. Across sites, IDUs had been injecting between 1 and 10 years before they had contact with health services. Prison inmates with a history of IDU had less education, a shorter injecting career, and a lower HIV prevalence than IDUs in the community and the MMT clinic. In the community, current as well as former IDUs presented high risk behavior and multiple health issues [4]. MMT patients presented a high burden of triple-morbidity (a mix of addiction, mental and physical health problems) and the self-reported quality of life was associated with the number of co-occurring morbidities [17]. Among prison inmates IDU was the driving force for HIV and HCV infections [18]. MMT and HIV treatment, in (former) IDUs at RSFS Bandung, resulted in the same health outcomes and survival rates as those with a history of IDU [16,19].

3 Individual determinants of risk injecting practices in 266 IDUs - 96% male, mean age 30 years, high educated 87%, married 50%, regular income 62%, and mean methadone dose 75 mg/day and 121/232 HIV positive (53%) - at 9 MMT clinics across Indonesia, were studied [24]. Among those enrolled in MMT and reporting injecting drugs during the last 30 days (36%), self-controllability, perception of the effects of methadone dosage, and self-control in relation to financial and problem solving abilities, and ever having used NSP, were significantly lower in those who had not injected drugs during the last 30 days. This study showed that more than one third had injected drugs during the last 30 days. MMT patients were in need for addiction and psychological counselling to better cope with drug control and treatment benefits, and stressful events and financial problems. The need for addiction medicine training and linking with psychosocial support services (NSP and harm reduction NGOs) was clear.

Table 1: Characteristics and co-morbidities in injecting drug users in Bandung, setting, investigator (reference), sample size, study episode

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Community Iskandar (16) n = 210 June - Dec08</th>
<th>MMT Achmad (17) n = 223 May06 – Jan09</th>
<th>MMT Iskandar (18) n = 108 Jan08 – Dec10</th>
<th>Prison Nelwan (19) n = 140 Aug07 – Jan09</th>
<th>HIV clinic Wisaksana (20) n = 667 Jan96 – Apr08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years (SD)</td>
<td>% 28 (3.8) 92</td>
<td>% 27 94</td>
<td>% 30 (4) 96</td>
<td>% 29 (7.9) 97</td>
<td>% 28 (5.0) 91</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior high and lower</td>
<td>6</td>
<td>18</td>
<td>0</td>
<td>60</td>
<td>18</td>
</tr>
<tr>
<td>Senior high school</td>
<td>87</td>
<td>42</td>
<td>60</td>
<td>35</td>
<td>54</td>
</tr>
<tr>
<td>Undergraduate and higher</td>
<td>7</td>
<td>38</td>
<td>40</td>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>30</td>
<td>24</td>
<td>36</td>
<td>51</td>
<td>32</td>
</tr>
<tr>
<td>Widowed/Divorced</td>
<td>11</td>
<td>5</td>
<td>15</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Single/Never married</td>
<td>57</td>
<td>53</td>
<td>49</td>
<td>39</td>
<td>52</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaried job</td>
<td>78</td>
<td>57</td>
<td>93</td>
<td>92</td>
<td></td>
</tr>
<tr>
<td>Unsalaried job/Unemployed</td>
<td>22</td>
<td>38</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

14
Gaps between expected outcomes and outcomes

IDUs were recruited in the community, MMT clinic and prison, and also at the HIV clinic, and more subjects were included than expected. However, it was not possible to collect full sets of data to obtain a comprehensive picture of IDUs characteristics and co-morbidities at all sites. The healthcare and program development process, capacity building, and utilities, assessment tools used and budgets, were not equally distributed across sites. However the literature and the IMPACT give a representative picture of the socio-economic and health issues and good treatment results in IDUs in Bandung.

Challenges in the field

The availability of human resources and skills for systematic data collection and data entry were a challenge. Furthermore, an unexpected event happened at the MMT clinic in Bandung for which a computer program was developed and numerous data were entered. However, the computer programmer disappeared, and could not be traced to retrieve the data access format and data entered. Additional staff to collect and enter data was hired. In Bandung MMT clinic and prison major efforts were made to introduce MMT and HIV testing and treatment, and to increase capacity and develop standardized forms for data collection and standard operational procedures to increase quality of services.

<table>
<thead>
<tr>
<th>Addiction</th>
<th>14 (2.8)</th>
<th>19</th>
<th>20 (6.1)</th>
<th>19 (n = 295)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age first drug use (SD)</td>
<td>18 (3.1)</td>
<td>10</td>
<td>8.5 (3.9)</td>
<td>5 (n=393)</td>
</tr>
<tr>
<td>Age first injecting (SD)</td>
<td>7.1 (3.8)</td>
<td>4</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Years of injecting (SD)</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Drug use last 30 days</td>
<td></td>
<td></td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td></td>
<td></td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Methadone/Buphrenorphine</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzo Diazepine</td>
<td>53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannabis</td>
<td>52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol over treshold</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecstasy</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than one drug</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Mental health                                  | ASI–X**  | MINI |          |              |
| Current mood disorders                         | 60       | 28   |          |              |
| Life time mood disorders                       |          | 30   |          |              |
| Anxiety disorders                              | 80       | 32   |          |              |
| Current psychotic disorders                    | 36       | 19   |          |              |
| Life time psychotic disorders                  |          | 44   |          |              |
| Total current psychiatric dis.                 |          | 42   |          |              |
| Total lifetime psychiatric dis.                |          | 57   |          |              |

| Physical health                                |          |    |          |              |
| HIV positive                                   | 63       | 38  | 100       |              |
| Anti–HCV positive                              | 64       | 77  | 88        |              |
| HBSAG positive                                 | 76       | 92  | 88        |              |
| TB history                                     | 90       | 6   | 47        |              |

