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**An Intervention in Translation: Exploring the ‘Making’
of Methadone Maintenance Therapy in Kenya**

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**Thesis submitted in accordance with the requirements for the degree of
Doctor of Philosophy
of the University of London
May 2022**

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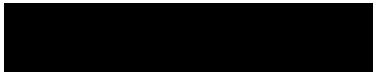
The work contained in this thesis was funded in part by the British Sociological Society

Declaration of Authorship

I, Elizabeth F. Closson, confirm that the work presented in this thesis is my own.

Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Signed:

A solid black rectangular box redacting the signature.

Date: May 21, 2022

Abstract

In recent years, the expansion of evidence-based interventions such as methadone maintenance therapy (MMT) has been at the forefront of global HIV prevention efforts for people who inject drugs. Despite these investments, there is an absence of social scientific research which treats ‘evidence’ and ‘intervention’ as objects of inquiry. Drawing on the case of MMT in Kenya, this critical sociological research study explores how globally endorsed health strategies are ‘translated’ into local health solutions according to the specific circumstances of their implementation. An analysis of longitudinal qualitative interviews, ethnographic observations, and primary source texts makes visible multiple ‘versions’ of MMT which are enacted through its policy and knowledge negotiations, and in relation to its local practices of delivery. The relative acceptability of MMT in Kenya is closely linked to its social capital as a medication of addiction recovery, even while its incorporation into policy is promoted by a globally supported HIV prevention evidence ‘base’. At the same time, its medicalisation and strategic renaming as *medically assisted therapy* hold space for its inscriptions as both HIV prevention and addiction treatment. The multiplicity of MMT is not merely a discursive effect. Knowledge affected by bodily interactions, for example, enacts particular realities of MMT, including those not presumed to be ‘in translation’. What’s more, several strategies of bio/disciplinary control—from the architectural features of the clinic enabling surveillance and segregation, to the rigidly enforced timetable for dispensing methadone—perform the intervention as a technology of governmentality. The friction and flux of MMT are rendered particularly stark by instances in which the effects of such practices trouble its representation in ‘official’ narratives. By illustrating how MMT, and the evidence produced in relation to it, are ‘things in the making’, this study stands in contrast with research positioned in global frameworks of evidence-based intervention.

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Glossary of Terms

Common abbreviations and acronyms

ARV or ART	Antiviral medications for the treatment of HIV
CSO	Community service organisation
EMI	Evidence-making intervention
HCV	Hepatitis-C
HIV	Human immunodeficiency virus
MAT	Medically assisted therapy
MMT	Methadone maintenance therapy
NSP	Needle and syringe exchange (programme)
OAT	Opioid agonist treatment
OST	Opioid substitution therapy
PWID	People who inject drugs
STS	Science and technology studies
TB	Tuberculosis

Institution abbreviations and acronyms

CDC	United States Centers for Disease Control and Prevention
ICHIR	International Centre for Health Interventions and Research
LSHTM	London School of Hygiene and Tropical Medicine
MGIC	Maryland Global Initiatives Corporation
NACC	National AIDS Control Council – Ministry of Health
NASCOP	National AIDS and STIs Control Programme – Ministry of Health
NACADA	National Authority for Campaign Against Alcohol and Drug Abuse
PEPFAR	United States President's Emergency Plan for AIDS Relief

UMB	University of Maryland, Baltimore
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDCP	United Nations Drug Control Programme
UNODC	United Nations Office on Drugs and Crime (formerly UNDCP)
WHO	World Health Organization

Notes On Terminology

Methadone maintenance therapy. There are several different terms for the use of methadone (and opioid agonists more broadly) as a maintenance treatment for opioid addiction. With each term potentially representing (and thus constituting) a different object, deciding which to use in the pages of this thesis was not easy. I believe the term *methadone maintenance therapy* (*MMT*) is the most fitting for the context because it articulates the specific treatment modality being delivered in Kenya. I also use the term *intervention* as an alternative to *MMT* throughout the text. In Kenya, *medically assisted therapy* (*MAT*) is the official name for *MMT*. In keeping with local terminology, I use *MAT* when describing ‘things’ (objects, subjects, spaces) specific to Kenya (e.g. ‘the *MAT* clinic’, ‘*MAT* clients’).

Client. I recognise that the subject of drugs and ‘addiction’ is fragile discursive terrain. Throughout this thesis, I refer to people who take *MMT* as ‘clients’. It is an appropriate choice for the context because it is widely used by local stakeholders and is a familiar term in global discourses of *MMT*. Some scholars have suggested that *client* is potentially stigmatising because it is rooted in a neoliberal ideology which prioritises responsibility and a capacity to choose health as a duty of citizenship (e.g. MacLean and Hatcher, 2019). While *user* is frequently presented as an alternative to *client* (e.g. C.B.R. Smith, 2011), to my mind it is also not without its potentially stigmatising connotations.

Drug den. Finally, I use the term *drug den* to describe the semi-public spaces where people buy and use drugs in Nairobi. I have chosen the term because it is concise and in keeping with the local vernacular.

Chapter 1

Introduction

In the global South, national strategies for the prevention and treatment of HIV (Human immunodeficiency virus) are significantly influenced by global campaigns of ‘evidence-based intervention’ (Biesma *et al.*, 2009). There is considerable global investment through multilateral and international donor agencies in the promotion of evidence-based harm reduction interventions such as methadone maintenance therapy (MMT) in countries experiencing epidemics of HIV infection among people who inject drugs (Harm Reduction International [HRI], 2020). In 2014, Kenya became the third country in sub-Saharan Africa to implement a government-controlled MMT programme. Legitimised by an emergent ‘problem’ of HIV linked to drug injecting practices, the initiative represents a significant shift in national policy (Rhodes *et al.*, 2016). Through both support and resistance of MMT, a wide array of stakeholders—from international agencies and national government ministries to local community groups and religious leaders—are involved in shaping its local implementation.

Advocacy for the global expansion of MMT is grounded in an extensive body of biomedical research demonstrating its effectiveness as an HIV control measure and an addiction treatment modality (Gowing *et al.*, 2011; Mattick *et al.*, 2003). Instead of focusing on evidence as a foundation for intervening in relation to a specific (health

and/or social problem), an alternative approach asks how ‘evidence’, ‘intervention’, and ‘problem’ came to be. Calling into question the taken-for-granted essence of reality ‘out there’, it embraces a multidirectional relationship between knowledge and the practices of its making (Law, 2004; Rhodes *et al.*, 2016; Rhodes and Lancaster, 2019). Here, MMT is not given, but *made*. That is, MMT is what comes to be known as *MMT* through the specific, situated practices of its implementation. From this perspective, there is no singular biomedical object of MMT intervening on a singular biological body in a stable context, and thus no singular universe of evidence (Law, 2004). Rather, there are multiple MMT objects, each contingent on its local productions (Rhodes *et al.*, 2016). At a basic level, the multiplicity of MMT is brought into focus when we consider the diverse and potentially contested meanings—a crime reduction tool, an HIV control measure, a mode of social control, an addictive drug—which are made through different evidence-making disciplines (e.g. sociology, psychiatry, criminology) and the claims by different actors (e.g. government leaders, treatment providers, people who use drugs) (Neale, 2013).

Despite strong support for the global expansion of MMT, the process through which it is ‘translated’ across different contexts—from advocacy to acceptance to delivery—has been largely overlooked. In particular, there is an absence of critical reflection on how MMT is ‘made’ locally in terms of its purpose, value, promise, and

effect (Rhodes *et al.*, 2016). While studies of newly initiated MMT programmes in sub-Saharan Africa and Asia have successfully identified constraints to access (Lambdin *et al.*, 2014; Le *et al.*, 2020; Zhang *et al.*, 2013), few consider the social relations of MMT in these settings. This is a crucial component of implementation science research (Rhodes *et al.*, 2016). Previous sociological studies of evidence-based biomedical interventions indicate that uses and effects do not transcend social contexts universally (Rosengarten and Michael, 2009; Rosengarten *et al.*, 2008). Rather, they are variously ‘made’ and deployed, in context, according to what the intervention is represented to ‘mean’, as well as how it is ‘used’ as a resource in the negotiation of competing stakeholder interests and values (Rhodes *et al.*, 2016). Informed by perspectives in science and technology studies and poststructuralist ‘problematization’, this thesis considers how the object of MMT, and the knowledge about it, is enacted *locally* through the practices of its introduction and delivery in Nairobi, Kenya. By tracing the intervention’s local ‘becoming’ in Kenya, this work not only enhances our understanding of how globally supported health strategies are translated into policy solutions for local social problems, but also contributes to the development of social science research and methods in the growing field of ‘implementation science’, particularly in relation to harm reduction in East Africa.

Research overview

The aim of the thesis is to examine how MMT—its meaning and effect—is constituted and negotiated locally, in relation to its introduction and implementation in Nairobi, Kenya, as a means of investigating how globally evidenced interventions are ‘made’ in local social relations. Three overarching questions inform the empirical elements of my work:

- What constitutes MMT locally?
- How is the object of MMT, and the knowledge about it, produced through its local discursive and material implementation practices, and in relation to local constructions of HIV and heroin addiction as social ‘problems’?
- How does science in negotiation with other forms of knowledge inscribe MMT into evidence?

These questions are explored through an analysis of policy texts, media accounts, in-depth qualitative interviews, and ethnographic observations—all of which I generated (and/or gathered) while conducting intensive fieldwork in Nairobi between June 2015 and March 2016. Embracing an understanding of MMT as multiple, mutable, and ambiguous, the orientation of this thesis stands in stark contrast to scholarship nested in global frameworks of evidence-based intervention.

Background

The ascendancy of evidence. In the last three decades, the field of global health has increasingly embraced a new ‘regime of truth’ predicated on empirically based quantitative evidence (Fan and Uretsky, 2017). This evidence-based ‘turn’ has emerged, at least in part, as a response to the prominence of evidence-based medicine, a model of medical practice defined as ‘... the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients’ (Sackett *et al.*, 1996, p. 1). In evidence-based approaches, empirical research data is graded according to the methods used to collect it, the strongest of which is the randomized control trial. The assumption behind the model is that different types of treatment can be assessed and compared according to experimental research. Research is thus positioned as both instrumental and out-put oriented—as something that investigators produce and public health policy-makers consume. While evidence-based research is subject to scrutiny, critiques generally relate to technical and methodological concerns and do not address its underlying epistemological assumptions. Such an approach reduces complex and contested social issues by ‘making them instead the focus of technical judgements about the efficiency or efficacy of different solutions’ (Clarke and Newman, 1997, p. 27).

Although the evidence-based paradigm has a strong foothold in global approaches to health improvement, an expanding body of critical scholarship challenges the rationalist vision of generalizable research findings fitting neatly into policies across contexts (Barnes and Parkhurst, 2014; Oliver, Lorenc and Innvær, 2014; Sandset and Wieringa, 2021). There is growing acknowledgement that evidence-based research and policy are mutually constitutive—whereby policies are informed by evidence that emerges from policy-relevant research agendas (Hunter, 2009; valentine, 2009; Voß and Freeman, 2016). The social and political factors which inevitably shape the evidence-based policy-making process have also been exposed. For example, an analysis of the United Kingdom’s response to drug use during the HIV/AIDS ‘crisis’ of the 1980s suggests that the use of empirical data in the development of policy was heavily influenced by specific stakeholder groups, the perceived immediacy of the policy ‘problem’, and the gatekeepers within government (Monaghan, 2011).

The diffusion of evidence-based policy-making is largely driven by research agendas privileging interventions that can be systematically implemented in a diverse array of settings (Lin, 2003). Nevertheless, this type of policy-making may have a limited impact on context-specific program development and implementation (Oliver *et al.*, 2019). For instance, in an analysis of maternal-child health policy in low-

resource settings, Behague and colleagues (2009) found that in many cases donor-endorsed evidence-based recommendations largely failed to engage with local policy needs. Globally supported evidence-based initiatives were adopted with such exuberance in some instances that their effects on existing programming were overlooked. In other cases, donor-led initiatives acknowledged the importance of contextualizing evidence-based interventions, but locally-generated research knowledge became overshadowed by the need to comply with international standards and other related imperatives.

Despite our increasing reliance on ‘objective’, statistical evidence (and the claims produced in relation to it), comparatively little attention has been given to how it is made meaningful and negotiated in local social arenas. This is relatively surprising given the challenges associated with developing and implementing evidence-based health policy (e.g. practices, interventions) which is both universally applicable and contextually relevant, understanding how they are adopted and negotiated in specific locales, has the potential to support the development of more effective strategies for resolving context-specific problems and integrating locally-generated solutions (Janes and Corbett, 2009).

Biopolitical imperatives. In resource-poor countries such as those in sub-Saharan Africa, national strategies for HIV prevention and treatment are influenced

by global campaigns of evidence-based practices and technologies (Fan and Uretsky, 2017; Parkhurst, 2017). The increasing homogenization of HIV is seen to be closely linked with the emergence of the ‘AIDS industry’, a global coalition of activists, researchers, health advocacy networks, humanitarian organizations, and international agencies (Altman, 1998; H. Epstein, 2007). More than a worldwide movement rallying around a humanitarian cause, the AIDS industry is a ‘complex biopolitical assemblage, cobbled together from global flows of organisms, drugs, discourses, and technologies of all kinds’ (V. K. Nguyen, 2005, p. 125). The primacy of these global constituencies and the policies they endorse is tied in with the growing transnational influence of evidence-based knowledge and techniques in governance. The Foucauldian concept of *biopower* is (at least in part) a form or ‘technology’ of power that takes the administration of life and populations as its subject: ‘to ensure, sustain, and multiply life, to put this life in order’ (Foucault, 1976, p. 138).

Biopower, Foucault explains, is exercised through processes and techniques across a wide range of sites (e.g. reproduction, health, sanitation) to govern a population in such a way as to achieve an overall state of equilibration or ‘regularisation’. As technologies that intervene on the individual body as a means of managing the health of a ‘key’ population (e.g. people who inject drugs), evidence-based interventions for

the prevention and/or treatment of HIV are inherently biopolitical (Halperin, 2015; Papparini and Rhodes, 2016).

When viewed through a biopolitical lens, the political problematics of contemporary HIV governance come into sharp focus. In an analysis of the political dimensions of scaling-up access to antiretroviral therapy (ART), Vin Kim Nguyen (2005) considers the influence of global biopolitical imperatives on national HIV/AIDS policies. He describes a situation during the 1990s where an ART pilot program in Cote-d'Ivoire sponsored by The Joint United Nations Programme on HIV/AIDS (UNAIDS) was prompted by mounting pressure from the global constituency of AIDS activists and donor governments. 'The UNAIDS Ivoirian initiative was more about showing that something was being done for political ends domestically and internationally than about achieving meaningful public health results' (V. K. Nguyen, 2005, p. 135). Despite the positive material and discursive effects of the program (expanded access to ART and political gains), there were negative biological consequences for some patients. The limited capacity of the country's weak procurement and distribution infrastructure made it difficult for patients to access complete regimens of ART which led to many acquiring drug resistance. As Nguyen and similarly inclined scholarship has suggested (e.g. Boesten,

2011; Knutsson, 2016; Scott, 2000), global biopolitical goals are not always translated into effective policies, particularly when they do not align with local priorities.

The global expansion of opioid agonist treatment. For more than a decade, the expansion of MMT and other forms of opioid agonist treatment (OAT) has been narrated as a key priority in the global effort to prevent HIV transmission among people who inject drugs (e.g. Beyrer *et al.*, 2010; Degenhardt *et al.*, 2019; Sullivan *et al.*, 2005). Arguments for their diffusion are located within a broader discourse that accentuates the ‘universal’ HIV prevention effect afforded by adopting a combination of evidence-based harm reduction strategies, including OAT, needle and syringe exchange, HIV testing and counselling, and ART (e.g. Degenhardt *et al.*, 2010; United Nations Office on Drugs and Crime [UNODC] *et al.*, 2017). Despite major investments from international agencies, the pace of the scale-up effort has been relatively slow. In sub-Saharan Africa, for example, eight out of the 38 countries with a reported presence of injecting drug practices are currently providing OAT (HRI, 2020). The halting progress has been attributed to a range of factors, including ‘addictophobia’, political apathy, legislative barriers, limited technical capacity, and inattention from international funding agencies (e.g. Strathdee *et al.*, 2012).

To mobilize action, advocates have billed the adoption of OAT as a matter of critical public health urgency (e.g. Beyrer *et al.*, 2010; Larney *et al.*, 2017). Such

claims are primarily founded on empirical research from the United States and Europe which categorises different forms of OAT as ‘best-evidenced’ technologies for HIV prevention and addiction treatment (e.g. Gowing *et al.*, 2011; Mattick *et al.*, 2009, 2014). Advocacy also comes in the form of cost-effectiveness analyses and statistical models predicting the potential impact of OAT on HIV incidence as a means of evidencing the certainty of its effect potential in specific settings (e.g. Tan *et al.*, 2020; Wammes *et al.*, 2012). A key element of the agenda to scale-up OAT is the expansion of the international evidence ‘base’ within and beyond the global North (e.g. Kermode *et al.*, 2011; Wu and Clark, 2013). As the diffusion and evidencing of these measures progresses, the case for their translation into new locales becomes more robust.

Methadone maintenance therapy. Methadone is classified as a long-acting, synthetic opioid compound originally synthesised in Germany for use as an analgesic during the Second World War. As early as 1949, methadone was identified as a useful agent for detoxifying people who were physically dependent on heroin (Yarmolinsky and Rettig, 1995). More than a decade later, in 1964, Vincent Dole and Marie Nyswander, two academic doctors at the Rockefeller Institute in the US, developed MMT—a protocol that administers methadone as a long-term, corrective (rather than curative) treatment for heroin addiction (Dole and Nyswander, 1965). The concept of

MMT is rooted in an understanding of heroin addiction as a metabolic disease that is caused by intrinsic and/or drug-induced alterations in the brain (Dole and Nyswander, 1967). Frustrated by the high incidence of relapse associated with more traditional (non-medical) forms of addiction treatment, Dole and Nyswander conceived of MMT as a pharmacological replacement for heroin which, if taken continually, would prevent or facilitate long-term ‘rehabilitation’.

Conventional accounts of methadone as a maintenance agent represent it as largely non-euphoric medication which binds to, and thus ‘blocks’ the same neurological receptors in the brain as heroin (and other opioids). The resulting ‘blockade’ is capacitated to diminish cravings for heroin, alleviate withdrawal symptoms from the drug, and prevent its euphoric effects (Bart, 2012). Methadone is thought to remain effective for approximately 24 hours, requiring a single daily dose rather than the more frequent administration necessitated by heroin (Jaffe, 1990). When it is administered as part of a maintenance treatment regimen, methadone is typically dispensed as a digestible syrup or tablet. Depending on the programme, clients (i.e. people prescribed MMT) may receive methadone at a speciality clinic, integrated health care centre, and/or community pharmacy. In some settings, daily attendance at a dosing point is required; in others, ‘take-away’ doses are available for consumption at home, over an extended period of time. MMT is frequently provided

in conjunction with supplemental medical and psychosocial interventions.

Programmes with a greater range and frequency of ancillary services are associated with more favourable treatment outcomes (A.L. Ball, 2007).

The clinical framework through which MMT is delivered varies according to the programme's 'treatment thresholds', a term which describes the barriers a client may encounter prior to and during MMT (Kourounis *et al.*, 2016). Programmes with high treatment thresholds (i.e. high threshold MMT) typically define abstinence from opioids and other drugs as the primary therapeutic goal. They are largely characterised by a strict code of treatment conduct, limited opportunities for treatment decision-making by the client, and intrusive surveillance techniques (Waal, 2007). By contrast, low threshold MMT focuses on the reduction of drug-related harms, such as overdose, HIV transmission, social isolation, and homelessness. It explicitly rejects abstinence from drugs as the overarching aim of the treatment. Typically, the practices and policies of low threshold MMT seek to reduce barriers to admission and retention. Most do not require their recipients to abstain from drugs, nor do they enforce rigid attendance schedules (Strike *et al.*, 2013).

The evidence-based promise of MMT. MMT is the most commonly prescribed form of OAT in the world (HRI, 2020), and is generally accepted as the 'gold standard' for opioid addiction treatment. Meta-analyses of randomised control

trials have concluded that MMT is significantly better for suppressing heroin use than non-pharmacological treatment modalities (Marsch, 1998; Mattick *et al.*, 2003, 2009). The use of MMT is also associated with improved mental and physical health as well as reductions in mortality, hospitalizations, overdoses, and acquisitive crime (J.C. Ball and Ross, 2012; Nosyk *et al.*, 2010; Peles *et al.*, 2008; Russolillo, Moniruzzaman and Somers, 2019; Sun *et al.*, 2015). For those taking MMT, a high dose of methadone over a longer period of time has been shown to yield the most benefit (Dole, 1988; Fareed *et al.*, 2009; Strain *et al.*, 1999).

MMT is also widely revered as a ‘best-evidenced’ intervention for the prevention of HIV and other blood-borne pathogens (e.g. hepatitis-C). The transmission of HIV constitutes a significant risk for people who inject heroin and other drugs, with the potential for the virus to spread rapidly among those who inject drugs (via injecting practices and sexual behaviour), and to the wider community through sexual transmission (Rachlis *et al.*, 2007). Of the approximately 15.6 million people who inject drugs, the majority (82.9%) of which use opioids, it is estimated that one in six is living with HIV (Degenhardt *et al.*, 2017). Numerous epidemiological studies demonstrate that the use of MMT reduces the risk of transmitting HIV by decreasing the incidence of drug injecting and needle and/or syringe sharing practices (Gowing *et al.*, 2011). Today, methadone—as a maintenance

treatment (i.e. MMT)—is recognised as an ‘essential medicine’ for HIV prevention and the management of opioid addiction by the World Health Organisation (WHO) (Herget, 2005).

Context-based meanings of MMT. Discourses of biomedicine tend to represent MMT as a fixed object which will have replicable effects across a wide array of contexts (Mattick *et al.*, 2009). But the intervention may not be as ‘stable’ or separate from the social world as evidence-based claims imply. The dynamics of the intervention’s meaning-making across time can be traced through policy and other public discourses. For instance, in 1970s Denmark, claims about the value of methadone as a maintenance agent were widely dismissed by policy officials who regard it as an ineffectual ‘drug solution for a drug problem’ (Pedersen, 2002, p. 64). A decade later, when the country’s ‘resocialisation’-orientated addiction response was proving inadequate, the intervention was appropriated as a key component of a national treatment strategy which aimed at improving the social functioning and welfare of people who use drugs. In Russia, opposition to MMT continues today. In its articulation as a ‘murderous treatment’ which ‘violates the right to health’, the intervention operates as the source of addiction rather than the solution to it (Forrester, 2014), with Kremlin officials publicly dismissing the validity of empirical evidence (Glenza, 2016). Russia’s policy resistance to MMT challenges a prominent

discourse in global health which promotes its expansion as a critical element in the region's HIV response (Kazatchkine, 2014; Zelenev, 2018). In the 'post-AIDS' era, drug policy in the UK, US, and elsewhere is increasingly influenced by the principles of recovery—an approach to treatment based on the disease model of addiction which prioritises abstinence from drugs (Berridge, 2012; Fomiatti, Moore and Fraser, 2019). The rise of the recovery paradigm has given way to perceptible shifts in the discursive landscape of MMT. As Frank (2013) observed of MMT in the US, what was once a treatment focused on pragmatic and immediate concerns such as the prevention of health harms is now being embraced as a medicine of addiction recovery which imposes value-based claims on the people who use it.

Such competing public constructions of MMT in policy and beyond, interplay with accounts of experience and expectation in relation to the intervention. The processes of negotiating and maintaining access to treatment, for instance, enact particular meanings of MMT and its corresponding subjectivities (Keane, 2013; Rhodes *et al.*, 2015b; valentine, 2007). Weinberg (2000, p. 607), for example, uses ethnography to show how potential clients of MMT inherit certain positions in relation to addiction and recovery as non-negotiable institutional structures, both facilitating and suppressing the type of activities they will be required and entitled to undertake as recipients of the treatment. Others have focused on the 'aspirational

effects’ of MMT in generating hope for addiction recovery and citizenship renewal through social inclusion (S. Harris, 2015; Nettleton, Neale and Pickering, 2013).¹ For example, an analysis by Rhodes (2018) of qualitative interviews with people receiving MMT in Nairobi revealed that the sense of ‘normalcy’ afforded by treatment constitutes a key resource for restoring familial and social relations compromised by heroin use.

The ‘disciplining effects’ of MMT are also the subject of sociological inquiry. Much of this research has called attention to the various ways in which the intervention is practised as a technology of governmentality aimed at taming the ‘unruly misuses of pleasure’ and promoting normative conduct (Bennett, 2011; Bourgois, 2000, p. 165; Järvinen, 2008; C.B.R. Smith, 2011). For example, ‘Disciplining addictions’ by Philippe Bourgois (2000) and *Surviving heroin* by Jennifer Friedman and Marisa Alicea (2001) draw on the Foucauldian concept of *biopower* to explore treatment experiences of MMT in the US. Citing byzantine rules and invasive surveillance techniques, their respective ethnographic accounts portray the specialised MMT clinic as a space of extreme temporal, behavioural, and bodily restriction. Both sets of authors denounce this form of MMT, arguing that it is more about capitulation and moral reform than abstaining from heroin use. They are not

¹ While Harris (2015) explores this theme in relation to buprenorphine maintenance treatment, her analysis is nonetheless relevant.

alone in their sentiment. With respect to MMT implementation in Australia, Treloar and valentine (2013) suggest that the onerous and inflexible regulations with which the clients are expected to comply induce tangible harm and suffering, imperilling health and undermining the goals of treatment. Moreover, it is widely held that such arrangements reproduce the trope of the deviant and dangerous ‘addict’ who is less-than deserving, less-than normal, and less-than citizen (Fraser, 2006; J. Harris and McElrath, 2012; Rhodes, 2018). However pervasive, the disciplinary practices of MMT do not necessarily have a totalizing effect. Several qualitative studies portray recipients of MMT testing the limits of regulations and deploying strategies to exercise agency while maintaining treatment access and maximising its benefit to their lives (M. Harris and Rhodes, 2013; Holt, 2007; Ning, 2005).

With a focus on understanding the social world, social science is well-placed to account for and explain the breadth and variability of the intervention’s meaning (Neale, 2013). Nevertheless, the social scientific research on MMT (and drug use more broadly) tends to set aside matters of pharmacology and biology in order to emphasize the social relations of meaning-making to which the medical and natural sciences do not attend (Keane, 2009). Indeed, much of the aforementioned research continues this tradition, in so far as it relies on an understanding of methadone (and heroin) as having fixed, a priori attributes. As Keane (2009, p. 452) observes of

Bourgeois' 'Disciplining addictions' (2000), the analysis may invert the accepted categories of poison and cure by representing heroin as a less harmful and more socially useful drug than methadone, but ultimately such claims treat the substances as if their properties were entirely disconnected from their use. As I will discuss further on in the chapter, there are a small handful of scholars whose work goes in a rather different direction, embracing methadone as a kind of *pharmakon*—an object comprised of ambivalences, with no stable essence, 'being simultaneously cure and poison' (Neale, 2013, p. e1).

Orientating concepts

A turn to 'problematizations'. Instead of evaluating evidence and policy according to methodology or outcomes, a poststructuralist critical perspective treats 'evidence' and 'policy' as objects of inquiry. Their presumed immutable qualities are called into question by tracing the process through which they are constructed within a particular social context. This way of thinking is influenced by Foucault's concept of *problematization*—a process of interrogation into 'how and why certain things (behaviour, phenomenon, processes) become a problem' (Foucault, 1985, p. 115), and in turn, how these problems are constituted as particular objects of knowledge. The aim is to call into question the presumably fixed nature of an issue by examining the complex relations that produced them and the effects of their operation (Veyne, 1997,

p. 154). For Foucault, objects do not exist outside of the practices which make them up. Problematization, he argued, ‘doesn’t mean the representation of a pre-existing object, nor the creation through discourse of an object that doesn’t exist. It is a set of discursive and non-discursive practices that make something enter into the play of the true and false’ (1988, p. 257). The ‘play of the truth and false’ is not simply a production of false statements, but rather a space where the production of ‘true and false’ is regulated. Questioning the assumed status of the ‘truth’ allows room for the critical analyses of governance and is therefore a valuable political tool. This position resonates with Annemarie Mol’s (1999) notion of *ontological politics* which emphasises the political relations related to the ‘making’ of particular realities (i.e. what constitutes ‘truth’) and the framing of the problems upon which they are predicated. My own research integrates a critical reflexive self-problematization component whereby I consider ‘what realities my methods create and with what effects for which objects/subjects and places’ (Bacchi, 2012, p. 7).

Problematization has proven a useful theoretical springboard for the critical appraisal of contemporary policy and the evidence upon which it often relies.

Drawing on Foucault’s work, the poststructuralist approach to policy analysis developed by the political scientist Carol Bacchi (2009, 2012) offers a framework for examining how policy ‘problems’—such as HIV or heroin addiction—and their policy

‘solutions’—such as MMT—are ‘questioned, analysed, classified and regulated’ within a given time and circumstance (Deacon, 2000, p. 127). Rather than envisaging MMT, HIV and heroin addiction as fixed objects, they become ‘problematizations’ to be analysed, so as to trace the social relations of their emergence.

With the introduction of MMT, Kenya is a context of shifting policy discourse in relation to the development of technological solutions to manage the linked problems of HIV and heroin addiction (Rhodes *et al.*, 2016). Following Bacchi, instead of accepting MMT as an evidence-based policy solution, in response to the observable problems of HIV and heroin addiction, I envision its discourses as representing and thus constituting them, including in the way they mobilise evidence and articulate its value and effect potential. Exploring how policy and intervention narratives linked to MMT represent the ‘problems’ for which it is proposed as the ‘solution’, illuminates how these problems are constructed locally, and thus what is constituted as socially acceptable practices in relation to them.

Multiple ‘MMTs’. Drawing on perspectives from science and technology studies (STS), a small but consequential stream of critical social scientific scholarship calls into question a normative understanding of methadone as a stable pharmaceutical object detached from its field of human interaction. Eliding the division between ‘the social’ and ‘the pharmacological’, it embraces an alternative

conceptualisation of methadone as ‘mutable, specific, and located’ (valentine, 2007, p. 511). Among the most influential of such work is Emilie Gomart’s (2002) ‘Methadone: six effects in search of a substance’. The analysis focuses on two clinical trials of methadone—one in France and one in the US—which produce diametrically opposed findings. The American trial by Dole and Nyswander (1965) concluded that methadone diminished cravings for heroin and that the effects of the two substances were markedly dissimilar. By contrast, the trial at Sainte-Anne Hospital in Paris (1975) found that methadone induced similar effects to heroin and triggered cravings for the drug. Gomart’s explanation of these differences departs from both essentialist and social constructivist perspectives. Instead of choosing between the actors and the substance as the source of the discrepancy, she suggests that the properties of methadone and the substance itself are produced through the practices of each trial. It is not that methadone can be taken-for-granted as pre-existing in the same way prior to the trials, but rather, that the trials ‘make’ what methadone becomes. Methadone, she argues, should not be conceived as having an inherent or fixed essence which can be defined and variously interpreted: the ‘sheer multiplicity of differences make it impossible to hold that the substance is constant’ (p. 97).

There are strong parallels between ‘Methadone: six effects in search of a substance’ and *Substance and substitution* by Suzanne Fraser and kylie valentine

(2008). The text explores MMT and its social and political implications in ‘Western liberal societies’ through an analysis of qualitative interviews, media representations, and policy documents specific to its implementations in Australia. As with Gomart, Fraser and valentine embrace the multiplicity of methadone. The substance of methadone—as well as the programme of MMT—are envisioned as ‘phenomena’ which emerge through their ‘intra-actions’ with other phenomena, including biomedicine, the media, and the ‘action of matter itself’ (p. 127). In *Substance and substitution*, there is no methadone apart from that which is enacted through particular practices. From this perspective, different representations of methadone do not represent different ‘aspects’ of methadone, but rather different ‘methadones’ (p. 56). For instance, Fraser and valentine argue that methadone’s position as a substitution for heroin—a harmful ‘drug of addiction’—is essential to the effects it enacts as MMT. As a replacement for heroin, methadone embodies a displacement and extension of heroin—and is thus both inauthentic (not really heroin), and dangerous (analogous to heroin). In another context, they assert, the effects methadone produces may be rather different. Indeed, Keane (2013) has called attention to the ways in which biomedical discourses separate methadone into two substances with different effects depending on the problem it is represented to treat—addiction or pain.

The ontological openness which is afforded to MMT in *Substance and substitution* and ‘Methadone: Six effects in search of a substance’ resonates strongly with aspects of STS, an interdisciplinary field focused on the social context of scientific knowledge and technologies. As the prominent STS scholar John Law (2004) explains, ‘The basic intuition of STS is relatively simple: scientific knowledge and practices are not produced in a vacuum. Rather, they participate in the social world—at once *shaping it* and being *shaped by it*’ (p. 12). Among the more influential contributions to STS scholarship is Bruno Latour’s and Steve Woolgar’s *Laboratory life* (1986), an ethnography of a neuroendocrinology research laboratory at the Salk Institute in California. The central premise of the text is that realities are not explained by scientific practices, but are constructed through them. Their work depicts scientists transforming material objects (e.g. a human tissue sample) into textual objects (e.g. a graph or figure) through the use of specific configurations of laboratory practices and instruments. These textual objects—what Latour and Woolgar call ‘inscription devices’—are then aligned and juxtaposed in order to create statements about the phenomenon being studied. When a statement supports other related statements and is reinforced by an already-established ‘hinterland’ of inscription devices (e.g. peer-reviewed literature, techniques, skills) the phenomenon acquires a definite and singular form—it becomes a scientific reality.

Latour and Woolgar portray the construction of scientific facts as a relational activity. It involves the orchestration of particular relations in an experimental or instrumental arrangement and turning these into traceable forms. In this respect, it is impossible to separate the making of particular realities, the making of statements about these realities, and the methods involved in producing these statements. Much like the methadone in Gomart's account, scientific realities are not objective and anterior entities waiting to be discovered 'out there', but are constructed through scientific practices 'in here'. In other words, '...“out-there-ness” is the consequence of scientific work rather than its cause' (Latour and Woolgar, 1986, p. 182). At the same time, Latour and Woolgar emphasise that much of scientific inquiry, like all of the social world, involves ambiguity. Different sets of inscription devices may produce dissimilar and contradictory statements about reality. Bringing a particular version of reality into focus involves absencing alternative possibilities. From this vantage point, scientific practices—in so far as they are oriented towards producing definitive, unqualified claims—are as much about 'making silences and non-realities as [they are] about making signals and realities' (Law, 2004, p. 107).

