

Integrated opioid substitution therapy and HIV care: a qualitative systematic review and synthesis of client and provider experiences

Authors

Andy Guise*, Maureen Seguin, Gitau Mburu, Susie McLean, Pippa Grenfell, Zahed Islam, Sergii Filippovych, Happy Assan, Andrea Low, Peter Vickerman, Tim Rhodes

*corresponding author, aguise@ucsd.edu

Affiliations

Andy Guise, Dept of Global Public Health, University of California San Diego, 9500 Gilman Drive #0507, San Diego, 92093, USA & London School of Hygiene and Tropical Medicine, London, UK. Tel 00 1 858 822 4274. aguise@ucsd.edu

Maureen Seguin, Centre for Research on Drugs and Health Behaviour, London School of Hygiene and Tropical Medicine, 15-17 Tavistock Place, London, WC1X 9AH, UK. Tel 00 44 020 7927 2017.

maureen.seguin@lshtm.ac.uk

Gitau Mburu, International HIV/AIDS Alliance, 91-101 Davigdor Rd, Brighton, BN3 1RE, UK & University of Lancaster, Lancaster, UK. Tel 00 44 1273 718900. g.mburu@lancs.ac.uk

Susie Mclean, International HIV/AIDS Alliance, 91-101 Davigdor Rd, Brighton, BN3 1RE, UK. Tel 00 44 1273 718900. susieonsunday@gmail.com

Pippa Grenfell, Centre for Research on Drugs and Health Behaviour, London School of Hygiene and Tropical Medicine, 15-17 Tavistock Place, London, WC1X 9AH, UK. Tel 00 44 020 7927 2017.

pippa.grenfell@lshtm.ac.uk

Zahed Islam, Management Sciences for Health, House # 3, Road # 23B, Gulshan-1, Dhaka 1212, Bangladesh. Tel 00 8802 8822940. zaislam@msh.org

Sergii Filippovych, International HIV/AIDS Alliance Ukraine, 5 Dilova St, Kyiv, 03680, Ukraine. Tel 00 380 44 490 5485. filippovych@aidsalliance.org.ua

Happy Assan, Tanzanian Network of People who Use Drugs, MDM Drop in centre, Lusaka St, Tandika, Dar es Salaam, Tanzania. Tel 255657562108. happy.assan@gmail.com

Andrea Low, International Center for AIDS Care and Treatment Programs, Columbia University, 722 West 168th Street, New York, 10032, USA. Tel 001 212 342 0505 andrea_low@hotmail.com

Peter Vickerman, School of Social and Community Medicine, University of Bristol, 39 Whatley Road, Bristol, BS8 2PS, UK. Tel 00 44 117 928 7279. epxpv@bristol.ac.uk

Tim Rhodes, Centre for Research on Drugs and Health Behaviour, London School of Hygiene and Tropical Medicine, 15-17 Tavistock Place, London, WC1X 9AH, UK. Tim.rhodes@lshtm.ac.uk

Acknowledgements

Eliot Albers, Jessie Mbwambo and Simon Lewin provided comments on the conception and conduct of the review.

Funding

Funding: this review was supported by funding from the International HIV/AIDS Alliance; AG was funded by an International AIDS Society - US National Institutes for Drug Abuse fellowship.

Disclosure statement

We declare no conflicts of interest or financial benefits arising from the publication of this research.

Word count

3217

Key words – People Who Inject Drugs, OST, HIV, ART, Integration

Abstract

People who use drugs in many contexts have limited access to opioid substitution therapy and HIV care. Service integration is one strategy identified to support increased access. We reviewed and synthesized literature exploring client and provider experiences of integrated opioid substitution therapy and HIV care to identify acceptable approaches to care delivery. We systematically reviewed qualitative literature. We searched nine bibliographic databases, supplemented by manual searches of reference lists of articles from the database search, relevant journals, conferences, key organizations and consultation with experts. Thematic synthesis was used to develop descriptive themes in client and provider experiences. The search yielded 11 articles for inclusion, along with 8 expert and policy reports. We identify five descriptive themes: the convenience and comprehensive nature of co-located care, contrasting care philosophies and their role in shaping integration, the limits to disclosure and communication between clients and providers, opioid substitution therapy enabling HIV care access and engagement, and health system challenges to delivering integrated services. The discussion explores how integrated opioid substitution therapy and HIV care needs to adapt to specific social conditions, rather than following universal approaches. We identify priorities for future research. Acceptable integrated opioid substitution therapy and HIV care for people who use drugs and providers is most likely through co-located care and relies upon attention to stigma, supportive relationships and client centred cultures of delivery. Further research is needed to understand experiences of integrated care, particularly delivery in low and middle income settings and models of care focused on community and non-clinic based delivery.

Background

People who use drugs (PWUD) have limited access to a comprehensive package of HIV care (WHO, UNODC, & UNAIDS, 2012) including Needle and Syringe Programmes (NSP), Anti-Retroviral Treatment (ART) and Opioid Substitution Therapies (OST) (Degenhardt et al., 2014; Mathers et al., 2010). This limited access is compounded by how delivery in combination has synergistic effects (Strathdee et al.). OST, such as methadone and buprenorphine, reduces injecting frequency and subsequent risk of HIV transmission (MacArthur et al., 2012), ; promotes adherence to, and coverage of, ART (Reddon et al., 2014; Uhlmann et al., 2010); and supports improved ART outcomes (A. J. Low et al., 2016). Whilst addressing political, economic and social barriers to access is necessary (Krüsi, Wood, Montaner, & Kerr, 2010; Wolfe, Carrieri, & Shepard, 2010), a service delivery priority is to integrate OST within a comprehensive HIV care package (Lambdin, Mbwambo, Josiah, & Bruce, 2015; WHO, 2014; WHO & UNODC, 2009).

Whilst integration for OST and HIV care is widely promoted (Sylla, Bruce, Kamarulzaman, & Altice, 2007), there is a need to understand clients and providers perspectives on how to deliver care. Integration – combining service functions (Briggs & Garner, 2006) - can involve a range of strategies (WHO, 2008): e.g. delivery within a single clinic, referrals between clinics or delivery within community settings (Grenfell et al., 2012; Keats et al., 2015; Kennedy et al., 2010; Lucas et al., 2006; Treloar & Rance, 2014; Uyei, Coetzee, Macinko, & Guttmacher, 2011). We have little understanding of what specific approaches to integrated care should be prioritized (Drainoni et al., 2014).