**Addiction**

**Age first drug use (SD)**

**Age first injecting (SD)**

**Years of injecting (SD)**

**Drug use last 30 days**

**Heroin**

**Methadone/Buphrenorphine**

**Benzo Diazepine**

**Cannabis**

**Alcohol over treshold**

**Ecstasy**

**Amphetamines**

**More than one drug**

**Mental health**

**Current mood disorders**

**Life time mood disorders**

**Anxiety disorders**

**Current psychotic disorders**

**Life time psychotic disorders**

**Total current psychiatric dis.**

**Total lifetime psychiatric dis.**

**Physical health**

**HIV positive**

**Anti–HCV positive**

**HBSAG positive**

**TB history**
Lessons learned and response

1. Most Indonesian patients with a history of IDU were male, in their mid to late twenties, with a high education level, often married and employed. Most IDUs accessed MMT after many years of injecting drugs and being exposed to attracting and spreading HIV and HCV. In response, referral sources of MMT patients were explored (objective 2), and harm reduction NGOs were visited and staff and clients were interviewed to get insight in their programs and IDUs referrals to health services (objective 3).

2. Most IDUs started taking drugs at the age of 14, and injecting heroin around 18 years, and they used drugs in groups and shared contaminated needles, and refrained from condom use. About ten years later they presented at MMT and HIV services with tri-morbidity in need for intensive and expensive care. In response, IMPACT researchers developed and implemented a successful prevention program on addiction, sexual diseases and reproductive health for junior high school pupils. The so-called HEBAT program provides evidence-based teaching materials and methods for teachers and pupils and is made sustainable after IMPACT and continues scaling up.

3. Among those with a history of IDU the prevalence of HIV and hepatitis C was high and unprotected sex common, potentially spreading these viruses to their sex partners. In response, the HIV prevalence in steady sex partners of HIV positive MMT patients was studied (objective 2), and a proposal on strategies to increase condom use in MMT patients was submitted to the National Aids Commission of Indonesia in January 2012 [Efek Group Motivational Interviewing terhadap konsistensi penggunaan kondom pada klien klinik program terapi rumatan metadon di Jawa Barat].

4. Also former IDUs conducted high risk behavior for HIV transmission [4], and three quarters of HIV patients in treatment had a history of IDU [19]. In response, in collaboration between the MMT and HIV clinic at RSHS Bandung, standard operational procedures have been developed for HIV testing in patients at the MMT clinic, and the assessment of IDU and substance use in patients at the HIV clinic (objective 3).

5. Although survival rates in (former) IDUs were studied [16,19], limited mortality data were available. In response, at the MMT clinic in Bandung, medical records of patients known dead (n=21; 6.3% of 332 patients enrolled in five years) were studied and findings were presented at the National Psychiatry Symposium in Bandung in July 2011 [20]. This study confirmed a high triple-morbidity pattern in high educated males who had died at a young age. For these IDUs, parental, educational, harm reduction and healthcare interventions had failed.

6. In Indonesian IDUs multiple socio-economic and triple-morbidity health issues were found [4, 16-20] and former IDUs in the community and MMT patients reported ongoing risk injecting practices [4, 24] in need for comprehensive and evidence-based care. In response, MMT program functioning was explored (objective 2), and integrated clinical case discussions were introduced, standard operational procedures developed, and support was given to the development of ISCAN: Indonesian Short Course in Addiction Medicine (objective 3).
METhADONE PROGRAMS IN WEST JAVA

Background
Methadone maintenance treatment (MMT) in IDUs can be an entry point for HIV counseling, testing and anti-retroviral treatment (ART), and reduce injecting drug use, risk practices and HIV transmission, and lead to improved health outcomes [21,22]. In Indonesia, MMT was initiated in 2003. It has since expanded into a nationwide program encompassing 68 MMT services covering 173 cities and districts serving 2,548 patients by June 2011 [5].

In February 2006 the Ministry of Health appointed the Hasan Sadikin Teaching Hospital (RSHS) Department of Psychiatry in Bandung as supervisory hospital for MMT satellites in West Java. The MMT clinic in RSHS started in May 2006, followed by a MMT satellite in four hospitals (Bekasi, Cirebon, Sukabumi, and Tasikmalaya), a primary health centre (Bogor), and a prison specifically for substance users (Bandung), in 2008 and 2009. The scaling up of MMT clinics continued with two primary health centers (Subang and Depok) and a prison (Bandung) in 2010 and 2011, and more settings are being prepared.