An alternative theoretical trajectory which resonates in poststructuralist variants of STS such as material semiotics and actor network theory (Haraway, 1988, 1989; Latour, 2004) shifts the focus from the epistemological to the ontological—from

representations and constructions to objects and enactments. This way of thinking envisions realities, and the representations of those realities, as being simultaneously performed or enacted. Here, what constitutes an object as ‘real’ is not produced through the assembling of relations into a traceable form, but through the enacting of these relations. Unlike ‘constructing’ defined by Latour and Woolgar (1986), enacting is a continual endeavour. In order for the web of relations to hold it must be enacted and re-enacted continually. However, this does not always occur. Practices change. When they do, that which is enacted is invariably different. Enactment makes accommodations for these differences. Instead of implying convergence to singularity, it allows that ‘in here’ and ‘out there’ are multiple. The multiplicity of objects is richly illustrated by the feminist STS philosopher Annemarie Mol in *The body multiple* (2001).

Mol’s ethnography explores the research, diagnosis, and treatment practices involved with lower-limb atherosclerosis (a vascular disease) across four clinical departments (internal medicine, pathology, radiology, and vascular surgery) at a hospital in the Netherlands. Despite their commitment to a perspective of ontological singularity, Mol finds that the practices of the different clinical departments are producing different ‘realities’ of lower-limb atherosclerosis. For instance, in radiology, the disease constitutes a concentration of lumina dye in an artery; in internal

medicine, it is an ulcerated wound that refuses to heal; in pathology, it is a thickened blood vessel of an amputated leg. Each of these ‘appearances’ of lower-limb atherosclerosis does not exist on its own but is *crafted*—assembled as part of a specific hinterland of literary and material relations, including instruments, skills, routines, statements, and deductions. While they may overlap or (at least partially) correspond, the relationships between the different objects of the disease and the relations which enact them, are complex and messy. What is considered the ‘gold standard’ of reality depends upon the particular circumstance. Mol’s accounts of clinical decision-making describe variable and situated rules for discriminating between contradictory versions of ‘the real’ lower-limb atherosclerosis. She understands the different sites of lower-limb atherosclerosis not as different manifestations or symptoms of the same lower-limb atherosclerosis, but different lower-limb ‘atherosclerosises’. Mol’s portrait of the disease and the practices that enact it, portray a world that is as ontologically multiple as it is epistemologically complex.

Drawing on the theoretical logic(s) of Mol (2002) and Latour and Woolgar (1986) and influenced by Gomart (2002) and Fraser and valentine (2008), my research approaches MMT, and the knowledge about it, as multiple and mutable—produced (and re-produced) within specific domains of practice. This way of thinking

does not merely appreciate the multiplicity of MMT as a discursive effect—having been produced in relation to its various representation; it also envisages it as that which is made *materially*. As with any pharmaceutical intervention, the effects of MMT (and the substance of methadone) are embodied among its human subjects and thus materialised into being in variable ways (Biehl and Moran-Thomas, 2009; Meskus and Oikkonen, 2020; Roberts, 2014). From this perspective, there is no such thing as a stable, object called ‘MMT’, nor is there a singular biological body upon which it ‘intervenes’, for both are produced according to time, space, and action. This perspective can be extended to the study of its ‘translation’ into new settings. Rather than approaching MMT as given, but variously interpreted on account of the context, I am compelled to consider what constitutes it locally, how it is produced through its discursive and material implementations, and how science, in negotiation with other forms of knowledge, inscribes it into evidence.

An evidence-making intervention. Rather than focusing on the production of evidence as a foundation for intervention responses to a given health problem, an evidence-making intervention (EMI) approach asks how ‘evidence’, ‘intervention’ and ‘problem’ came to be. Proposed by Rhodes *et al.* (2016, p. 17), and then further articulated by Rhodes and Lancaster (2019), EMI is concerned with ‘how an intervention and the knowledge which constitutes it, is made locally, through its

process of implementation’. The first aim of EMI is to ‘understand what and how intervention is constituted through the frictions between the various forms of knowledge which make it’ (Rhodes *et al.*, 2016, p. 19). In evidence-based discourses of global health, implementation science is generally presented in relation to its capacity for generating empirical knowledge to facilitate the systematic ‘translation’ of evidence-based interventions across different contexts (Adams, 2008). By contrast, EMI focuses on how knowledge in relation to an intervention—and thus what constitutes the intervention—is being made according to the circumstances of its implementation (Rhodes *et al.*, 2016). It does not privilege a particular knowledge (such as that promoted by global campaigns of evidence-based intervention) but takes into consideration all forms of knowledge, including that which is embodied and produced through experience. Tracing what emerges from the frictions between these different (and potentially contested) ‘knowledges’ makes visible the variable and multiple enactments of an intervention that are being made, including those not presumed to be ‘in translation’. The second aim of EMI is to make visible the variable and multiple *lived* effects of globally endorsed interventions in relation to the therapeutic (moral, social, financial) economies and subject positions generated through their implementation (Rhodes and Lancaster, 2019). In the context of EMI, intervention knowledge and experience are appreciated as entangled effects, equally

as ‘reality-making’ in terms of what an intervention becomes locally (Fraser and valentine, 2008). Attending to this entwinement—that of the discursive (e.g. how an intervention is articulated) and the material/embodied (e.g. how intervention subjects are made) is particularly important because, as Rhodes *et al.* (2016, p. 19) suggest, ‘interventions are evidence-making in a recursive fashion, with intervention meanings and experiences negotiated locally on account of context at the same time as transforming and making these contexts of knowledge production’.

There is a paucity of critical sociological scholarship reflecting on how evidence-based interventions such as MMT and the claims made by different actors in their support or resistance, are made locally, according to the circumstances of their implementation. An emphasis on the negotiability of different claims and evidence calls into question the taken-for-granted essence of MMT, for it throws into sharp relief how its meaning and effect are produced through local social practices . Evidence-*based* intervention approaches seek to minimise uncertainty, until such time that ‘all controversies have been resolved’ (Law, 2004, p. 31). An alternative approach that focuses on the dynamics of evidence-*making*—envisages MMT as multiple, indefinite and ambiguous. From this perspective, each enactment of MMT, from its discursive portrayals in national policy, to its local negotiations grounded in experience, is itself an ‘evidence-making intervention’ (Rhodes *et al.*, 2016).

Research context

Kenya's heroin 'narco-scape'. Empirical research has documented an emergent pattern of heroin use in sub-Saharan Africa over the last three decades (Reid, 2009). In Kenya, the use of heroin began in the Coast region during the late 1980s. From there, it gradually spread westward to Nairobi. At this time, the majority of people were using 'brown sugar' (i.e. brown heroin), a crude form of the drug that is typically smoked (Beckerleg, 1995). Due to changes in international drug trading routes in the 1990s, countries in East Africa (e.g. Kenya, Tanzania) became key trafficking hubs for heroin coming from Asia that were bound for markets in Europe and North America. According to the United Nations Drug Control Programme (UNDCP) report (1999), the rapid development of drug trafficking across the region precipitated a spill-over effect of 'white crest' (i.e. white heroin) at the local level. Compared to brown sugar, white crest constitutes a purer, water-soluble version of heroin which is more suitable for injecting intravenously (Beckerleg, 2004). The transition from smoking to injecting heroin is not necessarily inevitable, but research demonstrates that it may follow changes in the availability, composition, price, and purity of heroin (Guise *et al.*, 2015; Zafar and ul Hasan, 2002). With the influx of white crest, the shift from smoking to injecting quickly diffused along the coast and then inland towards Nairobi (Beckerleg, 2004).

In the years leading up to the introduction of MMT (2014), white crest continued to be the most commonly injected drug in Kenya (National AIDS and STIs Control Programme [NASCOP], 2012). In 2009, the UNODC estimated that between 30 and 35 tons of heroin were being trafficked through and into the region on an annual basis. Nevertheless, periodic ‘crackdowns’ by the national government have triggered episodes of heroin scarcity. Among the most notable is the ‘heroin crisis’ between December 2010 and February 2011. With the availability and purity of heroin at a record low, the shortage is thought to have precipitated a sharp increase in injecting practices among people who used the drug. What’s more, the price inflation of heroin during this time compelled many people to use benzodiazepines such as diazepam and flunitrazepam (i.e. Rohypnol) as an alternative. When the supply was eventually replenished, the price of heroin plummeted far below its pre-‘crisis’ level (NASCOP, 2013a). Because affordability is seen to constitute a major barrier to the consumption of drugs (UNDCP, 1999) in sub-Saharan Africa, it is possible that the decreased value of heroin enhanced its accessibility across much of the country.

People who inject heroin in Kenya.² The number of people who inject heroin in Kenya has been widely debated by researchers, but there is a general consensus that it ranges from 6,216 to 10,937 in Nairobi and 3,718 to 8,500 along the coast (Okal *et al.*, 2013; UNODC and International Centre for Health Interventions Research in Africa [ICHIRA], 2012). While heterosexual sex continues to drive the HIV/AIDS epidemic in Kenya, epidemiological research has documented highly concentrated pockets of the virus among people who inject heroin and other ‘most-at-risk populations’. For instance, a ‘rapid situational assessment’ conducted in 2010 of more than 600 men and women who inject heroin in Nairobi, Mombasa, Kilifi, and Kwale found that 18.3% were living with HIV, as compared to 6.3% of the general population (Oguya *et al.*, 2021). Surveillance data collected in 2011 reveals a markedly similar picture—among a sample of 269, the seropositivity rate was 18.7% (Tun *et al.*, 2015). Of the few epidemiological studies conducted around this time, most describe injecting practices associated with the transmission of HIV and other blood-borne pathogens. For example, in the previously referenced survey, nearly half (47.0%) shared needles/syringes in the past month. This is consistent with a survey of 124 people who inject drugs in the coastal community of Malini (Brodish *et al.*, 2011), as well as findings from earlier investigations of heroin use in Kenya

² The statistics I reference in the following sections are largely relevant to the time period preceding the 2014 introduction of MMT in Kenya.

(Beckerleg, Telfer and Hundt, 2005; Beckerleg, Telfer and Sadiq, 2006; Deveau, Levine and Beckerleg, 2006).

The portrait depicted through epidemiological narratives of risk and disease transmission is developed and enriched by qualitative research. Starting in the late 1990s, anthropologist Susan Beckerleg and her colleagues conducted several studies which focus on the lived experiences of people who use and/or inject heroin in the coastal community of Malindi. Much of this work explores the social conditions relevant to producing drug-related harms. Beckerleg, Telfer, and Hundt (2005), for instance, draw on ethnographic methods to show how structural influences such as the law prohibiting the possession of needles and syringes interplay with specific practices of storing drug injecting equipment in shared spaces to produce HIV transmission risk at the individual level. Other work by Beckerleg (2004) uses ethnography to explore the ‘sub-culture’ of heroin use in Malindi. She describes, for example, distinctive characteristics and drug using patterns between the high status or ‘cool’ (*poa* in kiSwahili) and those who are associated with the lower end of the social strata. Social status, she explains, is conferred through demonstrations of individual self-control in relation to heroin use. A visible sign of lost control is *kuyoyoma*—the public display of a semi-conscious state of heroin intoxication. While the concept of ‘cool’ has its origins in the language of the street, Beckerleg locates it

within a broader social milieu, suggesting that it is an expression of core Swahili principles linked to notions of heat and coolness from the tradition of humoral Islamic medicine. More recent social scientific scholarship also contributes to an understanding of people who use heroin in Kenya. For example, qualitative research by Guise *et al.* (2015) explores the social context in which the transition from smoking to injecting heroin occurs. An analysis of transition narratives by men and women in Nairobi and the coastal towns of Malindi and Ukundu reveals a multi-layered phenomenon emerging not only from intersecting structural conditions such as economic marginality and an unstable drug supply but also from curiosity, the desire for pleasure, and the influence of local social networks. These and other similarly-orientated studies expand our knowledge of people who use heroin in Kenya by illuminating their varied experiences and the complex interplay of factors that are incorporated and reproduced in everyday practices.

Kenyan drug policy. Like many other countries, Kenya has a long tradition of punitive drug policy responses which aim to eradicate the use and trade of drugs within its borders (HRI, 2012). Supply control efforts are largely conducted by the anti-narcotics wing of the national police force, in conjunction with the National Authority for the Campaign against Alcohol and Drug Abuse (NACADA), the semi-autonomous state corporation tasked with preventing alcohol and drug ‘abuse’ in

Kenya. While seizures of heroin in Kenya have increased, their impact remains fairly limited when compared to the vast quantities of the drug which are trafficked and transited across the region each year (UNODC, 2013). The majority of legal and judicial resources are used to target people who sell and/or use drugs, while the larger drug trafficking networks are thought to operate with relative impunity (Gastrow, 2011). In some jurisdictions, the possession of injecting equipment is grounds for arrest and incarceration. According to Nieburg and Carty (2011), the majority of people incarcerated in the Coast region are serving sentences for the illegal possession of drugs such as heroin and marijuana. Harassment at the hands of law enforcement police is also not uncommon.³ A survey of people who use drugs in Nairobi and the counties along the coast found that 31.0% had been confronted by law enforcement or had their injecting equipment confiscated by authorities within the prior six months (UNODC and ICHIRA, 2012). In 2012, NACADA expanded its mission to include drug use prevention and ‘rehabilitation’—a decision which was (at least partially) motivated by the growing ‘problem’ of heroin addiction in Nairobi and the Coastal region. Within the first year, it had licensed 65 secular and faith-based ‘drug dependence treatment centres’. These efforts did little to expand the coverage of addiction treatment. According to a report by NASCOP (2013b), 30.0%

³ I experienced this first hand. On three separate occasions while conducting observations among people who were using heroin, I was harassed, restrained, and threatened with a gun (at close range to my body) by local police officers.

of the facilities were located within the city limits of Nairobi and only four were state-subsidised. With their average cost of treatment equal to official estimates of the monthly minimum wage, privately-owned fee-based treatment programmes are out of reach for much of the populace (Kenya Institute for Public Policy Research and Analysis, 2013). The country's reliance on this form of addiction treatment is representative of an illness-poverty entrapment in which those who are most in need of care are also those who are least able to afford it (Rhodes *et al.*, 2015b, p. 11).

Harm reduction in Kenya. As empirical evidence of the HIV 'emergency' linked to drug injecting practices in sub-Saharan Africa began to mount (Csete *et al.*, 2009; Johnston *et al.*, 2011; Nelson *et al.*, 2011; Williams *et al.*, 2009), calls for the introduction of harm reduction interventions such as needle and syringe exchange and MMT grew increasingly loud in global discourses of HIV prevention (Abdallah, 2011; Bowring *et al.*, 2013; Mathers *et al.*, 2010; Mbwambo *et al.*, 2012). In Kenya, these globally-endorsed harm reduction measures represented a dramatic departure from the country's anti-drug policy and were slow to be embraced by stakeholder groups involved in the country's drug eradication efforts (e.g. NACADA). However, following an amendment to the legislation against the possession of injecting

equipment,⁴ NASCOP, with technical and financial support from the UNODC and WHO, launched the first needle and syringe exchange programme (NSP) in the region. The programme was initially met with criticism by religious leaders and community groups because it was seen to enable drug use. In Mombasa and other locales along the coast where Islam is widely practised, community resistance proved a significant impediment to implementation efforts (Craig, 2012; Mghenyi, 2013). Despite its controversial status in some communities, NSP has proven to be an effective and accessible strategy for people who inject drugs to access clean drug injecting equipment. A nationwide survey of people who inject drugs in 2015 indicates that injecting sharing practices have sharply declined in the years since it was introduced (Musyoki *et al.*, 2018).

The following year, NASCOP announced a plan to provide MMT to people who use heroin. The initiative was undertaken with financial assistance from the UNODC, US President's Emergency Plan for AIDS Relief (PEPFAR), and US Centers for Disease Control (CDC). Up until this time, MMT was only accessible through a handful of private psychiatrists. The high cost of treatment has rendered it largely unattainable for the majority of Kenyans (Rhodes *et al.*, 2015b). Under the new National Medically Assisted Therapy (MAT) Programme, MMT is accessible

⁴ Due to the ambiguities of these legislative changes, NSP may not necessarily represent a shift away from the country's punitive drug policies.

free of charge and is delivered as a directly-observed treatment through a series of speciality, out-patient clinics operated by the state. While the start of the programme was initially promised for late 2013, it was deferred multiple times due to problems with procurement and other logistical obstacles. In light of the delays and the relative scarcity of addiction treatment alternatives, the arrival of MMT was highly anticipated in local communities (Rhodes *et al.*, 2015a). In December of 2014, Nairobi's Mathari National Teaching and Referral Hospital (i.e. Mathari Hospital) became the first site to deliver MMT through the national programme. By the following February, MMT was also being provided at the General Hospital in the coastal community of Malindi, and later in the year, at the Coast General Hospital in Mombasa. It was during this early stage of the intervention's implementation that I began my research (June, 2015). Today, MMT is available at multiple sites in Nairobi and the Coast region.

Chapter synopsis

The contents of this thesis are arranged into seven chapters. In the next chapter (Chapter 2), I outline my methodological approach, and the method, or practice, of the study. Underpinning this research is a constructionist epistemology which values reflexivity, acknowledges the co-construction of knowledge, and is attuned to relations of power. I discuss the 'method assemblage' approach which

informs my methodological orientation and offer an account of my reflexive situatedness in relation to the project. I also detail the recruitment, interview, and analytic processes. The five chapters that follow from there constitute the empirical segment of the thesis. Collectively, they may be appreciated as an analysis of the research data which was generated by and relates to, the methodological practices described in Chapter 2. Given the overlap and interconnectedness of the analytical themes, I have chosen to organize these chapters according to different ‘sites’ of implementation practice. Chapter 3 and Chapter 4 primarily concern the discursive practices which represent MMT, while Chapters 5 through 7 are orientated around three different ‘dimensions’ of its delivery—space, time, and procedure. Although each chapter is relatively distinct with respect to the subject matter, they all envision MMT as an object that is not given and variously interpreted but made and sustained through practice. In the final chapter, I offer my concluding thoughts, with particular reference to the concepts of multiplicity, subjectivity, and ‘evidence-making’. I also reflect on some of the ‘messier’, personal aspects of the research which are not accounted for in the pages of this thesis but are thoroughly tangled up in its production. With the summary of chapters complete, I now turn my attention to matters of methodology.

Chapter 2

Research Methodology

Introduction

The first section of this chapter concerns the underlying considerations informing the approach to the research study which serves as the basis for this thesis. It includes a description of the study's design, epistemological influences, orientation towards research methods, and reflexive positioning. This is followed by details regarding the methods for data generation. I then provide an account of my efforts to negotiate access to the interactions, events, and relationships within the MMT stakeholder 'sphere' in Nairobi.¹ From there, I describe the analytical process, outlining my approach and the techniques which guided my strategy for interpreting the data. The chapter concludes with an explanation of the ethical procedures and principles that guided the research practices.

Study approach

Study design. The design of the study follows an ethnographic approach to research. While definitions of ethnography are contested and vary according to the discipline, broadly speaking it is characterized by research on everyday practices within a single setting or among a particular group of people (Hammersley and Atkinson, 1995, p. 1). A complimentary definition offered by Singer (2002, p. 92)

¹The *stakeholder sphere* is a term I use to describe the network of local policy, clinical, and community stakeholders involved (directly and indirectly) with the implementation of MMT in Kenya. The specific institutions and entities which comprise the 'sphere' are presented in Figure 2.1

emphasises the researcher's role: 'The distinctive feature of ethnography is that it demands contextualised experience-near, on the ground, up close and personal research'. The central focus of ethnography is social phenomena and the meanings of human action and language. The data comes from a range of sources, including participant observations, in-depth interviews, artefacts, and texts. The approach is unstructured in the sense that it does not follow a fixed set of categories through which data is interpreted. Ethnography is a central methodological technique in the study of science and knowledge practices (Knorr-Cetina, 1983; Latour and Woolgar, 1986). It is also widely used in *praxiography*—a form of research which 'follow' objects as they are enacted through different practices (Callon and Rabeharisoa, 1998; de Laet and Mol, 2000; Mol, 2001). Indeed, Mol deployed ethnographic methods to generate accounts of atherosclerosis practices in her seminal praxiographic text, *The Body Multiple* (2001).

Although traditional ethnographies typically involve long stretches of time immersed in the culture and language of those being studied, contemporary anthologies of ethnography reveal an approach with diverse roots, a vast array of methods, and multiple applications (Atkinson *et al.*, 2001). The wide range of techniques and arrangements within ethnographic research does not reflect a lack of commitment to ethnographic standards or flaws in the research design, but rather the *real* conditions—within the field and within the life of the researcher, under which the research is conducted (V. Smith, 2001). Given the limitations imposed by

finite resources, the time constraints of my doctoral programme and my lack of fluency in kiSwahili, it was not possible for me to carry out fully immersed participant observation over a sustained period of time. Nor would such an approach necessarily have been appropriate given the small size of the stakeholder ‘sphere’ (see Figure 2.1). This research was conducted during two rounds of fieldwork in Nairobi. The first was carried out from June to September 2015 and the latter from January to March 2016. It relies on a combination of longitudinal in-depth qualitative interviews with local stakeholders, field notes from observations of local stakeholder interactions, and an analysis of primary source documents containing media and/or policy statements linked to MMT in Kenya. Although it is not an ethnography in the ‘classic’ sense of the term, it is firmly rooted in the ethnographic tradition of in-depth ‘first-hand exploration of the research setting’ that is flexible in response to the study context and engages with meanings of social action (Atkinson *et al.*, 2001, p. 5).

Epistemology. Epistemology is concerned with knowledge and the nature of the relationship between the ‘knower’ and what can be known (Guba and Lincoln, 1994). My epistemological influences about how to ‘do’ research are largely informed by *constructionism*. The epistemological premise of constructionism is that knowledge—*meanings of reality*, is socially constructed rather than objectively determined and perceived. Constructionists envision knowledge as being ‘made’ through the shared understandings which emerge from social interactions (Berger

and Luckmann, 1966). Correspondingly, research knowledge is developed and refined through social interaction between the researcher and participant. The approach is dialogical, in that it involves the researcher and participant actively negotiating meanings through a process of ‘give and take’. For this reason, constructionist research necessarily involves direct and meaningful contact with participants (Burr, 1995). In acknowledging that the researcher both facilitates and generates research knowledge, constructionism challenges the positivist articulation of the researcher as an impartial and detached observer. While constructionism envisions ‘the knower and the known [as] interactive and inseparable’ (Lincoln and Guba, 1985, p. 37), the position also attends to the power relations between them. It encourages critical reflection on how differences in the ‘positionality’ of the researcher and the participant, with regard to gender, race, ethnicity, class and education affect the conditions of their relationship and influence interpretations of the research data (Gluck and Patai, 1991). In recognizing that power differentials are inevitable, such an approach has largely eclipsed an earlier movement focused on reciprocity and the implicit demands on the researcher to equalize power relations (Murphy and Dingwall, 2001). One of the ways to render these power relations transparent is through the researcher reflexivity which I discuss further on (Karnieli-Miller, Strier and Pessach, 2009).

Constructionism maintains that knowledge—*how the world is understood*—is made through social interaction, yet in its most basic form, the theory does not

extend the argument to the nature of reality—*what the world is* (Berger and Luckmann, 1966). Different ontological claims along the realist-relativist continuum have been applied to constructionism. Burningham and Cooper (1999) differentiate between two broad categories of constructionism: *strong/strict* and *weak/contextual*. In contextual constructionism, social constructs may not necessarily mirror reality and are often volatile and changeable, but they *do* correspond to an independent and anterior reality in some way (Burr, 1995). The realist ontology that infuses this position implies an inclination towards relatively stable and definite forms of research knowledge. Contextual constructionism is associated with methodological practices which encourage coherent and well-structured accounts and include strategies for evaluating the validity and plausibility of research claims (Coffey and Atkinson, 1996; Porter, 2007). Taken together, these techniques assist the researcher in knowing reality ‘properly’ and reflect an understanding of reality as ‘a set of fairly specific, determinate, and more or less identifiable processes’ (Law, 2004, p. 5). By contrast, my research is informed by a strict form of constructionism. The approach may not explicitly deny the existence of those aspects of reality which do not depend on how we speak and think but suggests that it is our linguistic and conceptual activities that give the world meaning (Burr, 1995). Given that reality is made meaningful through us, there is no basis for considering particular meanings as more plausible or valid than others. A position that recognizes multiple ways to give shape

to reality reinforces a form of research knowledge which is equally fluid and contingent.

While reflexivity is a central tenet of constructionism, a potentially limiting aspect of the paradigm is that these principles are not applied to its own methods of inquiry. In their critique of constructionism, Steve Woolgar and Dorothy Pawluch (1985) observe that the claims-making strategies, rhetorical moves, and discourses of constructionism are exempt as a phenomenon of study. Constructionist arguments, they argue, invoke a selective form of objectiveness as they are often predicated on a manipulation of the analytical boundary which renders certain objects problematic while leaving others unquestioned. ‘The successful explanation depends on making problematic the truth status of certain states of affairs selected for analysis while back grounding the possibility that the same problems apply to assumptions upon which the analysis depends’ (p. 216). Ultimately, the authors allow that some degree of objectiveness may be necessary; ‘Perhaps all attempts at accounting (describing) depend upon presenting at least some state of affairs as objective’ (p. 224). Yet they also encourage constructionists to overcome the objectivist-relativist impasse by adopting a more reflexive form of inquiry—one in which encompasses awareness and analysis of the textual strategies, rhetorical moves, and underlying presuppositions which produce knowledge claims. Reflected in their position is an understanding of research methods as fully *of*, rather than *separate from*, the social worlds they represent.

Orientation to research methods. Following Woolgar and Pawluch, I embrace an understanding of research methods as fully *of*, rather than *separate from*, the social worlds they represent. This perspective closely aligns with arguments made in STS about the inherently social aspects of scientific (natural and social) methods. A key concept in STS is that the processes and practices of science cannot be separated from their social context because they inevitably ‘spill over into much that is not obviously methodological’ (Law, 2015, p. 2). The techniques and tools of science are constituted by a disciplinary culture that is imbued with particular personal, theoretical, organizational, and historical elements. Scholars of STS have called attention to the ways in which methods are shaped by social and economic interests. Methods, they maintain, depend upon complex networks of discursive, material, and institutional arrangements to acquire legitimacy, and become routinized (Latour and Woolgar, 1986; Ruppert, 2008; Savage, 2010). According to the approach, methods are *constituted* by reality, but methods also help *produce* reality. In this sense, methods take on a ‘double social life’ (Law, Ruppert and Savage, 2011).

Informed by Latour and Woolgar (1986), in *After Method: Mess in Social Science*, Law (2004) explains and defends the concept of *method assemblage*, an approach to social science which encourages greater cognisance of the powerful productive effects of research methods on the realities they purport to describe. Methods, he argues, are more than just simply tools and techniques for knowing—

they are assemblages of ‘ramifying relations that generate presence, manifest absence, and Otherness’ (p. 45). Presence, he explains, is the ‘in-here’ representations (e.g. statements and depictions) of reality. Manifest absence is the corollary of presence: for something to be ‘in-here’, it must be distinguished from something ‘out-there’. By contrast, ‘Otherness’ relates to the limitless bundles of relations ‘out-there’ which are necessary to ‘in-here’ but are routinized, repressed, or rendered insignificant so as to be made invisible. According to Law, applying a method necessarily involves drawing boundaries around each element. Although the boundaries themselves are immutable, the form the elements take and our treatment of the relations between them need not be.

For Law (2004), allegory—meaning something more than what is being said—is an orientation to method assemblage which allows us to ‘imagine more flexible boundaries and different forms of presence and manifest absence’ (p. 85).

Representations, he argues, are inherently *allegorical*. As Latour and Woolgar’s (1986) laboratory ethnography underscores, scientific claims are articulated as direct descriptions of reality but always come from or relate to something else. Thinking allegorically reflects a commitment to exposing rather than concealing the complex assemblage of practices used to craft realities. Bending the boundaries between presence and absence ‘makes manifest what is otherwise invisible. It extends the fields of visibility, and crafts new realities’ (Law, 2004, p. 90). Another noteworthy aspect of allegory is that it accommodates uncertainty and multiplicity. From Law’s

perspective, the ‘art’ of allegory is that ‘it holds two or more things together that do not necessarily cohere’ (p. 90). Unlike direct forms of representation, allegory symmetrically accommodates partially-connected and non-coherent realities together with coherences. In doing so, it alleviates the necessity of forcing indistinct or divergent inscriptions into a singular, stable version of reality. Law asserts that ‘Allegory is made in ambiguity and ambivalence. To work in allegory is to see and to make several realities at once. It is about the *apprehension of non-coherent multiplicity*. It is about split vision. Or ways of knowing in tension’ (p. 98). He likens allegorical methods of depiction to an act of *gathering*. The orientation is permissive—it’s about joining, meeting, and flowing together rather than excluding. What is crafted as presence is not necessarily coherent or singular but is always in mediated relation to what is made absent and ‘Othered’ (p. 146).

As I described previously, the approach to this research is informed by a constructionist perspective: reality ‘out there’ is constituted by socially constructed meanings ‘in-here’. Yet at the same time, it also draws on STS perspectives which emphasize the multidirectional relationship between ‘out there and ‘in here’. This orientation not only informs my outlook on the object of study but also my way of knowing it. Just as practices enact MMT objects, research methods and the knowledge claims they generate craft the realities they are presumed to represent. From this perspective, ‘methods are not a way of opening a window on the world, but a way of interfering with it. They act, they mediate between an object and its

representations' (Mol, 2001, p. 155). By embracing this approach it is important for me to locate my own research methods within the field of practices which enact the meanings and effects of MMT. By bringing certain versions of MMT(s) into focus, this thesis plays a role in assembling the topography of what is 'true' and hence 'real'. The concept of *method assemblage* provides me with a way to cope with and account for my 'unavoidable complicity in reality-making' (Law, 2004, p. 153). It encourages reflection on the productive consequences of my methods—not just in terms of what they craft as presence but also what they manifest as absence and make invisible. Viewing methods as *assemblages* rather than as tools for direct representation also makes it possible to attend to the multiple and fragmented realities I encountered in my research data. Resisting the urge to produce smooth and coherent narratives is challenging at times. An allegorical approach facilitates a technique of 'deliberate imprecision' because it accommodates the ambiguity and incoherence in the data (Law, 2004, p. 3). It offers me a way to know the elusive and intangible without having to pin it down and hold it fast.

Researcher reflexivity and reciprocity. As much as realities are crafted through research methods they are also shaped by the embodied, situated, and subjective positioning of the researcher. The relationship between the knower and the known is a key epistemological question in social science (Trainor and Bouchard, 2013). Constructionism challenges a view of knowledge production as independent and objective from the researcher producing it. Rather than trying to eliminate or

silence the researcher's influence, a constructionist approach encourages its recognition and expression. As Haraway(1997) emphasizes, the subject position of the researcher is a 'located' position—one that is produced by a specific set of social and historical conditions. In locating oneself 'in the action' (p. 36), the researcher appears not as a knowing subject who discovers a singular truth, but as a material body (gendered, classed, sexualized) through whom realities are shaped. Reflexive acknowledgement of the researcher's situatedness makes visible the effect of power relations on the research interaction while also emphasizing the inherently co-constructed aspect of the research process and the knowledge claims it generates (Finlay, 2002; Karnieli-Miller, Strier and Pessach, 2009).

In the reflexive responsive interview model (Rubin and Rubin, 2005), the interviewer and researcher actively engage in a conversation together. As conversational partners, both individuals are encouraged to show emotions, share personal experiences, and express their beliefs. At the start of an interview, I emphasized to the stakeholder that I wanted the interview to be more of a conversation than a formal question and answer session. I adopted a casual conversational tone and limited the amount of time I spent looking down at my interview question schedule. I also tried to convey a sense of informality by refraining from using a clip board or carrying a briefcase. I thought this might help to destabilize my authority as the researcher and make stakeholders more comfortable speaking candidly with me. When speaking with 'MAT' clients (i.e. recipients of

MMT in Kenya) about their drug use, I occasionally had the opportunity to discuss my own experiences using drugs. Many of those to whom I disclosed responded with surprise and curiosity, asking me questions about the extent and circumstances of my use. Some informed me that they were more comfortable speaking openly with me. As Douglas (1985) suggests, forming a common ground enables the researcher and participant to share a familiar and intimate narrative space. The sense of camaraderie engendered by our mutual disclosure may have helped narrow the hierarchical gap between us. After these conversations I could often perceive a subtle shift in our interaction—as if what divided us was somehow softer and more porous.

In some instances, the subject position I inhabited was crafted by participants' understanding of the narratives I constructed about myself. For example, I am aware that the subject of my research and my regular presence at the MAT (i.e. MMT) clinic may have constructed me as an advocate for MMT. I was uncomfortable with this (potential) subject position because it did not align with the version I constructed for myself. My ideas about MMT were (are) relatively ambiguous and shifty. The variability of the intervention sometimes left me feeling muddled. My uncertainty ebbed and flowed throughout the course of my research but with each shift in perspective I became more reluctant to pin it down as 'this' or 'that', good or bad, useful or ineffective. However, communicating my ambivalence was not always a straightforward process. An interaction I had with a man called Pato brings some of these dynamics into focus.

Pato and I talk about the woman who had been beaten by a mob for stealing a few days back. He tells me that he was also attacked by a mob when he first began using heroin. In between puffs of his joint he recounts some of the other problems he's encountered: falling out of touch with his family, homelessness, and difficulties earning money. All of these hardships—all of this loss, he explains, make him want to start taking MMT and 'leave this life behind'. I can hear urgency and a tinge of desperation in his voice as he speaks. An awkward silence follows. Pato has a look of expectancy on his face but I'm not sure what to say. Is he looking for my approval? Why—what did Ibrahim tell him about me? Does he think I'm from the clinic? I want to express ambivalence but what if it comes across as dismissive or uncaring.
(Observation)

Through this experience and others like it, I increasingly saw myself as constructed and multiple—'always becoming never quite fixed' (Foley, 2002, p. 473). It seemed I was best able to navigate and attend my different subject positions by embracing the liquidity and fragmentation of my identity rather than trying to assert or insist on a particular version of myself.

Similarly, the 'type' of identity an individual performs or has invoked upon them may vary according to the context of the social interaction. In situations related to questions of inclusion and exclusion, a particular identity may be more relevant or seem more appropriate than another (Frame, 2014, p. 86). The following is an excerpt from a field note describing how my subject position and its intersubjective meanings inadvertently became a resource for social approval.