We reviewed and synthesised qualitative research documenting PWUD and provider experiences of integrated OST and HIV care. Qualitative research, and reviews of it, is valuable for understanding how care is experienced which can inform appropriate and acceptable services (Glenton,

Lewin, & Gülmezoglu, 2016; Jones et al., 2014; Leidel, Wilson, McConigley, Boldy, & Girdler, 2015; Treloar & Rhodes, 2009; Tuthill, McGrath, & Young, 2014).

Methods

We systematically searched for qualitative literature and used a thematic synthesis (Jones et al., 2014; Thomas & Harden, 2008; Tso et al., 2016). We included policy reports and grey literatures as a supplementary resource (Grenfell et al., 2013; 2010), in order to identify novel models of service delivery and contextualize and explore the main review findings.

We searched nine academic databases (Medline, Embase, Global health, Social policy and practice, CINAHL Plus, Academic search premier, IBSS, the Web of science, and Scopus) in February 2015. A record of the search is available in supplementary file 1. The generic process involved searching for the terms HIV AND OST AND experiences, along with synonyms. We searched back to 1995 to reflect the change in HIV care owing to the availability of ART. We manually identified additional articles by i) searching reference lists of included articles from the database search, ii) identifying citations of included papers, iii) consulting experts in the field, iv) reviewing relevant journals and v) searching the websites of key organisations and conferences.

Articles were assessed for inclusion by two reviewers according to criteria of: studies using qualitative methodologies (including in the context of mixed methods studies), reporting experiences or preferences of people who use drugs or providers of integrated OST and HIV care (within which we included HIV prevention and treatment); see additional file 1 for detail. For inclusion in the review or as supplementary expert and policy literature for parallel discussion, reviewers discussed whether selected articles met the following standards: i) use of, and transparent presentation of, research methodology,

ii) methodology is appropriate for the aims and objectives of the study. The included citations were assessed using CASP guidelines to support the interpretation of studies (CASP, 2015).

Themes were developed based on major findings in included papers (Thomas & Harden, 2008). The supplementary expert and policy literature was used to further explore themes in the empirical literature. AG and MS initially read and open coded data under findings sections, with iterations of identified themes and emerging analyses distributed to the broader review group for comment. Descriptive themes were then fully coded and developed by AG around first (respondents) and second (citation author) order interpretations based on frequency across the data (Noyes & Lewin, 2011). The emerging analysis was then discussed across the group. Nvivo 10 software was used to manage the analysis.

Each theme was documented by AG using the 'Confidence in the Evidence from Reviews of Qualitative research' (CERQual) approach (Lewin et al., 2015) (findings integrated in table 3).

Results

Figure 1 summarises the search. Eleven studies were included in the review (table 1). The majority of citations were from the USA (7), and then China, India, Russia and Ukraine. All studies used interviews to generate qualitative data. Most papers were of medium quality; limitations focused on brief accounts of methods, in the context of published articles having word limit constraints. The literature focused entirely on 'fixed site' care in clinics, hospitals or offices (primary or general practitioner oriented care), with care then organized around single providers, or teams, and also referrals between sites.

Table 2 lists the expert and policy literature. As well as clinic-located care there was care in community, home and prison settings. There was also a greater geographic diversity: India, Indonesia, Portugal, Tanzania, Ukraine and the USA were all a focus.

We identified five descriptive themes in how PWUD and providers experience integrated OST and HIV care. Each theme is supplemented with a discussion of the expert and policy literature. Table 3 summarises these findings. For each theme we describe the range of experiences, noting in particular differences and overlaps between views of clients and providers.

1 Convenient and comprehensive care through co-location

Co-location of services within one site was described by clients and providers as supporting convenient and comprehensive care.

Having care in one location allowed multiple health issues to be addressed at the same time (Drainoni et al., 2014; Egan et al., 2011; Korthuis et al., 2010): *“having it in the same place worked out well. I can get everything right here in this one facility, without having to run over here and over there”* (Client in Egan et al., 2011)

Some clients still sought quicker, geographically closer or less demanding care. OST clients highlighted barriers that complicated attending even one facility: distance (Drainoni et al., 2014), the timing of work (Lin, Cao, & Li, 2014) and for women the need to arrange child care (Morrow & Costello, 2004). Counselling on HIV that was part of several programmes was also described as burdensome by some clients (Batchelder et al., 2013; Drainoni et al., 2014; Egan et al., 2011).

The expert and policy literature had similar findings. Co-located care was linked to easier access and was highly valued (Curtis, 2009; Grenfell et al., 2012; Pangaea, 2014; Tobias, Drainoni, & McCree, 2000). There were still challenges for some of travel to even one site (Curtis, 2009; Demchenko, Kozhan, Varban, & Kolomiets, 2014).

2 Contrasting philosophies of care

Differing treatment philosophies shaped preferences for the location and approach to care. Principles of harm reduction and client centredness were linked to HIV focused care and more favoured by clients and providers.

Egan et al (2011), where OST was integrated within a HIV care oriented setting, report physicians preferring clinic based services for how they differed from the regulated and punitive approach of methadone; providers reported the same in Weiss et al (2011). Some clients welcomed this client centred and harm reduction oriented approach: *"[my HIV provider] made me feel really comfortable knowing that if I... were to get off it [i.e. OST] and relapse, or whatever, that she could...you know, that she could start giving it to me again."* (Korthuis et al., 2010).

A focus on abstinence in OST focused settings was linked to limit setting and sanctions (Strauss & Mino, 2011). Some clients didn't like this approach: *"One thing, you're five minutes late they'll shut the door right in your face."* (Korthuis et al., 2010), although some favoured it: *"I need the structure and the consequences"* (Drainoni et al., 2014).

Similar themes were evident in the expert and policy literature. HIV care was again linked to harm reduction principles (Curtis, 2009) and client centred approaches (Demchenko et al., 2014;

Grenfell et al., 2012), whilst OST was also described as restrictive (Curtis, 2009). Tobias et al (2000) reported a range of provider views: some linked successful care to a harm reduction approach that tolerates drug use, others an abstinence based approach with clear boundaries, and one provider a combination of both harm reduction and abstinence models as necessary.

3 The challenges of discussing and disclosing HIV and drug use within integrated care

Integrating OST and HIV care was challenged by clients being unable or unwilling to discuss and disclose HIV and drug use status; challenges of stigma were also recognized by providers.