In Indonesia, as well as in other countries combating an IDU driven HIV epidemic [2], MMT clinics have been recently established, and providing their services with limited human and financial resources. Therefore, little systematic and evidence-based information is available on how MMT services are functioning in practice, how MMT and HIV issues are combined, what routine data are collected, and to what extent official MMT policies and guidelines are implemented and suitable.

Expected outcomes
A systematic evaluation of the effectiveness of MMT services in West Java was planned to feed into the process of the development of clinical MMT guidelines for IDUs. The expected outcome was a detailed evaluation of the quality of MMT services in Indonesia, and underlying factors for utilization and quality of services.

Methods

During the initial phase of the project, March to June 2010, the functioning of the MMT clinic in Bandung was explored using a validated MMT benchmarking questionnaire from the Netherlands [23]. A MMT clinic evaluation team was formed, consisting of a psychiatrist, general doctor, psychologist, nurse and a Dutch addiction medicine specialist. In collaboration and based on the exploration, the MMT Program Evaluation Questionnaire Indonesia (MPEQ-I) was developed and tried out at the MMT clinic in Bandung.

For data collection at MMT clinics in West Java, the MPEQ-I was divided in three clusters: 1) management and organization, 2) routine data reporting, and 3) diagnosis and treatment [24]. During two evaluation rounds, in July 2010 and October 2011, respectively, six MMT clinics in West Java were visited, staffs interviewed and data collected, and on site discussions were held to explore barriers and challenges in providing MMT and HIV services.

The recommendations reported after the baseline evaluation in July 2010 [26] were shared and discussed during a national stakeholders meeting with 63 participants, held in Bandung in January 2011. The highest needs reported by the participants were strengthening of stakeholders support and referrals to increase IDUs access to MMT and HIV care, and treatment options and addiction medicine training to improve the quality of services. These needs were compatible with those found in the literature and IMPACT research.

The lessons learned from the baseline evaluation, and the input from the participants at the stakeholders meeting were used to revise and finalize the MPEQ-I for the second visit round (Appendix 4). Descriptive analysis was conducted and the findings of the second evaluation were compared with the baseline situation and held against official Indonesian and WHO guidelines for MMT programs [28,29].
In 2007, IMPACT research, a cross-sectional anonymous exit survey, was conducted among 48 out of 57 patients enrolled at the MMT clinic in Hasan Sadikin Hospital [24]. Patients were interviewed and asked to fill out a self-administered questionnaire on service provision, health personnel practices and conduct, and financial and physical accessibility of the MMT service.

**Outcomes**

The exploration of the MMT clinic in Bandung, the baseline evaluation of the six MMT clinics in July 2010, and the second evaluation in October 2011, were reported in separate documents [25-27] and presented at several local, national and international platforms (Appendix 5).

<table>
<thead>
<tr>
<th>1</th>
<th>To evaluate whether the patients are satisfied with the current opening hours.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>At least one full-time doctor and nurse, trained in addiction medicine, per MMT clinic.</td>
</tr>
<tr>
<td>3</td>
<td>To advocate the benefits of MMT and HIV treatment among stakeholders.</td>
</tr>
<tr>
<td>4</td>
<td>To strengthen the cooperation with stakeholders and improve the referral process between providers.</td>
</tr>
<tr>
<td>5</td>
<td>To develop strategies increasing the number of new patients and treatment retention.</td>
</tr>
<tr>
<td>6</td>
<td>To strengthen HIV counseling and testing for MMT patients and sex partners.</td>
</tr>
<tr>
<td>7</td>
<td>To improve integrated MMT and HIV services, including development of standard operational procedures.</td>
</tr>
<tr>
<td>8</td>
<td>To promote a uniform reporting format that can be used by relevant stakeholders (monthly report to the Ministry of Health).</td>
</tr>
</tbody>
</table>