I pass by Habib on my way to the clinic. Drawing me aside, she warns me that I have to be careful because Alice was telling 'everyone' in the (drug) den that I was a researcher. 'But don't worry', she says, 'I set them all straight. I told the peddlers that you were a junkie.'² I think that is much better. They

² A local term for people who sell drugs

won't bother you now'. Suddenly I recalled seeing Habib in den the day before: she was seated under an awning talking with three stern-looking men who were selling sachets of heroin out of small plastic bags. I tried to scurry past them, but Habib called out to me and I was forced to stop. After we have exchanged pleasantries, she returns to her seat in the shade. I glance nervously in her direction as Alice and I walk away. She is speaking with one of the peddlers. I catch her eye and a brief conspiratorial smile passes over her face.

Habib considers my position as a 'junkie' to carry a form of social currency in the drug den that my researcher-self did not. She draws on this identity to negotiate my acceptance by the peddlers, despite Alice's previous attempt to make me up in a different way. My acceptance was particularly important in the den given that the peddlers were prone to violent attacks on outsiders whom they regarded as suspicious. While I appreciated what Habib did for me, my initial reaction when she told me about it was a sense of loss—as if she had somehow taken the right to disclosure away from me. These feelings also perplexed me. If I was crafting her subject position as a MAT client through my research, why then couldn't she also craft mine? In the end, I believe that the lack of control I felt enhanced the reciprocal 'push and pull' dynamic of our relationship and served to equalize, however momentarily, the balance of power between us.

During my interviews with stakeholders I often asked questions about MMT in relation to recent programme-related issues or circumstances. Framing my questions in this way tended to elicit more candid, detail-rich responses from stakeholders. Yet, it also provided me with an opportunity to show them that I had

my own situated knowledge. The need to project myself as someone ‘in the know’—not with formal, codified knowledge but with localized knowledge, was probably related to the insecurity I felt as a student and *ulami* (‘sheng’ word for a person from abroad). As I describe in the next section, I sometimes worried that certain stakeholders, particularly those who seemed reluctant to speak with me, did not take me seriously or had simply brushed me off as a novice ‘outsider’. And to be sure, in many respects *I was just that*. The longer I spent working around the (seeming) periphery of the stakeholder sphere, the more I felt the need to be ‘let in’ in some way.

A growing body of scholarship encourages the acknowledgement of personal subjectivities and biographical disclosure in qualitative research (Ellis and Berger, 2003; Finlay, 2006; M. Harris, 2015; Probst, 2016; Reinharz and Chase, 2003). These practices are seen to constitute sources of insight and understanding rather than tools for transforming personal experiences into credible forms of research knowledge. Yet a prominent criticism of reflexive practice is that it has the potential to give way to romanticised and self-absorbed accounts of reflection. As Finlay (2002, p. 212) suggests, ‘in negotiating the “swamp” of introspection and intersubjectivity one can easily get caught in a cycle of excessive self-analysis and deconstructions at the expense of focusing on the research participants and developing understanding’. With this in mind, I attempt to use my awareness of the subjectivities embedded within my research not as an end in and of itself but as a catalyst for interpretation.

Reflecting on my place in co-constructing the research process and the findings that are produced through it destabilizes the authority of my research narrative by making visible my own complicity in reality-making.

Access to the research field

Negotiating entry into the MMT stakeholder ‘sphere’ in Nairobi was essential for data generation. The following account describes some of the ways I navigated into and through this social landscape. These activities were undertaken with less consciousness and organisation than my narrative likely conveys. However, this does not mean that my approach was without considerable reflection. Gaining access to the research field necessarily involves anticipating and influencing how others respond to your presence. Of equal importance, however, is the commitment to ensuring participants feel comfortable and are respected. ‘[The researcher] needs both strategy and morality. The first without the second is cruel; the second without the first is ineffectual’ (Schatzman and Strauss, 1973, p. 146).

My first foray into the research field was during a week-long orientation trip to Nairobi in April 2015. I was accompanied by Tim Rhodes, my supervisor, and Andy Guise (a postdoctoral research student). Tim and Andy were in Nairobi to meet with stakeholders about Andy’s newly funded study exploring the integration of MMT treatment and HIV care. In the months preceding, stakeholders from the Ministry of Health and the MAT (i.e. MMT) clinic had expressed concerns about granting Andy and his team research access to the MAT clinic. Although the

meetings we had with these stakeholders were conducted with the utmost courtesy, the underlying tension was palatable. Since the London School of Hygiene and Tropical Medicine (LSHTM) was not directly involved in MMT implementation, it seemed they regarded Andy's study as an encroachment rather than a supplement to their own research agenda. The stakeholders' response to his proposed involvement is perhaps best understood by locating it within a broader context. Amidst apprehensions about diversion, corruption and security, the introduction of MMT in Kenya was approached with caution and control. As I discuss in the next chapter, managing representations of the intervention was of particular concern. Given the importance of maintaining control of the MMT narrative, it is likely that the presence of research activities led by individuals 'outside' of this professional network was regarded with some trepidation. The orientation trip left me feeling apprehensive about my ability to carry out the study. In consultation with Andy and Tim, I began to develop a strategy for framing my research, communicating with stakeholders, and negotiating access to observation sites. We agreed that it would be beneficial for me to articulate my study as entirely separate from Andy's work. The thought of publicly distancing myself from Andy made me feel uncomfortable. Starting with the development of my research proposal, he had always been an excellent source of information and advice. Fortunately, this tactic turned out to be unnecessary. Due to a delay in his study and the limited time he spent in Kenya, I found that his name rarely, if ever, came up in conversation with stakeholders.

In considering the uneasiness that certain stakeholders expressed about ‘outsiders’ conducting research on MMT in Kenya, I thought it was important to maintain a non-threatening and unobtrusive presence. When describing the research to stakeholders I was always careful to emphasize that it was not intended as an evaluation, nor did it seek to identify problems and develop solutions. Furthermore, I positioned myself as a *student* doing a project in fulfilment of a degree. In accentuating my status as a novice learner, I hoped to show that I was humble and approachable. While I may have risked being dismissed as unimportant, this was preferable to coming across as a threat. I also attempted to ‘keep a low profile’. With my white face and fair hair, I was aware that a certain amount of attention was inevitable, but I wanted to avoid drawing any *extra* consideration.

A particularly challenging and protracted aspect of negotiating access was establishing regular communication with stakeholders. Receiving a response for an interview request or inquiry about an event frequently required a sustained campaign of emails, *What’s App* messages, and voice mails occurring over several weeks. Initially, I understood the non-responsiveness as an indication of reluctance or unwillingness to participate in the study. This was confusing to me because my request was generally precipitated by a conversation in which the stakeholder expressed enthusiasm (or at least a reasonable degree of interest) in being contacted. Over time, I learned that non-responsiveness, most notably in the context of email communication, was a common occurrence. Almost everyone I spoke to—

stakeholders, expats, Kenyan colleagues—was familiar with the experience of sending an email or message and then inexplicably not receiving a response. Knowing that I need not take their silence personally made me feel less discouraged and encouraged me to be more persistent.

The organizational complexity of certain institutions and organisations required navigating through multiple layers of bureaucracy. I often found it necessary to consult a chart I made which mapped out the complex web of departments and levels of leadership. Observance of the hierarchies and dynamics of power was also essential. This was as much a matter of etiquette as it was a logistical concern. Over the course of my stay in Nairobi, I heard stories about people, particularly foreigners, who had offended or angered a stakeholder by failing to go through the proper channels when seeking permission or initiating communication. However, successful negotiation through the front door was not always sufficient to open other doors. For instance, despite having approval from a supervisor to conduct an observation, other staff members could be slightly uncooperative or aloof.

Negotiating access to the research field proved to be a continual process of developing and maintaining relationships. Following unanticipated perspectives and exploring unexpected places precipitated subtle shifts in my actions and identity that frequently impelled me to re-affirm my purpose and place. For example, during a visit to one of the drop-in-centres, I became acquainted with a client called Abu who

was trained in peer education. For a few Saturdays (a typically slow day for data generation) in a row, he took me to visit some of the drug dens in the city and the surrounding areas. During one of our excursions, a friend of his told me about a rumour going around that Abu was my 'Kenyan boyfriend'. Although she assured me that no one really believed the rumour was true, I was concerned that my informal interactions with the clients were somehow obscuring the professional purpose of the time I spent with them. Over the next few weeks, in an effort to reassert my identity as a researcher I casually dropped references to my research in conversations. In time and with reflection, I learned to become more conscientious about my behaviour and its potential effects.

One of the ways I tried to become more integrated into the MMT stakeholder 'sphere' was by volunteering to assist with activities and events. I understood stakeholders' willingness to involve me as a sign of the growing trust between us. I hoped that taking on the role of volunteer would make me appear less threatening and less of an 'outsider'. For instance, in August 2015 I became involved in the planning of the event to launch the National MAT Programme. I was invited to weekly planning meetings with a large group of influential national and local stakeholders. I first attended the meetings only as an observer. However, after the third or fourth meeting my silence began to feel a little awkward. Everyone in attendance was volunteering to assist with an aspect of the event while I just sat in the corner taking notes. I considered whether offering my assistance would be

perceived as improper given my role as a researcher. In the end, I decided that it was more appropriate for me to become engaged than to remain passive. After one of the meetings, I approached an officer from the Ministry of Health to inquire about volunteering. She seemed pleased by my willingness to get involved and asked if I would be interested in helping to create the tickets for the event. Volunteering in this capacity made me feel more comfortable attending the planning meetings and afforded me the opportunity to better acquaint myself with those involved. Over time, I became an increasingly familiar face on the MMT ‘scene’ and negotiating access to stakeholders and sites of observation became easier.

Data generation

As I have previously stated, three types of data were generated for this study: (1) longitudinal in-depth qualitative interviews with local stakeholders; (2) field notes from observations of local stakeholder interactions; and (3) primary sources containing media and/or policy statements linked to MMT in Kenya.

Qualitative interviews. Longitudinal in-depth qualitative interviews serve as the principal source of data for the present study. I chose qualitative interviewing as a data generation method because it provides a way to elicit detailed, nuanced information from the perspective of a participant. Qualitative research is, at its core, a study of subjectivity—of meaning. Qualitative interviews seek to ‘understand the world from the subject’s point of view, to unfold the meaning of people’s experiences, to uncover their lived world prior to scientific explanations’ (Kvale, 1996, p. 1).

Qualitative interviewing is often used in object-oriented research informed by an ANT orientation (Nimmo, 2011). The approach shifts our focus from perspectives on objects to following objects as they are enacted through different practices. What is shared in an interview is revealing of ‘events-in practice’. According to Mol (2001), ‘It is possible to listen to people’s stories as if they tell about events. Through such a listening, an object takes shape that is both material and active’ (p. 20). Descriptions of actions, rationales, and motivations also provide insight into the structures of knowledge that underpin practices. At the same time, how an object is talked about is also an important aspect of meaning-making. The realities enacted through practices and the statements made about these realities are inseparable. The words and labels participants use as well as the discourses they draw upon are part of the network of elements that bring an object into being. A longitudinal approach to qualitative interviewing offered a way for me to (more fully) explore the ongoing process of MMT’s enactment in Nairobi. This process-focused orientation is informed by the idea that realities are made and sustained through a continual process of enactment. ‘Enactments and practices never stop, and realities depend on their continued crafting’. (Law, 2004, p. 56). As I described in Chapter 1, the perspective does away with the concept of *constructing* which implies the possibility of a routinized and solidified object. As a new initiative in Kenya, the meaning and effect of MMT are fragile and open for transformation—perhaps more so than if the intervention was associated with a long-established hinterland of practices. Being

able to conduct multiple interviews with the same stakeholder across a given time period provides a way to more fully capture the changes and adaptations that occur in this unfolding meaning-making process.

Participants and recruitment. I conducted 37 interviews with 27 stakeholders as part of my fieldwork in Nairobi. All stakeholders met one of the following criteria: (1) has been involved with the development/implementation of the National MAT Programme in Kenya; or (2) has publicly voiced an opinion about MMT (e.g. through a public forum).³ Recruitment was primarily carried out through indirect techniques such as word of mouth and informal referrals from other participants. The strategy was informed by both practical and theoretical considerations. I initially focused on recruiting a group of community service organisation (CSO) stakeholders that I met through Andy Guise. From there, I was referred to other relevant stakeholders who then assisted me in making additional contacts. The observations I conducted at events and sites also proved to be fruitful opportunities for meeting stakeholders. As the number of connections I had increased and I became more acquainted with the MMT stakeholder ‘sphere’, I was able to adopt a more selective approach to recruitment whereby I focused on cases that were most relevant to

³ MAT clients were not excluded from participating in the research, but the use of MMT was not in and of itself a criterion for enrolment. There are two reasons I chose not to extend enrolment to the general population of clients. Firstly, limiting enrolment enhanced the feasibility of the project by narrowing the scope of my field work. Secondly, the original iteration of the project focused primarily on policy discourse. Particular discursive practices may involve clients, but as a group they are not generally considered to be key actors in such matters.

emerging themes. Stakeholders were also selected on the basis of their connection with particular ‘situations’ (e.g. happenings and incidents) relevant to the MMT stakeholder sphere which arose during my time in the field. Selecting participants according to ‘events that happen’ rather than perspectives enabled me to focus on the practices—*the doing*—involved in making up the object of MMT (Mol, 2001, p. 16). For instance, when I returned to Nairobi for the second round of fieldwork in January 2016, I noticed there was a lot of chatter among the clients about the ‘new methadone’ that the clinic was dispensing (see Chapter 7). I spoke with several peer educators about the ‘situation’ and turned to the staff members of the clinic and the CSOs to gain additional insight.

Twenty-seven stakeholders in all completed interviews. Table 2.1 details the different types of stakeholders I interviewed. Seventeen of these stakeholders were interviewed once while the remaining 10 were interviewed on two occasions—once per each fieldwork cycle. The selection of participants for follow-up interviews during the second round of data collection was driven by the MMT-related ‘situations’ unfolding at the time and by my initial analysis of the previously generated interview data. Initially, I set out to conduct second interviews with 16 participants. However, six of them were unable to meet with me due to various logistical constraints, including changes in residence, maternity leave, job transfers, and prolonged scheduling conflicts.

Procedures. The interviews took place in a location of the participant's choosing—usually in a private office at their place of employment or in a café. Before the start of the interview, participants were provided with a study information sheet which included details about the research project and what would be required of them if they chose to participate (Appendix I). After participants read through the document on their own I provided a brief summary of the main points and invited them to ask questions. The majority of their queries concerned the logistics of study participation, such as the timing of follow-up interviews and the number of interviews involved. Upon answering their questions we both signed and dated a separate consent form (Appendix II). Following the consent process, I asked participants to provide me with their contact information and some brief details related to their professional background (Appendix III). All of them said they were comfortable being interviewed in English. English is commonly spoken as a first or second language in Kenya, particularly in urban areas like Nairobi. The interviews were audio recorded with the participants' permission. No financial incentive or remuneration, although I typically provided light refreshments. After each interview, I wrote a brief note describing the location and circumstances of the interaction, notable points of the conversation, aspects of the participant's body language and emotional expressions, and the impressions I had about how the interview had impacted me. Shortly after I completed each interview, the audio recording was transcribed verbatim by a professional transcriptionist in Nairobi.

Interview questions and approach. Following Rubin and Rubin's (2005) responsive interview model, I conducted the interviews with the aim of having a 'contextual conversation'. My primary role was to listen and then respond to or ask follow-up questions based on what I heard. However, as conversational partners, I was also encouraged to show my emotions, relate relevant personal anecdotes and share my opinions. The approach reflects a constructionist understanding of the researcher and participant as co-producers of the interview process and the data that is generated through it (Burr, 1995). The interviews were guided by a set of narrative and descriptive questions (Appendix IV). The interview schedule was organised by topic area. While the questions I asked were broadly informed by these topic areas, the interviews were conducted in such a way as to accommodate the participant's responses and allow them to shape the interview agenda (Rubin & Rubin, 2005). Over time, my line of questioning changed to reflect developing themes and new lines of inquiry. I often asked participants to discuss the details of a specific 'situation' unfolding in the MMT 'sphere'. The accounts and anecdotes they related to me generally provided more insight about what MMT *is* than explicit questions about its purpose or effect (Mol, 2001).

Observations of stakeholder interactions. In addition to the longitudinal interviews, I conducted 45 observations of interactions between and among local MMT stakeholders. These took place at events and in settings where stakeholders convened. Table 2.2 details the observations I carried out over the course of the

study. The rationale for including descriptions of stakeholder interactions as sources of data is informed by one of the orientating concepts of ANT—that is, objects are relational and enacted effects. The approach emphasizes the role of performance—the *doing* of material, discursive, and social arrangements that bring particular versions of objects into being. ‘Objects are framed as parts of events that occur and plays that are staged. If an object is real it is because it is part of a practice’ (Mol, 2001, p. 44). Following this way of thinking, understanding *what* MMT *is* requires an examination of the practices that generate it. The meetings, events, and spaces in which MMT stakeholders interact are a stage for the performance of MMT’s identity. As a method primarily focused on capturing enactments of the ‘here and now’ (Miettinen, Samra-Fredericks and Yanow, 2009), observation is an ideal technique for studying these ‘performances’. Accounts made through observation include descriptions of bodily movement, social exchanges, and speech. Participating in a practice provides an opportunity to learn first-hand about the implicit knowledge that underpins it. The flexibility of the approach makes it possible to follow new leads and information across different sites and among different groups of interests. This is a particularly useful feature for research that centres on a specific object rather than a setting (Bueger, 2014).

Procedures. I conducted observations at events (e.g.. meetings and support group sessions) related to MMT, harm reduction, and heroin addiction in Nairobi. Attendance was generally by invitation only and limited to a select number of

relevant stakeholders. After becoming aware of an event I typically contacted the organiser to ask if I could attend for the purposes of observing. In some cases the invitation was secured through a stakeholder with whom I had a pre-existing relationship. Initially, my knowledge of upcoming events was limited. Once I had become more acquainted with the MMT 'scene' in Nairobi it was easier for me to identify events and I felt more comfortable contacting stakeholders to request invitations.

Before the start of an event I passed around copies of the information sheet which described the purpose of the study and the primary components of data generation. As I circulated them I briefly discussed my intention to observe the event and explained that I would be taking field notes in order to record what I was observing. The majority of participants received me warmly and did not seem concerned about my presence as an observer. Several made remarks about the relevance of my research given the new status of the MMT programme while others seemed more interested in speaking with me about my background or my experience living in Nairobi. My interactions with participants at an event varied according to the situation. When I began observing events, I tried to position myself off to the side so I could maintain a relatively passive presence. While this was occasionally possible, most of the time I found that participants invited me to sit with them. For instance, participants at stakeholder meetings often asked me to sit with them around a conference table. Similarly, I regularly attended an MMT support group

where I was asked to sit in the front of the room next to the social worker facilitating the meeting. In both scenarios, I would have preferred a less obtrusive position but it was clear that this arrangement was most preferable to my hosts, so I did not protest. Some observations at meetings and other types of events provided an opportunity for more direct participation. For instance, I marched with staff members from a CSO in a rally to support human rights for people who use drugs. I also photographed the event to celebrate the commencement of the National MAT Programme (see Chapter 4). Although I was more of a participant-observer in these situations, I did a lot of watching and listening but rarely attempted to directly channel conversations. Participant observation garnered multiple benefits. Firstly, immersing myself in the practices I was observing provided me with a fuller understanding of the implicit knowledge that underpinned them. Moreover, my participation also had symbolic significance in that it was a way for me to indicate to stakeholders that I was committed and engaged in the activities of the community.

In addition to the observations I conducted in the context of events, I also observed stakeholders in settings where they convened such as the drop-in centres for people who use drugs and MAT clients, outdoor areas next to the clinic, and in the drug dens. Observations of settings were generally easier to arrange and involved less formal contact with participants as compared to the ones conducted at events. Those which occurred at the drop-in centres were usually coordinated through a member of the staff. Several observations in the drug dens were carried out as I accompanied

peer educators on their rounds to provide clean needles and syringes to people who use heroin. During the second round of fieldwork, I spent a considerable amount of time observing the social interactions between people using heroin (many of whom were clients) at a drug den located within walking distance of the MAT clinic. While I did not conduct formal observations of the medical practices at the MAT clinic, the time I spent there in other capacities (e.g. attending a meeting or conducting an interview) provided me with brief opportunities to observe the spaces, situations, and interactions unfolding before me. Moreover, the areas directly surrounding the MAT clinic were fruitful spaces for observation. After attending a meeting or interview at the clinic, I often spent time with groups of clients who congregated outside the entrance or below the overpass next to the hospital (see Chapter 5).

It was typically difficult to circulate information sheets about the study in most of the settings I observed. Some were busy public (e.g. the sidewalk under an overpass) and semi-public areas (e.g. a drug den) where streams of people flowed through. While others had more defined boundaries (e.g. the reception area at a drop-in centre), they also tended to be hives of activity involving a steady flow of bodies moving in and through the space. In these scenarios, extra care was given to conducting observations in a way that protected the rights of those observed. For instance, in many circumstances, I refrained from taking notes because I did not want to be perceived as an intrusion or make anyone feel uncomfortable.

Furthermore, early on in my fieldwork, several of my acquaintances who were clients

advised me not to take notes or pass out information about the study in the drug dens. They believed that these activities would most certainly incite paranoia and distrust but might also lead to issues that would compromise my safety. As with the events, the level of interaction I had with participants in these settings was dependent on the dynamics of the situation. In most cases, I tried to position myself off to the side so that my presence was not too disruptive. However, in scenarios where I was observing relatively stationary participants (e.g. a small group of people smoking heroin), it seemed most appropriate to sit among them. Similarly, in this type of arrangement, it usually felt socially awkward to maintain a completely passive presence. Generally, I engaged in a certain amount of small talk but primarily intervened in conversations only when I wanted to ask a clarifying question. While sitting with a group of people in a drug den, I often made origami cranes out of the small pieces of discarded paper that doses of heroin are packaged in. Occupying myself with an activity which required a certain degree of concentration made it more acceptable for me to refrain from engaging in the conversations swirling around me. In some situations, my unfamiliarity with kiSwahili also made it possible for me to maintain a relatively passive presence without making people feel uncomfortable.

Documentation. The observations I made were recorded as field notes. My strategy for taking field notes varied according to the situation. During formal stakeholder meetings, I typically wrote extensive, detailed descriptions of the

conversations, body movements, and interactions that took place. The majority of participants were also engaged in note taking so it felt appropriate to do the same. By contrast, it was challenging to take in-depth notes in real time when I was observing an event in which I was also participating. In some cases too, it was not appropriate for me to be engaged in extensive note taking. In these scenarios, I carried a small notebook and pen in my pocket and would jot down a few words when I had a moment alone.

Generally, the notes I wrote *during* the observations served as the basis for more detailed accounts which I tried to generate soon thereafter. The extract below is from the field notes based on an observation of an MMT support group meeting. It illustrates key aspects of my approach to documenting what I observed.

The chairs in the room are arranged in a circle. Five clients are present: 4 men and 2 women. Dennis is standing next to a large pad of paper on an easel. He writes 'RELAPSE PREVENTION' on the paper. He reads the phrase aloud and explains that it is the topic for today's session. He writes 'Placebo Effect' and says: 'Pretend that MMT is a pill for addiction as a whole, not just for opiates'. He points to the words on the pad and asks the clients to read it out loud; they respond in unison, 'Pla-cee-bo eh-fect'. One of the men has his eyes closed and appears to be sleeping. He explains how MMT works: 'MMT is not forever. Unless you are completely off all these drugs, chances are that you'll use heroin again' [Discourse of recovery; MMT is 'pill' to treat addiction—goal is abstinence; temporal aspect of MMT as a treatment—at what point does it become a 'drug'?]

The passage includes verbatim quotations and summaries of conversations. It captures the way in which certain words and phrases were spoken and contains descriptions of non-verbal aspects of the interaction such as details about the surroundings, movement, and body language. Anecdotes from clients reveal details

about the MAT clinic and the experience of taking MMT. Given that my observations of the clinic were limited to occasions when I was attending a planned event (e.g. meeting, interview), these accounts are particularly important. At the end of the extract is a brief analytical memo in brackets. When typing up my reports from the field, I often noted links between different sections of the data and emerging analytical themes as well as impressions about my experience in the field.

Primary sources. The third and final form of research data is primary sources (e.g. documents, videos, audio recordings) containing media and/or policy statements relevant to MMT in Kenya. Table 2.3 summarises the 54 primary sources I discursively analysed as part of my research. Through an analysis of claims-making, the language used to make them, and the discourses on which they rely, these materials offer critical insight into how particular ‘versions’ of MMT are made, sustained, and contested. As Law (2004)—echoing Latour and Woolgar (1986)—contends, the realities enacted through practices and the reports or statements made about these realities are inseparable. It is not a matter of words representing things. ‘Words and worlds go together’. Words include ‘realities which are comprised and grow from a specific hinterland of practices’ (p. 33). In making statements about MMT, primary source texts constitute an important element in the ‘bundle of relations’ which enact its meaning and effects.

Procedures. Several techniques were used to collect the primary sources. The televised material (e.g. news reports, interviews, documentary films) was available on

YouTube or recorded in real-time. The majority of news articles and government-related newsletters were identified through searches via Google or Google Alerts and downloaded from the relevant websites. The policy documents (e.g. guidelines, reports) were compiled using a similar method. Other primary sources, including informational leaflets and speeches, were obtained in the context of carrying out observations or passed on to me by local stakeholders. I generated comprehensive notes containing direct quotations for the sources in audio and video format. The primary sources available in electronic format were labelled according to the date and title (or source) and saved in a file on my personal computer.

Data analysis

Qualitative interviews and field notes of observations. The first phase of analysis involved familiarizing myself with the research data. For the qualitative interviews—shortly after receiving a transcript, I read through the document while listening to the corresponding audio recording to check for accuracy and make note of laughter, pauses, and tone. As I listened, I made comments on points in the conversation where I could have encouraged the participant to say more, made room for silence, or asked a question in another way. Thinking through how I might have done things differently helped me to improve my skills for future interviews. As part of this process, I also noted my feelings after re-reading/re-listening to the interview and jotted down the impressions I had about my own role in shaping the content. I followed a similar process for the field notes—while I typed my handwritten field

notes I added details that I might have missed in the original account. I also reflected on my emotional response to the data and considered how my positionality shaped the interactions. When I returned to London after completing each round of fieldwork, I then re-read all of the transcripts and field notes together so I could gain a better sense of the data as a whole.

The second phase of analysis involved coding the transcripts and field notes line-by-line to generate a list of emergent themes. Law and Mol (2002) suggest that lists are modes of relating that mobilize specificity without imposing order or a sense of completeness. 'A list doesn't impose a single mode of ordering on what is included in it. Items in the list aren't necessarily responses to the same questions but may hang together in other ways' (p. 14). Assembling the themes in a list instead of an ordered schema allowed me to mobilise specificity while remaining open to new, and potentially incoherent, analytic possibilities. Each theme was assigned a short descriptive code. As I read through the documents, I highlighted relevant text and saved them in a corresponding MS Word file. Since the themes were interconnected, many of the passages were coded as multiple thematic categories. When developing a new code I compared statements and incidents within the same data source and then across different sources. The most fruitful comparisons were typically sequential (e.g. observations of the same setting at different times) and across cases (e.g. interviews from different stakeholder 'types') in nature. Coding in this way involved several readings of each transcript and field note, my familiarity with the material deepening

as I went. I took an inductive approach to the coding process by ‘sticking’ closely to the words and actions in the data rather than applying pre-existing categories to it (Charmaz, 2006, p. 49). Coding to gerunds and language also encouraged me to view the material in terms of practices—the discursive and social arrangements that bring particular versions of MMT into being (Mol, 2002, p. 44). In the third phase of the analysis, I turned my attention toward developing directed, conceptual themes that reflected key patterns of meaning across larger segments of data. Once a pattern of meaning began to take shape it was easier to locate moments in the data that could be understood as further repetitions of it. At the same time, other aspects of the data were rendered less significant. As Law (2004) describes with respect to his own analytical process, ‘the signal grew against a growing background of silence’ (p. 111). The patterns of meanings were refined and further articulated by continuously comparing them with and relating them to the previously coded data. The relationships between and among these patterns of meaning were then explored, with each organising a theme forming the basis of a thesis chapter.

I am mindful that my methods of analysis produce ‘outthereness’ by synthesizing certain patterns and repetitions while fading a limitless number of alternative possibilities: ‘that they manifest signals/realities on the one hand, and generate non-realities/silence, and Otherness on the other’ (Law, 2004, p. 113). Thinking about the data through an allegorical lens shifted my focus away from developing thematic categories which aimed to fully capture a situation to identifying

and developing those which resonated with and amplified one another but that did not necessarily fit together into a single coherent narrative. As I noted in the preceding pages, allegory is a mode of investigation which bends the boundaries of presence and absence by turning one's attention to what is *not* said. Reading between the lines of an account allowed me to consider the meanings of a *description* as well as the meanings that *could be understood through that description* but were otherwise invisible. The patterns of meaning crafted through this analytical approach encourage the kind of silence which allows for these faint, partially connected signals to also be heard (Law, 2004).

Primary sources. My analysis of the primary sources was guided largely by the 'What's the problem represented to be?' (WPR)—a poststructuralist approach to policy analysis developed by Bacchi (2009; 2012) which is used to interrogate the conceptual premises and underlying presuppositions of policies. Bacchi's work is heavily informed by the Foucauldian concept of *problematization*. While policies are traditionally thought of as a solution to an observable problem, WPR treats policies as competing interpretations of political issues. For Bacchi, the most direct method of uncovering the embedded assumptions and 'thoughts' of a policy is by analysing the representation of the 'problem' for which it purports to be the solution. Put simply, the WPR approach is based on the idea 'that what we say we want to do about something indicates what we think needs to change and hence how we constitute the "problem"' (Bacchi, 2012, p. 4).

Following Bacchi's framework, I conducted a discursive analysis of the primary sources revolving around two interconnected questions—1) 'How do representations of MMT construct and reflect HIV and drug addiction as social problems?'; and 2) 'How do problematisation of HIV and drug addiction construct MMT (the 'solution' they are represented to address). In thinking through these questions in relation to the data, I was aided by the overlapping directives: 1) How is the 'problem'/'solution' represented? What is the claim?; 2) What presuppositions or assumptions underlie this representation?; 3) How has this representation come about?; 4) What is left unproblematic in this representation? Where are the silences?; and 5) How/where has this representation/claim been produced, disseminated and defended? (Bacchi, 2009, p. xii). While the framework serves as the foundation of the analysis, there are areas of divergence I would like to acknowledge. Firstly, the majority of Bacchi's work in this area concerns policy. In this research context, the approach is applied as an analytical tool for examining policy and media statements linked to MMT. Similarly, the analysis incorporates several other primary sources (e.g. informational leaflets, newsletters, televised news reports) in addition to conventional policy documents. Finally, the problematisation approach was primarily developed to examine policy *problems*. Expanding the scope of the method's application, I employ it to discursive representations of 'problems' (e.g. HIV and drug addiction) as well as the 'solutions' (e.g. MMT) which are purported to address them.

The problematisation-inspired analysis of the primary sources is presented in Chapters 3 and 4. However, some policy documents—such as those pertaining to the protocols and regulations of the MAT clinic—were also included in the analysis of the interviews and observations when the content proved relevant to the emergent themes. It is in this analytical context that primary source data appears in Chapters 5 through 7.

Ethical considerations

This research study was approved by the ethics review committees of the LSHTM and the Kenya Medical Research Institute. All aspects of the data generation process, from recruitment to observation of stakeholder interactions, were undertaken with a strong commitment to consent, confidentiality, and transparency. I was also mindful of the need to respect the ongoing dynamics and routines of the people with whom I sought to interact. This was all the more important given the fact that participation in the study did not garner a direct benefit or offer financial remuneration. Scheduling interviews and securing invitations to events required persistence and assertiveness. At times, my commitment to avoid being considered burdensome may have hampered my data generation efforts. For instance, if a participant declined my request for an invitation to a meeting, I did not try to get them to change their mind or question the rationale behind their decision. A more aggressive tactic may have yielded more data, but it could have been disruptive or caused embarrassment. As I have previously stated, it is likely that such an

approach would also have impeded my ability to establish trust and build relationships with participants.

The utmost consideration was given to preserving the confidentiality of the research data. Interview audio recordings, transcripts, and field notes are labelled with a unique number. A password-protected electronic spread sheet links participants' names with the unique numbers. As part of the interview transcription process, all identifiable information was redacted, including names, affiliations and relevant personal details. The soft copy files are saved to my personal computer and a restricted folder on the LSHTM file server—both of which are pass-word protected and encrypted. The hard copy files were initially housed in a locked drawer in my office at the Kenya Medical Research Institute and then transferred to a locked cabinet in a secure area at LSHTM.

I was particularly mindful of anonymity when generating, transcribing, and presenting my research data. Before conducting an interview or observation, I ensured participants that I would endeavour to keep their identities hidden by changing their names and the names of anyone else they mention (e.g. a colleague), as well as disguising place names and other specific details. Although an effective anonymising strategy, generating de-identified data (e.g. taking de-identified handwritten field notes and asking participants to refrain from referring to names or places during interviews) was infeasible and hindered my ability to capture rich, contextual data. Interestingly, some participants seemed quite fluent in strategies for

anonymising, perhaps because they were familiar with managing confidentiality as part of their profession. I carried out the process of de-identifying the data at the point of transcription whereby I deleted and replaced identifiable information with letters or numbers (e.g. [*Colleague X, CSO Y*]).

In this thesis, specific names, professional titles, and places have been replaced with generalised terms and broad descriptive categories. This applies to all verbatim quotations and narrative accounts. In some instances, the names of MAT clients have been replaced with pseudonyms, but otherwise, they are identified simply as ‘client’. I am aware that even without the presence of identifiable information, complete anonymisation is nearly impossible given the small number of institutions, organizations and government departments involved in MMT implementation in Nairobi. With this in mind, as part of the interview consent process, I made participants aware of the limits to the anonymity I could offer them as well as the challenges involved with maintaining it. Attendees at events I observed may have been less aware of these facts given the absence of a formal consent process. I have therefore been reluctant to use direct quotations or excerpts that could not be sufficiently de-identified.

In the present chapter, I have endeavoured to provide a detailed explanation of the research methodology. From here, I turn my attention to the empirical component of the thesis. The next five chapters report the ‘findings’ which are constructed through, and in relation to, these research methods.