Some clients felt that discussing HIV in the context of OST was not necessary. Drainoni et al. (2014) summarise: *“the participants almost universally did not feel that HIV risk reduction counselling was helpful or a necessary component of their treatment”*. Providers of OST trying to support ART reported that *“sometimes you were trying to give advice, and they [clients] were like ‘I know, I know!’”* (Lin et al., 2014).

Some OST clients living with HIV were comfortable disclosing their status in care settings: *“now they know I got [HIV], and it’s like nothing to them.”* (Egan et al., 2011). For others stigma and discrimination were a challenge. Directly observed approaches to integrated OST and ART were cited as problematic (Lin et al., 2014). A client reported stopping taking ART at the *“methadone window”* owing to stigma and shame; the extra pills described as a *“little sign”* of HIV (Batchelder et al., 2013).

Stigma and discrimination against drug use was cited less as a challenge. Weiss et al (2011) report a nurse in a site integrating OST within a HIV care focused clinic as saying of clients experiencing withdrawals: *“I hate providing care to these kinds of patients”*. Providers and clients reported how some

referrals for ART from OST sites were not fulfilled as providers would not start people on ART out of beliefs they wouldn't adhere (Chakrapani, Kamei, Kipgen, & Kh, 2013; Lin et al., 2014).

The expert and policy literature reported similar findings. Inability or unwillingness to discuss or disclose HIV was again reported (Demchenko et al., 2014; van Laere et al., 2010). Bruce et al (2014) suggest that people confronting addiction may not at first feel able to also confront HIV (see also Demchenko et al., 2014). Fears of HIV stigma were overcome in one setting by involvement of outreach workers in facilitating referrals (Grenfell et al., 2012).

4 Varying mechanisms for OST enabling HIV treatment

In the context of integrated care, OST was described by clients as enabling people to access and adhere to HIV treatment through a range of mechanisms.

OST enabling time was described by clients as facilitating HIV care through helping them to “remember” to take medication (Egan et al 2011), and through allowing people to find “the time” for care rather than being focused on obtaining drugs and being on the street (Mimiaga et al., 2010; Sarang, Rhodes, & Sheon, 2013). As described by an OST client: “People who take street drugs are busy thinking about where to get drugs, how to get drugs and do not have time to take ART. It happened to me before I started taking substitution therapy” (Mimiaga et al., 2010).

OST also fostered motivation and hope, or “reinvestment” in life, and HIV treatment resulted from this: “if it wasn't for suboxone, I think I'd be dead, truly. []. It just changed a lot of things in my life. ...I start seeing hope for myself. And I start feeling I could fight [HIV], and there's nothing that I can't accomplish.” (Egan et al., 2011).

This theme was little explored in the expert literature. Bruce et al (2014) note how OST provides “*stability and well being*” and so engagement in HIV care. Conversely, Grenfell et al (2012) report how OST limited HIV treatment engagement owing to fears of medication interactions.

5 The health system context for integrated care

Contextual health system factors were described by providers as shaping the potential for, and nature of, integrated care within clinics.

Requirements that clients pay for HIV care limited integration within an OST setting (Lin et al., 2014), and challenges in health insurance coverage for both areas of treatment were cited (Drainoni et al., 2014). Integrated care within one site ended when funding for vital staff finished (Strauss & Mino, 2011).

Ineffective referrals were linked to the absence of formal policy support (Chakrapani et al., 2014). ART providers’ reluctance to accept referrals was also linked to specific, results-oriented management systems: “*Patient mortality rate is one of their performance appraisal indexes, so they only want compliant patients, ‘good patients’.*” (Lin et al., 2014)

There was greater discussion of the role of context within the expert and policy literature. Funding and resource challenges were raised (Van laere et al., 2010; Curtis, 2009), poor coordination (Van Laere et al., 2010), as well as government regulations (Bruce et al., 2014), lack of political support (Van laere et al 2010), lack of awareness of OST efficacy by people using drugs limiting demand

(Ambekar, Arumugam, Sharma, Raju, & Singh, 2014) and criminalization of people using drugs (Demchenko et al., 2014). Successful referrals were limited by bureaucratic obstacles, but facilitated by informal professional networks (Grenfell et al., 2012); similarly, case management was seen as a way to overcome lack of communication across a health system (Tobias et al., 2000). Detailed strategies were suggested to manage contextual limitations (Bruce et al., 2014).

Discussion

This review has synthesized qualitative literature on client and provider experiences of integrated OST and HIV care. We found that co-located care is valued by clients for its convenience; HIV and OST focused settings are associated with different treatment philosophies with clients and providers having greater preference for the patient centred philosophies associated with HIV focused sites and care; stigma limits the potential for co-located care, especially when delivered through directly observed approaches; OST is understood to enable ART engagement through a range of mechanisms, and specific health system barriers shape the possibilities for integrated care. These findings support specific recommendations.

The co-location of care should be favoured over referral models of integration for how they are seen as comprehensive and convenient. There are however limits to this convenience and it is also experienced differently: women may face greater hurdles to care access and these varying needs should be explored and responded to (Azim, Bontell, & Strathdee, 2015; Deshko, 2015).

HIV care oriented settings have a greater orientation to client centred practices (Daftary, Calzavara, & Padayatchi, 2015) and may be better suited to integrating OST focused on achieving HIV prevention and treatment goals. Client centred practices allowing for harm reduction focused low

threshold care (Strike, Millson, Hopkins, & Smith, 2013) would have long term retention in OST – and in turn HIV treatment and prevention - as a primary goal. OST settings that may emphasize abstinence may be experienced as restrictive or punitive (Bourgois, 2000) and in so doing place less priority on retention in care, and so HIV treatment. However, a sole focus on HIV care settings for OST integration would limit some clients' preference for abstinence focused care and also be challenged by available clinic infrastructure. Integrated care may then be best served by 'integration' of treatment philosophies (Daftary et al., 2015). A client centred philosophy flexible to the needs of individuals (Islam, Topp, Day, Dawson, & Conigrave, 2012) could synthesize delivery cultures of harm reduction and abstinence within both HIV and OST oriented settings, depending on collaborative decisions between providers and clients (Harris & Rhodes, 2012; McKeganey, 2011; Rance & Treloar, 2015).