**MMT clinic characteristics**

During the second evaluation in October 2011 [27], and compared with the situation the previous year, and in line with the recommendations given above, MMT staffs reported that the average MMT clinic opening hours had decreased (table 2). Only in Bandung the opening hours were adjusted to cater for patients with a regular job. Two MMT clinics had a full time doctor and all had one or two full time nurses. The number of training days reported by nurses and doctors had doubled between the two visit rounds. MMT staffs reported to have regular meetings with local stakeholders. However, the referral process between harm reduction NGOs and MMT clinics in remained a challenge. For the second MMT clinics evaluation data on referral sources were included in the MPEQ-I (Appendix 4). Although between July 2010 and October 2011, the number of registered MMT patients had increased, the number of patients in current treatment had remained the same. This gap can probably be explained by the high rates of transit patients (29%), drop out (34%), referrals to other MMT clinics (10%) and death (7%), since MMT clinics opened. The total number of staff had decreased due a reduction in part timers; the patient/provider ratio had increased.
Table 2: Characteristics of MMT clinics in West Java, 2010 and 2011*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (range) 2010</th>
<th>Mean (range) 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening hours per week (7 days)</td>
<td>27.5 (19–34)</td>
<td>23.9 (14–34.5)</td>
</tr>
<tr>
<td>Number of staff</td>
<td>9 (6–16)</td>
<td>5 (6–12)</td>
</tr>
<tr>
<td>Number of doctors (part time and full time)</td>
<td>3 (1–6)</td>
<td>2 (1–3)</td>
</tr>
<tr>
<td>Number of nurses (part time and full time)</td>
<td>2 (1–2)</td>
<td>2 (0)</td>
</tr>
<tr>
<td>Addiction and HIV training days per doctor</td>
<td>8.4 (3–30)</td>
<td>18.8 (11–26)</td>
</tr>
<tr>
<td>Addiction and HIV training days per nurse</td>
<td>7.8 (2.5–20)</td>
<td>15 (5–29.5)</td>
</tr>
<tr>
<td>Number of patients registered</td>
<td>89 (35–284)</td>
<td>119 (42–332)</td>
</tr>
<tr>
<td>Patients in actual treatment</td>
<td>34 (7–69)</td>
<td>34 (7–73)</td>
</tr>
<tr>
<td>Retention since clinic opening</td>
<td>0.37 (0.19–0.89)</td>
<td>0.28 (0.14–0.51)**</td>
</tr>
<tr>
<td>Patient/Provider (doctor + nurse) ration</td>
<td>5.9 (1.0–14.7)</td>
<td>8.5 (1.8–14.6)</td>
</tr>
</tbody>
</table>

* MMT clinics in Bandung, Bekasi, Bogor, Cirebon, Sukabumi, and Tasikmalaya [27,28]

** Based on additional data retrieved from MMT clinic monthly reports in 2009 and 2010, and based on the number of patients registered and in current treatment, the calculated one-year retention was 49% (range 24-88%) in 2009 and 45% (range 19-78%) in 2010.

The lowest retention rates and patient/provider ratios were found in MMT clinics with less than 15 patients in current treatment, and where opening hours were shorter, and doctors less available and a lower methadone dose prescribed, than at other sites.

Furthermore, although the baseline data on HIV testing and treatment were incomplete, the number of MMT patients tested and receiving ART had increased between the two visit rounds. Outside Bandung integrated MMT and HIV treatment was a challenge as collaboration was limited and it was reported that some HIV clinics were reluctant to treat methadone patients. Reporting formats had not changed and data recording remained a major challenge due limited skills in nurses and administrative staff. Moreover, in the Indonesian MMT guideline [28] standardization of indicators of success and technical support for data recording were lacking. During the second evaluation definitions for patients in treatment, transit and exit were included in the questionnaire (Appendix 4), to address standardization and motivate staffs to improve the quality of data collection.

**MMT patient characteristics**

In July 2010, among 205 patients in current treatment 94% were male, and most were around 30 years old (range 24-55 years). In October 2011, more than half of the 203 current patients were self-referred (52%) and one in six patients were referred by NGOs providing harm reduction services (17%). Most were male (95%), on average 31 years old (range 19-60 years), almost all had a senior high school or higher education (92%), and nearly half had a regular income (47%) and over half were married (55%).

In July 2010, the mean methadone dose in 205 patients was 69 mg/day (range 40-88 mg/day). In October 2011, in 203 patients in current treatment the mean methadone dose was 79 mg/day (range 45-100 mg between settings, and 13-208 mg between patients). The vast majority of 203 MMT patients were tested for HIV (85%), and among those found HIV positive (60%) two thirds were taking ART (65%). The mean methadone dose in patients taking ART (123 mg/day) was twice as high as in patients not taking ART (64 mg/day). In addition, among 50 steady female sex partners of HIV positive male MMT patients 33 were reported as HIV positive (66%).

An IMPACT survey on organizational determinants of risk injecting practices in MMT patients [24] showed that responses to MMT clinic organization, health professionals practices and conduct were scored relatively positive. Affordability of service cost and acceptability of travelling cost were found to get the lowest scores. Patients considered the clinic service opening hours to be an issue and they raised concern on health professionals availability for consultation.
Gaps between expected outcomes and outcomes
The data collected were provided by MMT staffs and not from MMT patients. Data on patient socio-demographics, methadone dose, HIV and ART, were summary data and mostly based on monthly reports. The monthly reports were of limited reliability due to varying interpretations and data collection methods applied by MMT staffs. Furthermore, the numbers of patients per MMT clinic were small. Consequently, the data could not be used for analysis of patient-based factors contributing to MMT retention nor was it possible to comment on MMT effectiveness. However, the strengths were the availability of an evaluation team with local professionals experienced in MMT service provision, the development of an Indonesian MMT benchmarking tool (MPEQ-I), and the cooperativeness of MMT staffs to share their experiences. A general picture of MMT and HIV services in West Java could be drawn and lessons learned presented.