Figure 2.1 The MMT stakeholder sphere in Nairobi

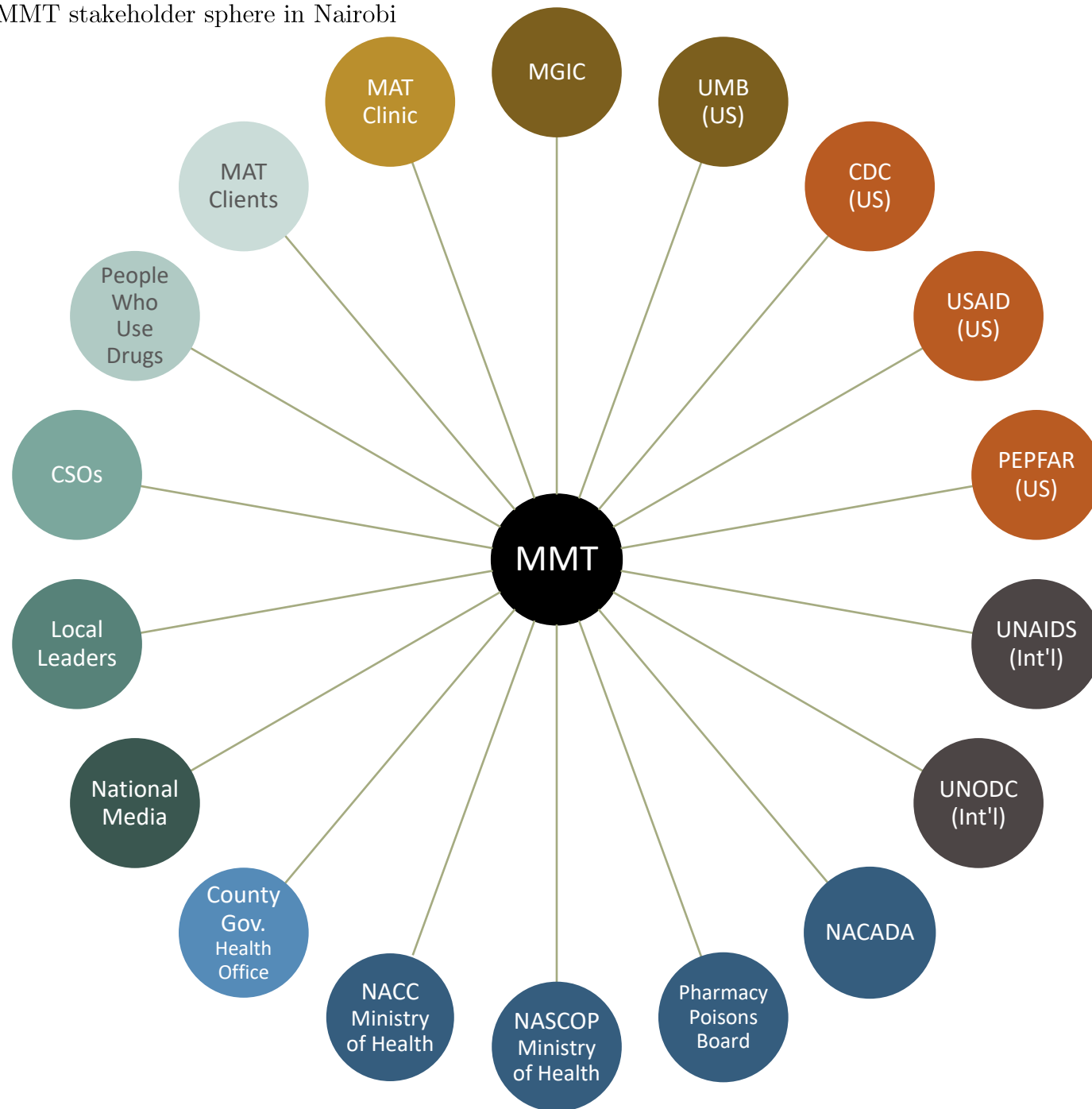


Table 2.1 Summary of interview participants ($N = 27$)

Type	Number Enrolled
Staff members - MAT clinic staff	4
Staff members - Implementing partner organisations	4
Staff members - Community service organisations	9
Staff members - County and national government	4
MAT clients / peer educators	4
Religious leaders	1
Journalists	1

Table 2.2 Summary of observations ($N = 45$)

Description	Type	Number
Assemblies	Planned event	2
Formal meetings	Planned event	8
Support group meetings	Planned event	10
Trainings	Planned event	3
Drop-in centres	Location-specific	4
Drug den	Location-specific	14
Outside methadone clinic	Location specific	4

Table 2.3 Summary of primary sources ($N = 54$)

Type	Date	Number
News articles	2014 – 2015	17
Television news stories and interviews and films	2015	11
Government-issued guidelines and modules	2013 – 2016	4
Government-related reports and newsletters and websites	2009 – 2016	13
Speeches by policy and clinical stakeholders	2015	6
Informational leaflets for potential clients and public	2015	3

Chapter 3

Negotiating Local Meaning

Introduction

In telling the ‘story’ of the intervention’s local ‘making’ I would like to begin at the beginning. In what may be seen as a major shift in national policy, MMT enters Kenya as an experimental policy ‘solution’ to the emergent ‘problem’ of HIV among people who inject drugs. Having been enabled by a complex network of global institutions and investments, a wide range of stakeholders with competing agendas and values are involved in shaping what MMT becomes. It is in this context of uncertainty and manoeuvring, that the present chapter (three) considers how MMT is made meaningful by the various forms of knowledge which are mobilised and negotiated in relation to it. Prior to the implementation of an intervention, discourse constitutes a principal site of local knowledge-making (Rhodes *et al.*, 2016). With this in mind, I explore the aforementioned question through a discursive analysis of policy representations and accounts by the media, as well as narratives by local stakeholders concerning the programme’s planning.

The first section of the chapter pertains to the names of MMT in national policy and the ways in which the practice of naming the intervention is used as a form of capital in negotiating its local acceptance. Following from there, I turn to the strategic ‘re-branding’ of MMT as *medically assisted therapy* and reflect upon some of the

meanings it can be seen to confer. The next three sections concern three ‘versions’ of MMT which are produced discursively through policy representations and in accounts by the media: 1) MMT—the medical treatment; 2) MMT—the multi-dimensional intervention; and 3) MMT—the HIV prevention strategy. Along the way, I reflect upon how these different ‘MMTs’ and the discourses which inscribe them, construct the ‘problem’ they are represented to ‘solve’. Finally, I draw attention to the discursive strategies which disrupt particular meanings and associations that have the potential to compromise its relative acceptability as a medical treatment ‘solution’ for heroin addiction in local communities.

What’s in a name?

What is *said* about MMT determines what it *is*, and thus how it is negotiated into perceived legitimacy (Rhodes *et al.*, 2016). As discursive representations, the names used to refer to the intervention mediate its meanings and effects. A wide range of MMT-related names circulate within the national policy discourse. A review of documents published by the Ministry of Health since 2012 found more than ten names which represent the intervention, including *opioid agonist maintenance treatment*, *methadone maintenance treatment*, *opioid substitution therapy*, and *medically assisted therapy*. Frequently, several different names for MMT are used within a single sentence or paragraph.

It is important for the communities to understand that MAT benefits, not the individual but their community also so that they are supportive of drug users on OAMT (opioid agonist maintenance treatment), including their need to attend for the treatment daily, and help promote the service. – ‘Standard Operating Procedures for Medically Assisted Therapy’ (NASCOP, 2013d, p. 12)

OAMT generally enhances adherence to treatment with anti-infective agents. Methadone and buprenorphine can be safely used in patients with HIV, hepatitis and TB (tuberculosis). MMT increase the adherence of drug dependent users to ARV (antiretroviral therapy) and TB treatment. – ‘Standard Operating Procedures for Medically Assisted Therapy’ (NASCOP, 2013c, p. 46)

In the same document, certain names are also described as synonyms for other names.

Opioid agonist maintenance treatment: usually with either methadone or buprenorphine is also referred to as opioid substitution therapy. It is important to note that opioid agonist maintenance treatment with methadone is more commonly referred to as methadone maintenance treatment (MMT) (p. 10).

However, throughout most of the policy texts, the relationship *between* the names is not explicit. Switching between names, especially when the semantic associations between them are undefined, entangles and dilutes their meanings such that the ‘thing’ each name represents becomes indistinct and overlapping. The wording of particular names also fluctuates across policy documents. For instance, in some materials, *OST* is defined as *opioid substitution treatment* while in others it is *opioid substitution therapy*. The heterogeneity of the nomenclature and the variability with which it is applied underscores the slipperiness of the intervention’s meanings locally. Here we begin to see MMT implementation in Kenya not as a process of direct translation, but of ‘making’.

With each name potentially enacting a particular object, naming is used as a resource of negotiation in relation to the represented value of MMT. In the early stages of MMT policy development, the Ministry of Health organized a series of community forums in Nairobi and the Coast Province to discuss *opioid substitution treatment*, a name for MMT which was commonly used at the time. Many of the local government officials and civil society leaders who attended the forums were reluctant to endorse the initiative. As a former officer from the Ministry of Health described to me, their primary concern was the concept of *substitution*.

Through those forums, the biggest issue became substitution. People felt we were substituting one drug for another and not offering a definite solution [Interview].

As *opioid substitution treatment*, MMT does not appear to offer a ‘definite solution’ to the ‘problem’ of heroin addiction in local communities because it is seen to substitute one addicting opioid ‘drug’ (i.e. heroin) with another (i.e. methadone). In its configuration as an opioid agonist treatment for heroin addiction, methadone operates on the premise of substitution and thus constitutes a *replacement for*, but also an *extension of*, heroin (Fraser and valentine, 2008). In order to moderate community resistance to MMT, the Ministry of Health decided to call the intervention *medically assisted therapy* and stop using names which could be seen to represent it as a ‘substitution’ and/or an opioid ‘drug’.

...So it was through those (community) forums we decided that we're not even going to use OST anymore, we're just going to use medically assisted therapy, and we don't call our program 'the methadone programme' either. It was very critical because the word substitution was really becoming an issue. – Former officer, Ministry of Health [Interview]

While the re-naming of MMT did not lead to a complete consolidation of terminology, it did pave the way for the 'making' of a new, more acceptable form of intervention.

The name *medically assisted therapy* represents MMT as an object of medicine. Its 'medicalness' is conveyed through the individual words which comprise the name—*medically* relates to the practice of medicine while *therapy* denotes a treatment intended to heal or cure. Additionally, *medically assisted therapy* 'sounds' medical in that it has that kind of abstract formality associated with medical terminology; indeed, *medically assisted* and *assisted therapy* are both common phrases in names for medical interventions (e.g. *medically assisted reproduction, estragon assisted therapy*). In Kenya, *medically assisted therapy* is primarily defined as a medical treatment for heroin addiction.

Medically Assisted Therapy (MAT) is the use of opioid agonist prescription medications for the management of persons that are dependent on opioids and who have used opioids for an extended period. – 'Standard Operating Procedures for Medically Assisted Therapy'(NASCOP, 2013c, p. 10)

Medically Assisted Therapy (MAT) is the treatment for persons who are addicted to heroin using prescribed medications. – 'Methadone: What, Why, How to Use, Where to Access' [Informational leaflet] (NASCOP, 2014b)

Medically Assisted Therapy (MAT) is any treatment for opioid (heroin) addiction that includes three prescription medications. – ‘A Pledge to Change: 2014-2015’ [Informational leaflet] (NASCO, 2014d)

MMT—the medical treatment for heroin addiction

By promising medical treatment rather than substitution, MMT—as *medically assisted therapy*—can be seen to constitute an acceptable policy response to heroin addiction in local communities. As policy stakeholders acknowledge, through its presentation as a medication MMT is accorded a normalised status which enables it to be seen as acceptable.

Ownership. People own up. This (MMT) is a service supported by government. Just like a patient who is going to the hospital and they are prescribed drugs and getting drugs from the government facilities. Similarly, this is not different. It's the perception and on the other hand, it is the acceptance. The patient must accept, the community must perceive it in the right way, because perception is the major problem. – Officer, Ministry of Health [Interview]

If you don't have the political buy-in, then anything, even if you are trying to change the county bylaws, it will not be possible. But if they (the government) understand where we are coming from, and understand these people need help, and methadone is just medication then it will be easier. – Officer, County government [Interview]

That it is acceptable because it is medical can be seen to reflect the hegemonic influence of biomedicine in sub-Saharan Africa which has evolved over the last quarter century (Moyer and Igonya, 2014; Parrott, 2014).

A number of interconnected inscription practices are at ‘work’ in the making of MMT as a medical treatment for heroin addiction. A prominent narrative promoted by

clinical and policy stakeholders, and embraced by the news media, describes MMT as a treatment for the body to alleviate the effects of heroin and improve health.

For someone who has used heroin they'll tell you that it's never just a year or two its several they've been on heroin. And therefore, you can imagine the amount of damage that has been caused to that person's body and brain. Research has shown that for it to be a successful treatment, methadone has to be used for about two years and for some people it might take longer. – Treatment provider, MAT clinic at Mathari Hospital [Television news broadcast](NTV News Tonight, 2015)

The initiative will be launched in May and it follows a successful pilot project under way at Mathari Hospital, Nairobi, that began towards the end of last year. Health Executive Binti Omar said the physical and mental health of the more than 20 heroin addicts in the programme had improved drastically. – Journalist [Newspaper article] (Okwany, 2015)

These accounts are often presented alongside photographs and video footage of medical objects and settings (Figures 3.1 and 3.2). In many instances, they also include references to concepts associated with the practice of medicine such as medication dosing and side effects.

The methadone dose is given based on biometrics. Usually, patients start with 30ml and it goes higher depending on their years of abuse. – Journalist [Television news broadcast] (NTV News Tonight, 2015)

Just like most medications, there are some anticipated side effects with methadone. The ones we commonly see are constipation with the first dose some experience nausea, drowsiness can also occur in the initial days. We advise those on the drug to avoid driving or operating heavy machinery. – Treatment provider, MAT clinic at Mathari Hospital [Newspaper article] (Mwangi, 2015)

Across the policy discourse, MMT is promoted as a globally-endorsed, ‘evidence-based’ medical treatment for opioid addiction. This classification is grounded in empirical research demonstrating its positive effects on the suppression of opioid use and retention in drug rehabilitation programmes (Fullerton *et al.*, 2014; Mattick *et al.*, 2009).

It (methadone) is the most commonly used medication for opioid treatment of opioid dependence globally. Evidence shows that methadone treatment, when delivered in an appropriate standard of care, is a safe substitution medication for opioid dependence as it effectively retains people in treatment and averts heroin use. – ‘Standard Operating Procedures for Medically Assisted Therapy’ (NASCOP, 2013c, p. 8)

Methadone maintenance treatment has been around since the 1960s and has been one of the most researched treatment modalities to date. It is an effective, evidenced based, treatment intervention for opioid dependence. – ‘My Methadone, My Responsibility’ [Client education manual] (NASCOP, 2016, p. 3)

MAT is an essential medication and the most effective treatment for opiate dependence. The vast majority of scientific documents talk about the effectiveness of MAT. It’s a once daily dose taken orally. It normalizes psychological function disrupted by heroin. – Officer, Ministry of Health [Observation]

Not only does such discourse make and sustain its representation as a medical treatment, by representing the certainty of its effect potential, it may also be seen as a way to defend the decision to provide MMT.

Medicalising heroin addiction. The intervention’s construction as a medical treatment links closely with a problematisation of heroin addiction as a medical affliction. Historically, the medicalising of addiction is linked to the development of

pharmacological approaches to treat it (Courtwright, 2010). For instance, soon after buprenorphine became available in the US, the government passed legislation which allowed it to become the first and only pharmacological treatment for opioid dependence that could be prescribed by a clinician in an office-based setting. As Campbell and Lovell (2012) have suggested, by shifting the prevailing orientation of addiction from criminal to medical, this reformulation of the treatment landscape precipitated a resurgence of the medical profession's influence in the sphere of addiction treatment. The introduction of MMT in Kenya may have had a similar effect on local problem representations of heroin addiction. When speaking about heroin addiction within the context of MMT, policy and clinical stakeholders frequently invoke an evidenced-based discourse which constructs it as a chronic disorder of the brain (Leshner, 1997).

Heroin addiction is a mental disorder, and it's a disease in itself. If you look at what literature has shown about brain changes when you start using heroin, the brain is quickly messed up. – Staff member, Implementing partner agency [Interview]

It's a problem to your health because of heroin addiction, but say you are not injecting, say you are snorting or you're smoking, there is still the problem to your brain. You know mental health. – Staff member, Implementing partner organisation [Interview]

Addiction is brain disease that is of a chronic and relapsing nature. – Treatment provider, MAT clinic at Mathari Hospital [Observation]

Correspondingly, methadone's effects are overwhelmingly narrated in relation to the receptors of the brain and the bodily afflictions associated with heroin addiction.

Methadone is a synthetic opioid agonist that binds to the opiate receptors in the brain, similarly to heroin, morphine and other opioids. – ‘Standard Operating Procedures for Medically Assisted Therapy’ (NASCOP, 2013c, p. 8)

Methadone is a synthetic opiate that blocks the opioid receptors so that you’re sympathetic, and para-sympathetic functions can now begin to function normally. As long as those receptors are still active, then there will be cravings and withdrawals for heroin. – Treatment provider, MAT clinic at Mathari Hospital [Observation]

Methadone is effective as an oral medication and can relieve or prevent the onset of withdrawal symptoms for a period of 24- 36 hours. Methadone can relieve or eliminate cravings for heroin and other opiate drugs. – ‘My Methadone, My Responsibility’ [Client education manual] (NASCOP, 2016, p. 3)

If you are confirmed as opiate dependent, seeking MAT as an adequately prescribed daily dose of methadone, can: alleviate uncomfortable withdrawal symptoms and reduce your hunger (craving) for heroin. – ‘National Key Populations Communication Strategy’ (NASCOP, 2014c, p. 48)

As Bacchi (2000, p. 49) suggests, by ‘limiting what is talked about as possible or desirable, representations of policy problems serve as powerful discursive tools for authorizing the particular policy solutions which follow’. Much like the evidence-based discourse of medical treatment which I previously described, these evidence-based problematisations of heroin addiction constitute a resource for promoting it as an effective response. Here, the ‘topography of reality-possibilities’ is constrained in such a way that a medical treatment for the brain can be seen to constitute the only appropriate policy response (Law, 2004, p. 34). This is evident in a discourse embraced

by stakeholders in the policy and clinical spheres which contrasts MMT with traditional (non-medical) rehabilitation programmes in Kenya.

Many people relapse because the way their brains have been configured by heroin, you need to keep those receptors blocked all the time. Like the person who has been to rehab 27 times. They have tried everything they know how to. That is a person who truly wants to stop. They get all the withdrawals and all the cravings, and they can't help it, so they just have to go back. But with MAT it is better because you don't have these problems. Once you address them things fall into place. – Staff member, Implementing partner agency [Interview]

Notably, it also features in the treatment narratives of some MAT clients.

Well before that I had been two rehabilitation centres more than nine times. I was actually put on pain killers, but every time I had a side effect in my body I'd go back to heroin. Then I'd stop heroin and go back to them which would just lead me back to heroin. So now, what medical assisted therapy has done. The main thing with heroin are the painful withdrawals which are very severe. Medically assisted therapy takes care of that. It has been nine months now that I have been on medical assisted therapy. – MAT client [Television news broadcast] (KTN Prime News, 2015)

MMT—the multidimensional intervention

Departing from its inscription as a *wholly* medical form of treatment, MMT intermittently manifests in the policy discourse as a composite intervention, encompassing both pharmacological and psychosocial (i.e. psychological and structural) elements.

Medically Assisted Therapy (MAT) is the treatment for person who are addicted to heroin using prescribed medications with counselling and psychosocial support. – ‘Medically Assisted Therapy, Methadone’ [Informational leaflet] (NAS COP, 2014a)

OAMT (opioid agonist maintenance treatment) is comprised of two complementary types of interventions, namely a pharmacological intervention – with methadone...and psychosocial interventions. Evidence shows that a combination of specific pharmacological and psychosocial measures is more effective in reducing both illicit opioid use and harms related to drug use and improve quality of life. – ‘Standard Operating Procedures for Medically Assisted Therapy’ (NASCO, 2013c, p. 19)

Medically assisted therapy is a process, because you are not taking it once and good to go. One, it has the structural component which deals with the psychosocial issues that may be affecting, or might have caused one to get into drug use. It has the clinical component of course for getting one out of the daily usage of the drugs. – Officer, Ministry of Health [Interview]

I think that methadone—when we're talking about methadone, we're talking about medically assisted therapy. I think it comes with the psychosocial support and it comes with the biomedical. So all that is medically assisted therapy, isn't it? So, looking it as one package. – Officer, Ministry of Health [Interview]

Much like the name *medically assisted therapy* may be seen to allude to, an emerging narrative among those in the policy sphere casts methadone in a supplementary role to that of the psychosocial component.

The drug itself, methadone, plays a small percentage in the whole process of rehabilitation, if I may say so. In that sense, the psychosocial interventions alongside methadone will make the difference. If these interventions within the community and psychosocial programs are embraced, are well structured and intentional for moving a person from one end to another, they will make more sense in addition to methadone. I've proposed this in various forums where we may want to start thinking about this. – Officer, Ministry of Health [Interview]

You know, when you treat someone with methadone—I used to tell my patients, it achieves only 10% of the treatment target of my treatment goal. To achieve 100% the other 90% is psychosocial support. Psychosocial support is becoming something big. – Staff member, Implementing partner agency [Observation]

The shift away from an articulation of methadone as a medical panacea may represent an acknowledgement of the growing voice among community stakeholders asserting that heroin addiction is not a ‘problem’ which can be fixed by methadone alone. However, minimising the value of methadone also has the potential to dilute the ‘medicalness’ of MMT, a meaning which is closely tied to its acceptability. That the narrative poses such a risk may explain why it has yet to become an elemental thread of the national policy discourse.

MMT—the HIV prevention strategy

As I described at the beginning of the chapter, HIV features prominently in the story of how MMT came to be implemented in Kenya. Following a host of legislative changes, and with the support of international agencies, the National MAT Programme was adopted under the Kenya AIDS Strategic Framework of 2014 as a HIV control measure for people who inject drugs (National AIDS Control Council [NACC], 2014). The intervention’s introduction as an HIV prevention strategy may explain why it was initially referred to *opioid substitution treatment* in national policy. Names which constitute it as a substitution for opioids are particularly salient in globalised discourses of harm reduction because the meaning emphasises the drug-related HIV transmission risks rather than the drug addiction itself (Järvinen, 2008). The funding stream for the National MAT Programme also indicates that HIV prevention is seen to constitute the

basis for the initiative in Kenya. Its primary sponsor is PEPFAR, a governmental organisation in the US which was founded to address the global HIV/AIDS epidemic. In Nairobi, the MAT clinic at Mathari Hospital receives logistical support from the Maryland Global Initiatives Corporation (MGIC), a local non-governmental organisation (affiliated with the University of Maryland Baltimore [UMB] in the US; see Chapter 7) which works to ‘reduce the spread and impact of HIV/AIDS’ (UMB, 2018).

In policy documents, the decision to implement MMT in Kenya is defended by a narrative of heroin addiction as an HIV ‘emergency’ (V. K. Nguyen, 2009).

This (the National MAT Programme) was driven by HIV prevention efforts majorly, and why was this so? In our last Kenya AIDS indicator survey, which was 2013, the indication was that people who inject drugs have a three times higher chance of being HIV-infected compared to the general population. So it became imperative to also address HIV prevention among the PWID (people who inject drugs) population and the only way to do that is to help them get out of injecting. – Staff member, Implementing partner agency [Interview]

We realised that IDUs have an HIV prevalence of 18% in Nairobi. That was worrying. It is much higher than the 6.2% nationally, so something had to be done. And you’ll realise also with the IDUs factoring their behaviours, we have other diseases like hepatitis that we need to curb. – Officer, County government [Interview]

18% prevalence among IDUs and you people (referring to the UK) have 0.3 [HIV prevalence among ‘IDU’] and they were telling us, the reason why we are investing so much within this group of people with very little or marginal prevalence, is because their infectious rate is almost 100%. Even if they are two, and they plan to infect the entire community, they can. So that elicited a lot of concern. We had to mobilise resources and look for the avenue of countering this epidemic among this small number of individuals called IDUs. – Officer, Ministry of Health [Interview]

Through a language of crisis, policy stakeholders constitute HIV among people who inject drugs as a ‘problem’ which urgently required intervention. A similar problem representation of HIV was invoked to advocate for MMT’s introduction. For example, in the ‘National Key Populations Communication Strategy’, people who inject drugs in Kenya are described as ‘*disproportionally affected by HIV*’ and an ‘*important driver of the HIV epidemic*’ (NAS COP, 2014c, p. 39). This characterization of the population is illustrated by a set of epidemiological ‘facts’.

Kenya Modes of Transmission Study of 2008 attributed 3.8% of new HIV infections to injecting drug use nationally, and 17% for Coast province. Both the 2011 Rapid Situation Assessment of HIV Prevalence and Related Risky Behaviours among Injecting Drug Users in Kenya by UNODC and 2011/2012 Population Council’s Integrated Biobehavioural Survey revealed a significantly higher HIV prevalence of 18.3% among PWID compared to 5.6% among the general adult population aged 15-64 years.

After making and evidencing these claims, the document states, ‘*There is urgent need to scale up access to comprehensive HIV combination prevention package for PWID including Medically Assisted Therapy (MAT)*’ (p. 39). The section on people who inject drugs concludes by suggesting that efforts to expand the coverage of MMT have been ‘*hampered by resource constraints, capacity limitations and inadequate policy environment*’ (p. 39), a point which further reinforces the need for action to be taken. A comparable discursive pattern is followed in ‘Time Ripe in Kenya for Needle and Syringe Programme and Opiate Substitution Therapy’, the feature story in the African

Union Commission's publication *Drug News Africa* (Abdallah, 2011). The article begins by presenting quantitative information which is seen to be indicative of a '*concentrated HIV epidemic*' among people who inject drugs (p. 1). Notably, it relies on many of the same sources of evidence as the 'National Key Populations Communication Strategy' (p. 1).

The 2008 Kenya Modes of Transmission Study showed that 3.8% of new infections are attributed to injecting drug users who have the highest incidence rate of 256 per 1,000 IDUs due to efficient transmission through sharing of needles and other risky behaviours.

This is followed by a summary of evidence-based HIV prevention strategies for people who inject drugs. Here MMT (along with NSP) is described as an '*effective response to the HIV epidemic*' in Kenya (p. 3). It emphasises the urgency with which MMT and NSP are needed by issuing a warning about what *may* occur in the absence of these interventions.

HIV prevalence among injecting drug users is more than thrice the national HIV prevalence and without additional interventions, this may increase and reverse gains made in HIV control among the general population (p. 3).

Notably, HIV is not problematised in relation to the health and human rights of people who use drugs, but rather as a threat to the health of the general population. This framing of the virus is not new, nor is it unique to Kenya. In the global North, a similar discourse was deployed to advocate for the expansion of harm reduction interventions during the AIDS 'crisis' of the 1980s and 1990s (Roe, 2005; Tammi, 2007).

A striking characteristic of the data presented in the preceding pages is the way in which the ‘problem’ of HIV is constructed through numbers, with a particular emphasis on percentages and ratios. The pervasiveness of these figures reflects the increasingly prominent place of quantifiable ‘evidence’ in policy-making processes across a wide spectrum of contexts (Parkhurst, 2017). Seen through a poststructural lens, such evidence is not simply proof of a given policy ‘problem’, it is one in a set of strategic resources deployed to construct this ‘problem’ in a specific way (Green, 2000, p. 473). As Wood and colleagues (1998, p. 1735) have suggested, ‘There is no such entity as “body of evidence”. There are simply (more or less competing) (re)constructions of evidence able to support almost any position’. Particular constructions of evidence are deployed to authenticate the narrative of an HIV ‘emergency’.

In addition to being a globally-endorsed treatment for opioid addiction, MMT is widely promoted as the ‘gold standard’ of HIV prevention linked to drug injecting practices. This distinction is predicated on numerous randomized control trials which are seen to evidence its capacity to reduce the frequency of injecting and needle sharing (Karki *et al.*, 2016; MacArthur *et al.*, 2012). Quantifiable ‘evidence’ serves as a resource for representing its certainty as a technical solution to address the HIV ‘emergency’ among people who inject drugs. For example, MMT is widely articulated as an evidence-based HIV prevention intervention in a report which summarised the

proceedings of the PEPFAR-sponsored *Regional Workshop on HIV and Drug Use* in 2011 (United States Agency for International Development [USAID], 2011). Gathering stakeholders from across sub-Saharan Africa, the meeting was said to focus on ‘*advocating for and supporting the introduction of an evidence-based comprehensive HIV prevention for PWID in the region*’ (p. 6). The main session on MMT, ‘*Medication-Assisted Treatment as an HIV prevention tool*’, begins with an overview of empirical research:

Strong evidence from a number of randomized controlled trials show that medication- assisted treatment with methadone or buprenorphine is effective in reducing heroin use and increases retention of heroin dependent patients in drug abuse treatment. It also reduces drug-related HIV risk behaviour, including frequency of injecting and sharing equipment (p. 25).

The ‘*evidence*’ is contextualised in relation to the progress of the intervention’s expansion in the region, ‘*Despite the science to support MAT as an effective intervention to prevent HIV, little progress has been made on the ground so far in sub-Saharan Africa*’ (p. 26). The juxtaposition of the ‘*strong evidence*’ with the ‘*little progress*’ has the effect of rendering the latter all the more problematizing. By alluding to the need for additional action to be taken, this particular discursive configuration also provides a means through which to encourage a more robust commitment to MMT implementation in the region. The link drawn between the ‘*evidence*’ of the intervention’s HIV prevention effect and the need for scale-up reflects an approach to

policy-making where ‘knowledge is seen as uncontested, capable of being translated into policy under the rubric of “what works”’ (Bacchi and Goodwin, 2016, p. 10). The second section on MMT presents the results of a mathematical modelling study on the estimated impact and cost-effectiveness of delivering the intervention in Tanzania.

According to the projections, for every 1,000 people who inject drugs, MMT has the potential to avert approximately 185 HIV infections per year at a cost of 112,000 USD.

For other parts of the region (including Kenya), the model serves a valuable predictive function in the absence of locally generated evidence. However, by fostering an ‘evidence-based promise’ in relation to its HIV prevention effect, the modelling also becomes a resource for representing the certainty of MMT as a ‘solution’ to the HIV ‘problem’ in the region. The concluding remarks in the session’s summary allude to the role such modelling has in policy and knowledge negotiations. *‘Cost effectiveness studies are particularly important and help make the case to policy makers for supporting interventions that show cost-savings’* (p. 35).

Displacing meanings

As I previously described, the acceptance of MMT in communities affected by heroin addiction is closely tied to it *not* being seen to substitute one addicting drug (i.e. heroin) for another (methadone). A number of discursive strategies potentially displace the intervention’s meaning as a heroin-like ‘drug’ of ‘substitution’. For example, with

the re-branding of MMT *medically assisted therapy*, it becomes possible to talk about the substance of methadone as a medication rather than an opioid. As part of a discourse of intervention promotion, policy stakeholders represent its ‘medicalness’ in order to evidence that it is *not* a drug.

They (police) are inducted in what is expected and gradually I think it will be very easy. As you move out we talk about methadone and the police will understand that this is a medication, not a drug. – Officer, County government [Interview]

Methadone, unlike heroin, it is not an addictive drug because it is a medical programme to do that. And the recommendation now is that we treat you for life if you start. – Officer, Ministry of Health [Television news broadcast] (KTN Prime News, 2015)

Another discursive technique for making MMT un-meaningful as a drug and disrupting its association with heroin is to contrast its uses and effects with those of heroin.

We have had some people reporting that it’s like substituting one drug for another one. But the difference between methadone and heroin is that it is possible to taper off methadone when someone is ready to stop using it. For heroin, you cannot do that. – Officer, Ministry of Health [Observation]

What happens is that substituting one drug for another, is not true. In the sense that when you consistently use heroin, you are destroying yourself. Methadone will not destroy you, it will lead you out of drug use. – Officer, Ministry of Health [Interview]

A similar effect may be achieved by excluding information about the properties of methadone which are associated with heroin and other drugs. For instance, the

potentially addictive qualities of methadone are entirely absent from local clinical and policy representations of MMT. According to two of the stakeholders with whom I spoke, the topic is ignored and excluded because it is seen to compromise the acceptance and perceived legitimacy of the intervention.

The packaging of the messages of methadone has given a one-sided story of the wonder medicine. So the other side, the addictive side, nobody has looked at it. Let me not be the first one to look at it [laughs]. Programmatically and professionally it is not ideal to consider this side. – Officer, Ministry of Health [Interview]

I think [pause], well, I personally don't explain it (methadone) as addicting. I kind of downplay it sometimes because, honestly people will be afraid of it, so we give them the information in doses, yeah. – Staff member, MAT clinic at Mathari Hospital [Interview]

As the quotation alludes, current and prospective MAT clients are not typically informed about the potential for methadone to cause physical dependence. Indeed, it is not addressed in the 26-page client education manual ‘My Methadone, My Responsibility’ or in any of the programme’s recruitment materials. And yet, the clients are expected to have knowledge of the subject. The ‘Patient Agreement for Medically Assisted Therapy’ which clients are required to sign before enrolling in the programme makes this explicit: ‘*I further understand that opioid treatment medications produce dependence and like most other medications may produce side effects*’ (NASCOP, 2013c, p. 73).

The connection between heroin and methadone is weakened further still by articulations of methadone as a substance which *lacks* the qualities associated with heroin. For instance, in the local clinical and policy narratives of methadone, it is frequently represented as a non-euphoriant.

An appropriate dose of methadone does not produce intoxication or sedation allowing individuals to work and engage in other productive or leisure activities. – ‘Methadone, My Responsibility’ [Client education manual] (NASCO, 2016, p. 3)

An adequate daily dose of methadone takes away hunger or craving, prevents uncomfortable withdrawal symptoms and does not make you feel ‘high’ or ‘drugged’. – ‘National Key Populations Communication Strategy’ (NASCO, 2014c, p. 48)

It (methadone) reduces withdrawal symptoms in people addicted to heroin without causing the ‘high’ associated with heroin. – Journalist [Newspaper article](Ooko, 2014)

Claims of this nature are inconsistent with both pharmacological and ethnographic research on methadone. The euphoriant effects produced by methadone may be less (and different) than those of heroin, but they are not usually absent. Pharmacologically speaking, both methadone and heroin are classified as μ (mu) opioid agonists. Through their activation of the μ opioid receptors in the brain, both substances are seen to elicit a range of subjective effects, including euphoria (Strain and Stitzer, 2006).