When developing integrated services HIV and drug stigma should be considered. Co-located care poses challenges of stigma (Beyrer et al., 2011), particularly directly observed approaches (Bourgois, 2000; Crawford, 2013; Fraser, 2006). Co-located care should therefore be prioritized only if privacy and confidentiality are maintained (Beyrer et al., 2011). This could include adapting delivery settings or 'co-locating' care within community settings (Grenfell et al., 2012)). If addressing stigma is not feasible or effective, then alternative care models should be prioritized. For example, support to effective referral pathways between facilities, through outreach support (Broadhead et al., 1998; Keats et al., 2015; Treloar et al., 2015).

Health system policies and contexts were described as influencing integrating care, although the literature was varied and limited. These findings come in the context of limited funding for harm reduction (HRI, IDPC, & Alliance, 2014) and recognition of the structural barriers to separate OST and HIV care , such as the legality of OST, bureaucratic demands and the broader criminalization and

persecution of PWUD (Bojko et al., 2015; Rhodes & Sarang, 2012). The expert and policy literature brought more insight to the role of context, and suggested directions for managing these barriers. Whilst more documentation of these health system barriers and financing is needed, the available policy literature and broader evidence supports the need for policy change to address funding challenges.

The limited empirical literature the review found emphasizes the need for additional research. Greater use of mixed-methods approaches to research should be a priority. There is considerable quantitative study of OST and HIV care (A. Low et al.), but little integration of qualitative research to document care processes and models that form the context for clinical outcomes (e.g. Conway et al., 2004; Lucas, Weidle, Hader, & Moore, 2004). Specific priorities include: documenting experiences of care in low and middle income settings ; exploring the role of specific context, policy and funding environments on processes described, such as stigma, and how clients and providers perceive these; how gender shapes access; and how models of care link to longer term processes of adherence.

The expert and policy literature described a greater diversity of care models, drawing attention to the potential for home and community focused delivery, peer and outreach support. Greater consideration should be given to these care models linked to rigorous monitoring and evaluation.

The literature identified important themes, although was limited in depth, even if the number of papers cited compares to other similar reviews (Leidel et al., 2015; Thomas & Harden, 2008). The exclusion of non-English language literature may have limited the studies found. We sought to manage these limitations through including expert and policy literatures to explore and expand on the empirical evidence. The thematic synthesis approach also faces limitations, particularly for how findings are decontextualized within themes (Thomas & Harden, 2008). The approach does however give insight to

significant and recurring experiences and so care need and appropriateness across diverse contexts (Ring, Ritchie, Mandava, & Jepson, 2011). More research is needed to explore how the themes we identified vary across different contexts.

Conclusions

These findings complement existing calls for integration of OST and HIV care (Sylla et al, 2007) by providing clarity on PWUD and provider perspectives on care. Priority considerations for developing care include: emphasising co-located integrated care, attention to stigma and the need to synthesize treatment philosophies around client centred care. More research is needed to understand a greater range of care models and how contextual factors shape experiences of integration.

Table 1. Citations included in the review

Title	Countr y	Aim	Study methods	Population	Integrated care model
1 Batchelder et al. (2013).	USA	To understand HIV treatment adherence experiences amongst people using methadone as a maintenance therapy	In-depth interviews with participants in a clinic based trial of an intervention	People living with HIV (PLHIV) accessing methadone, n=15 (5 women, 10men)	Directly Observed Therapy (DOT) approach to ART in a methadone clinic
2 Chakrapani, et al. (2014).	India	To understand barriers to HIV treatment access in government run ART centres	Focus groups with PWID and key informant interviews	PLHIV, n = 19, all men, 4 on ART. Number on OST not specified. Interviews with 2 physicians and 2 heads of community agencies	OST available by referral from HIV treatment and care clinics.
3 Drainoni, M. et al. (2014).	USA	To evaluate a team based model of	Focus groups with clients and open	40 intervention clients in focus	Primary care integrated mode of substance use

Title	Country	Aim	Study methods	Population	Integrated care model
		integrated OST and HIV care within a primary care site	responses as part of satisfaction surveys	groups, 212 in open response survey; 65% receiving buprenorphine/naloxone (no breakdown by gender given)	treatment and medical care, including buprenorphine/naloxone and HIV risk reduction counselling
4 Egan, et al. (2011).	USA	To describe patient experiences of buprenorphine/naloxone treatment and its integration in to HIV care settings	Semi-structured interviews	33 PLHIV (22 men, 11 women) enrolled at integrated delivery sites from across USA	'Office based' [primary care] delivery of OST and HIV care
5 Korthuis, et al. (2010).	USA	To explore PLHIV attitudes towards OST in 'office based' integrated care settings (that include HIV care) in comparison to	In-depth interviews	29 PLHIV all receiving buprenorphine (23 men, 6 women)	Context of randomized trial of two OST delivery strategies (office based integration with HIV care, OST setting)

Title	Country	Aim	Study methods	Population	Integrated care model
		exclusively OST settings, and then how this influences HIV care			
6 Lin, C., et al. (2014).	China	To evaluate pilot of ART integration within methadone clinics	Focus groups	12 OST service providers from 6 clinics	On-going ART delivery within methadone clinics through directly observed approaches (ART initiation in separate sites)
7 Mimiaga, et al. (2010).	Ukraine	To explore barriers and facilitators to ART adherence for PWID in Ukraine	Focus groups	16 PLHIV (11men,5 women) attending an AIDS care centre, 14 of whom on OST	OST co-located within same building as HIV care centre
8 Morrow and Costello (2004).	USA	To assess needs and women's preferences for	Qualitative study to inform quantitative survey: focus	30 women using methadone (10 in focus)	Context of methadone delivery (no specific integration)

Title	Countr y	Aim	Study methods	Population	Integrated care model
		HIV/STI and hepatitis prevention within methadone delivery	groups, dyad interviews and in-depth interviews	groups, 4 in dyad interviews, 16 in interviews)	care pathway described)
9 Sarang, et al. (2013).	Russia	To explore barriers to HIV treatment access among PWUD	Qualitative in-depth interviews	42 PLHIV (26 men, 16 women) none on OST	No integrated care pathway available
10 Strauss, and Mino (2011).	USA	To identify implementation barriers to combined substance use treatment and HIV care	Semi-structured interviews with staff	Staff of substance use treatment programmes (n not specified)	Integration of HIV care in to substance use treatment programmes focused on methadone delivery, linked to maintenance or abstinence focused care
11 Weiss, et al. (2011).	USA	To evaluate the process of integrated OST	Semi-structured interviews	10 site principal investigators, who led	Buprenorphine within HIV care at hospital,