Challenges in the field
The development of the MPEQ-I took about two months and needed multiple drafts, meetings and discussions. It was a challenge to organize meetings with the members of the evaluation team who were multitasked. Due to lack of time and budget the evaluation team was not able to visit and observe the MMT services in daily practice and attending patient consultations and discussions, and analyze medical records and management data on site. Moreover, the MMT clinics were spread across a large, densely populated (40 million) and traffic congested province. Per visit round it took more than 40 hours and 1,400 km driving to visit and interview five MMT staffs outside Bandung. Between sites, MMT clinic facilities, service costs, staffs’ dedication, service approach and knowledge and experience in addiction medicine and HIV care, as well as local regulations and collaboration with stakeholders varied considerably.

Lessons learned and response
In West Java, during the last five years, MMT clinics have made considerable achievements, but improvements are still needed. The baseline and second MMT clinic evaluation studies showed limited access and retention, and multiple health issues among IDUs in need for patient-oriented and comprehensive care, and staff trained in addiction medicine and HIV care.

There were substantial variations between MMT clinics for patient costs, opening hours, staff availability and training. The MMT clinics were a good point for HIV testing and treatment as two thirds of those found HIV positive were taking ART. However, a high HIV prevalence in female sex partners of MMT patients was found. The Indonesian MMT guideline [28], as well as the WHO guideline for MMT programs in South East Asia [29], lack a public health approach in line with the primary reason to open MMT clinics: HIV prevention and control in IDUs.

After the second MMT clinic evaluation the following recommendations were reported [27], and advocated during several stakeholders meetings and symposia at international, national and provincial level (Appendix 5).

1. Standardize patient costs, opening hours, and training.
2. Promote full time MMT clinic staff, especially nurses and doctors, and activities to strengthen collaboration with harm reduction NGOs and professionals in the field.
3. Introduce a protocol for HIV testing in MMT patients and sex partners, and promote integrated MMT and HIV treatment services.
5. Produce a new MMT reporting format that is in line with the indicators of success and supportive to the effectiveness of HIV prevention and control and better health outcomes in IDUs.
IMPROVING CARE FOR INJECTING DRUG USERS IN WEST JAVA

Background
Evidence from the literature on IDUs and HIV in Indonesia and IMPACT research in Bandung (objective 1) showed a preventable morbidity profile in IDUs. The major health issues encountered were heroin and benzodiazepine dependence, anxiety, depression, psychotic disorders, HIV and HCV, leading to premature death in an unknown proportion of the (formerly) drug injecting population. Evidence from the evaluation of MMT programs in West Java (objective 2) showed limited MMT access and retention, a high HIV prevalence in MMT patient and their sex partners, and MMT was a good entry point for HIV treatment. MMT programs were facing multi-level barriers and challenges in providing problem-oriented and comprehensive care.

Expected outcomes
An evidence-based approach among MMT and HIV service providers, and stakeholders, that better fits IDUs treatment needs. Development and introduction of standard operational procedures for effective, evidence based harm reduction, and addiction services, including referral systems.

Methods
During the second year of the project the following activities were conducted:

1. Formal agreements between harm reduction services in Bandung were listed.

2. Field visits were made to the 5 major harm reduction NGOs in Bandung. Interviews with program directors, fields coordinators, outreach workers and clients, and patients using the MMT program at RSHS Bandung, were held to obtain insight in the estimated number of IDUs in Bandung, the estimated number of IDUs reached by NGO programs, HIV testing and treatment, mortality, and referrals between NGOs and MMT and HIV care services (Appendix 6).

3. Stakeholders meetings to strengthen collaboration improving access and quality of MMT and HIV care in West Java were organized and attended (Appendix 7).

4. A format to improve MMT clinic data monitoring was developed and tried out in practice (Appendix 4, section C).

5. Clinical meetings with health professionals at the MMT and HIV clinics in Bandung were held (Appendix 8) and patient case discussions trained (Appendix 9).

6. Standard operational procedures were drafted and introduced (Appendix 10).

7. The development of the Indonesian Short Course in Addiction Medicine (I-SCAN), in collaboration with IMPACT and FK-UNPAD, was supported (Appendix 11).

Outcomes
1. Five Memoranda of Understanding (MoU) and Letters of Agreement were listed. Two documents were issued by the Indonesian Ministry of Health. The first was an instruction to open a MMT clinic in Bandung and to facilitate and supervise the opening of MMT satellites in West Java (February 2006). The second addressed the implementation of MMT programs in prison and state correctional centers (June 2007). In 2008 a MoU was signed between RSHS and Bandung prison on the collaboration and provision of hospital specialist services in prison (VCT and HIV treatment).
In 2008 and 2010 the District Health Office and IMPACT signed a MoU to increase capacity for HIV and addiction services in community health centers. Furthermore, a referral method and letter were agreed between the MMT clinic at RSII Bandung and harm reduction NGO Grapiks, to refer their clients for MMT and provide a chaperone/social case worker for those IDUs who did not wish or could not provide a chaperone from their families to support treatment and care.