Pharmacological accounts of methadone align with several ethnographic descriptions of its use. For example, Bourgeois’ (2000, p. 32) ethnographies of people who use drugs in

the US and Canada detail numerous instances of ‘methadone addicts and users ‘nodding out’, ‘throwing up from overdoses’, and ‘aggressively and gleefully consuming cocaine, wine, prescription pills, and even heroin to augment the euphoria of their opiate agonist’. Although I did not observe any of these situations in Nairobi, some of the clients with whom I interacted spoke about the ‘high’ from methadone as well as its fatiguing and nauseating effects (see Chapter 7). Suppressing or contradicting particular forms of knowledge about methadone promotes the acceptability of MMT but also has the potential to adversely affect MAT clients.¹

Despite efforts by the Ministry of Health to detach MMT from its meaning as a substitution for heroin, accounts of methadone by the media often present it as *both* a medication for the treatment of heroin addiction and a substitution for heroin. Other sites of meaning-making render these objects discordant, but here they are made to fit together.

¹ Alice, a client with whom I was particularly friendly, decided to stop taking MMT because she did not like the physical side effects it was causing. She had limited understanding of the withdrawal process and assumed it would follow a similar trajectory to that of heroin. When her withdrawal symptoms persisted beyond the expected time frame, she sought care at a local health clinic where she was prescribed medicine which did little to reduce her discomfort. Days passed with no relief. Unable to care for herself and her four-year son while she was ill, Alice gave up her accommodation to move into the over-crowded house of a friend. Finally, she resorted to using heroin. Only then did her symptoms improve. I cannot help but think that things may have been different for Alice if she had been more informed about methadone withdrawal. She may have been better able to prepare herself and her family for what was to come. It is also possible that she would have continued with MMT or decided to terminate it in such a way that provided a smoother and safer transition (e.g. dose titration).

In February of this year the first methadone treatment centre was established at Mathari Mental Referral Hospital. The second facility being opened in Malindi two months later. Methadone, a substitute drug for heroin, which has been successfully used in other countries, prevents the users from feeling adverse withdrawal symptoms. – Journalist [Television news broadcast](K24 News, 2015)

She (Mombasa County Health Executive) added that instead of having the addicts stop taking drugs — a process that takes long and is marred by relapses — they would be provided with the medicine, which would take them off the drugs. “This treatment is like a substitute. Instead of taking heroin, users take methadone, which is administered under strict conditions. After some time, the addicts stop craving for heroin”, she said. – Journalist [Newspaper article] (Okwany, 2015)

First was the introduction of the needle and syringe programmes and more recently, the Medically Assisted Treatment (MAT) using methadone, a substitute drug for heroin, to treat heroin addiction under what is known as the Harm Reduction strategy. – Journalist [Newspaper article] (Apondi, 2016)

Representing methadone as a medical treatment shifts the meaning of substitution in such a way that it can be seen to resolve, rather than replace, the addiction.

Conclusion

In the preceding pages I have considered how the object of MMT, and the ‘problems’ it is purported to ‘solve’, are inscribed and negotiated through the discourses that represent it. The picture of MMT which is depicted by my analysis is of an intervention ‘the making’—its value, purpose, functioning, and effects being ‘made’, and ‘made’ *differently*, according to particular moments of construction and changing inscription practices in time (Rhodes *et al.*, 2016).

MMT is introduced in Kenya as an evidence-based intervention to prevent HIV transmission among people who inject heroin. The rationale for its introduction can be seen to revolve around a pair of interconnected ‘problem’ representations—1) heroin addiction as a ‘problem’ of HIV transmission; and 2) HIV among people who inject drugs (i.e. heroin) as a national public health ‘problem’. These problematisations are discursively produced through epidemiological surveillance data and other empirical ‘facts’. A similar genre of quantifiable knowledge is deployed to authenticate claims about the urgent need for policy action. And yet, the represented value of an intervention is not something which can ever be fully ‘translated’ from policy to practice (Rhodes *et al.*, 2016). As I have illustrated throughout the chapter, the promise of MMT shifts according to what it is represented to mean *in context* and how it is deployed in the negotiation of competing stakeholder priorities. The relative acceptability of MMT in affected communities hinges on its inscription as a ‘*definitive solution*’ to heroin addiction. With its ‘rebranding’ from *opioid substitution treatment* to *medically assisted therapy*, MMT becomes meaningful as a technology of medical remediation rather than replacement. Multiple interrelated discursive strategies are involved in making and sustaining its representation as an intervention which promises to medically treat heroin addiction, including descriptions of its capacity to treat the effects of heroin on the body, medical imagery, and references to objects of biomedical

knowledge (e.g. dose, side effects). Equally as vital to negotiating MMT into acceptance are discourses which ‘work’ to destabilise the intervention’s inscription as a ‘drug’ of ‘substitution’ by making claims about methadone which differentiate it from heroin and other drugs.

In the absence of local evidence, narratives of evidence-based intervention constitute a fundamental resource through which to project the relative certainty of MMT as an effective HIV prevention strategy and addiction treatment modality. Given the authority ascribed to empirical knowledge, particularly in the era of ‘evidence-based’ policy-making, such discourse can be seen to legitimise and defend the decision to introduce MMT. Evidence-based problem representations of heroin addiction as a ‘brain disease’ can be seen to produce a similar effect. When heroin addiction is problematised in this way, MMT—in its articulation as a medication for the brain and the bodily afflictions linked with heroin addiction—may be appreciated as an appropriate and effective treatment ‘solution’.

The analysis presented in this chapter portrays an intervention which is evidence-based, but also ‘evidence-making’. Every discursive enactment of MMT—from accounts in national policy to the replica of the medication bottle unveiled at the launch of the National MAT Programme—may be appreciated as its own ‘evidence-making’ practice (Rhodes *et al.*, 2016). In the following chapter, I continue to reflect upon the discursive

production of MMT through an examination of what is envisioned by policy

stakeholders as a particularly pivotal ‘evidence-making’ moment—the ‘official’ launch of

the National MAT Programme in Kenya.

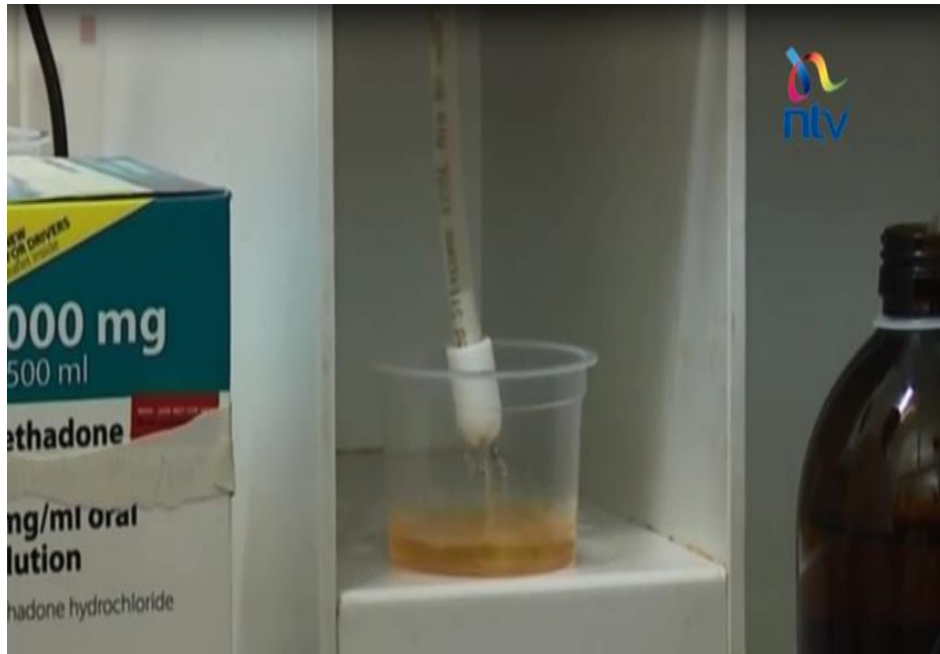


Figure 3.1 A dose of methadone being measured by a machine at the Mathari Hospital MAT clinic from video footage of a television news broadcast (NTV News Tonight, 2015)



Figure 3.2 Unspecified medical setting; photograph from an article on MMT published on the national government website (Government of Kenya, 2015)

Chapter 4

The Launch of MMT: A Case Study in Local Evidence Making

Introduction

In the previous chapter, I considered how local meanings of MMT are inscribed through the policy and public discourses which represent it, and in relation to promoting the relative acceptability of its introduction in Kenya. Following on the heels of this analysis, this chapter explores how particular meanings of MMT are produced, protected, and manoeuvred in ‘real time’ as part of performing its success as a local policy solution. Conceived of as a case study in local evidence making, the chapter is orientated around the ‘launch’ of the National MAT Programme—an event which took place on August 19, 2015 at the Mathari Hospital in Nairobi.¹

The launch of the National MAT Programme represents a crucial milestone for the introduction of MMT in Kenya. The significance of the event may be better appreciated by locating it in the broader intervention’s implementation ‘story’. The first clinic of the National MAT Programme opened its doors on the grounds of the Mathari Hospital in December 2014. The following February, Malindi’s General Hospital also began dispensing methadone through the programme. Unbeknownst to the clients who were attending these clinics, the period leading up to the launch constituted the *pilot*

¹ Throughout the chapter, I refer to this inaugural event as the ‘launch’, a term popularized by the committee of stakeholders involved with its organisation.

phase of the intervention's implementation. As an officer from the Ministry of Health explained to me, commencing the programme in this tentative capacity served to moderate community resistance and limit exposure from the media which would serve to protect the promise of MMT until its 'success' could be evidenced more fully.

It's a pilot phase, we saw we cannot launch right away. At that point, everyone was unsure about the programme. We saw that we could not launch it too early because we needed to make sure it was okay. The vibe we got from the community was, "Okay, let's try it out and see"...When we have a specific number of people enrolled and we are able now to showcase the success, we will get much more local support for the programme. Showcasing the success is very important because that's one of the places... You even realise we've kept the media out of this...But now that we have success and we can share the success of the programme, we can showcase it. And once we showcase it at the launch, we are saying we are now to confidently scale it up. – Officer, Ministry of Health [Interview]

As the account reflects, the launch is seen to be *the* platform for performing the 'success of the programme'. Through skilful public relations, it also had the potential to provide a valuable 'marketing' opportunity. Policy stakeholders envision the event as a 'moment' for securing additional political and financial investment in the project — resources which would enable its long-term sustainability. In effect, '*the success of the programme*' becomes a commodity which, like methadone, can be dispensed as a product of the National MAT Programme.

Let's look at the sustainable livelihood aspect of this program. If we want to create awareness, I think we should be targeting potential donors (to invite). It's

(the launch) a good moment for a little networking to happen. It's a good moment for them to get on the bandwagon and say, "Hey USAID is on it, the government is on it, it's moving well, I should be joining them". Let's have a multi-pronged objective for the launch. – Staff member, Implementing partner agency [Observation]

As Mosse (following Latour) suggests, the 'success [of a development project] is not merely a question of measures of performance, it is also about how a particular interpretation is made *socially*' (Mosse, 2005, p. 158). That the 'right' intervention object be enacted through (and in relation to) the launch was seen to be essential for evidencing its value as a local policy solution. It is for this reason that representations of MMT were closely managed across all aspects of the event.

Managing the media

A highly choreographed media campaign was coordinated in the days preceding the launch. Managing the press coverage which was generated by the event was seen to constitute a top priority for the stakeholders involved with its planning.² As a staff member from an implementing partner agency described, it was particularly imperative that the reporting on MMT be accurate, that is to say, in keeping with the 'facts' presented in policy accounts of the intervention.

If we want them (the press) to report on it technically, soundly, and correctly, we need to do education beforehand. I think there's a lot of sensitivity around it.

² The planning committee for the launch was comprised of a diverse group of stakeholders from the policy, clinical, and community spheres. It was chaired (or at least appeared to be so) by officers from the Ministry of Health.

If you are going to have that kind of exposure in national newspapers, you want it to be perfect in terms of technical accuracy and everything [Observation].

The apprehension surrounding *how* it was represented in the press may be linked to the perception that previous media coverage of MMT had compromised its ‘positive’ image.

There was already some negative media that came even before methadone was started and it was written in a paper somewhere that as a substitute, methadone was just liquid heroin. They were saying that about methadone—that it was just a different drug, you’re using drugs to stop addiction, so instead of using heroin as a drug, methadone is another drug. So we didn’t want that kind of message to go out. – Officer, Ministry of Health [Interview]

To educate the media about the intervention and the activities of the National MAT Programme, the Ministry of Health organized a one-day ‘sensitisation training’ for journalists prior to the launch. The training was intended to highlight two main points:

The messages will be underscoring to the media are simple: methadone is a medication, and it is improving lives. – Officer, Ministry of Health [Observation]

Across the training presentations, MMT is consistently referred to as *medically assisted therapy* or *MAT*. Given the vast array of names in circulation, its application in this context seems deliberate. As a name which has an overt medical connotation, the regularity with which *medically assisted therapy* is evoked has a powerful discursive effect. At the outset of their presentation, an officer from the Ministry of Health emphasises that *medically assisted therapy* is the authorized name for MMT.

I’m just going to give you an overview of medically assisted therapy—that is why we are calling it ‘MAT’. In Kenya, people like calling it the “methadone programme” but it’s just because we are using that drug, there are so many other

drugs available globally. But methadone is one of the cheapest drugs that we are using for medically assisted therapy [Observation].

At the conclusion of the training, an officer from the Ministry asked the journalists how they intended to cover the ‘story’ of MMT. As the officer informed me prior to the training, posing such a question was intended to spark a conversation which would enable them to offer their specific ‘recommendations’ about the content of the coverage. Collectively, the journalists responded with a long breath of silence. Interpreting their reluctance to speak as an act of resistance, the officer opted to employ a more direct mode of influence.

Don't just criticise for the sake of it. You can tell a story where you are criticising but in a positive way...We want you to have empathy. These are also human beings. These are our brothers, these are our sisters. Tell their stories. Be their advocate. Tell their stories so we can have more partners supporting the programme. Tell their stories so that when they are through with treatment, they will have people employing them. Tell their stories so that government and donors add more money to reach more IDUs. So you are telling your story from that perspective. And when you criticise and analyse from that perspective then the policy-makers will know why they should put more money on methadone [Observation].

The statement seems to acknowledge a commodification of intervention ‘success’, wherein ‘stories’ of MMT-enabled recovery are promoted to ‘policy-makers’ and ‘donors’ for the material and political benefit of the programme. Given the value accorded to such narratives, minimizing censure from the press becomes all the more vital. While the officer appears mindful about not being seen to directly deter the journalists from

adopting a critical perspective, they discourage criticism by framing it as a form of denunciation, not of MMT, but of ‘*our brothers*’ and ‘*our sisters*’ who are taking it (i.e. the clients of the intervention).

Correspondingly, there was an effort to manage how MMT was represented to the press. From the outset, exchanges between journalists and MAT clients were coordinated and monitored by the Ministry of Health. All of the clients that were featured in the media’s coverage were carefully selected through a multi-layered process which included input from several clinic staff members and officers from the Ministry of Health. While there were not any specific criteria, an officer informed me that they were looking for individuals who were ‘*successful on MAT*’, articulate, and had compelling biographical narratives of their addiction and recovery. Ultimately the reporting that was generated in relation to the launch focused on six or seven clients, several of whom were featured more than once. Among the first to be selected were Doris and Rolland, a young heterosexual couple with a newborn baby. In the ‘*client testimony*’ portion of the media sensitisation training, the couple spoke to the journalists about their experiences ‘*before and after MAT*’.³ Each of their narratives was prepared in advance with the assistance of an officer from the Ministry of Health. In the days leading up to the

³ Regrettably, I was not able to understand what Doris and Rolland said because they were speaking to the journalists in kiSwahili.

launch, several journalists featured Doris and Rolland in their reports, which included interview clips and footage of them consuming methadone at the clinic as well as caring for their child. Beyond the confines of the training, contact between the press and the clients was also regulated. The journalists were only permitted to visit the clinic and nearby drop-in centres on a pre-appointed ‘media day’ and were limited in their ability to freely interact with the people in these settings. An officer from the Ministry of Health offered the following advice to CSO staff members about how to respond if they were approached by a journalist during one of these events.

We all know that methadone is a substitution, but you’ve never heard me call it opioid substitution therapy. If you are asked a question you don’t feel comfortable answering, just say that you don’t know [Observation].

That they thought it necessary to make these statements to a group of stakeholders who are (presumably) well familiar with the intervention’s controversial status as ‘substitution’ illustrates the importance assigned to representing the ‘right’ MMT to the media. While the Ministry of Health sought to suppress public representations of MMT as a ‘drug’ of ‘substitution’, this meaning of the intervention is accepted as shared knowledge (e.g. ‘*We all know...*’) to those whose support is not in question. Such claims have the potential to compromise the legitimacy of MMT, but as we see here, they also serve as a means through which to protect it. By declaring it an accepted but rarely revealed truth, the officer accords the meaning’s status as a kind of ‘insider’s secret’ (i.e.

privileged knowledge) in order to discourage stakeholders from speaking to the media about MMT in this way.

Speaking and displaying MMT

The celebration at Mathari Hospital on August 19, 2015 was seen to constitute the ‘main stage’ through which to perform the ‘launching’ of MMT. Among the stakeholders involved in its planning, every consideration was given to *how* the intervention was put on display—from what is said about it in the speeches by policy officials, to its representation in the commemorative t-shirt designed for the event.

The spoken word. The ceremony around which the event primarily revolved included formal addresses by the Cabinet Secretary (i.e. appointed director) for the Ministry of Health, the US Ambassador to Kenya, as well as several other policy and clinical stakeholders. The speeches are remarkably consistent with respect to the lexicon of MMT—it is almost exclusively referred to as *medically assisted therapy*, or by its (equally abstract) acronym, *MAT*. The intervention is also predominantly framed in relation to HIV prevention and harm reduction *or* addiction treatment; rarely is it represented as both. Across the speeches, we hear the meaning of MMT shift according to the individual stakeholder’s agenda and values. In those made by public-health orientated stakeholders, it is invoked as a tool for reducing HIV and other drug-related health harms.

The Mathari MAT clinic is a comprehensive, community-linked facility, a one-stop shop for people who inject drugs. It comprises the eight-point harm reduction strategy that includes HIV testing and counselling and treatment for those who are found to be HIV-infected, provision of treatment for sexually transmitted diseases, TB diagnosis and screening, as well as similar prevention of viral hepatitis, and the methadone replacement therapy. – Staff member, Implementing partner organisation [Observation]

And so, ladies and gentlemen, it gives me great pleasure to be here today to unveil the first ever public medically assisted therapy, MAT, programme in Kenya. This is indeed a big milestone. The programme is a component of a comprehensive approach to address drug use. The goal of this programme is to assist people to stop injecting themselves with drugs. This is in order to eliminate health problems associated with injecting practices, including HIV transmission. Medical data suggests that injection drug use is widespread and on the rise for people who are inner-cities. 18,000 people in Kenya are currently injecting drugs, 82% of whom are addicted to heroin. The use of these drugs presents a public health problem which includes risk of premature death, HIV, viral hepatitis, STDs (sexually transmitted diseases) and other physical and mental health problems. – Cabinet secretary, Ministry of Health [Observation]

By contrast, a treatment provider at Mathari Hospital firmly positions MMT as addiction treatment.

This protocol was to do MAT as a treatment option for injecting drug users. The treatment protocol was approved almost three years ago, when, as Dr Sirengo was saying, at the same time discussions started of practically working towards having a MAT programme. And after the development of the treatment protocol, there was no turning back...We thank the clients who are seeking treatment and encouraging others to enrol in this life changing medical treatment for heroin addiction [Observation].

The uniformity of these discursive representations may be appreciated as an effect of careful planning. Many of the addresses were reviewed prior to the event, and in some instances, even drafted by officers from the Ministry of Health. The discourse of

intervention promotion which permeates the speeches at the launch also features descriptions of the healthcare services which are delivered to the clients of the intervention as part of the National MAT Programme. These include testing for HIV, sexually transmitted infections, TB, and hepatitis-C (HCV) as well as directly observed therapy for ART and TB treatment.

The Mathari MAT clinic is a comprehensive, community-linked facility, a one-stop shop for people who inject drugs. It comprises the eight-point harm reduction strategy that includes HIV testing and counselling and treatment for those who are found to be HIV-infected, provision of treatment for sexually transmitted diseases, TB diagnosis and screening, as well as similar prevention of viral hepatitis, and methadone. – Staff member, Implementing partner organisation [Observation]

Such explanations may be viewed as part of a prominent discourse of local intervention promotion which represents the MAT clinic (i.e. the facilities delivering methadone under the National MAT Programme) as a ‘one-stop shop’ (i.e. all inclusive) health centre for people who inject drugs.

These clinics are like a one-stop shop where people who inject drugs can have health care services ranging from methadone to the treatment of HIV, TB, and STIs, as well as counselling and referral. It is important to note, however, that we also have a testing service which is included in the package of prevention. It’s testing for HIV, testing for sexually transmitted diseases—these are taken on board there. And we have also included DOT (directly observed therapy) for anti-TB drugs and ARVs so that people who are on MAT can get their methadone, anti-TB drugs and ARVs all at the same shop. So that’s the one-stop shop approach prevention of viral hepatitis and MAT. – Staff member, Implementing partner organisation [Observation]

We are running an integrated, comprehensive clinic that takes care of all their medical needs, and HIV is one of them. As much as the funding came through HIV, it is taking care of all their needs, as far as medical care is concerned. It's a one-stop shop. – Staff member, Implementing partner organisation [Interview]

Narratives which emphasise these ‘*MAT-related services*’ link closely with an inscription of MMT as something ‘more than’, or perhaps, ‘other than’ methadone. As with the name *medically assisted therapy*, they also promote the perceived legitimacy of the intervention by placing the intervention in the context of biomedical objects (e.g. ‘*ARVs*’) and practices (‘*TB diagnosis screening*’) and drawing our attention away from methadone (and its meaning as a potentially addictive opioid).

Promotional materials. As with the speeches delivered at the launch, close attention was paid to how MMT was represented in the promotional materials (e.g. signs, banners, t-shirts) which were designed for the event. With few exceptions, *medically assisted therapy* and *MAT* were deemed the most appropriate names for the intervention. As with the speeches, MMT is discursively portrayed in these materials as both an HIV prevention strategy and a medical treatment for heroin addiction. The largest and most prominent of the banners on display frames the intervention solely in relation to its HIV prevention effect: ‘*National Launch of the Medically Assisted Therapy: A strategy for reducing new HIV infections among people who use drugs*’ [Observation]. As I have noted previously, the National MAT Programme is firmly rooted in HIV prevention policy and is both funded and administered by institutions

whose mandates are specific to HIV. It is likely that this particular meaning was selected for representation on the banner as a way to acknowledge the important contributions of these global actors. Although prioritizing the intervention's capacity to prevent HIV was seen to be advantageous, an officer from the Ministry of Health rejected a proposal to represent it as a '*harm reduction strategy*' on the grounds that harm reduction had become '*too politicised*' [Observation]. This characterisation of the concept may be seen to arise from the contentious status of the country's *first* nationally-sponsored harm reduction initiative, NSP (see Chapter 1). While MMT is represented as a harm reduction strategy in other policy contexts, in light of the controversy surrounding NSP, the officer may have considered it unfavourable to connect the intervention with the concept in so visible a platform as the launch.

In light of its contentious meaning as an opioid drug, *methadone* was not considered an appropriate discursive representation for the material objects created for the launch. As an officer from the Ministry of Health stated during a planning meeting, '*We can't use "methadone" because it seems like we're advertising a narcotic—that's what the experts told me*' [Observation]. The word *methadone* may have been excluded but discursive traces of the substance to which it refers (i.e. methadone) could still be found in event-related materials. As depicted in Figures 4.1 and 4.2, the banners and commemorative t-shirts designed for the launch reflect elements of the packaging design

for the brand of methadone dispensed by the National MAT Programme. Worn by the 300 or so MAT clients in attendance, the commemorative t-shirt was one of the most salient materializations of the intervention at the event. There was a strong visual effect created by the appearance of so many bodies adorned in the same simple garment. It was all the more striking given the contrast with the attire of the other attendees, who, dressed in a comparative hodgepodge of dark, formal clothing, seemed out of place amidst the sea of white.

To symbolise the act of *launching* the National MAT Programme, a large cardboard box, intended to represent a bottle of methadone, was unveiled by the Cabinet Secretary of the Ministry of Health (James Macharia) and the US Ambassador to Kenya (Robert Godec) (Figure 4.3). As the following excerpt illustrates, the design of the cardboard box was the subject of considerable debate among the members of the planning committee.

Member A: *We discussed what it is we will be launching. We decided that it will be the MAT bottle or the MAT box, the methadone bottle or the box. We told them to ensure that there will be no brand. We told them that on the box it should say “methadone”.*

Member B: *Ok, they were saying that the box will look bigger than the bottle. So one side is this—“methadone” without the brand and then “Maisha Mapya New Life” at the back. It will be so big, it will be as tall as me. So they gave us two samples, the box and the bottle. Then we’ll see which one looks better.*

Member A: *So what colours?*

Member B: *It should match the colours of the t-shirts. It's important that we are not seen to be doing the Martingale's brand (methadone supplier). Like we can mix.*

Member A: *So can they mix these three colours? Are we going to write "methadone" on the bottle?*

Member B: *No, we are going to write "MAT New Life". At the back. And the front will be like this—"meth-a-done".*

Member C: *When we do this kind of thing for the TB or HIV campaigns, we just write, "ART".*

Member A: *So we are writing MAT, we are writing "MAT—New Life, MAT—Maisha Mapya".*

Despite declaring their intention to use *MAT* (e.g. 'So we are writing MAT...'), at the eleventh hour the decision is reversed. As Figure 4.3 depicts, the word *methadone* is emblazoned in bold font on the cardboard box (i.e. a bottle of methadone) that was ultimately unveiled during the ceremony.

The members' vacillation with respect to the language on the cardboard box may be appreciated as an effect of a representational quandary. As the acronym for medically assisted therapy, *MAT* will represent the box as MMT, and in turn, reinforce its inscription as the intervention called *medically assisted therapy*. However, as the object that is to be launched (i.e. unveiled) at the event, the box is expected to represent MMT in its *material* form (i.e. a '*MAT bottle or the MAT box*'). As an

abstract noun, *MAT* does not correspond to a material object—for, what is *MAT* *materially* if not methadone? From this perspective, *methadone* appears to be a more suitable label. As *methadone*, the box can be seen to represent a bottle of the pharmacological (material) substance which comprises MMT. And yet, the word also has limitations. As with other aspects of the launch, the planning committee was concerned about promoting methadone because it can be seen to represent a potentially addictive opioid ‘substitute’ for heroin—a meaning which impeded its acceptance by local government officials and civil society leaders prior to its introduction. As I explain in Chapter 3, the Ministry of Health responded to this community opposition by steering clear of names like *opioid substitution treatment* and *methadone programme* and embracing *medically assisted therapy*—a moniker which would allow MMT to be understood as a technology for treating, rather than replacing, heroin addiction. Regardless of its potentially negative connotations, the planning committee ultimately chooses to use the word *methadone*. The unveiling of a bottle of methadone to signify the commencement of the National *MAT* Programme may be appreciated as an attempt to negotiate space for both MMT—the material thing called *methadone* with MMT—the medical treatment solution for heroin addiction called *medically assisted therapy*. In this material representation of MMT, we are able to glimpse multiple, and potentially contested, intervention objects being held together in the same moment.

Conclusion

The chapter provides insight into the practices and processes of local ‘evidence-making’ by exploring the ways in which the object of MMT is ‘made’ and negotiated in relation to the launch of the National MAT Programme. In providing a platform for evidencing the ‘success’ of MMT locally, the event is seen to constitute an opportunity to promote further (political, financial, and social) investment in the initiative. Without locally generated evidence, the certainty of an intervention’s promise within a particular context is primarily shaped by what it is *represented* to be rather than what has been carried out (Borup *et al.*, 2006; Gardner, Samuel and Williams, 2015). Managing how MMT is discursively and materially represented at the launch, and in the media coverage generated around the event, thus becomes an essential consideration for the stakeholders who are engaged in its organising.

With its uniform language and standardised messaging, the ‘version’ of MMT which is promoted through the launch may be viewed as an effect of evolving local knowledge negotiations, for it bears little resemblance to the multi-named intervention enacted in the policy discourse of an earlier era. Unsurprisingly, many of the discursive strategies which promote or subvert particular representations of MMT in relation to the launch are also at ‘work’ in national policy. The deliberateness with which we see them being deployed here emphasises that such practices *actively produce* as much as

reflect the relative acceptability (or lack thereof) accorded to particular ‘versions’ of MMT (i.e. medically assisted therapy vs. opioid substitution treatment).

Exploring the dynamics of ‘real time’ meaning-making in this context also draws our attention to various discursive ‘slippages’. For instance, methadone is declared a ‘substitution’ as if it were an embedded fact, while in the same breath references to *opioid substitution therapy* are actively discouraged in the name of intervention promotion. Representational dilemmas arise as well. The replica of the bottle of methadone (i.e. the cardboard box unveiled at the launch) constitutes a particularly poignant example, for it highlights the challenges associated with negotiating multiple and competing priorities of representation. Moreover, that the replica’s discursive representation as *methadone* can be seen to enact it as a medication of addiction recovery (i.e. the pharmacotherapy called *methadone*) but also a narcotic (i.e. the addictive ‘drug’ called *methadone*) speaks to the volatility of the intervention’s meaning(s). We are reminded that what constitutes MMT (both discursively and materially) is contingent upon the various inscriptions which produce and sustain within any given moment.

As the episode of the replica can be seen to allude, the intervention’s local ‘becoming’ is as much material as it is discursive. In the ensuing chapters, I shift my analytical gaze from representations to materialisations by exploring some of the ways

in which the practices of the intervention's delivery in Nairobi enact an evidence and knowledge making effect.

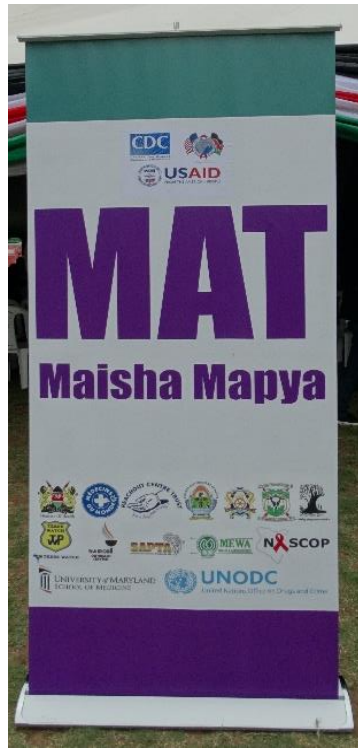


Figure 4.1 Left - A banner on display at the launch; Right - A box of methadone produced by Martindale Pharma, the brand dispensed in Kenya (EC)



Figure 4.2 A group of clients wearing the t-shirt designed for the launch standing in front of a banner on the day of the event (EC)



Figure 4.3 The replica of the bottle (box) of methadone unveiled at the launch; Pictured: James Macharia, Cabinet Secretary, Ministry of Health (left); Robert Godec, US Ambassador to Kenya (right) (EC)

Chapter 5

The Spatial Dimensions of Delivering MMT

Introduction

Chapters 3 and 4 traced the intervention's 'becoming' discursively with an emphasis on national policy and the media. In the remaining empirical chapters (Chapters 5 through 7) of the thesis, I consider the various objects and effects which are enacted through its *material* implementation. The chapters are orientated around different dimensions of intervention delivery—*space*, *time*, and *procedure*—at the Mathari National Teaching and Referring Hospital (i.e. Mathari Hospital) in Nairobi. Across these chapters, I explore the prescribing, dosing, and dispensing of methadone as well as the practices and arrangements which relate to these processes (e.g. recruitment, enrolment). As the only MMT facility in the city,¹ the Medically Assisted Therapy Clinic at Mathari Hospital may be appreciated as the primary site of the intervention's local implementation. And yet, multiple forces beyond the clinic are involved in shaping the conditions and circumstances of delivering (and receiving) MMT in this context. As such, all of the chapters incorporate research data generated from sources both inside and outside of the clinical sphere.

¹ When I was conducting fieldwork, the MAT clinic at Mathari Hospital was the only MMT access point in Nairobi. In 2017, an additional clinic was built at a community health centre in the neighbourhood of Ngara in 2017.

The first dimension of the intervention's material implementation to be examined is *space*. This chapter is concerned with how the object of MMT materialises through the spaces which constitute the MAT clinic and Mathari Hospital. Following on Lefebvre (1991) as well as Deleuze and Guattari (1987), I draw on a construction of *space* as an assemblage of 'built form and social order' (Fitzgerald and Threadgold, 2004, p. 409). As such, the analysis concerns not only the structural (e.g. architectural features) and material configurations (e.g. physical arrangement of objects) of these implementation spaces but the practices which enable them. Several social-scientific inquiries have explored the extent to which meanings, practices, and subjectivities are mediated through the spaces of methadone's delivery (Fraser, 2006; C.B.R. Smith, 2011). An oft-cited example of such work is Fraser's *Chronotope of the Queue* (2006) which illustrates how the spatial-temporal arrangements of the treatment queue (a convention of clinical and community implementation models) enact dependency and an atmosphere of uncertainty for the client, which can be seen to reinscribes the 'disordered', 'unproductive' 'addict' identity. Rhodes (2018) explores a similar dynamic at the MAT clinic in Nairobi. An analysis of qualitative interviews with MAT clients reveals that the experience of waiting against the anticipation of an upsurge in withdrawal symptoms threatens the hope of addiction recovery by enacting a sense of 'less than' or 'not yet' healed (p. 18). Collectively, this scholarship encourages an

exploration of space as one of the many human and non-human elements which assemble to produce particular intervention objects and effects.

The hospital

In Kenya, methadone is exclusively delivered through a network of outpatient clinics which are regulated by the National MAT Programme. With few exceptions, the facilities are based in secondary and tertiary care hospitals—institutions which, by definition, provide medical care to patients with health conditions that are seen to require specialised knowledge and intensive monitoring. The first and largest of the MAT clinics is based at Mathari Hospital in Nairobi, the country's only government-run psychiatric facility. The hospital was founded by British colonial authorities in 1910 as a smallpox isolation centre. During the first world war, it was reconfigured into a psychiatric facility called the 'Nairobi Lunatic Asylum'. It served the needs of the British armed forces by admitting soldiers from the African colonial troops who were suffering from psychiatric conditions triggered by their experiences in battle. Like other psychiatric institutions in the region at this time, Mathari was overcrowded and under-resourced. The patients were routinely subjected to a plethora of oppressive, racially discriminatory practices. Many spent decades being heavily sedated in cramped cells, neglected by both their treatment providers and relatives (Njenga, 2002). Although conditions at Mathari have improved over the past century, there continue to be reports

of overcrowding, understaffing, sexual assault, and the forced administration of medication (Duggan, 2016). As recently as 2016 there have been incidents of patients fleeing Mathari in order to escape its poor conditions.