Title	Country	Aim	Study methods	Population	Integrated care model
		within HIV clinical care		implementation of new services	community or HIV care centres

Table 2. Expert experiences and policy literature

Citation	Country	Report aim or focus	Report design or approach	Population	Integrated care model
1 Ambekar, et al. (2014).	India	Survey of experiences of PWUD in drug use and service access	Structured interviews with PWUD	1000 PWUD across 22 sites	Context for survey of 'Targeted Interventions' for PWUD; centres that include OST, NSP and link to HIV care
2 Bruce, et al. 2014	Tanzania	Reflections on lessons learned through implementing integrated OST and HIV care	No particular design; report by programme team	12 member team engaged in delivery or development of the services	MAT site in Tanzania, with integrated HIV care: ART daily dosing alongside observed MAT
3 Curtis. (2009).	Ukraine	WHO commissioned short report of case studies of integration	No particular design; author led consultation and observations	Various providers and service clients across multiple	Various sites in Ukraine: one site of referrals between clinics; MAT

Citation	Country	Report aim or focus	Report design or approach	Population	Integrated care model
				service sites (n not specified).	site in a hospital linked to other clinics; co-location of services within an HIV focused site
4 Demchenko, et al. (2014).	Ukraine	Evaluation of service access for PWUD	Semi-structured interviews and focus groups with clients, in-depth interviews with providers	500 clients of OST	Various sites in Ukraine
5 Grenfell et al (2012)	Portugal	Rapid assessment to assess acceptability and integration of	Mixed-methods rapid assessment including	30 PWID (3 women, 27 men; 26 PLHIV, and 21 currently on	Two models documented: i) all services available within a single

Citation	Country	Report aim or focus	Report design or approach	Population	Integrated care model
		HIV, TB and drug dependency treatment (including OST) in Portugal	mapping, analysis of secondary data and interviews with PWID and providers	treatment; 26 had experienced OST, 24 currently) 7 providers engaged in HIV, TB and OST care	centre, ii) services available through referral between separate facilities, supported by outreach teams
6 Van Laere, et al. (2010).	Indonesia	Baseline evaluation of services in six methadone clinics	Mixed methods evaluation, including interviews with providers, and focus groups	Providers, n not stated	MAT clinics with varying levels of on-site integration of HIV care: HIV prevention (condoms, NSP), VCT. ART only by referral to HIV clinics.

Citation	Country	Report aim or focus	Report design or approach	Population	Integrated care model
7 Tobias, et al. (2000).	USA	Information review on delivery of HIV services for people using drugs	Literature review and key informant interviews	50 key informants (providers, community leaders, government staff, researchers)	Not applicable
8 Pangaea Global AIDS Foundation. 2014	Global	Expert consultation on appropriate models of integrated HIV care for PWID in Africa	Expert perspectives and reports on programme experience	Stakeholders, including providers	Various

Table 3. Summary of review findings and CERQUAL assessment

Theme	Included citations	CERQual assessment of confidence in the evidence	Explanation of CERQual assessment
<p><u>1 Convenient and comprehensive OST and HIV care through co-located integrated care</u></p> <p>Having OST and HIV care available at one site, whether through a single provider or team of providers, was welcomed by clients as convenient and facilitating attention to multiple health priorities. There are still limitations described, with access to a single facility itself posing challenges of time and transport.</p>	<p>Drainoni et al 2014, Egan et al 2011, Korthuis et al 2010, Lin et al 2014, Morrow & Costello 2004, Weiss et al 2011</p>	<p>High/moderate</p>	<p>High methodology quality, high relevance, and high coherence, although thin data and narrow range of countries represented.</p>
<p><u>2 Contrasting philosophies of care</u> Integrated care varied according to different philosophies, centred on harm reduction or sobriety, with clients having different preferences shaped by their experiences and goals for OST.</p>	<p>Drainoni et al 2014, Egan et al 2011, Korthuis et al 2010, Strauss & Mino 2011, Weiss et al 2011</p>	<p>moderate</p>	<p>High relevance, but only moderate methodological quality and coherence, with low range of countries.</p>
<p><u>3 The challenges of discussing and disclosing HIV and drug use</u> Whilst some reported comfort and willingness to disclosure and discuss HIV status, some found this difficult because of stigma and fears of discrimination, or not considering it necessary to address HIV in OST settings</p>	<p>Batchelder et al 2013, Drainoni et al 2014, Egan et al 2011, Korthuis et al 2010, Lin et al 2014</p>	<p>moderate</p>	<p>High relevance, but moderate quality, and low coherence and range of countries</p>

<p><u>4 OST enabling HIV treatment</u> OST facilitates overcoming social and structural barriers to addressing HIV for some people, through varying mechanisms</p>	<p>Egan et al 2011, Korthuis et al 2010, Mimiaga et al 2010, Sarang et al 2013, Weiss et al 2011</p>	<p>low</p>	<p>Moderate quality and relevance, but low coherence and low range of countries</p>
<p><u>5 The health system context for integrated care</u> Contextual policy and system issues shape the potential for, and nature of, integration</p>	<p>Chakrapani et al 2014, Drainoni et al 2014, Lin et al 2014, Strauss & Mino 2011, Weiss et al 2011</p>	<p>Moderate/low</p>	<p>High relevance, but moderate quality and low coherence and adequacy</p>