NGOs providing community harm reduction services and patients using the MMT clinic in Bandung shared the following lessons (Appendix 6):

a. IDUs time point estimates ranged between 2,000 and 6,000. Collectively, NGOs provided a range of services, including NSP and VCT, and supported around 500 actual IDUs in Bandung.

b. NGOs referred about two thirds of their clients for a HIV test, of which two thirds were HIV positive, and of which one fifth accessed ART; and high drop out rates were reported. An unknown proportion of IDUs, as well as their partners and children, were known to have died with HIV/AIDS.

c. Outreach workers were undertrained and had limited knowledge on methadone treatment and program regulations. Collectively, NGOs referred about 1-2% of their clients to the hospital based MMT clinic in Bandung. NGO staffs and MMT patients reported that the costs for transport and MMT were too high, and were a barrier to access and reason to drop out.

d. NGOs monitoring and evaluation systems were underdeveloped.

The following stakeholders meetings were attended and organized: 16 December 2010 (provincial meeting to improve MMT programs in West Java, 37 participants), 20 January 2011 (national meeting to improve access and quality of MMT and HIV care, 63 participants; Appendix 7), 5 December 2012 (provincial meeting sharing evaluations of MMT programs in West Java, 36 participants) and 22 December 2012 (national meeting sharing MMT and HIV treatment evaluation from practice to policy, 52 participants). In addition, during the MMT evaluation visit rounds, local stakeholders were present to share their specific experiences. Furthermore, in Bandung several meetings between the MMT clinic and NGOs were held to strengthen collaboration, share information on MMT and procedures and referrals (Appendix 8). In general, during stakeholders meetings the main issue of ongoing concern was to strengthen multi-level coordination, and participants agreed the following needs:

a. Better communicate MMT regulations and guidelines between policy makers and MMT program and HIV service providers.

b. Allocate sufficient budgets, set reasonable and standardized treatment fees, and accessible and adequately equipped MMT facilities.

c. Establish multidisciplinary one-stop services with a team coordinator, internist support, outreach workers and legal support staff, in addition to the required MMT team composition of a doctor, nurse, pharmacist, and administration and security staff.

d. Reduce the administrative workload and data reporting formats.

e. Establish and train integrated teams to provide, develop and scale up MMT and HIV services and referrals at and between community and hospital level.

The exploration of the MMT clinic in Bandung [25] and the baseline evaluation of the MMT clinics in West Java [26] provided a clear understanding of the content, and barriers and challenges of MMT data monitoring in practice. For the second MMT evaluation, a format to standardize and improve MMT data collection was developed and introduced, and resulted in better data [27]. The format and MMT evaluation results were presented to the Ministry of Health, during a stakeholders meeting in December 2011.
Challenges in the field
It took time and efforts to get acquainted with the local circumstances, conditions, culture, language, and staff and clients in various settings in harm reduction practice. The management of the introduction of a new project into the existing and well developed IMPACT program infrastructure and the Addiction Care Working Group was a major challenge. Another challenge was dealing with high expectations to deliver within a short period in an complex setting. There was lack of local human resources and resources for activities, facilitation and implementation. This resulted in full dependency on IMPACT, time consuming procedures to obtain budgets to execute activities, and willingness and time available of local staff to get things done. It was not easy to organize meetings, as those planned never started on time, and many were cancelled, postponed and re-planned. Fortunately, a dedicated assistant program manager could be hired for the last six months of the project, to support the second round of the MMT evaluation, planning and facilitating meetings, developing standard operational procedures, translating and abstracting local documents, and report writing. Despite these limitations, with a lot of effort and cooperativeness of professionals in the field, the project produced a considerable output (Appendix 5) and valuable information to build on.

Lessons learned
It was possible to lay the basis for an evidence based approach for HIV prevention and control in IDUs in West Java. In Bandung, formal agreements between services were available. However, harm reduction capacity at community and hospital level were limited. When stakeholders met, the agenda was predominantly taken by discussions to clarify rules and regulations and addressing the lack of resources to provide basic services.
For example, the Ministry of Health appointed the MMT clinic in Bandung to facilitate and supervise MMT satellites across West Java, but no budget and capacity was available to do so. With foreign technical and financial input the foundation was laid to boost multi-level capacity and scale up an evidence-based approach in HIV prevention and control in IDUs in West Java, and beyond.
EVIDENCE-BASED GUIDELINES
FOR INJECTING DRUG USERS IN INDONESIA

Background
Good clinical practice is based on evidence-based guidelines. In order to introduce evidence-based clinical guidelines for IDUs and HIV infected patients one needs integrated standard operational procedures. In Indonesia, at national and provincial level these are not yet developed. Furthermore, an understanding and analysis of the existing Indonesian and international MMT guidelines are needed.

Expected outcomes
To support the development of West Java and potential national clinical guidelines for IDUs care. To facilitate the translation of evidence based addiction care and best practices into local treatment protocols and standards.

Methods
Development of evidence-based guidelines is a well planned, time consuming and cyclic process [32]. In this case the process included: 1) critical appraisal of the scientific literature on IDU and HIV in Indonesia, 2) systematic exploration of MMT and HIV care practice in West Java, using an adapted version of the Dutch MMT guidelines, and analysis of the Indonesian and WHO guidelines for MMT programs [28,29], and 3) obtaining an understanding of formal agreements and collaboration between stakeholders in the field, existing and desired standard operational procedures and routine data monitoring in MMT and HIV treatment practice.