Mathari Hospital is located along the Thika ‘Superhighway’ on the western periphery of Nairobi. While easily accessible by bus, it is several miles away from the Central Business District, the city’s commercial centre and main transport hub. Mathari is not one large building, but rather a collection of small and medium-size structures which serve as dormitories, administrative buildings, treatment-orientated spaces, and a ‘forensic’ psychiatry unit. I have included a labelled satellite image of the hospital grounds as a reference point (Figure 5.1).² The exigencies of security have given rise to a series of spatial bordering strategies which are commonly employed in carceral contexts: tall cement perimeter wall, fences edged with razor wire, concrete barriers, controlled entryways, and security guards (Figure 5.2 and Figure 5.3).³ By enacting continuous

² I originally intended to create my own map of Mathari, but when I sat down to draw it, I realised that my knowledge of the property was fairly incomplete. Looking back, it strikes me that Mathari is not practiced as a fully ‘knowable’ space. The hospital does not provide visitors with any map of the campus, nor was it ever really described to me by hospital staff, even as we walked across the grounds as part of my general orientation to the MAT clinic. The prohibition of photography and filming on the premises, lends Mathari an additional air of opacity. One is left with the sense that there are particular facets (and perhaps people) which are intentionally obscured from view.

³ While in Mombasa, I was invited by a local CSO to meet with a group of women at a low-security prison who had recently been arrested for drug-related offenses. I was surprised by how much the facility reminded me of Mathari Hospital. Many of its security features were also present at Mathari (e.g. razor wire fencing, armed guards, controlled entryways). The landscaping and architecture were much the same as well (e.g. single-story buildings, a profusion of trees and shrubs). The similarities extended beyond

differentiation between an ‘inside’ and ‘outside’, their presence produces the hospital as a space for concealment and containment. Much like a prison, we are left with a sense that Mathari is containing something which should remain separate from the world beyond its walls. These conditions both reflect and augment the social stigmatisation of mental illness (Bil, 2016).

The MAT clinic is located on the south-eastern periphery of the hospital grounds. It is accessed from the main entrance gate via a long narrow road that snakes across the sprawling campus. On foot or by car, the journey to the clinic necessarily entails encounters with the structures and activities that make up Mathari. The following passage contains excerpts from my field notes describing the landscape.

Clusters of small, low-lying buildings painted in bright hues of green and blue serve as the wards, dormitories, and administrative offices; the campus is interspersed with swaths of tall eucalyptus trees and flowering shrubbery, which evoke a sense of pastoral serenity; orderlies escort groups of patients wearing faded blue jumpsuits between the wards along well-worn foot paths; white coat-clad health workers shuffle past with clipboards and stacks of file folders; uniformed guards, rúngus (wooden batons) in hand, patrol perimeters of vertical security fencing edged with razor wire; on the opposite side, weary-looking patients pace around grassy ‘enclosures’ calling out to passers-by for cigarettes and sweets. [Observations]

The particularity of the space doubtlessly invokes a strong sense of place. While its novelty may fade, I would imagine that for many clients, the hospital is foregrounded in

these individual characteristics. Both settings had the same atmosphere—a strange combination of regulation, surveillance, and bucolic tranquillity.

their experience of receiving MMT.⁴ By situating the MAT clinic inside the boundary of the hospital, MMT materialises as an object *in* the space but is also enacted as an object *of* the space—that is, a technology of psychiatric medicine.⁵ What’s more, providing MMT at Mathari can be seen to practice addiction as a medical condition of psychological origins. According to several implementation-oriented stakeholders, Mathari was chosen precisely because it is a psychiatric hospital. Such explanations reflect a discourse which constructs heroin addiction as a ‘problem’ best solved through the knowledge and practices of psychiatric medicine.

I think the reason that Mathari was chosen was because it was a mental hospital. We are already specialised in dealing with addiction, we already have a fully functional drug rehabilitation unit. We have people who are well trained on that. So with that background, we got an upper hand compared to the other institutions that were assessed. – Treatment provider, MAT clinic at Mathari Hospital [Interview]

They (people who use heroin) are mentally impaired. That’s why MAT is in a mental health facility in the first place. – Treatment provider, CSO [Observation]

⁴ I should note that there is also a shortcut to the MAT clinic. Clients coming from the informal settlement of Mathare enter the hospital’s campus through a large opening in the perimeter fence which is accessed via a narrow, rocky path along its southern border, close by to the MAT clinic (see Figure 5.1). The route reduces the length of the journey to the clinic but also has the added benefit of minimising the clients’ exposure to the hospital environment.

⁵ Mathari is widely recognised among Nairobians as a psychiatric hospital. A surprising number of people (e.g. taxi drivers, domestic staff, childminders, etc.) I spoke with were familiar with it. Many referred to it as ‘Mathari Mental Hospital’ (it was not long until I started using this name too). Additionally, Mathari is regularly referred to in the press. In recent years, the coverage has primarily focused on patients escaping from the hospital due to alleged mistreatment and sub-standard living conditions. Given the hospital’s renown, it seems likely that the clients experience the space not just as a hospital, but as a hospital for people mental health conditions.

The MAT clinic

Despite being *in* and *of* Mathari Hospital, the MAT clinic at Mathari Hospital exudes an air of ‘otherness’. It is a fully detached structure on a parcel of land on the periphery of the hospital’s grounds (see Figure 5.1). The out-of-the-way location was selected (at least in part) to minimise the impact of its presence on the other health care services at Mathari. As the only daily outpatient treatment facility at Mathari, the clinic generates an exceptional amount of pedestrian traffic. From early morning to midday upwards of 600 clients toing and froing along the road to the clinic. The clients’ movements and appearance are also unique. Unlike the psychiatric patient at Mathari, those who attend the MAT clinic are permitted to walk across the campus without being accompanied by an orderly. They also wear regular street attire rather than the hospital’s standard-issue clothing. Compared to many of the buildings on the property, the clinic stands out for its ‘newness’ as well. Constructed in 2014, it bears no traces of the structural deterioration (e.g. chipping paint, weather-beaten wood) that is visible on other structures. What’s more, the looming security fencing on many of the buildings is noticeably absent around the concrete façade of the clinic (Figure 5.4).

Structural considerations. The MAT clinic was specifically designed as a specialised outpatient medical establishment for the delivery of methadone through the National MAT Programme. As such, many of its structural components resemble those

of other spaces where ‘outpatients’ are provided with medical treatment (e.g. doctor’s surgery, community health centre). Typical of such facilities, the clinic is a closed setting: access is only permitted for *specific purposes* and to those who fulfil *specific criteria*. Enforcing the policy necessitates a highly proceduralised entry process. It is here, upon first walking across the threshold of the building, that the body becomes a site of regulation. The exterior doorway to the clinic leads to a narrow entrance foyer which is lined with metal security bars (Figures 5.4 and 5.5). A uniformed guard sits at a desk behind a divider. Upon entering the space, the client is required to show the guard the photo identification card that has been issued by the clinic. Once it has been verified, they print their name in a logbook and receive a plastic number card denoting their placement in the treatment queue. As the final step, a guard standing in front of the doorway steps aside to allow the client to pass through the space. In my experience, the guards are scrutinous and formal, initiating few social interactions beyond those required by their duties. The room—its design and the way in which it is materially configured, are dictated by concerns of surveillance and control. Such spaces are reminiscent of Foucault’s panopticon (1977, p. 205)—a model of prison construction that ‘assures the automatic functioning of power’ by producing ‘a state of constant and permanent visibility’. These panoptical features are not unique to this context. In an ethnography of a methadone clinic in Toronto Canada, Smith (2011) also portrays

structural and material arrangements which enable monitoring, confinement, and segregation. As Smith argues, spaces such as these can be seen as having been inscribed by strategies of bio-disciplinary power which neutralise deviance and regulate the body. The entrance foyer leads to a large courtyard surrounded by high cement walls. On the far side of the courtyard is an enclosed building (Figure 5.6). It is a long one-story structure that houses administrative offices, the methadone storage facility, a pharmacy, exam rooms, a small laboratory, a lavatory, and a 'recovery room' for clients experiencing symptoms of heroin withdrawal. The enclosed building constitutes a space of restriction *within* a space of restriction. The clients are only permitted to enter if they are accompanied by a staff member. To prevent unauthorised access, the door is routinely locked from the inside. A wall of security bars serves as a divider between the building and the courtyard (Figure 5.7) These material arrangements capacitate surveillance and confinement in much the same way as those which are present in the entrance foyer of the clinic, and as such, can also be seen to manifest broader, strategic forces of bio-disciplinary power (C.B.R. Smith, 2011).

Overall, the rooms and corridors of the building have a bare, utilitarian aesthetic which is reminiscent of the sterility and efficiency of biomedicine. The methadone is stored in a temperature-controlled room and is dispensed to the clients from an adjacent room (the '*pharmacy*') through windows that overlook a waiting area. The view of the

windows from the waiting area is partially obstructed by two large sheets of opaque plastic. While they offer some privacy, they do not necessarily enable the client to have a private interaction with the pharmacist. Unlike the rest of the building, the pharmacy and the storage room are equipped with an advanced security system and are only accessible to a select number of authorised staff. These security measures were suggested by UMB, an academic institution in the US which is seen to have expertise in the implementation of outpatient MMT programming (see Chapter 7). The perceptible components of the security system (e.g. digital entryway keypads, electronic ‘beeping’ sounds) stand out in the simple, sparsely-adorned corridor of the building. Their presence has a curious way of calling attention to the object that is being secured—methadone. They evoke a desire to see what lies behind the door. The ‘version’ of methadone we see here is something other than ‘just medicine’. Such technology is concurrently enacting two distinct ‘methadones’—a dangerous object from which the clients (and the public) need to be protected, but also an object of value that needs to be protected from the potentially ‘dangerous’, unpredictable clients.

The waiting area. The area where the clients queue for their dose of methadone is located in a covered section of the courtyard, directly in front of the dispensing windows and pharmacy. It contains several neat rows of stationary vinyl chairs, most of

which are orientated towards the dispensing windows.⁶ Spatially and temporally, the waiting area is a liminal zone. A space on the ‘verge of methadone’, it constitutes the transitional threshold between the ‘what was’ methadone (i.e. the previous dose) and the ‘what will be’ methadone (i.e. the ‘not yet’ dose). It is also a site of ambiguity. With long wait times and a rigid delivery timetable (see Chapter 6), the next dose of methadone is not guaranteed. This sense of uncertainty, coupled with the increasingly real prospect of experiencing withdrawal, can generate intense anxiety for some of the clients at the MAT clinic (Rhodes, 2018). During particularly busy times of the day, the waiting area is a hive of activity. Prolonged periods of waiting and crowded conditions occasionally give rise to arguments and physical altercations. And yet, this is not necessarily the dismal, volatile space that is described in other social scientific accounts of MMT access points (Fraser, 2006; J. Friedman and Alicea, 2001; C.B.R. Smith, 2011). On the majority of my visits to the clinic, there were between 10 and 30 clients in the waiting area seated in small groups. Most were conversing with each other in low or normal speaking voices, but it was also not uncommon to see clients laughing and joking around together. Mobile phones were a popular source of entertainment. I often observed several clients gathered around a single device watching videos or listening to music. Occasionally the waiting area was the setting for livelier social interactions. One

⁶ To protect the confidentiality and privacy of the clients I did not include any photographs of the waiting area.

of the most memorable took place on a sunny Saturday afternoon shortly before the dispensing hours ended. I had come to the clinic to interview a staff member for my research. As I approached, I could hear music coming from somewhere inside the building. Upon entering the courtyard my eyes (and ears) were immediately drawn to the source: in the middle of the waiting area stood a man strumming away an acoustic guitar. Four or five men and women were dancing around him, singing in unison. Their joy was palpable. Now and again bursts of laughter punctuated the lively rhythm of their song. The mid-day sunlight streaked across the singers' swaying bodies, casting an array of sharp, shifting shadows on the ground. The music garnered scant attention from the staff. I observed traces of irritation and exasperation flicker across a few of their faces, but no one attempted to interrupt, admonish, or disband the revellers. Watching from the side lines, I struggled to reconcile what I was observing with the context in which it was taking place. The boisterous, carefree scene strongly reminded me of the raucous fireside sing-alongs at the summer camp I attended as a child. And yet I could scarcely fathom a more antithetical locale. Deleuze and Guattari's (1987) concept of 'smooth' and 'striated' space offers valuable insights which can be applied to an analysis of the clients' performance. According to Deleuze and Guattari, smooth spaces are sites of transformation which are open to creative movement without direction. They are spaces of continuous variation, traversed through events and affects

instead of stable structures or categories. By contrast, striated spaces are structured and sedentary. Their orientation is one of homogeneity rather than differentiation. Smooth and striated spaces each have a distinct set of characteristics, but the boundaries between them are blurred. Spaces are not fully smooth or striated, but constantly shifting amalgamations of both. By recoding the intended use of the space, the clients' music momentarily shifts the spatial qualities of the waiting area from 'striated' to 'smooth'. The relational dynamic between smooth and striated space is evident when a highly striated space like the clinic can be reappropriated through an impromptu act of creative expression. Although it may not have been an intentional show of resistance, the clients' performance constitutes a challenge to the strategies of biopolitical control which are inscribed in the clinic.

The courtyard murals. In contrast to the stark surroundings of the clinic building, the walls of the courtyard are adorned with brightly coloured murals that were painted by a small group of clients with artistic abilities. The murals primarily promote abstinence from drug use. In one of the murals, we see two skeletons smoking thick 'cigarettes' (Figure 5.8).⁷ In front of the two figures lies a syringe and a small red container for mixing heroin with water; below them, '*Stop!!*' is painted in large, bold

⁷ Presumably the 'cigarettes' are intended to represent a joint of cannabis and heroin, the dominant method of smoking heroin in Kenya (Morgan, 2009).

text. Another portrays several different types of drugs and paraphernalia surrounded by a thick red circle with a slash through it (Figure 5.8). The largest and most prominent of the murals is of Mickey Mouse with six speech bubbles coming from his mouth (Figure 5.9). *'How to Stay Drug Free'* is painted in a large, bold font to the left of the figure. Each bubble contains a message. Some target specific risk behaviours: *'Mixing methadone with ALCOHOL COCAINE & HEROIN is Deadly 2 U'*; *'Avoid MAENEO (places) or people who use or deal with DRUGS. Know your TRIGGERS WHAT MAKES U 2 CHAKACHUA (mixing heroin and methadone)'*. Others exhort clients to abstain from drug use by relying on individual willpower and spirituality: *'Make the right choices in Life'*; *'Make yourself "Busy", an idle mind is the devil's WORKSHOP'*; *'UA (your) LIFE is MORE precious than DRUGS Chuz (choose) Life'*; *'Believe in GOD. Pray every day 'n HOPE 4 the best'*.

The messages promote a moral code of conduct which defines the goal of addiction treatment as a drug-free state of normalcy. Although MMT is not explicitly represented in the murals, when it is viewed through the lens of the message, it is seen to constitute a resource for drug-free recovery. This 'version' of the intervention connects with that which is implemented materially at the MAT clinic through practices grounded in an abstinence-orientated model of addiction treatment. The homogeneity of the messages in the murals is striking. The absence of content related to harm reduction

is particularly notable because the MAT clinic and the National MAT Programme are closely tied to institutions with mandates specific to HIV/AIDS prevention and control. The murals' similitude may be a sign that the material implementation of MMT is materialising tension between the goals of harm reduction and abstinence-orientated recovery. While both models have their place in national policy, they are positioned on opposite ends of the ideological spectrum. With regard to addiction treatment, the prevailing model in Kenya prioritises drug-free normalcy (Rhodes, 2018). The prominence of the recovery script is potentially troubled by a discourse of harm reduction because it places far less emphasis on the intervention's potential as a resource for abstinence.

The themes of the murals overlap considerably with content from 'My Methadone, My Responsibility' (NASCOP, 2016) the client education manual that was developed by NASCOP. For example, the manual discourages the concurrent use of drugs and methadone (e.g. *'Important Program Rule to Remember: Don't mix alcohol, chang'aa (a traditional home-brewed spirit), taptap (a prescription drug), or any other drug with your methadone dose'*, p. 13) and presents the practice as detrimental (e.g. *'Mixing methadone with alcohol and other drugs can be dangerous'* p. 11). Additionally, the manual depicts heroin as a high-risk drug much like the painting of the skeletons may be seen to do (e.g. *'Heroin is an illegal drug and is often tainted with "cuts" and*

“fillers” that are dangerous and harmful”, p. 10). Finally, the title *My Methadone, My Responsibility*, emphasises the same sense of personal responsibility expressed in some of the murals’ messages (e.g. ‘*Make the right choices in Life*’, see Figure 5.9).

According to a staff member at the clinic, the mural project was intended to encourage trust and engagement between the MAT clinic and the community of clients they serve. In the globalised discourses of public health, the prioritisation of the ‘patient’s voice’ is increasingly recognised as a critical component of high-quality health care (WHO, 2016). However, the parallels between the murals’ messaging and the client education manual suggest the possibility that the subject matter of the murals was *not* decided solely by the client-artists creating them. Clinic staff may have exercised control over the creative process, encouraging particular types of messages while censoring others. It could also be that the clinic’s influence was less direct. Perhaps the client-artists chose the themes as an expression of compliance and/or commitment to a code of conduct which defines drug-free recovery as the goal of MMT. Still, the murals reveal faint traces of resistance. With their lit cigarettes, trendy headwear and intense facial expressions, the pair of smoking skeletons exude gritty determination and street-savvy confidence rather than fragility or misery. Additionally, the portrayal of Mickey Mouse as the authoritative source of guidance for ‘*How to Stay Drug-Free*’ lends an air of triviality to the messages the figure conveys. *Mickey Mouse* is a slang expression

meaning 'petty' or 'insignificant' and the cartoon is generally depicted as a playful and mischievous character (Lewine, 1997). As Law (2004) reminds us, bringing a particular version of reality into focus necessarily involves silencing others. What other realities might have been 'made' if the client-artists were given more freedom to express themselves?

The 'rules' of the space

According to the client education manual 'My Methadone, My Responsibility' (NASCOP, 2016), *'the MAT clients are expected to do their part in promoting a safe and therapeutic treatment environment'* (p. 17). The rules governing how the clients are expected to *'do their part'* when they are in the clinic are informed by a discourse of addiction recovery which defines the goal of MMT (and forms of other addiction treatment) as the transformation of the spoiled 'addict' identity into a normal, recovered self (Bourgois, 2000; Jaffe and O'Keeffe, 2003). The clients are rewarded (through treatment access) for conformity to an accepted standard of 'good' or 'proper' conduct (e.g. courteousness, punctuality, self-control, abstaining from drug use) and penalised for behaviours which are deemed socially transgressive (e.g. shouting, fighting, stealing, damaging property, displaying signs of intoxication). The punishment for disobedience is the loss of MMT. The 'Standard Operating Procedures for Medically Assisted Therapy' states those who engage in *'disruptive', 'threatening', or 'violent'*

behaviours may be denied their dose of methadone or involuntarily withdrawn from the programme (NASCO, 2013c, p. 82).⁸ Such practices enact a version of subjecthood which recapitulates the neoliberal values of responsabilisation, rationality, and self-discipline (Dean, 2010). Ultimately, assurances of treatment access are offered only to those who are able to perform this subject position.

Remaining on the site for reasons unrelated to MMT (i.e. ‘loitering’) is also a punishable offence. According to the client education manual, three transgressions may lead to termination from the programme (NASCO, 2016). By discouraging social interactions beyond those related to the obligations of treatment, the rule against ‘loitering’ reasserts the ‘medicalness’ of the clinic. Crucially, it can also be seen to ‘un-make’ the space as a gathering place for the clients of the intervention. The presence of messages such as ‘*Avoid MAENEO (places) or people who use or deal with DRUGS*’ (Figure 5.9) indicates that divesting from social relationships with people who use drugs is seen to constitute a resource for securing and maintaining a ‘stable’ recovery. Such strategies risk further stigmatising people who use drugs by presenting their influence and activities as invariably deviant (Fomiatti, Moore and Fraser, 2019). According to the staff at the clinic, the prohibition of loitering is intended to encourage the clients to

⁸ Over the course of my fieldwork I heard about several clients who were expelled from the programme for threatening clinic staff, fighting with other clients and stealing.

engage in more ‘*productive*’ pursuits such as securing employment and participating in the activities offered by the CSO-facilitated drop-in centres (e.g. peer education, group counselling). When viewed in this light, the policy appears to perpetuate the neoliberal understanding of productivity as economic and organisational participation. Practices which flow from neoliberal ascriptions of the ‘productive’ citizen, often represent employment as the means through which the ‘healthy’, normal’ subject is both expressed and created (C. Smith and Riach, 2016). Ultimately, the code of conduct governing the clients’ behaviour in the clinic is composed of disciplinary practices which are capacitated to promote conformity to social norms through the regulation of the body. Taken together, they constitute one of the many fluid strategies of bio-disciplinary power which are practised through and in the space of the clinic.

Over the course of my research, I encountered a number of situations in which clients seemed to disregard the rules of the space. As with creative expression (e.g. the courtyard murals, the waiting area ‘sing-along’), defiance and concealment are tools through which the clients are able to negotiate the highly striated qualities of the clinic. One of the more uncouth ‘incidents’ I learned of involved a man and woman who were caught having sexual intercourse on the grounds of Mathari Hospital. Having occurred during the early days of my fieldwork, the anecdote holds a prominent place in my memory because it was one of the first ‘stories’ I heard about the clients of the

intervention. Most of the implementation-orientated stakeholders I spoke with denounced the couple's conduct, maintaining that it was abnormal and indicative of the socially transgressive 'lifestyle' of people who use drugs. Even the CSO staff members who routinely defended the rights of the client in disputes with the clinic expressed disapproval. The primary focus of their criticism was not necessarily the sexual encounter itself, but rather the space in which it occurred. As a staff member said during a support group meeting for MAT clients,

You abuse each other and have orgies. This is not what you do there, at the clinic. Do things in the right place. If you want to have sex, go to a house to get a lodging. You need to behave yourselves [Observation].

Here, as in other comments, the couple's behaviour is problematised as a violation of socially coded space. Notably too, the staff member seems to be implicating the group of clients attending the meeting—as if the incident reflects the depraved condition of the client community as a whole, not merely the man and woman who were involved. The MAT clients I conversed with framed the incident in very different terms. That it took place in the 'bushes' at Mathari was of little consequence. When retelling the 'story' to me, they frequently expressed amusement or concern about the couple's apprehension by the security guard, but few emphasised the space in which it occurred. Those who did refer to it did so within the context of discrediting claims about the seriousness of the offence. Central to their argument was the normalcy of having sexual intercourse in

outdoor (public) spaces. As a peer educator explained to me. *'Here in Kenya, it's a big thing but I tell them, it's not a big deal. Having sex in the bush, it's something normal'* [Interview]. Most of the clients with whom I conversed did not consider the couple's behaviour a grievous transgression. For them, the episode was seen to evidence a return to the state of normalcy that is promised by MMT and exemplified a broader trend of increased activity among clients.

Yeah, people are having sex, it's not something big. For a long time we were smoking and you don't have that feeling (libido). After taking methadone ... Yeah they have discovered that it's functioning. Let us try. Imagine even my wife she was not seeing her period, but this time she is seeing the period, she has feelings and now people having sex in the bush, they are saying, 'Let us try'. – MAT client and peer educator (Interview)

Focusing on its embodied effects, the account enacts methadone as restorative medication—one which has the capacity to reinstate the sexual function of the body and awaken a latent libido. Notably, such knowledge collides with biomedical evidence which characterises sexual dysfunction as a prevalent adverse effect of MMT (Ortman and Siegel, 2020; Yee, Loh and Ng, 2014). Here, MAT clients and community-orientated stakeholders are using locally mediated forms of evidence to draw their own conclusions about the impact of methadone on sexual and reproductive health.

A common misconception of methadone is that it makes females and even men impotent. I think these people (MAT clients) are pretty fertile because they have sired [children] while on this thing (MMT). The dating has gone up. It's actually like their libido has gone up. – Staff member, CSO [Observation]

The friction between these different ‘knowledges’ is indicative of an intervention that is multiple and in negotiation. Rather than being a singular ‘evidence-based’ pharmaceutical technology which is translated across different settings, here we see MMT as a local practice of emergent evidence-making interventions.

A more common form of subversion is practised in response to the anti-loitering policy which I described in the preceding paragraph. While the rule enacts a version of subjecthood which emphasises responsibilities before wants, it could not deter clients from fulfilling their need to socialise. The area outside the entrance to the clinic was one of the most popular places for the clients to assemble. However, due to its close proximity to the clinic building, it generally catered to short, spontaneous interactions. Those seeking a less transient gathering place found their way to a sandy patch of earth under the stairway of a pedestrian bridge which stands *outside* Mathari’s main gate (see Figure 5.1). After I left the clinic, I would often stop to visit with the clients who congregated there. Despite the noise and dust from the nearby Thika Highway, the space feels intimate. The stairs overhead provide shade from the heat and protection from inclement weather. Several plastic crates are arranged in a loose circle, serving as a makeshift sitting area. Cigarettes, beverages, and sweets can be conveniently purchased from a man hawking his wares from a small wooden cart nearby. The site is unique because it is agenda-less—a kind of ‘in between’ space for the clients to socialise that is

free from the disciplinary techniques of the clinic, the structure, and expectations of the CSO drop-in centres or the temptations of the drug den. Gathering here performs a relatively 'safe', yet deliberate and visible act of resistance. The area is *just* beyond the boundary of the clinic's jurisdiction but well within the sight line of its regulatory gaze. One afternoon I chanced upon a staff member from the clinic standing at the entrance to the hospital. As we spoke, his eyes were fixed on a group of clients as they approached the side of the stairwell. He muttered a few words of disapproval and then sighed as if in resignation. Creatively reconceived and appropriated by the clients, the area under the stairs constitutes a 'smooth' alternative to the rigidly striated site of restriction and regulation on the other side of the gate (Deleuze and Guattari, 1987).

Conclusion

The complicated micrologistics for overseeing the consumption of methadone in order to prevent illegal methadone ingestion and to discourage ongoing poly-substance abuse by recovering addicts has given birth to a culture of the methadone clinic (Bourgois, 2000, p. 179).

The 'culture of the methadone clinic' to which Bourgois refers can be seen to arise from not only the procedures and regulations implicated in the delivery of methadone but the *spaces* in which they are practised. This chapter considered how the space of the MAT clinic at Mathari Hospital (re)inscribes and (re)produces particular intervention objects, effects, and subject positions. In considering the structural and material configurations of the clinic and its environs (i.e. Mathari Hospital) that

mediate the character and effects of intervention implementation, the chapter enplaces space in the ‘assemblage’ of nonhuman and human actors through which MMT is enacted locally.

As I have described, the clinic is at once a part of and separate from the space which constitutes Mathari Hospital. In so far as it is folded into the landscape of the hospital, MMT materialises as a technology of psychiatric medicine. This ‘version’ of MMT links directly to the medical treatment object which is enacted in discourses of national policy and through the physical components of the clinic informed by the practices of clinical medicine. The chapter calls attention to several features of the space which are prescribed by imperatives of surveillance, confinement, and segregation. These structural and material arrangements, together with the regulations governing clients’ behaviour inside the building and the code of treatment conduct portrayed in the murals of the courtyard, configure the clinic as a space of inscribing and intersecting forces of control. As the object in which it is orientated, MMT is implicated in the social and spatial regulation of addicted bodies and can thus be seen to constitute a potent form of bio-disciplinary power. However, much like MMT itself, what constitutes the space is neither singular nor stable. Along the way, I have highlighted instances in which the clients who attend the clinic were able to change and appropriate the space. The potentially subversive meanings embedded within the murals, the impromptu ‘sing-

along' I observed in the waiting area, and the gathering place outside the entrance to the hospital may all be considered acts of imagination and resistance which reinscribe both the space and the intervention with new meanings.

The subsequent empirical chapters explore other dimensions of the MAT clinic as part of developing a holistic portrayal of how MMT is 'made' through the local practices of its implementation. The following chapter considers the specific actions of *time* which are mobilised in the practices of the clinic. It also examines some of the ways clients respond to and negotiate the demands exacted by these temporal arrangements. The chapter provides opportunities to develop themes identified in the present analysis, including those which relate to biopower, neoliberal subjecthood, and resistance.



Figure 5.1 Map of Mathari Hospital and its environs



Figure 5.2 The entrance to Mathari Hospital (Simon Maina/AFP via Getty Images, 2013)



Figure 5.3 A perimeter fence at Mathari Hospital; women inside the hospital hang laundry on it to dry (Simon Maina/AFP via Getty Images, 2013)



Figure 5.4 The exterior of the MAT clinic at Mathari Hospital (EC)



Figure 5.5 The entrance foyer of the MAT clinic as seen from the interior of the compound (EC)



Figure 5.6 The pharmacy in the enclosed building at the MAT clinic; the methadone dispensing windows are located behind the opaque privacy screen (EC)



Figure 5.7 Hallway with security bars in the enclosed building of the MAT clinic (EC)



Figure 5.8 Murals encouraging abstinence from drug use in the courtyard of the MAT clinic (EC)



Figure 5.9 The Mickey Mouse mural in the courtyard of the MAT clinic (EC)

Chapter 6

The Temporal Dimensions of Delivering MMT

Introduction

I now shift my attention from space to time. The present chapter explores the various objects and effects which are enacted through the temporal configurations of delivering MMT and the practices which can be seen to flow from them. My specific concern is the timing of methadone's distribution at the MAT clinic¹. In the subsequent pages, I consider how the timetable for dispensing methadone is organised, regulated and performed, as well as the meanings, discourses, and subject positions which are inscribed and produced in these practices. As with many aspects of the intervention's material implementation, the timing at which the provision of methadone occurs (or, in some instances, does *not* occur) is not shaped exclusively by the MAT clinic (i.e. its staff members, protocols, and discourses). In consideration of the clients' temporal experiences in the context of treatment engagement, a central focus of the chapter pertains to how the time-related parameters of the treatment delivery are negotiated and challenged. As with the preceding chapter, it primarily revolves around the MAT clinic, but also reflects upon circumstances, actions, and perspectives which were

¹ *Timing* has several meanings. In this context, I use the word to refer to period of time when a particular action occurs.

generated from across all of the local stakeholder ‘spheres’ (i.e. community, policy, and clinical).

The *when* of dispensing methadone initially struck me as a relatively unengaging empirical ‘thread’ on which to focus my fieldwork.² Time proved to be a subject which I could not easily dismiss; I soon discovered that it was a contested aspect of MMT’s delivery. In the context of a daily dosing regimen like that which is utilised at the MAT clinic, the dimension of time is highly relevant to MMT. For implementation-orientated stakeholders, the timing of methadone’s distribution constitutes a key logistical consideration of intervention delivery; for the clients, it shapes the cadence of daily life as well as the experiences of treatment (e.g. access, embodied effects). As part of exploring the myriad of practices which constitute MMT and afford it capacity, social science scholars have highlighted some of the adverse effects enacted by the time-related components (e.g. time-demands of daily clinic attendance, enforced waiting) of its material implementation (Fraser, 2006; Fraser and valentine, 2008; Reisinger *et al.*, 2009; C.B.R. Smith, 2011). For example, Fraser (2006) examines the particular subject positions that are produced by the space-time ‘manifold’ of methadone’s provision in

² As someone who has difficulty with both time management and time ‘awareness’, time is not a concept around which I am especially orientated. I typically try to avoid thinking about the anxiety-inducing logistics of timing. It is for these reasons I was probably reluctant to focus my fieldwork on this topic. In light of my own experiences with lateness, I was incredibly empathetic to the plight of the ‘late-arriving’ client. I have no doubt that fulfilling the requirement of daily clinic attendance within a narrow window of time would pose a significant challenge for me.

treatment settings across New South Wales, Australia. As part of the analysis, Fraser illustrates that queuing for methadone gives way to experiences of waiting and dependency which reinscribes, rather than depart from, the same ‘unproductive’ ‘addict’ identity associated with using heroin. Rhodes (2018) explores a similar dynamic at the MAT clinic in Nairobi. His analysis of qualitative interviews with MAT clients reveals that the experience of waiting against the anticipation of an upsurge in withdrawal symptoms threatens the hope of addiction recovery by enacting a sense of ‘less than’ or ‘not yet’ healed (p. 18). Following from this work, the chapter examines other impressions and conditions produced by the temporal dimensions of methadone’s distribution at the MAT clinic and considers the particular intervention objects such practices can be seen to ‘make’.

Timing is everything

The MAT clinic at Mathari Hospital adheres to a rigid timetable for dispensing methadone. Methadone is provided to clients from 7:30 am to 1:00 pm, Monday through Friday. On Saturdays and Sundays, the clinic opens 30 minutes later in the morning (8:00 am) and closes an hour earlier (12:00 pm). Despite the range of time afforded by the schedule, there is a behaviour expectation that the clients will attend the clinic in the *early morning* hours. Arriving later in the day (i.e. late morning, mid-day) is seen to constitute a diminished commitment to treatment and confers particular risks.

There is the issue that methadone should be taken early in the morning. If someone attends to other business and then comes to take their methadone at 12:30 pm there is room for withdrawals and they might also have passed through the den. If you take your methadone early, this is less likely. – Treatment provider, MAT clinic at Mathari Hospital [Observation]

The earlier they come, the better. I can tell that the earlier they come the more serious they are about recovery. I know they have a job, and they are doing well on treatment. But when they come late, I know they are not serious. It shows that they are idle or maybe they are mixing. – Treatment provider, MAT clinic at Mathari Hospital [Observation]

As the stakeholders' accounts allude, the recovery effect of MMT is enacted in the *timing* of its consumption. The earlier the client arrives at the clinic to receive their dose of methadone, the more convincing their case for recovery becomes. Like other expectations of treatment compliance (e.g. abstaining from loitering) such practices give primacy to abstinence and a subject position which recapitulates the neoliberal logic of responsabilisation and productive action.

Disciplining effects

The inflexibility of the methadone dispensing schedule enacts a discipline upon the clients who attend the MAT clinic. Late arrival to the MAT clinic is marked by the prospect of experiencing methadone withdrawal but is also a punishable offence.