References

- Ambekar, A., Arumugam, V., Sharma, A., Raju, R., & Singh, S. (2014). *Drug use patterns among clients receiving services from targeted interventions for people who inject drugs. Findings from Bihar, Haryana, Jammu and Uttarakhand*. New Delhi: India HIV/AIDS Alliance.
- Azim, T., Bontell, I., & Strathdee, S. A. (2015). Women, drugs and HIV. *International Journal of Drug Policy*, 26, Supplement 1, S16-S21. doi: 10.1016/j.drugpo.2014.09.003.
- Batchelder, A. W., Brisbane, M., Litwin, A. H., Nahvi, S., Berg, K. M., & Arnsten, J. H. (2013). "Damaging what wasn't damaged already": Psychological tension and antiretroviral adherence among HIV-infected methadone-maintained drug users. *AIDS Care*, 25 (11), 1-5. doi:10.1080/09540121.2013.766303
- Beyrer, C. M. D. M. P. H., Baral, S. M. D. M. P. H., Kerrigan, D. P., El-Bassel, N. P., Bekker, L.-G. M. D. P., & Celentano, D. D. S. (2011). Expanding the Space: Inclusion of Most-at-Risk Populations in HIV Prevention, Treatment, and Care Services. *Journal of Acquired Immune Deficiency Syndromes*, 57 Supplement(2), S96-S99. doi: 10.1097/QAI.0b013e31821db944
- Bojko, M. J., Mazhnaya, A., Makarenko, I., Marcus, R., Dvoriak, S., Islam, Z., & Altice, F. L. (2015). "Bureaucracy & Beliefs": Assessing the barriers to accessing opioid substitution therapy by people who inject drugs in Ukraine. *Drugs: Education, Prevention, and Policy*, 22, 255-262. doi:10.3109/09687637.2015.1016397
- Bourgeois, P. (2000). Disciplining addictions: the biopolitics of methadone and heroin in the United States. *Culture, Medicine and Psychiatry*, 24, 165-195. doi: 10.1023/A:1005574918294
- Briggs, C., & Garner, P. (2006). Strategies for integrating primary health services in middle- and low-income countries at the point of delivery. *The Cochrane Database of Systematic Reviews*, 19;(2):CD003318.
- Broadhead, R., Heckathorn, D. D., Weakliem, D. L., Anthony, D. L., Madray, H., Mills, R. J., & Hughes, J. (1998). Harnessing peer networks as an instrument for AIDS prevention: results from a peer-driven intervention. *Public Health Reports*, 113 (Supplement 1), 42-57.
- Bruce, R. D., Lambdin, B., Chang, O., Masao, F., Mbwambo, J., Mteza, I., . . . Kilonzo, G. (2014). Lessons from Tanzania on the integration of HIV and tuberculosis treatments into methadone assisted treatment. *International Journal of Drug Policy*, 25 (1), 22-25. doi: 10.1016/j.drugpo.2013.09.005
- Critical Appraisal Skills Programme (CASP). (2015). *10 questions to help you make sense of qualitative research*. Oxford: Better Value Healthcare. Retrieved from www.casp-uk.net:
- Chakrapani, V., Kamei, R., Kipgen, H., & Kh, J. K. (2013). Access to harm reduction and HIV-related treatment services inside Indian prisons: experiences of formerly incarcerated injecting drug users. *International Journal of Prisoner Health*, 9, 82-91. doi:10.1108/17449201311326952
- Conway, B., Prasad, J., Reynolds, R., Farley, J., Jones, M., Jutha, S., . . . Devlaming, S. (2004). Directly Observed Therapy for the Management of HIV--Infected Patients in a Methadone Program. *Clinical Infectious Diseases*, 38, S402-S408. doi: 10.1086/421404
- Crawford, S. (2013). Shouting through bullet-proof glass: Some reflections on pharmacotherapy provision in one Australian clinic. *International Journal of Drug Policy*, 24(6), e14-e17. doi: 10.1016/j.drugpo.2013.07.004
- Curtis, M. (2009). *Building integrated care for injection drug users in Ukraine*. Denmark: World Health Organisation.
- Daftary, A. a. b., Calzavara, L. c., & Padayatchi, N. b. (2015). The contrasting cultures of HIV and tuberculosis care. *AIDS*, 29(1), 1-4. doi: 10.1097/QAD.0000000000000515
- Degenhardt, L., Mathers, B. M., Wirtz, A. L., Wolfe, D., Kamarulzaman, A., Carrieri, M. P., . . . Beyrer, C. (2014). What has been achieved in HIV prevention, treatment and care for people who inject

- drugs, 2010–2012? A review of the six highest burden countries. *International Journal of Drug Policy*, 25(1), 53-60. doi: 10.1016/j.drugpo.2013.08.004
- Demchenko, I., Kozhan, N., Varban, M., & Kolomiets, V. (2014). *A brief summary of operational findings: the study of access to HIV and TB treatment for substitution therapy patients within different service delivery models*. Kiev: Alliance Ukraine.
- Deshko, T. P. (2015). HIV Reduction Among Women Who Inject Drugs Can Be Achieved Through Women-Specific Programs and Global Targets: A Model From Ukraine. *Journal of Acquired Immune Deficiency Syndromes*, 69 Supplement (2), S98-S99. doi: 10.1097/QAI.0000000000000622
- Drainoni, M. L., Farrell, C., Sorensen-Alawad, A., Palmisano, J. N., Chaisson, C., & Walley, A. Y. (2014). Patient perspectives of an integrated program of medical care and substance use treatment. *AIDS Patient Care & STDs*, 28, 71-81. doi: 10.1089/apc.2013.0179
- Egan, J. E., Netherland, J., Gass, J., Finkelstein, R., Weiss, L., & Collaborative, B. (2011). Patient perspectives on buprenorphine/naloxone treatment in the context of HIV care. *Journal of Acquired Immune Deficiency Syndromes*, 56 Suppl 1, S46-53. doi: 10.1097/QAI.0b013e3182097561
- Fraser, S. (2006). The chronotope of the queue: Methadone maintenance treatment and the production of time, space and subjects. *International Journal of Drug Policy*, 17(3), 192-202. doi: 10.1016/j.drugpo.2006.02.010
- Glenton, C., Lewin, S., & Gülmezoglu, A. M. (2016). Expanding the evidence base for global recommendations on health systems: strengths and challenges of the OptimizeMNH guidance process. *Implementation Science*, 11(1), 1-11. doi:10.1186/s13012-016-0470-y
- Grenfell, P., Baptista Leite, R., Garfein, R., de Lussigny, S., Platt, L., & Rhodes, T. (2013). Tuberculosis, injecting drug use and integrated HIV-TB care: A review of the literature. *Drug and Alcohol Dependency*, 129, 180-209. doi:10.1016/j.drugalcdep.2012.11.013
- Grenfell, P., Claudia Carvalho, A., Martins, A., Cosme, D., Barros, H., & Rhodes, T. (2012). *A rapid assessment of the accessibility and integration of HIV, TB and harm reduction services for people who inject drugs in Portugal*. Copenhagen: World Health Organisation.
- Harris, M., & Rhodes, T. (2012). Methadone diversion as a protective strategy: the harm reduction potential of 'generous constraints'. *International Journal of Drug Policy*, 24 (6), 43-50. doi:10.1016/j.drugpo.2012.10.003
- Harm Reduction International, International Drug Policy Consortium & International HIV/AIDS Alliance (2014). *The funding crisis for harm reduction*. London: International Harm Reduction Association.
- Islam, M. M., Topp, L., Day, C. A., Dawson, A., & Conigrave, K. M. (2012). The accessibility, acceptability, health impact and cost implications of primary healthcare outlets that target injecting drug users: a narrative synthesis of literature. *International Journal of Drug Policy*, 23(2), 94-102. doi:10.1016/j.drugpo.2011.08.005
- Jones, L., Atkinson, A., Bates, G., McCoy, E., Porcellato, L., Beynon, C., . . . Bellis, M. A. (2014). Views and experiences of hepatitis C testing and diagnosis among people who inject drugs: Systematic review of qualitative research. *International Journal of Drug Policy*, 25(2), 204-211. doi: 10.1016/j.drugpo.2013.11.004
- Keats, J., Micallef, M., Grebely, J., Hazelwood, S., Everingham, H., Shrestha, N., . . . Dunlop, A. (2015). Assessment and delivery of treatment for hepatitis C virus infection in an opioid substitution treatment clinic with integrated peer-based support in Newcastle, Australia. *International Journal of Drug Policy*, 26(10), 999-1006. doi: 10.1016/j.drugpo.2015.07.006
- Kennedy, C., Spaulding, A., Brickley, D., Almers, L., Mirjahangir, J., Packel, L., . . . Osborne, K. (2010). Linking sexual and reproductive health and HIV interventions: a systematic review. *Journal of the International AIDS Society*, 13(1), 26. doi: 10.1186/1758-2652-13-26