Outcomes
Based on the understanding and knowledge gained, objectives 1-3, in consultation and collaboration with professionals in the field, two integrated standard operational procedures were developed (Appendix 10) and tried out at the MMT and HIV clinics in Bandung. An appraisal of MMT and HIV treatment practice in West Java, and contrasted with existing MMT guidelines, was reported in a separate document [27]. It is important to note that the Indonesian and WHO MMT guidelines for the South East Asian Region [28,29] are in need for improvements especially concerning a public health orientation. Both guidelines are provider-oriented and lack systematic data collection methods and standardized indicators of success that could feed into patient and public health goals. Consequently, data provided by MMT clinics staff were fragmented, incomplete and of limited reliability. The provided data were summarized data which made it impossible to analyze factors contributing to MMT and HIV care utilization and service quality, and to link them with data sets of other harm reduction services. Data monitoring should aim at obtaining a picture of the size and nature of the IDU population covered and target those in highest need for MMT and HIV prevention and care. The first step toward MMT guideline improvements were made [27,] and presented during a national stakeholders meeting in December 2011, and were well received and discussed by the participants.

Gaps between expected outcomes and outcomes
With the evidence collected from research and practice, the development of two shared standard operational procedures in MMT and HIV clinics in Bandung, and analysis of the existing MMT guidelines, the first steps were made to feed into improvements of the Indonesian MMT guideline and practice. A gap remains between the number of developed standard operational procedures and those desired (Appendix 10). A major gap needs to be bridged to build capacity and implement the evidence on HIV prevention and care for IDUs in practice.

Challenges in the field
A major challenge was the lack of human resources to feed into integrated standard operational procedures and MMT guidelines. It should be noted that the MMT clinic in Bandung lacked a full time doctor, and project support depended on the time available of three multitasked senior psychiatrists. An understanding of the Indonesian MMT regulations and guidelines [27] and support for the development standard operational procedures (Appendix 10) were only made possible when a dedicated assistant program manager could be hired. The process took more than six months, and numerous meetings, discussions, drafts and revisions.
Lessons learned
It was possible to contribute to the development of shared standard operational procedures for MMT and HIV care, and obtain an understanding of and feed into improvements of the Indonesian MMT guideline. Based on the lessons learned, and in line with a patient and public health-based approach, the following indicators of success are suggested to be included in the Indonesian MMT guidelines:

1. MMT service: opening hours, full time nurses and doctors, staff training; number of patients starting treatment, in transit, length of stay in treatment, patient/provider ratio (aim at 20-25), exit (referred, stop, drop out after 30 days, in prison and death), and MMT retention rate.

2. Patient outcomes at baseline and follow up: sex, age, education, employment and income, steady sex partner, condom use, injecting practices, needle sharing, substance use, mental health problems, criminality, and quality of life rating.

3. MMT and HIV treatment: patients and sex partners tested for HIV, found HIV positive and taking ART (CD4 at baseline and follow up), and average methadone dose without ART (aim at 60-120mg/day) and with ART.
CONCLUSIONS AND RECOMMENDATIONS

At all levels, it takes human and financial resources, dedication, time, endurance and persistence, to help to improve HIV prevention and control in IDUs. In Indonesia, as well as in many other countries with a comparable IDU driven HIV epidemic [2], these ingredients are limited. To approach and introduce harm reduction strategies, a broad understanding is needed of multiple factors influencing barriers and challenging in providing effective services. In Indonesia factors reported are, among others: the cultural and religious setting [33], the social context of IDU practices and HIV risks [3,4,9, 12], fear of stigma and discrimination as a barrier to disclose IDU and HIV to families and service providers [34], the position of female IDUs [35], the justice system and police response to IDUs [36], the government, non-government, healthcare sector and donor response to the HIV epidemic [1,37], social welfare indicators and the use and coverage of the Indonesian Health Card [38], and the financial burden of MMT and HIV diagnosis and treatment [25,39-41]. Taking these factors into account, improving the IDUs harm reduction practice in Indonesia is quite complicated.

This project aimed to explore MMT and HIV treatment for IDUs in West Java, and provide support to make the first steps introducing an evidence-based approach. In Indonesia, in response to the IDU driven HIV epidemic, the concept of harm reduction has been recently introduced and the body of knowledge and experience is growing. However, multi-level barriers and challenges were encountered. There are opportunities for improvements and the results the Aids Fonds project can contribute to them.

Barriers and challenges in IDU harm reduction in West Java

1. Unknown number and coverage of IDUs eligible for MMT and HIV treatment.
2. Limited prepared social and healthcare system to cater for and referral of IDUs.
3. IDUs costs to utilize MMT and HIV treatment varied considerably between settings across West Java, and were a major access barrier and reason for drop out.
4. Limited training in evidence-based addiction medicine of professionals working in social and healthcare, and lack of integrated standard operational procedures.
5. Reporting, monitoring and evaluation systems on MMT and HIV care across the board were unfit for policy improvement enabling strategies.
6. Lack of standardization of MMT clinic opening hours, staff availability, training, partner testing, and clear indicators of success, in the Indonesian MMT guideline.