According to the 'Standard Operating Procedures for Medically Assisted Therapy', '*frequently missed doses*' due to tardiness (or other factors) could lead to involuntary dismissal from the programme (NAS COP, 2013c, p. 21). The potentially painful,

anxiety-inducing experience of waiting for a dose of methadone was also utilised as a penalty for lateness. Attendees at a CSO- sponsored MAT support group meeting informed me that on the day following a late arrival they were required to participate in a group counselling session *before* being able to join the queue. In each case, their wait was prolonged because the session could not begin until three other late-arriving clients were also present. Others said that they were demoted five places in the treatment queue as punishment for being late the day before.³

Many implementation-orientated stakeholders endorsed the rigid timetable, arguing that it afforded the clients an opportunity to learn skills which are essential to ‘successful’ social (re)integration.

People who use drugs don’t manage time very well. And when you fix the time there (clinic), it’s the beginning of managing their time. They know this time for this, this time for this, this time for this. But if you remain so democratic, to go by the word of the people, you will always be extending, extending, extending... Time management is one part of drug use that we should not be democratic on. They shouldn’t be on their time, they should be on our time. – Staff member, CSO [Observation]

We need to discipline the clients in such a way that they learn to maintain a role in society. Time management and accountability are skills they need. The strict timetable will help them learn. – Officer, Ministry of Health [Observation]

³ The clients did not specify how the policy was enforced. Perhaps the late-arriving client was asked to exchange number cards with a client who was five positions after them in the treatment queue. It could also have been that the client had to wait while the five clients who were *after* them in the queue had received their dose.

As the statements illustrate, the practice of restricting methadone delivery to a narrow and inflexible window of time performs a disciplining effect upon the client which serves as a resource for reorganising the deviant ‘addict’ into a ‘productive’ and responsibilised neoliberal citizen. Moreover, it constitutes yet another strategy of bio-disciplinary power which, as Foucault has articulated (1976, p. 139), works to ‘discipline the body, optimize its capabilities...increase its usefulness and docility, [and] integrate it into systems of efficient and economic controls’ in order to produce a normalised form of citizenship that society is thought to require.

The tardiness ‘problem’

The arrival of clients *at or shortly after* the time when the dispensing windows closed for the day was a much discussed ‘problem’ at the MAT clinic. To my understanding, the majority of clients who arrived late were not permitted into the clinic and those who managed to gain entrance were rarely accommodated with their dose of methadone. In general, the pharmacy staff expressed indifference to the clients’ pleas for treatment. Under certain conditions, the response could be more hostile. A client called Yvonne informed me that her hand had been closed in the sash of a dispensing window during an argument with a pharmacist after her dose was denied. When Yvonne said that she would use heroin if she did not receive it, the pharmacist apparently shouted, *‘Fuck you. Take it (heroin). It’s not my problem’*. Here, we see no

trace of the commitment to abstinence that underpins other treatment practices. In some instances, the clinic staff were seen to encourage late-arriving client to use heroin. A striking example of such an occurrence involved a young woman called Samira who was recently enrolled in the MAT programme.⁴ She arrived at the clinic hoping to receive her first dose of methadone. Initially, Samira was in a ‘jolly’ mood, but after a prolonged period of waiting, she became agitated. Eventually, a pharmacist informed Samira that it was too late in the day for her to initiate treatment. She protested vehemently, raising her voice, and waiving her hands in the air. The pharmacist was unmoved, purportedly saying, ‘*Go out and chakachua, do whatever you have to do, but I’m not giving you any medicine*’.⁵ It was then that Samira was approached by a nurse who had observed the altercation from the edge of the courtyard. The nurse suggested that Samira use ‘*stuff*’ (heroin) so she would feel well enough to return to the clinic the following day. Affronted by the proposal, Samira exclaimed, ‘*Do you know what kind of life I’m from? Do you know how much I’m trying not to smoke?*’. As the experiences of Yvonne and Samira can be seen to illustrate, the rigidity with which the methadone dispensing schedule is practised has the potential to elicit the very ‘problem’ behaviours and subjectivities it (and by extension, MMT) is represented to change.

⁴ I was informed about the incident from several clients who witnessed it occur. The quoted material is from these accounts which were recounted to me during an observation.

⁵ *Chakachua* is a relatively new kiSwahili word which has various meanings, including counterfeit adulterate, mix, and cheat. In this context it refers to using heroin in the context of taking methadone.

Allowances and exceptions

The rules are the rules—until, it would seem, they are not. Such is the case with the dispensing practices of medication for HIV and TB. Unlike methadone, these pharmacotherapies are not withheld from the clients who attend the clinic after the dispensing windows close. The policy was instituted in order to prevent the adverse treatment outcomes associated with suboptimal adherence (Nachega *et al.*, 2011; WHO, 2017). It is curious that the exemption does not extend to MMT, for irregular intervention adherence has also been shown to have consequences. For instance, qualitative research by Reisinger *et al.* (2009) portrays interruptions to methadone caused by scheduling conflicts as a leading cause of ‘premature’ voluntary discharge from treatment for people who inject drugs in Baltimore, Maryland. Moreover, clients who are denied methadone often experience painful drug withdrawal. Using drugs may stave off the symptoms, but it has the potential to elevate HIV and HCV transmission risks (Henry-Edwards *et al.*, 2009; Vocal-NY and Community Development Project of the Urban Justice Center, 2010). Despite the potential harms, the prevention of inconsistent adherence to methadone is not afforded equal priority to that of ART and TB treatment. Excluding methadone from the late-arriving client’s daily regimen enacts it as ‘less than’, or perhaps ‘other than’ a medication. While the practice is presented as a health promotion tool, it also functions as a discipline strategy. Because of its

positive embodied effects and capacity to treat drug withdrawal, methadone may have significance to the client, which HIV and TB treatments do not. The act of withholding methadone, alongside the painful consequences which can follow (i.e. withdrawal symptoms), exploits the value of methadone to enact a particularly harsh form of punishment upon the late-arriving client.

There is another, more deliberate kind of rule ‘bending’ which occurs in relation to the methadone delivery timetable. Although the dispensing windows are opened and closed at designated times, the delivery of methadone does not necessarily stop once they are shuttered. Some late-arriving MAT clients are able to successfully negotiate access to methadone. Two notable examples were Martha and Brian. As university students, the couples’ course schedules regularly caused them to attend the clinic after closing. More than once I observed them enter the clinic after the windows closed and emerge a few moments later having received their doses of methadone. According to other clients, Martha and Brian were accommodated because they had an ‘*understanding*’ with the clinic staff. But Martha attributes the flexibility to the ‘success’ they are seen to demonstrate.

They (clinic staff) are easy-going with people who have a good job or are in school. This shows that you are doing well, even if you are smoking weed. They let [Brian] slide and now he’s off MAT completely [Observation].

My observations of the clients who were accessing ‘after-hours’ MMT support her assessment—the majority were fully employed, attending university, or engaged in a similarly ‘productive’ endeavour. Many, it seemed, were also supported by families with access to financial resources greater than that which most Kenyans subsisted. Rarely did I hear stories about accommodations for clients who arrived late because they could not afford bus fare or struggled to find childcare. As Martha alludes, enactments of treatment ‘success’ are seen to warrant a loosening of the regulatory apparatus which governs their behaviours. The version of ‘*doing well*’ enacted in Martha’s explanation connects with that which is afforded primacy in local discourses of intervention promotion.

People who are successful (on methadone) are more sociable persons. If they’re in college, they’re working towards completing college, they have a job, they reduce the criminal tendencies and become more trustworthy in the society. – Treatment provider, MAT clinic at Mathari Hospital [Interview]

Successful clients will be those members of the community (MAT clients) who get re-integrated back into their communities. We’ll see them engaging in gainful activities. – Former officer, Ministry of Health [Interview]

Generally, success on methadone includes going back to employment. Kenyans are good people, they work hard, and struggle. It’s just like the way a child tries to stand—falls down, stands again and eventually he’ll stand up. If you continue working hard, strive to reach to your goal. – Staff member, Implementing partner organisation [Interview]

Here, as in the majority of the interviews and observational data I collected, treatment ‘success’ is seen to constitute economic participation, individual enterprise, self-

responsibility, and other neoliberal ascriptions of citizenship (Mitchell, 2016). This model of contemporary subjecthood is available to very few, particularly in Kenya, a country which wrestles with entrenched economic and political inequality (Bigsten *et al.*, 2016). Clients who struggle with the performance (e.g. the economically disenfranchised) have an equal if not greater need for the treatment consistency afforded by a flexible dispensing schedule. A cycle of exclusion inevitably arises when regular access to MMT is contingent upon evidencing its ‘successful’ effect.

Claims to treatment access

As we have seen, ‘after-hours’ MMT is not an automatic privilege or simple exercise of will, but requires negotiation and persuasion to perform a specific kind of self. Research conducted by Rhodes and his colleagues (2013) among people seeking access to antiviral medications for hepatitis-C has shown that in the context of precarious treatment access, presentations of self-responsibility were foundational to building claims for deservedness. At the MAT clinic, late-arriving clients perform a similar kind of responsibilised subjectivity as part of advocating for a more lenient dispensing policy.

Running from where I’ve come, I got to the clinic at 12:04. I was not even allowed to sign in. I have many responsibilities. I live with my mother, I have to take care of my daughter. I am trying to make her life better by being on MAT. I’m not taking heroin. They need to be more understanding, more accepting. It’s inhumane the way they treat us. – MAT client [Observation]

The presence of such discourse can be seen to signal the process of knowledge ‘folding’ into and ‘unfolding’ from the self. The Deleuzian concept of ‘folds’ allows for an appreciation of discourse, not as a unidirectional force upon the body, but as an embedded phenomenon which serves as a technique for articulating and negotiating the self in relation to others (Deleuze, 1988; Malins, Fitzgerald and Threadgold, 2006).

Compared to the participants interviewed by Rhodes *et al.* (2013), the clients with whom I interacted were far less equivocal about their claims to MMT.

People should be demanding methadone. It’s wrong that the clinic doesn’t give it to us when we’re late. When we were launching methadone, we were told that methadone was brought for us. It was brought for us so it is a right that we should be given it. – MAT client and peer educator [Observation]

MAT is not a punctuality contest. People come from far and they should consider that. Closing at 12 or one is not fair. At least they should give us five minutes or ten as an allowance, that’s our right. – MAT client [Observation]

The relatively strong sense of entitlement we see here may be linked to the emphasis placed on patients’ rights in contemporary discourses of national healthcare services and the force of eager anticipation which preceded the intervention’s introduction in Kenya.

Calls for greater flexibility in the dispensing schedule emphasise the unequal contract that methadone delivery operates with regard to punctuality. Clients frequently complained that the pharmacy staff did not open the dispensing windows on time.

‘When the machine for measuring the methadone was broken, I had to wait. But when we are late, they don’t wait for us’ [Observation]. The pharmacy staff were also

criticised for the long treatment queues that were caused when they abandoned their post at the dispensing window to engage in non-work-related activities. The blatancy with which they purportedly acted indicates that the practice was deliberately undertaken to provoke or punish the waiting clients.

We wait for too long to get our dose. And some are just sitting there reading newspapers or on their phones. The queues are so long. – MAT client [Observation]

You cannot open one window then read the newspaper and go through Facebook while we are waiting for the other window to be opened. Then the line grows bigger, then people start fighting. Then they don't show us any kindness when we are late. – MAT client [Observation]

The clients' accounts of these experiences expose the imbalance of power embedded in the material practices of the intervention's implementation. They can also be seen to serve a more discrete purpose. When the clients' patient compliance is juxtaposed with pharmacists' wilful misconduct, the former is revealed as the more responsible and self-controlled of the two parties. Ultimately, however, by interfering with their engagement in more 'productive' activities (e.g. paid employment), the time demands of the treatment queue and the restricted dispensing schedule impact the clients' capacity to take up the neoliberal subject position which MMT is seen to enable.

Protestations

Many of the clients expressed a strong sense of indignation when they spoke about the injustices of the stringent delivery timetable. Indignation is a reactive emotion

that is typically evoked by moral wrongdoing or violation of entitlement and is frequently the basis for acts of social protest (Jasper, 2014). In February 2016, a small group called on their fellow clients to voluntarily abstain from methadone (i.e. '*strike*') in protest of the rigid dispensing schedule.⁶ The plan to strike was sparked by a particular incident. All of the clients had disembarked from a bus at the gates of the hospital shortly before the dispensing windows were going to close. Despite having run across the grounds of the hospital they arrived at the clinic '*four minutes*' late. Much to their dismay, the pharmacist on duty was unwilling to accommodate their request for methadone. In an outburst of frustration and anger one of the clients loudly proclaimed that he would call for a strike if they did not comply. Encouraged by the client's show of tenacity, other clients joined in and soon everyone was threatening to go on strike. The pharmacist remained unmoved by the threat, purportedly saying, '*Go ahead, strike. See if I care*'. Faced with the prospect of withdrawal, the clients walked to the nearby drug den to use heroin. I was in the den when they arrived. Their account of the episode seethed with indignation, but also determination. As a client called Odette stated,

⁶ Conventionally, *strike* is defined as protest involving the collective stoppage of work. In this sense, it is an ill-fitting descriptor of the clients' intended action. However, their choice of words may be informed by the usage of *strike* in another form of protest action—a hunger strike. Methadone is not necessarily as life-sustaining as food, but it may have a similar value, especially to those who are deprived of it. In this way, the act of voluntarily and intentionally abstaining from methadone can be seen to constitute a sacrifice comparable to that of fasting. Hereafter, *strike* is written without quotations to honour the clients' word choice and the meanings it may confer.

*You know what they do? About one week they are good. After about two weeks they go back to what they are. They are joking. We will strike so that they can see we are serious. And I swear, I'll be there to boost people and I don't care, I don't give a fuck. I swear everyone who was there was very angry. But we will strike if they don't listen to what we told them. We'll see if they give us time. If they don't listen to us, we're not drinking their medicine.*⁷ [Observation]

For Odette and the other clients, the strike is envisioned as both a performance of their agentive capacity and retribution for its marginalisation. *Choosing* to refuse methadone—the very thing refused *to them* reasserts the body sovereignty that was unsettled in the wake of the pharmacist's refusal. In doing so, the collective body of bodies '*not drinking their medicine*' becomes an instrument through which to oppose and disrupt a particular manifestation of power which does not seem to fully recognise personhood. Moreover, abstaining from methadone is a particularly powerful form of protest because it may induce the client to use drugs and can therefore be seen to undermine (or sabotage) one of the primary goals of MMT—addiction recovery.

Although the clinic proved unwilling to compromise, the clients did not proceed with the strike. Nevertheless, its proposal remains significant—both as an expression of their political agency and as a claim to treatment entitlement. I do not fully understand why their plans were never carried out. While many of the other clients I spoke with

⁷ The statement 'I'll be there to boost people...' is somewhat ambiguous. To my understanding, Odette is declaring her intention to provide heroin to the clients who are abstaining from methadone in order to ease their withdrawal symptoms. *Boost* is the verb form of the noun *booster*, a colloquial term which denotes a specified unit of heroin. Odette and her friends often used *boost* when they spoke about taking heroin. It is also possible that she is drawing on the conventional meaning of the word *boost*—'to help or encourage'.

endorsed the group's plan, I suspect that few were willing to take up the cause directly.

If a previous instance of client activism is any indication, it may be that their reluctance was partially driven by apprehension about a potential reprisal from the clinic. A few months prior to the strike's proposal, a security guard who was well-liked by the clients was terminated for not wearing his uniform. A group of clients circulated a petition asking the clinic to reconsider their decision. The petition purportedly enjoyed widespread support, but most declined to sign it. According to the MAT client who recounted the incident to me, their reluctance was primarily driven by a fear that being identified with the campaign was a threat to their enrolment status. Alongside proclamations of treatment entitlement, a normative culture of rationed expectation persists. In Kenya, as in other settings where addiction treatment opportunity is scarce, access to treatment is inherently fragile (Rhodes *et al.*, 2015b). When deservedness is determined as much by a performance self-regulation and compliance as by need, clients may be deterred from engaging in political protest, even if it is in furtherance of securing treatment access.

Conclusion

The chapter considers the temporal dimensions of methadone's distribution at the MAT clinic as part of tracing how the material practices of intervention delivery 'make-up' MMT *locally*. The restrictive schedule for dispensing methadone constitutes

an overt technique of bio-disciplinary power which is inextricably linked to treatment access. As accounts from implementation-orientated stakeholders explicitly indicate, subjecting the body to an imposed fixed temporal patterning is intended to enact a version of subjecthood predicated on the neoliberal logic of responsabilisation and self-management. The timing of methadone distribution also becomes a resource for discipline. Practices which purposefully delay dosing (e.g. intentionally ignoring the treatment queue, subjecting tardy clients to time-intensive group counselling) utilise, or rather ‘weaponise’, waiting as a punishment. The disciplinary effects promised by the timetable did not prevent the ‘problem’ of tardy clinic attendance. Chronicled in the chapter are numerous instances in which clients who arrive at the clinic late are refused their dose of methadone.

In highly controlled spaces the regulations are not always as uniformly enforced as they may appear. The distribution of methadone after the dispensing windows have closed (i.e. ‘after-hours’) is a prime example of ‘rule bending’ in practice. Gaining access to ‘after-hours’ methadone delivery entails inhabiting a subject position which is seen to evidence therapeutic progress (i.e. ‘*doing well on MAT*’) through acts of individual enterprise, autonomy, and self-management (e.g. attending university, securing gainful employment). Across the stakeholder sphere, presentations of these and other attributes of neoliberal citizenship are overwhelmingly narrated as the ‘successful’ outcome that

MMT is expected to produce. By affording an opportunity for this version of subjecthood to be showcased, the provision of ‘after-hours’ methadone serves as a site of materialisation for the intervention’s ‘positive’ treatment effects. We see parallels with the expectation of early morning clinic attendance; in both instances, the recovery potential of MMT is practised as abstinence from drugs, but also the transformation of the ‘addict’ into a ‘productive’ and responsibilised citizen.

While the version of the intervention which materialises through these practices appears translocal (Bourgois, 2000; S. Harris, 2015; McFarlane, 2009; Nettleton, Neale and Pickering, 2013), a relatively distinctive feature of the treatment landscape is the strong sense of entitlement for methadone which is expressed by late-arriving clients for whom ‘after-hours’ dosing is not available. Drawing on the capital which is afforded to neoliberal discourses through the practices of MMT, claims to treatment access in relation to tardiness incorporate representations of self-responsibility and productive action. Although it was never carried out, one of the most forceful expressions of the clients’ entitlement to treatment access that I portray in the chapter is the protest (i.e. strike) action which was planned against the unwaveringly rigid enforcement of the dispensing schedule. Although they may not be recognised as such, the strike, together with all of the other forms of claims-making which occur in relation to treatment access for late-arriving clients, constitute overt performances of the agentive, actively engaged,

and responsibilised neoliberal subject which the timing of methadone's distribution—indeed, the entirety of MMT—is seen to cultivate.

The next chapter is organised around the procedural dimensions of the MAT clinic. Of all the empirical components of the thesis, it is the most 'action' orientated, in that it focuses primarily on the *who*, *how*, and *what* of dispensing methadone. It also explores some of the 'behind the scenes' processes that accompany and facilitate methadone's distribution at the clinic, including that which relate to knowledge acquisition, monitoring, assessment, and dosing. Throughout the chapter, I build upon aspects of the intervention's local 'making' which I have explored previously.

Chapter 7

The Procedural Practices of Delivering MMT

Introduction

While the previous chapter is largely centred on the temporal facets of administering MMT, much of what it concerns may be characterised as *procedural* (i.e. relating to a set of actions which is the accepted way of doing something).

Unsurprisingly, the *when* of methadone's distribution is not the only dimension of MMT which is proceduralised. I continue with my telling of the procedural 'story' by reflecting upon the *who* and *what* of providing MMT at the MAT clinic. The chapter is primarily concerned with the dosing, dispensing, and consuming of methadone, as well as the various forms of assessment and monitoring which are performed at the clinic. As fundamental aspects of delivering MMT material implementation in Nairobi, these treatment practices are fruitful sites of analytic inquiry when considering the intervention's local 'making'.

Unlike its predecessors, the chapter is not organised around a unifying concept (e.g. space, time) beyond that which may be called *procedural*. Nevertheless, much of what it considers relates to the knowledge practices of MMT. Knowledge is a crucial domain of the intervention's local 'making' (Rhodes *et al.*, 2016; Rhodes, 2018). An ontology of multiplicity emphasises that an intervention object and its effects are practised through the knowledge(s) which enact them (Law, 2004; Woolgar and Lezaun, 2013). From this perspective, MMT is not a stable pharmaceutical agent

intervening upon a single biological body, but rather the product of a recurring dialogue among various circulating bodies of knowledge (Gomart, 2002; Rhodes, 2018; Rhodes *et al.*, 2016). The chapter examines the interactions between different ‘knowledges’, with each one enacting multiple and potentially contested ‘versions’ of MMT. The first section concerns the qualification requirements for the personnel of the National MAT Programme, discursive representations of knowledge acquisition by implementation-orientated stakeholders, and the authority accorded to ‘expertise’. I also focus my attention on UMB and its influence on the knowledge arrangements of the MAT clinic. Following that, the penultimate section of the chapter explores a moment of locally mediated knowledge-making in which a ‘new’ methadone object is enacted *materially*, through its embodied effects. Although it is among the more vibrant, knowledge is not the only analytical concern of the chapter. Several themes which appear across the thesis are also present, including the abstinence-orientated code of treatment conduct, bio-disciplinary power, subjecthood, and the promotion of legitimacy.

The *who* of delivering MMT

The provision of MMT at the MAT clinic is carried out by a team of psychiatrists, nurses, pharmacists, pharmacy technicians, and social workers, all of which are required to have specialised knowledge of the intervention.

Only health workers that have undergone training and certification for MMT by the Ministry of Health’s Division of Mental Health and/or the Pharmacy and Poisons Board can prescribe or administer methadone. –‘Standard

Operating Procedures for Medically Assisted Therapy'(NASCOP, 2013c, p. 80)

The requirement, along with representations of the training and certification which is acquired in relation to it, positions MMT under the domain of the medical expert. As the object around which the expertise is orientated, MMT is accorded meaning as a specialised form of medical intervention. Moreover, possessing the 'right' kind of knowledge (i.e. biomedical) serves as the basis for which stakeholders are capacitated to make claims or raise questions about the procedural aspects of intervention delivery.

That's (how a 'stabilising' dose of methadone is determined) medical knowledge. He (a CSO staff member) doesn't have a clue; I don't have a clue on how it is arrived at. So let's leave the professionals to do their profession. Just leave those at Mathari to do their work. There's no reason to prescribe to the doctors on what they are supposed to do. That is ridiculous [laughs]. Yeah, like I as a sick person cannot come and tell you what I want you to do for me. – Officer, Ministry of Health [Interview]

I've talked to them (staff at the MAT clinic). They say it's a minimum maybe one year and six months, seven months of being on methadone. But I have another friend from Tanzania who was on methadone for only eight months now she is very nice. But it depends on the doctors. I cannot say anything about that. – Staff member, CSO [Interview]

Moreover, the acquisition of knowledge and skills serves as a resource through which those involved in the implementation of MMT are able to evidence the legitimacy of the programme.

We have built the capacity of the identified staff who are providing a high-quality comprehensive package of services to people who inject drugs, including exchange learning visits for the staff that work in the clinic...the University of Maryland has established systems that allow continued training

and mentorship and development for the team that is providing these services.
– Staff member, Implementing partner organisation [Observation]

We chose Mathari Hospital because what we were looking for was actually there. In 2006 we were told that they had people who had actually been trained before, including the current medical sup (superintendent)...They had qualified staff, because we had been informed that for methadone to be given, we needed a pharmacist, and they had quite a number who had been trained.
– Officer, County government [Interview]

I started hearing about it (methadone) around two or three years ago, and the first training we had was in 2014. I was among the people who were selected for the training. We had a one-week training and later we went another week to Tanzania to see the actual methadone—what they are doing. And later the people from Baltimore (UMB) came, and around two weeks so we stayed with them, they taught us what methadone is. – Treatment provider, MAT clinic at Mathari Hospital [Interview]

As the previous quotations from implementation-orientated stakeholders indicate, expert forms of knowledge which are generated outside of Kenya are accorded particular value. Within the emergent formations of local knowledge production, the MMT programmes in Tanzania are a wellspring of localised evidence-making with respect to ‘best practices’ and the recovery potential afforded by treatment (Rhodes, 2018; Tran *et al.*, 2015; Ubuguyu *et al.*, 2016). Although much farther afield from Kenya, UMB was identified by implementation-orientated stakeholders (see earlier quotations) as an essential source of technical knowledge.¹

¹ The multi-layered connection between Baltimore and Kenya requires elucidation. Through a local ‘non-profit affiliate’ called MGIC, UMB manages the operations of the MAT clinic at Mathari Hospital. As I describe forthwith, the university has also provided mentorship, training, and assistance with the protocol development at the clinic.

On its website, UMB portrays itself as playing an even more active role (UMB, 2021).

In a collaborative program, [UMB] developed the first MAT with methadone treatment centre for individuals with opioid addiction in Kenya. Efforts included: training and educating staff; maintaining in-house case discussions and continuing medical education sessions; engaging with the police department to help lower the stigma of substance and opioid use disorders; encouraging referrals to treatment and providing MAT; developing evidence based counselling and psychosocial support systems; hepatitis and HIV screenings for all patients entering MAT and, referrals from needle exchange services.

What's more, the institution is recognised in the US as a leader in the development of 'evidence-based approaches to Opioid Use Disorders (OUD) treatment'. It also has considerable experience implementing MMT services. According to their website, the Division of Addiction Research and Treatment founded and operates the first (and largest) 'hospital-based' clinics in inner-city Baltimore more than 30 years ago (UMB, 2019). Given the university's position of influence and their involvement and the role that they play with respect to the MAT clinic at Mathari, that which constitutes MMT in Baltimore has potentially significant implications for the intervention's local 'becoming' in Kenya. In the US, MMT is largely implemented as an outpatient treatment for addiction recovery (McElrath, 2018). These services frequently impose abstinence from drug use as a condition of treatment access and enforce an ensemble of restrictive policies to 'regulate' the behaviour of its clients (Bennett, 2011). Multiple elements of the high threshold, low tolerance model which predominates in the US are visible in the protocols (e.g. routine toxicological testing

for drugs, mandatory counselling), rules (e.g. prohibition of all drug use), discourse (e.g. biomedicine, addiction recovery, self-regulation), and spatial arrangements of the MAT clinic (e.g. clinic-based delivery setting). Moreover, the MMT programme operated by UMB has several features in common with that which is implemented at the MAT clinic in Nairobi. In both settings the intervention is referred to as *medically assisted therapy*, follows a similar daily in-person dosing regimen, and is delivered at a specialised outpatient clinic which operates through a tertiary health care facility. UMB—its discursive-material practices, shapes the ‘topography of reality-possibilities’ in which MMT is implemented in Nairobi by promoting and evidencing particular intervention objects (Law, 2004, p. 34). Inevitably, other actualities of MMT are marginalised, rendered inviable, or silenced. By recognising the intervention’s mutability and the various knowledge practices that produce it, we can begin to ponder the countless alternative realities that may have been or could be.

Dispensing and consuming methadone

Methadone is dispensed and consumed exclusively on the premises of the clinic. ‘Take away’ doses are not permitted for any reason. As with the knowledge requirements of the clinic personnel, restricting all aspects of methadone’s distribution *and* uptake to this tertiary care setting enact MMT as a specialised form of medical intervention. It follows that the delivery of methadone at the clinic is organised as a highly procedural medical practice. After signing in with the guard in

the foyer of the MAT clinic, clients receive a number card which denotes their order in the queue for receiving methadone. When their number is called, the client approaches the dispensing window (Figure 5.6). A pharmacist dressed in a white lab coat is seated on the other side of the window. Generally, both the clients and clinic staff refer to the pharmacists as *doctors*. The client is identified by placing their finger on a small biometric scanner which captures an image of their fingerprint and compares it to the one on file. Once the client's identity and dose of methadone are confirmed electronically, the pharmacist verifies the information. A machine measures out the dose—as an oral solution—and dispenses it into a medication dosing cup (see Figure 3.1). The pharmacist hands the cup to the client on the other side of the window. The client is required to swallow its contents immediately and in full view of the pharmacist. This behaviour expectation is emphasised in the 'Patient Agreement for Medically Assisted Therapy' (NAS COP, 2013c, p. 73).

I agree to collect my medication personally at my regular clinic/treatment centre through daily visits and to consume the whole dose under direct observation of dispensing staff.

I agree that it is my responsibility to swallow the full dose of medication I receive from the clinic/treatment centre staff.

The client then receives a small cup of water which they are instructed to drink in order to prove that they have swallowed the entire dose. In the 'Standard Operating Procedures for Medically Assisted Therapy' (NAS COP, 2013c), direct observation of methadone consumption is represented as a strategy for reducing diversion. For a

number of implementation-orientated stakeholders, methadone diversion is seen to constitute a potentially serious ‘problem’. Officers from the Ministry of Health were particularly explicit about the risks it posed.

I really was worried about how the medicine would be handled—in terms of diversion. That became my major concern because it can also be abused and can cause a lot of problems. While we are using it to control or to act as an alternative to heroin, it can also be abused and cause very serious consequences to the people abusing it, so I think at first I was not comfortable when I heard about methadone. – Officer, Ministry of Health [Interview]

My thinking is that the restrictions and practices were born out of the fear that the drug barons would somehow get in the way. It’s a substitute, a substitute drug. That’s what I think they (the Pharmacy and Poisons Board) were thinking about given that the market (the drug market) is the way that it is. As far as I know, the real issue was the fear of methadone being diverted from the clinics by clients and then going to the black market and being sold by the drug dealers. – Officer, Ministry of Health [Interview]

The particular configuration of methadone’s distribution enacts two distinct objects:

1) a dangerous substance in need of containment and ‘proper’ (i.e. biomedical) administration; and a desirable and valuable substance, with euphoric, drug-like potential. The incongruity between these ‘versions’ of MMT reminds us that local practices of intervention implementation invariably reflect a negotiation of the spaces between different, and potentially discordant, discourses, problematisations and priorities. From the concurrent materialisation of these ‘methadones’ we see that MMT can be seen to constitute different objects in different contexts, *and also* different objects in the *same* context. The object of MMT does not stand still

immovable in meaning, but shifts according to the specific moment of its construction.

Assessment and monitoring

Forms of assessment and monitoring are incorporated into the enrolment process and across the different clinical ‘phases’ of treatment (i.e. induction, stabilisation and maintenance). The sights upon which these scrutinous procedures are focused are wide ranging, extending from the client’s body and its waste products to their behaviours, intentions, and emotions of the past, present, and future.

Mechanisms of assessment (i.e. evaluation, appraisal, diagnosis) predominate the protocol for enrolling prospective clients into the MAT programme at Mathari Hospital. A central concern of enrolment is the confirmation of the individual’s eligibility to receive MMT. There are four eligibility criteria for MMT: (1) a ‘*definitive diagnosis of opioid dependence*’; (2) ‘*aged 18 years or older*’; (3) ‘*ability to give informed consent to treatment*’; ‘*proof of identity*’ (NASCOP, 2013c, p. 17). Here, *opioid dependence* refers to a ‘*compulsive need to use controlled substances leading to clinically significant impairment or distress*’. This definition is from the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders* (NASCOP, 2013c, p. 6). Eligibility is further confirmed by physically examining the prospective client for ‘*needle marks*’ and ‘*clinical signs of intoxication or withdrawal*’ (NASCOP, 2013c, p. 16). Particular weight is given to the appearance of ‘fresh’ needle marks on a prospective client’s body, which is seen as

tangible evidence of active injecting behaviour. *Unofficially*, enrolment is primarily restricted to people who inject heroin. Prioritising this population for treatment affords MMT capacity as a biomedical solution for managing the emerging HIV ‘problem’ linked to heroin addiction. As I discussed in Chapter 3, the intervention’s inscription as an HIV prevention strategy was pivotal to securing the funding and the political will that enabled its introduction in Kenya.

While the list of eligibility requirements for entrance to the Medically Assisted Therapy Programme is relatively concise, the ‘Patient Eligibility Checklist for Methadone Maintenance Treatment’ identifies additional factors for consideration, including whether a prospective client is ‘*willing to undergo long-term treatment*’ with methadone, ‘*expected to attend MMT centers regularly*’, ‘*has family support*’ (NAS COP, 2013c, p. 74). The latter is of particular significance. Most of the CSOs require (or highly prefer) to meet with a family member of a prospective client before referring them to treatment. The social and financial support of families is seen as vital for successful engagement in MMT.

When I go to the field, I talk to you—the client. You agree to come to our DIC (drop-in centre for people who use drugs). You come to the DIC to get the services we are providing and to fill out the forms for methadone. You have to get someone from your family to come with you. It’s better that one of your family come so he understands you will have this therapy. – Staff member, CSO [Interview]

The family will make sure that they get money for transport...And then in the evening make sure they eat, they sleep...Solitude and being alone, the loneliness, I would say, is a threat...Social support is extremely important. – Staff member, CSO [Interview]

As part of the *'initial assessment'* prospective clients are also asked to provide a *'complete history of substance use'*, which addresses topics such as their *'motivation and readiness for change'*, *'triggers for seeking treatment'*, and *'goals for individual treatment episodes'* (NASCOP, 2013c, p. 16). The extensiveness and nuance of the eligibility verification process are suggestive of the high priority accorded to ensuring that only the *right* kind of individuals are receiving methadone. A suitable candidate for MMT is characterised as an individual who is dependent on opioids but also has sufficient capacity to actively maintain familial relationships, commit to an extended period of treatment, and express motivation for abstaining from opioids. Taken together, these criteria constitute a fine line for prospective clients to walk. Their use of heroin needs to appear problematic *enough* to warrant MMT, but not so problematic that it has the potential to adversely affect their ability or willingness to receive it. As Nguyen *et al.* (2007) argue, in settings with scarce treatment opportunities, access may be rationed according to situated manifestations of patient deservedness as much as clinical need. The pressure and capacity for patients to perform and accept themselves as worthy of treatment candidacy can be particularly acute. When treatment need outweighs supply, those who narrate themselves according to normative patient identities may garner greater treatment access. Prioritising MMT for those who are able to adopt a subject position which manifests distress and recovery potential may constitute a strategy for managing the growing

demand for treatment. The imperative to promote the legitimacy and acceptability of the intervention may also inform efforts to concentrate enrolment on individuals presumed to have the greatest chance of treatment adherence. Evidence of the ‘positive impact’ that MMT has had on clients is strongly featured in discourses of intervention promotion. As Rhodes (2016, p. 22) suggests, ‘Methadone is telling its own story of success; and the methadone treated client becomes, a resource, a text, a kind of inscription device, for making and communicating this’. Conversely, the non-compliant client has the potential to jeopardise the ‘story of [MMT] success’. The ‘Standard Operating Procedures for Medically Assisted Therapy’ explicitly states (NAS COP, 2013c, p. 21):

Sometimes it is necessary to discontinue a client against his/her wish in order to preserve the credibility of the programme within the wider community. Common reasons for discontinuation include frequently missed doses and missed appointments...and the diversion of methadone.