- Korthuis, P. T., Gregg, J., Rogers, W. E., McCarty, D., Nicolaidis, C., & Boverman, J. (2010). Patients' Reasons for Choosing Office-Based Buprenorphine: Preference for Patient-Centered Care. *Journal of Addiction Medicine, 4*, 204-210. doi:10.1097/ADM.0b013e3181cc9610
- Krüsi, A., Wood, E., Montaner, J., & Kerr, T. (2010). Social and structural determinants of HAART access and adherence among injection drug users. *International Journal of Drug Policy, 21*(1), 4-9. doi: 10.1016/j.drugpo.2009.08.003
- Lambdin, B. H., Mbwambo, J. K., Josiah, R. M., & Bruce, R. D. (2015). Service integration: opportunities to expand access to antiretroviral therapy for people who inject drugs in Tanzania. *Journal of the International AIDS Society, 18*, 19936. doi: 10.7448/IAS.18.1.19936
- Leidel, S., Wilson, S., McConigley, R., Boldy, D., & Girdler, S. (2015). Health-care providers' experiences with opt-out HIV testing: a systematic review. *AIDS Care, 27*, 1455-1467. doi:10.1080/09540121.2015.1058895
- Lewin, S., Glenton, C., Munthe-Kaas, H., Carlsen, B., Colvin, C., Gulmezoglu, M., . . . Rashidian, A. (2015). Using Qualitative Evidence in Decision Making for Health and Social Interventions: An Approach to Assess Confidence in Findings from Qualitative Evidence Syntheses (GRADE-CERQual). *PLoS Med, 12*(10), e1001895. doi: 10.1371/journal.pmed.1002065
- Lin, C., Cao, X., & Li, L. (2014). Integrating antiretroviral therapy in methadone maintenance therapy clinics: Service provider perceptions. *International Journal of Drug Policy, 25*, 1066-1070. doi: 10.1016/j.drugpo.2014.04.021
- Low, A. J., Mburu, G., Welton, N. J., May, M. T., Davies, C. F., French, C., . . . Vickerman, P. (2016). Impact of Opioid Substitution Therapy on Antiretroviral Therapy Outcomes: A Systematic Review and Meta-Analysis. *Clinical Infectious Diseases*. doi:10.1093/cid/ciw416
- Lucas, G. M., Mullen, B. A., Weidle, P. J., Hader, S., McCaul, M. E., & Moore, R. D. (2006). Directly Administered Antiretroviral Therapy in Methadone Clinics Is Associated with Improved HIV Treatment Outcomes, Compared with Outcomes among Concurrent Comparison Groups. *Clinical Infectious Diseases, 42*, 1628-1635. doi: 10.1086/503905
- Lucas, G. M., Weidle, P. J., Hader, S., & Moore, R. D. (2004). Directly Administered Antiretroviral Therapy in an Urban Methadone Maintenance Clinic: A Nonrandomized Comparative Study. *Clinical Infectious Diseases, 38*, S409-S413. doi: 10.1086/421405
- MacArthur, G. J., Minozzi, S., Martin, N., Vickerman, P., Deren, S., Bruneau, J., . . . Hickman, M. (2012). Opiate substitution treatment and HIV transmission in people who inject drugs: systematic review and meta-analysis. *BMJ, 345*, e5945. doi:10.1136/bmj.e5945
- Mathers, B., Degenhardt, L., Ali, H., Wiessing, L., Hickman, M., Mattick, R., . . . Strathdee, S. (2010). HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. *Lancet, 375*, 1014-1028.
- McKeganey, N. (2011). Abstinence and harm reduction: Can they work together? *International Journal of Drug Policy, 22*(3), 194-195. doi: 10.1016/j.drugpo.2011.04.001
- Mimiaga, M. J., Safren, S. A., Dvoryak, S., Reisner, S. L., Needle, R., & Woody, G. (2010). 'We fear the police, and the police fear us': structural and individual barriers and facilitators to HIV medication adherence among injection drug users in Kiev, Ukraine. *AIDS Care, 22*, 1305-1313. doi:10.1080/09540121003758515
- Morrow, K., & Costello, T. (2004). HIV, STD and hepatitis prevention among women in methadone maintenance: a qualitative and quantitative needs assessment. *AIDS Care, 16*, 426-433. doi:10.1080/09540120410001683367
- Noyes, J., & Lewin, S. (2011). Supplemental guidance on selecting a method of qualitative evidence synthesis, and integrating qualitative evidence with cochrane intervention reviews. In J. Noyes, A. Booth, K. Hannes, S. Harden, J. Harris, S. Lewin, & C. Lockwood (Eds.), *Supplementary*