Opportunities

1. A high need for technical assistance across the board on integrated MMT and HIV care, combined with strong ownership and commitment of professionals and stakeholders involved.
2. A high need for integrated data monitoring and technical support to re-orient, simplify and merge data systems of harm reduction services, combined with the availability of staff already providing data.
3. A high need for training and technical support in harm reduction NGOs for case finding, assessment and referral to access MMT and HIV services, and comprehensive case management to prevent drop out.
4. To cater for IDU and HIV patients there is need to bridge the large gap between primary care and hospital care and requires collaboration, skills training and development of a referral system, case management and protocols.
A high need for healthcare professionals trained in an integrated approach toward addiction medicine and HIV care, and active and outreaching collaboration at and between community and hospital level.

Lessons learned to develop, implement and scale up standard operational procedures for integrated MMT and HIV care in Bandung, and monitoring improvements of MMT clinics in West Java.

Availability of an addiction medicine and HIV care training program, the Indonesian Short Course in Addiction Medicine (I-SCAN), ready for the first batch.

The fundamentals are laid for multilevel coordination and long term investment in human resources and infrastructure, to contribute to HIV prevention and control in IDUs and their sex partners and children in West Java.

Aids Fonds project contributions

1. The first report describing a systematic and comprehensive exploration of a hospital based MMT clinic in Indonesia [25].

2. A review of the scientific literature on IDU and HIV in Indonesia (Appendix 3).

3. The first systematic and comprehensive questionnaire to benchmark MMT clinics in Indonesia: MPEQ-I (Appendix 4).

4. The first report on the functioning of six MMT clinics in West Java, including recommendations for management and organization, diagnosis and treatment, and data registration and quality improvement [26].

5. A report of field visits and interviews with NGO staff providing community harm reduction services in Bandung, including lessons learned (Appendix 6).

6. A stakeholders meeting report, including recommendations to improve access and quality of MMT and HIV care in West Java (Appendix 7).

7. A format to improve MMT clinic data monitoring and enabling policy making improvements (Appendix 4).

8. Academic meetings and on the job training strengthening the collaboration and service quality in MMT and HIV care practice at hospital level in Bandung (Appendix 8 and 9).

9. The first two integrated standard operational procedures to improve MMT and HIV care drafted, and introduced and tried out (Appendix 10).

10. Technical input for the design and content of the modules, and organization and moderating meetings of the National Addiction Study Group for the development of the Indonesian Short Course in Addiction Medicine (Appendix 11) and e-learning platform.

11. The first report describing MMT and HIV treatment from practice to policy, and including recommendations to improve MMT guidelines [27].

Sustainability

Obviously, to strengthen, implement and scale up the contributions of this project in the field, multi-level and long term technical and financial support are needed. A two year project has proven to be sufficient to explore the circumstances, settings and needs to improve IDU harm reduction services. However, this period is too short to fully develop strategies and implement and evaluate the lessons learned. By the end of the project no additional budgets were available to further address the high needs in IDUs, their partners and children in West Java. It is up to the local professionals and stakeholders involved in this project to further advocate, develop and implement the lessons learned. Building the foundation has been a rewarding expedition.
AIDS FONDS PROJECT ORGANIZATION AND STAFFING

Title
HIV-prevention and control through evidence-based harm reduction in injecting drug users; toward a client-oriented and comprehensive approach in West Java Indonesia.

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Project duration Two years (March 2010 – February 2012)

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REFERENCES


6 Sarasvita R. Treatment Retention in Methadone Maintenance Programs in Indonesia: towards Evidence-Informed Drug Policy. Department of Clinical and Experimental Pharmacology, School of Medicine, Faculty of Health Science, University of Adelaide, Australia, July 2009.


Iskandar S, Crevel R van, Hidayat T, I.M.P. Siregar IMP, Ahmad TH, van der Ven AJ, de Jong CAJ. High prevalence of co-occurring physical and psychiatric condition and drug abuse in injecting drug users reduce the quality of life. [accepted for publication]


Laere IR van, Norviatin D, Achmad YM, Istiqomah AN, Crevel R van, Pinxten WL, van der Ven A, Hidayat T, de Jong CAJ. A Teaching Hospital based Methadone Clinic in Bandung, Indonesia: exploration of Management and Organization, Diagnosis and Treatment, and Registration and Quality Improvements in the years 2006-2010. Bandung / Nijmegem: RSHS, FK-UNPAD, Indonesia / NISPA, Radboud University, the Netherlands, Aids Fonds Program, August 2010.


Laere IR van, Diana A, Crevel R van, Pinxten WL, van der Ven A, Istiqomah AN, Hidayat T, de Jong CAJ. Methadone and HIV treatment for injecting drug users in West Java, Indonesia: from practice to policy. Bandung/Nijmegem: RSHS, FK-UNPAD, Indonesia/NISPA, Radboud University, the Netherlands, Aids Fonds Program, January 2012.


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APPENDICES

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