- guidance for inclusion of qualitative research in Cochrane systematic reviews of interventions. Version 1 (updated August 2011).* Cochrane Collaboration Qualitative Methods Group.
- Pangaea Global AIDS Foundation. (2014). *Consultative meeting on optimal models of care for people who inject drugs*, Dar es Salaam, Tanzania, April 2014.
- Rance, J., & Treloar, C. (2015). "We are people too": Consumer participation and the potential transformation of therapeutic relations within drug treatment. *International Journal of Drug Policy*, 26(1), 30-36. doi: 10.1016/j.drugpo.2014.05.002
- Reddon, H., Milloy, M. J., Simo, A., Montaner, J., Wood, E., & Kerr, T. (2014). Methadone Maintenance Therapy Decreases the Rate of Antiretroviral Therapy Discontinuation Among HIV-Positive Illicit Drug Users. *AIDS and Behavior*, 18, 740-746. doi:10.1007/s10461-013-0584-z
- Rhodes, T., & Sarang, A. (2012). Drug treatment and the conditionality of HIV treatment access: a qualitative study in a Russian city. *Addiction*, 107, 1827-1836.
- Ring, N., Ritchie, K., Mandava, L., & Jepson, R. (2011). *A guide to synthesising qualitative research for researchers undertaking health technology assessments and systematic reviews*. Stirling: NHS Quality Improvement Scotland.
- Sarang, A., Rhodes, T., & Sheon, N. (2013). Systemic barriers accessing HIV treatment among people who inject drugs in Russia: a qualitative study. *Health Policy and Planning*, 28, 681-691. doi: 10.1093/heapol/czs107
- Strathdee, S. A., Hallett, T. B., Bobrova, N., Rhodes, T., Booth, R., Abdool, R., & Hankins, C. A. (2010). HIV and risk environment for injecting drug users: the past, present, and future. *The Lancet*, 376 (9737), 268-284. doi: 10.1016/S0140-6736(10)60743-X
- Strauss, S. M., & Mino, M. (2011). Addressing the HIV-Related Needs of Substance Misusers in New York State: The Benefits and Barriers to Implementing a "One-Stop Shopping" Model. *Substance Use & Misuse*, 46, 171-180. doi:10.3109/10826084.2011.521465
- Strike, C., Millson, M., Hopkins, S., & Smith, C. (2013). What is low threshold methadone maintenance treatment? *International Journal of Drug Policy*, 24(6), e51-e56. doi: 10.1016/j.drugpo.2013.05.005
- Sylla, L., Bruce, R. D., Kamarulzaman, A., & Altice, F. L. (2007). Integration and co-location of HIV/AIDS, tuberculosis and drug treatment services. *International Journal of Drug Policy*, 18 (4), 306-312. doi: 10.1016/j.drugpo.2007.03.001
- Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Med Res Meth*, 8, 45. doi: 10.1186/1471-2288-8-45
- Tobias, C., Drainoni, M. L., & McCree, J. (2000). *Professional expert key informant report on HIV and substance abuse*. Boston: Boston University School of Public Health.
- Treloar, C., & Rance, J. (2014). How to build trustworthy hepatitis C services in an opioid treatment clinic? A qualitative study of clients and health workers in a co-located setting. *International Journal of Drug Policy*, 25, 865-870. doi: 10.1016/j.drugpo.2014.01.011
- Treloar, C., Rance, J., Bath, N., Everingham, H., Micallef, M., Day, C., . . . Dore, G. J. (2015). Evaluation of two community-controlled peer support services for assessment and treatment of hepatitis C virus infection in opioid substitution treatment clinics: The ETHOS study, Australia. *International Journal of Drug Policy*, 26, 992-998. doi: 10.1016/j.drugpo.2015.01.005
- Treloar, C., & Rhodes, T. (2009). The Lived Experience of Hepatitis C and its Treatment Among Injecting Drug Users: Qualitative Synthesis. *Qualitative Health Research*, 19, 1321-1334. doi: 10.1177/1049732309341656
- Tso, L. S., Best, J., Beanland, R., Doherty, M., Lackey, M., Ma, Q., . . . Tucker, J. D. (2016). Facilitators and barriers in HIV linkage to care interventions: a qualitative evidence review. *AIDS*, 30, 1639-1653. doi:10.1097/qad.0000000000001101

- Tuthill, E., McGrath, J., & Young, S. (2014). Commonalities and differences in infant feeding attitudes and practices in the context of HIV in sub-Saharan Africa: A metasynthesis. *AIDS Care*, *26*, 214-225. doi:10.1080/09540121.2013.813625
- Uhlmann, S., Milloy, M. J., Kerr, T., Zhang, R., Guillemi, S., Marsh, D., . . . Wood, E. (2010). Methadone maintenance therapy promotes initiation of antiretroviral therapy among injection drug users. *Addiction*, *105*, 907-913. doi:10.1111/j.1360-0443.2010.02905.x
- Uyei, J., Coetzee, D., Macinko, J., & Guttmacher, S. (2011). Integrated delivery of HIV and tuberculosis services in Sub-Saharan Africa: a systematic review. *Lancet Infect Dis*, *11*, 855-867. doi: 10.1016/S1473-3099(11)70145-1
- van Laere, I., Norviatin, D., Achmad, Y. M., Handayani, M., Indriasari, R., Istiqomah, A. R., . . . de Jong, C. (2010). *The functioning of Methadone Maintenance Treatment Clinics in West Java, Indonesia: a baseline evaluation*. Bandung / Nijmegen: RSHS, FK-UNPAD, Indonesia / NISPA, Radboud University, the Netherlands, Aids Fonds Program.
- Weiss, L., Netherland, J., Egan, J. E., Flanigan, T. P., Fiellin, D. A., Finkelstein, R., . . . Collaborative, B. (2011). Integration of buprenorphine/naloxone treatment into HIV clinical care: lessons from the BHIVES collaborative. *Journal of Acquired Immune Deficiency Syndromes: JAIDS*, *56 Suppl 1*, S68-75. doi: 10.1097/QAI.0b013e31820a8226
- WHO (2008). *Technical brief No 1: Integrated health services - what and why?* Geneva: World Health Organisation.
- WHO (2014). *Consolidated guidelines on HIV prevention, diagnoses, treatment and care for key populations*. Geneva: World Health Organisation.
- WHO, & UNODC. (2009). *Guidance on Testing and Counselling for HIV in Settings Attended by People Who Inject Drugs: Improving Access to Treatment, Care and Prevention*. Geneva: World Health Organisation.
- WHO, UNODC, & UNAIDS. (2012). *Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users*. Geneva: World Health Organisation.
- Wolfe, D., Carrieri, M. P., & Shepard, D. (2010). Treatment and care for injecting drug users With HIV infection: A review of barriers and ways forward. *Lancet*, *376*, 355-366. doi: 10.1016/S0140-6736(10)60832-X