Presumably, a client who violates the code of treatment in this way is seen to embody treatment failure. Involuntarily termination preserves the ‘*credibility of the programme*’ by erasing the evidence of such failures. Given the clients’ value in the making and un-making of MMT as an effective treatment technology, controlling treatment access—through policies that prioritise the enrolment of individuals with high recovery potential and the termination of those who are non-compliant—becomes a critical strategy for protecting the promise of MMT in Kenya.

Across all phases of treatment—induction, stabilisation, and maintenance, monitoring is a prevailing feature of the clinical protocol.

Because of the pharmacology of methadone, to ensure safety, it is desirable that patients are reviewed at least once, and preferably twice by an experienced clinician in the first week, after induction with a view to assessing the adequacy of methadone. – ‘Standard Operating Procedures for Medically Assisted Therapy’ (NASCO, 2013c, p. 53)

Once initiated, the treatment plan is monitored by a lead clinician and revised periodically as required to respond to the patient’s changing situation. – ‘Standard Operating Procedures for Medically Assisted Therapy’ (NASCO, 2013c, p. 19)

To facilitate regular assessment by clinicians over the course of treatment and in order to renew their methadone prescription, clients are required to meet with a consulting psychiatrist once per month. Random, obligatory urine screening (i.e. ‘toxicology’) for opioids, cocaine, marijuana, and benzodiazepines may be conducted as part of these appointments. The ‘Standard Operating Procedures for Medically Assisted Therapy’ represent the practice as having an explicit therapeutic benefit (NASCO, 2013c, p. 55).

Urine toxicology can be useful where feasible on a monthly basis, but should never be used for punitive purposes. No patient should ever be dismissed or excluded from MAT for ongoing drug use, but results from the urine tests can help identify ongoing drug use and additional needs for support.

While the ‘punitive purposes’ of the procedure are explicitly refuted in national policy, for many of the clients with whom I spoke, a ‘positive’ (i.e. indicating the presence of drugs) test result was largely seen to elicit disciplinary action. During my fieldwork, I heard several stories from clients about people who had their dose of

methadone temporarily reduced or suspended after their urine tested positive for drugs. A prominent feature of high threshold MMT, the toxicological testing of urine is widely acknowledged as an exercise of bio-disciplinary power (Bennett, 2011; Bourgois, 2000; C.B.R. Smith, 2011). The practice reflects a recovery-orientated moral code of conduct which prioritises abstinence from *all* drugs (including those that are not opioids) as the primary goal of treatment. Linking doses to drug abstinence is a behavioural contingency intended to improve retention.

Unsurprisingly, it has been found to contribute to treatment dissatisfaction, interruptions, and premature discharge (Radcliffe and Stevens, 2008; Reisinger *et al.*, 2009). What's more, the practice of penalising drug use (indeed, any act of non-compliance) with the disruption of treatment troubles the intervention inscription as an '*essential medicine*' for the '*treatment of drug dependence*' (WHO, 2006, p. 3).

The designation is deployed as a strategic resource in the promotion of its introduction in Kenya (see Chapter 3); however, in this context, its implications appear to be overshadowed by imperatives of discipline and control.

Dosing and the 'new methadone'

I now turn my attention to a particular 'event' (i.e. set of circumstances) which occurred when there was a change in the methadone dispensed at the MAT clinic. While it offers insight into the dynamics of dosing and the management of methadone's side effects, the analysis I present here primarily explores how the substance called 'methadone' is produced in relation to different knowledge making

practices. Given its specific, situational focus and cross-cutting analytical themes, it is well positioned as the *outró* of the chapter.

The ‘new methadone’. When I returned to Nairobi for my second round of fieldwork the clients I reconnected with were eager to tell me about a change that had recently occurred at the MAT clinic. I gathered from their accounts that for the past several weeks they had been receiving a ‘new methadone’. The clients first learned about the ‘new methadone’ from a notice that had been posted in the courtyard of the clinic on the day of its introduction. It purportedly informed them that the colour of the methadone was now green and that they could expect to receive a smaller amount because it was stronger than it had previously been. The change described by the clients was not limited to colour and concentration. Their accounts present two different methadone objects—the ‘*old methadone*’—the substance they had previously taken, and ‘new methadone’—the substance they were currently taking. For nearly all with whom I spoke, the ‘new methadone’ and ‘*old methadone*’ are not variations of the same substance—the same pharmaceutical drug called *methadone*, but entirely separate substances—separate methadones.

The clients largely described the ‘new methadone’ as having properties that are either absent from or stand in contrast to the ‘*old methadone*’. Thus, it could be said that the ‘new methadone’ is primarily defined by what the ‘*old methadone*’ is *not*. The green colour of the ‘new methadone’ was seen to be one of its most prominent features. Alongside *new*, *green* was an oft-heard descriptor of the

methadone being dispensed to the clients at this time (e.g. *'the green methadone'*, *'the green one'*). Its green colour was generally one of the first characteristics a client would mention when describing the 'new methadone' to me. In many instances, the green of the 'new methadone' was represented as a deviation from the yellow of the 'old methadone' (e.g. *'It was yellow, but this new methadone is green'*; *'You see, the meth is now green. Before this we were given a yellow one'*). Many of the clients spoke about the bitterness of the 'new methadone'. As with its colour, the flavour was often compared to that of the 'old methadone' (e.g. *'It's really bitter, the old one wasn't this bad'*). Anthropological scholarship on extra-pharmacological phenomena suggest that colour and taste, as well as other material attributes of a medication, convey particular meanings which have the potential to influence how its effects are experienced (Moerman, 2002; Moerman and Jones, 2002).

The 'new methadone' is primarily embodied through its adverse physiological effects. Much of what the clients said about it related to new or worsening ailments they were experiencing. These included: (1) gastric distress (e.g. nausea, vomiting, abdominal pain); (2) constipation; (3) rapid heart rate; (4) increased perspiration; (5) excessive hunger; (6) skin rashes; (7) tooth corrosion; (8) anxiety; (9) startling easily and restlessness; (10) drowsiness; and (11) disrupted sleep. Here we see one Sunday afternoon, a client called Joseph invited me to have lunch with his family at their new home on the outskirts of the city. As we sat in the living after our meal, Joseph told me how poorly he had been feeling recently. He was regularly experiencing acid

reflux, as well as abdominal cramping and distention. In the afternoons he was plagued by fatigue and excessive hunger. He found the unpredictability of the effects particularly unsettling.

I worry a lot because I never know what the day will bring and even if I did, I can't always manage it. It's given me problems—at work, even at home too. This methadone, it seems to be doing more bad than good.

Disrupting the physiological order that the clients have grown accustomed to, the 'new methadone' is tangled up in its distressing embodied effects (what is actualised) which cannot be fully separated from the therapeutic promise it is seen to offer. In addition to the more generalised physiological ailments, there were also complaints of 'turkey' (i.e. withdrawal symptoms, as in 'cold turkey'). The clients I spoke with primarily explained the onset of withdrawals in relation to the bodily experience of the 'new methadone'. Compared to that of the 'old methadone', it was felt more quickly and intensely, but also stayed in the body for a shorter period of time.

The new one, it just goes out of the body. The other one, the other one is like it can stay. I must say it can stay up to maybe like 24 hours. But this one stays only 12 hours. You wake up in the middle just like you have turkey. I arrive on time at the clinic. I normally feel bad. So I just make sure that at 7:00 I am there at the clinic. I'm taking my dose. [Interview]

The new methadone doesn't last. It just leaves the body too soon. I feel weak after about six hours, like I haven't taken it and in the morning I feel like using stuff (heroin) again. With the old methadone, I didn't feel that tired and wasn't craving stuff (heroin) until right before the next dose. [Observation]

The clients' accounts construct 'turkey' as a problem of the 'new methadone'—not in relation to the biomedical practices of its implementation (i.e. dosing) or the bodies

that consume it, but rather, the *substance itself*. The sensory information that is generated by the body constitutes an *embodied* knowledge of the ‘new methadone’, which may feel more ‘real’, and thus appear more authentic than the representational knowledge claims of the clinic.

A new concentration of (the same) methadone. The staff at the MAT clinic also spoke about changes to the methadone. However, instead of explaining it in relation to the ‘old’ and ‘new methadone’, I was informed that the concentration of methadone hydrochloride (HCL) in the oral solution (which is dispensed to the client as *methadone*) had been increased from 2 milligrams (mg) per millilitre (mL) to 5 mg/mL (milligrams per millilitre). Essentially, the methadone remained the same, it was only the quantity which was now different. The explanation is informed by a biomedical understanding of methadone as a pharmaceutical object with fixed properties and a universal effect potential. Notably, it differentiates between the substance called *methadone* and the oral solution in which it is suspended. In this context, *methadone* refers to methadone HCL, the hydrochloride salt which contains methadone. Like many other settings, Kenya delivers methadone as an oral solution concentrate—a digestible syrup which contains a particular concentration of methadone HCL. In its unadulterated form, methadone HCL is a white crystalline powder, but once dissolved, it is indistinguishable from the oral solution. Although the oral solution contains methadone HCL, it is itself, *not* methadone. The decision to change the concentration of methadone HCL was purportedly motivated by the

need to reduce the costs associated with the disposing of empty bottles of oral solution. With the 5 mg/mL concentrate, the pharmacists emptied the bottles at a slower rate because they dispensed a smaller quantity of oral solution per dose.

‘Messy’ problems and effects. Clinic staff members consistently emphasised to me that the clients’ doses were not affected by the change. Although a dose of the 5 mg/mL concentrate was comprised of less oral solution, it contained the *same* methadone strength as a dose of the 2 mg/mL concentrate. However, I soon learned of instances where the dose may not have remained constant. For example, George, a client to whom I was introduced at a CSO drop-in centre, informed me that his initial dose of the ‘new methadone’ contained 75 *more* milligrams of methadone hydrochloride than his previous dose. The higher dose had caused him to vomit and sweat profusely. George reported his symptoms to the treatment providers at the clinic. His dose was decreased by 50 mg and his health began to improve after three days. A treatment provider at the clinic assured me that the impact had been relatively minimal. As if to evidence the claim, they cited the results of a survey the pharmacy staff conducted with the clients shortly after they began receiving the 5 mg/mL concentrate.²

Those who thought it was stronger also reported that they were sleeping for too long, earlier in the day. Eighty-five percent did not have a problem with it; one percent were constipated, three percent said it was too strong. Nine

² The treatment provider did not describe how many clients were queried, nor did they explain how and under what circumstances the pharmacist obtained these data. I refrained from asking specifics questions about the methods because I did not want to seem impertinent.

percent had withdrawal symptoms. It's more about educating them to address those people's concerns. Perhaps their dose was not adequate in the first place. So we are matching the complaint with the methadone dose. [Interview]

As the treatment provider indicates, the response to the clients' ailments primarily consisted of providing the clients with education and adjusting their doses of methadone. A staff member from the clinic explained the protocol in greater detail.

Most of the time, if the client complains, we will educate them about doses and side effects. Some will be satisfied and say they're okay. But for others, this is not enough, and we have to send them to the doctor to see about changing their dose. [Interview]

Here, as in the preceding account, the 'problem' lies with the clients and the dosing, rather than the 5 mg/mL concentrate. This problem representation was widely endorsed by others. Two staff members informed me that the clients' complaints were 'psychologically' induced by the misinformed belief that their dose of methadone had been reduced because a dose of the 5 mg/mL concentrate was comprised of less oral solution than that of the 2 mg/mL concentrate.

Of course, the new concentration gave people a lot of problems. Lots of people had complaints. If you were getting 160 milligrams, you were given 80—just half, because of the concentration. So some psychologically, they feel they have been given something very little. Most of them it was psychological because a number of them they never complained until now. – Staff member, MAT clinic at Mathari Hospital [Interview]

I think it is psychological. Because maybe someone was getting like 100 milligrams. If they were getting 100 milligrams when it was 2 M-L per milligram it will be five divided by a hundred. So they are getting 20. Now they're seeing the cup is a bit lower so they are thinking that the methadone

*dose is less. They think it's not working as well as the other one.*³ – Staff member, MAT clinic at Mathari Hospital [Interview]

Several clients told me that their dose had been reduced when the clinic began dispensing the ‘new methadone’. Notably, however, the dose reduction was *not* seen to constitute the source of their ailments.

Before, I was getting 30 M-L, but now with this new methadone, I'm getting only six M-L. So you see, they cut down my dose a lot. – MAT client [Observation]

The amount of methadone I get is much less. I think they wanted all of our doses to be less. Maybe it made them look bad because they were considered too high or something. – MAT client [Observation]

To my understanding, such claims are informed by a different, rather than a deficient knowledge of MMT. In the everyday speech of MMT stakeholders,⁴ the word *methadone* refers to the oral solution concentrate (i.e. methadone HCl *and* the oral solution which contains it). However, following standard biomedical practice, a dose of methadone is prescribed only in relation to milligrams of methadone HCL. In this context, *methadone* constitutes methadone HCL—not the oral solution in which it is dissolved. For clients, a dose of methadone (indeed, the very substance called ‘methadone’) is something else entirely. Theirs is a knowledge born of bodily

³ Interestingly, the staff members describe different methods for converting the amount of oral solution per dose. Additionally, each of the examples they offer presents the conversion according to milligrams, rather than the standard *millilitres*. I highlight these inconsistencies not to question the accuracy of their claims, but because I believe they illustrate the inherent ambiguities of MMT.

⁴ The linguistic convention is not unique to Kenya. In many places the oral solution is referred to as ‘methadone’.

experience and materiality. Nearly all of the clients I spoke with describe their dose as the amount of oral solution concentrate –measured in millilitres (‘*M-Ls*’)—they receive from the pharmacist per day (e.g. ‘*60 M-Ls*’). Here, the oral solution and methadone HCL comprise the ‘thing’ called ‘methadone’. Thus, the ‘new methadone’—an oral solution concentrate which looks, tastes and feels distinct, necessarily constitutes a distinct methadone object.

As the staff member describes in a previous quotation, one of the strategies for addressing the complaints was to educate the clients about the side effects of methadone.

A lot of the time it is completely just the normal methadone side effects. They were sweating and there was an increased appetite and then sometimes it was a loss of appetite. We tell them, “This is just a common thing, lots of people feel this way”. It can really help once they know that. Maybe they don’t worry as much about it or come to realise that there’s not much we can do.
– Staff member, MAT clinic at Mathari Hospital [Interview]

In biomedicine, a side effect is defined as a secondary unwanted effect of a pharmacotherapy. Many of the ailments the clients experienced from the ‘new methadone’ fall under the category of common (frequently experienced) side effects, including nausea, vomiting, constipation, restlessness, disrupted sleep, drowsiness, and increased perspiration). The normalising effect of this categorisation may ease the sufferer’s apprehension but also has the capacity to weaken their claim to alleviation by producing the ailment as a kind of ‘non-problem’. Ailments that are also associated with heroin (e.g. constipation) may be particularly vulnerable to de-

problematisation. What was once a harmful consequence of abnormality is now enacted as a necessary side effect of achieving normality. The ontological divide between illness and therapeutic effect is murky. As Flore *et al.* (2019, p. 70) observes, the appearance of illness is ‘an induced emergence mediated by pharmacological materials and respective expertise, rather than physiological manifestation’. The second-line approach for addressing a client’s complaints was to adjust their dose of methadone.

If they are complaining about having pains or withdrawals the doctor would increase the dose by 5 milligrams and then give them an appointment for a week later. If they are feeling better they leave them on that as the maintenance dose. If not, if they are still complaining, then they may increase it again, or in some cases, it may need to be decreased. It depends, really on the person. – Treatment provider, MAT clinic at Mathari Hospital [Interview]

The heterogeneity of the clients’ needs can be seen to indicate the absence of a singular dose-related ‘problem’. The same could be said for the non-uniformity of their ailments. As I described previously, some clients were experiencing methadone withdrawal (e.g. craving heroin, feeling weak, disrupted sleep), while others had symptoms that can occur when a dose is high or titrated too quickly (e.g. nausea, vomiting, excessive appetite, oedema, rapid heart rate). Many of the complaints are *also* ‘*common*’ side effects of methadone, and may arise *regardless* of the dose (e.g. nausea, vomiting, disrupted sleep). In effect, there are multiple dose-related problems, but also, (and perhaps concurrently) no dose-related problems with which to attribute the clients’ ailments. The scene is one of overlap and ambiguity. The

what and *how* remain elusive, even as coherent explanations of the technical and practical abound. The variability we see here reveals that methadone's effects may not be as symmetrical or predictable as empirical evidence (and the claims produced by it) imply. As with all pharmacotherapies, the effects of methadone are embodied, and thus materialised into being in a multitude of ways (Biehl and Moran-Thomas, 2009; Meskus and Oikkonen, 2020; Roberts, 2014).

The CSOs were notified about the changes to the methadone shortly before the clinic began dispensing the 5 mg/mL concentrate. The information provided to them was relatively limited. They were informed that the concentration of methadone HCL in the oral solution was increasing from 2 mg/mL to 5 mg/mL and that the clients' doses would be reduced to adjust for the higher concentration of methadone HCL per millilitre. The clinic did not disclose the rationale for the change or alert them to the possibility of clients experiencing adverse effects. When the clients who frequented the drop-in centres began complaining about the 'new methadone', the CSOs were somewhat unprepared.

Last week we convened an emergency meeting because so many clients were reporting problems with their bodies, but we don't know how to help them.
– Treatment provider, CSO [Observation]

The connection between the clients' ailments and the ('new') methadone was widely acknowledged by CSO stakeholders. Nevertheless, many with whom I spoke were confounded by the situation and reluctant to accept the clinical rationale.

Some of our clients don't seem able to handle the dose they are on. Others complain that it doesn't last. The dose itself should be the same. There is an easy way to calculate the new dose based on the change in concentration. Clients are having their doses increased, decreased, or not changed at all. I don't understand. Those at the clinic are also saying that this is all in their heads. But these people are actually unwell. I have seen it. There is more going on here, there has to be. There is something about this methadone that is fundamentally different. It's a completely different methadone. – Treatment provider, CSO [Observation]

We know their symptoms are real, we see them every day among some of our peer educators, and others too. It could be the dose; I have heard the machines that measure out the methadone are not working...But why would there be such different reactions? Program director X is right, it's the methadone, it has to be different. – Staff member, CSO [Observation]

Observing embodied effects is a localised knowledge-making practice that both shapes and is shaped by the claims made about MMT (Rhodes, 2018). Community stakeholders doubt the certainty of the explanations (what is represented) provided by the clinic because they are seen to conflict with an embodied methadone (what is actualised). A knowledge affected through bodily interactions which is transmitted materially to others, appears firmer and more authentic than the representational knowledge claims of biomedicine. The story of the 'new methadone' depicts an intervention whose 'becoming' is anything but linear. The convergence of different knowledges and the different objects they produce exemplifies its inherent multiplicity. Representations of MMT and that which materialises as MMT fluctuate and collide in such a way that it becomes 'impossible to hold that the substance is constant' (Gomart, 2006, p. 97).

Conclusion

While the chapter may be appreciated as a patchwork of different thematic tones and textures, if we step back from the intricacies of the composition, we see a continuation of the analytical horizon line which appears across the thesis. The object of MMT which is portrayed here is multiple, situated, and open to negotiation—co-constituted by the local practices of its implementation.

Connecting materially with that which is performed by Mathari Hospital—the tertiary (i.e. specialised) care facility where MAT clinic is located (see Chapter 5), the qualification requirements of the clinic personnel resource the intervention as an advanced biomedical therapeutic. While narratives of knowledge acquisition serve as a resource for intervention promotion, the practices which flow from the qualification requirements can be seen as enactments of biopolitical force. Anchoring MMT to the territory of the ‘expert’, it consolidates control of MMT care practices to the clinic by serving as the basis for which non-clinical stakeholders are excluded from decision-making and information sharing. Other procedural components of intervention delivery manifest strategies of biopower as well. Defined by concerns of diversion and prevention, the dispensing and consuming of methadone incorporates numerous surveillance techniques, including the biometric scanner utilised for identity confirmation and the close visual supervision of dose consumption by pharmacists. The invasive ‘assessing’ exacted by the enrolment protocol and the random compulsory urine screening to which clients are subjected also exemplify

mechanisms of surveillance. As Bennet (2011), has remarked (citing Foucault), such practices induce ‘a state of consciousness and permanent visibility’ which compels the client to control themselves without external coercion.⁵ From this perspective, many aspects of the intervention’s material implementation may be viewed as part of the apparatus through which the deviant ‘addict’ is transformed into a self-regulated, responsibilised neoliberal subject.

Although processes and arrangements which are featured in the chapter are locally mediated, most are not unique to Kenya. Indeed, much of what we see here (e.g. ‘directly observed’ methadone consumption, urine screening for drug use, the utilisation of addiction assessment measures) are typical of high threshold MMT programming across the world (Bennett, 2011; Bourgois, 2000; Fraser and valentine, 2008; C.B.R. Smith, 2011). Their presence *here* in Kenya reminds us that what constitutes MMT locally may be appreciated as an effect of a ‘translocal assemblage’ involving multiple translations between knowledge(s), practices, and materials across different sites (McFarlane, 2009; Rhodes, 2018).⁶ With respect to that which relates to the intervention’s ‘making’ in Nairobi, UMB constitutes an influential site of knowledge production. The practical training, mentorship and infrastructure of resources provided to the clinic by this ‘expert’ institution enacts a wellspring of

⁵ Given that they are obligatory and closely tied to securing treatment access., one might also argue that such practices may in fact constitute explicit coercion.

⁶ McFarlane (2009) has suggested that in this context a ‘site’ is ‘not simply a spatial category, output, or resultant formation, but signifies doing, performances and events’ (p. 562).

knowledge regarding the material implementation of MMT at the MAT clinic. The body is another site of knowledge making which is explored in the chapter. Like all objects of biomedicine (Mol, 2002), MMT is inseparable from the practices and knowledge(s) which make it comprehensible to us. The advent of the ‘new methadone’ parallels the emergence of a knowledge which is embodied, generated through the sensory information transmitted from the body of the client. The adverse physiological reactions which are experienced as a product of the ‘new methadone’ unsettle the epistemology of MMT by subverting the cause-and-effect narrative of its functioning (Flore *et al.*, 2019). The embodied knowledge produced in relation to the clients’ experience of ‘new methadone’ is largely discounted by clinic stakeholders because it is not seen to align with biomedical explanations. Their response is not without precedent. Those who are professionally acclimatised to discourses of evidence-based intervention are often in a position to reject alternative sources of knowledge as rationally implausible according to their assessment methods of assessment (Rhodes *et al.* 2016). As Law (2004) argues, the prioritisation of evidence-based knowledge may be linked to the reassuring, yet illusory sense of constancy enacted by the notion of a definitive, stable scientific reality. Rhodes (2018) explores another moment of embodied evidence making in this context. His analysis of qualitative interviews with MAT clients at Mathari Hospital indicates that embodied knowledge (i.e. what is actualised) of methadone’s capacity to enable a return to drug-free ‘normalcy’ mediates circulating narratives of doubt about the

intervention's safety and efficacy. As with the 'new methadone', embodied effect connects materially with those witnessing it, and thus constitutes a more palpable source of knowledge than its representative counterpart.

The treatment practices upon which the present analysis revolve comprise much of what constitutes the 'doing' of MMT materially. In exploring the meaning and effect which they enact, the chapter can be seen as the final empirical 'layer' in my depiction of how the object of MMT is 'made' locally through, and in relation to, the practices of the MAT clinic. In the next and final chapter of the thesis, I offer my impressions of the research as a whole—drawing attention to the significant themes, accounting for some of its absences, and reflecting upon the future of MMT in Kenya.

Chapter 8

Concluding Thoughts

I have drawn on several orientating concepts to explore the ‘making’ of MMT in Kenya. This research study was originally conceived with a precise research question in mind—‘how are meanings of MMT constituted and negotiated in local discourse and in relation to local understandings of drug use in Kenya?’. However, as my work progressed and my access to the research ‘field’ expanded, I began to encounter instances in which the lines between the realm of discourse—meanings and representations—and the realm of the material—forms and effects—were blurred. The murals in the courtyard of the MAT clinic at Mathari Hospital are a prime example: the artwork produces particular meanings in relation to MMT but is also making up the social and structural space of its delivery. In expanding the scope of the research, the clients of the intervention find a more prominent place in the local meaning-making ‘story’. We are able to see the multiplicity of MMT not merely as a discursive production – constructed by the scientific, policy, or community narratives which represent it – but as that which is ‘made’ materially, through an encounter between a pharmaceutical object and a biological body. The organisation of the thesis’ empirical components can be seen to trace the shifting focus of my research. The initial chapters primarily relate to discursive meaning-making, while the latter places a greater emphasis on the intervention’s material ‘becoming’. Indeed, many of the MMT-related ‘events’

and incidents (e.g. the launch of the National MAT Programme, the call to strike action) featured in the chapters are presented in order of their occurrence. This thesis may thus be seen as a kind of parallel narrative—a tale of the intervention’s local ‘making’ and of my experience conducting the research which explores it. And as with all stories, both of these accounts may be appreciated as a representation of *particular* and *partially connected* realities (Bruner, 1991).

In this concluding chapter of my thesis, I attempt to both recapitulate and reconstitute the research findings which have been presented herein. I begin (rather unconventionally) by recounting some of the ‘messier’ moments of the research process which are indivisible from the thesis but have remained invisible thus far. From there I contemplate a key research question—‘*What constitutes MMT locally?*’—by presenting an appraisal of the intervention’s more salient meanings and materialisations in this context. I then turn to the subject positions which are enacted through the material practices of the intervention’s delivery. Although the ‘making up’ of the MAT client is not an explicit concern of the research, it constitutes a reoccurring theme in my analyses and is thus deserving of some reflection. In the penultimate section of the chapter, I imagine an alternative ‘reality-possibility’ of MMT implementation in Kenya. Finally, I reflect upon the contribution of the research to the development of a critical social science of intervention implementation.

Absences

This thesis is informed by *method assemblage*, a concept which calls attention to the productive forces of methodological practice. One way to acknowledge our complicity in reality making (and condensing) is by attending to the processes of research. Exposing the ‘practicalities of knowing’ allows us to account for ‘means’ which, although necessary to reality-making, are often absent because of their seeming peripherality to the research ‘ends’. The subjective and personal are among the first traces of the process to be deleted (Law, 2004). With this in mind, I would like to attend to some of the ‘messier’, personal aspects of my thesis. As tempting as it may be to render these matters invisible, I believe they deserve explanation because of their centrality to the research process. In *The Body Keeps the Score* (2014), Bessel van der Kolk describes how people who have lived through trauma alter the narratives of their experiences over decades of remembering and retelling them. ‘The act of telling itself changes the tale. The mind cannot help but make meaning out of what it knows and the meaning we make of our lives changes how and what we remember’ (p. 193). Following van der Kolk, I offer the following account as a momentary construction of memory whose form and meanings are shaped by my present positionality.

I have been confronted by numerous obstacles in the years since I began this thesis. My experience in Nairobi was one of the most enthralling and rewarding of my

life, but it was not without discomfort. Doing fieldwork in a city with a high incidence of criminal and social violence necessarily involves an element of risk. Despite adopting strategies to secure my safety and well-being, I was subject to intimidation and physical harassment on more than one occasion. I also witnessed several aggressive altercations, some of which involved weapons and explicit threats of physical violence.¹ The harm inflicted by the violence was two-fold—it represented the immediate injury caused to the victim(s), but also the generalised sense of anxiety and dread it provoked in me. Unexpectedly, I responded to these traumas by turning towards, rather than away from their source. For various reasons, the situation placed a tremendous strain on my relationship with my partner in London. The months which followed were marked by frequent eruptions of domestic turmoil. Our relationship gradually stabilised but by this time I had difficulty thinking about the thesis without recalling my experience in Nairobi and its tumultuous aftermath. Engaging with the research data, indeed any

¹ I also witnessed suffering linked to various forms of structural violence, including housing, food, and employment insecurity: a woman is paid by a man to inject a heroin-filled syringe into the vein of his arm – her 10 year-old son watches along intently, he is eager to acquire this income-generating skill; families with young children reside in densely packed housing units at the entrance to a crowded and notoriously volatile open-air market for drugs; a client is caught for shoplifting at a grocery store – the manager of the store takes the eye glasses she is wearing and refuses to give them back until she has paid him a bribe for not reporting her to the police. I was *indirectly* exposed to violence as well. While I was in Nairobi several clients were assaulted in incidents of ‘mob justice’. Some of the survivors were eager to recount their experience and its aftermath. Others narrated the story through their bodies which bore traces of the brutality they endured: facial contusions, a lacerated eye, slurred speech, swollen and immobile limbs. Sadly, three of the clients (including a young woman with a newborn baby) died as a result of their injuries.

aspect of the project, trigger within me a wave of disquieting memories which were often accompanied by feelings of grief and agitation. What followed was a pattern of avoidance and procrastination which persisted for years. I never gave up on it entirely, but the slow, halting tempo with which I was able to work hampered my progress considerably. The shame and hopelessness I have felt in connection with this experience contributed to long-standing problems with anxiety and depression and, in turn, a dynamic of discord with my partner which recently culminated in the collapse of our 12-year relationship. These circumstances, as well as their embodied and material sequela, have made the task of completing this thesis all the more challenging. The purpose of presenting this account is not to elicit sympathy or offer apology; rather, I expound upon these experiences because they can be seen to constitute the threads of a vast, invisible web which permeates every moment, meter, and page of this scholastic endeavour.

The ‘making’ of the MMT object

What constitutes MMT locally? Much like the object to which this orientating research question refers, the answer is invariably in *flux*. The intervention represented in the preceding chapters is neither stable nor singular; we see its purpose, value, and effect—indeed, even its material composition—shift according to the knowledge

practices which enact it. The variability of MMT is particularly palpable when its local discursive and material enactments are considered collectively.²

Even before the delivery of MMT commences, what it is represented as determines what it is, with its representations potentially changing in relation to what it next becomes. Mobilised by global investments and an evolving problematisation of an HIV ‘emergency’ among people who inject drugs (i.e. heroin), MMT is introduced in Kenya primarily as a **technology of HIV prevention**. In national policy, globalised narratives of evidence-based intervention represent the value of MMT in relation to its certainty as a ‘solution’ to the ‘problem’ of HIV transmission linked to drug injecting practices. But the ‘making’ of the intervention’s promise is not confined to official pronouncements. In the wake of community resistance to opioid substitution therapy (i.e. MMT as *opioid substitution therapy*), the relative acceptability of the intervention hinges upon its capital as a **medical treatment for heroin addiction**. A wide array of interconnected discursive strategies (e.g. the rebranding of MMT as *medically assisted therapy*, the claims about methadone which differentiate it from heroin) are deployed to inscribe the intervention as both a technology of biomedicine and an empirically-evidenced treatment for heroin addiction. Policy problematisations of heroin addiction

² Presenting an account of the MMT objects explored throughout this thesis is not a particularly easy task. The intervention does not lend itself to labels even when they are intended to illustrate its shifting meanings. To my understanding, the difficulty of ‘pinning down’ MMT as this or that (or even this and that) may be traced back to its underlying mutability.

evolve accordingly. Deviating from narratives of HIV transmission, a reconfigured discourse of intervention promotion represents the ‘problem’ of heroin addiction as an affliction of the body which MMT—as a medical treatment—is capacitated to ‘solve’. Articulations of MMT as a medical panacea do not go uncontested. Among implementation-orientated stakeholders, the intervention is envisioned as a **multi-faceted treatment** comprised of methadone, but also psychological and social support services (e.g. counselling, case management). This hybrid incarnation of MMT can be seen to constitute yet another *locally negotiated* intervention object, for it links closely with claims by community stakeholders about the need for a policy ‘solution’ which treats heroin addiction as both a medical and a psychosocial ‘problem’. That which is ‘made’ discursively is also ‘made’ *materially*. Each of the aforementioned meanings of MMT can be seen to manifest in the material configuration of its delivery. Of particular interest to me has been the spatial, material, and procedural arrangements of the MAT clinic which perform MMT as an object of biomedical science. By materialising the ‘medicalness’ upon which its value (as a treatment for heroin addiction) is predicated, such practices serve as a pivotal resource for the ‘making’ of the intervention as acceptable and legitimate.

More intriguing still are the materialisations and effects which appear to *trouble* the meanings of MMT promulgated in the policy sphere. It is here that the frictions

and flux of the intervention become especially visible. For instance, some elements of delivering MMT can be seen to materialise it as a **non-medication** (e.g. a policy of withholding methadone from late arriving clients who are permitted to receive HIV and TB medication) and/or a **dangerous, addictive drug** (e.g. the surveillance and security measures to prevent the diversion of methadone). The instability which is revealed through these contestations also extends to the material substance of MMT. At the launch of the National Medically MAT Programme, for example, the intervention is represented in its physical form as an oversized bottle of **the medication called methadone**, while at the same time, the intervention is manifesting as **other than methadone** and **more than methadone** through its discursive portrayal in the speeches and accounts by the press. The variability we see here may be appreciated as a process of local meaning negotiation—stakeholders with a vested interest in promoting MMT attempt to navigate the uncertain relationship between methadone and the intervention called *medically assisted therapy* in such a way that balances the imperatives of representation with those of the politics.³ Moreover, as we saw in the context of the **old methadone** and the new methadone, that which constitutes the ‘thing’ called

³ While writing this thesis I also grappled with delineating the relationship between methadone and the intervention (which I typically call ‘methadone maintenance treatment’ or ‘MMT’). I often found myself wondering whether it was appropriate to distinguish between the two objects or if I should use the word *methadone* to refer to both the treatment and the substance. The name *methadone maintenance therapy* only added to my uncertainty, for it can be seen to situate methadone *in* the therapy but does not necessarily represent methadone as the therapy.

methadone is ‘made’ differently across different sites of knowledge and in relation to its embodied effect.

An array of objects and effects *other* than those of the discursive realm are also enacted through the delivery of MMT. In some instances too, the ‘version’ of MMT which is ‘made’ is also being ‘unmade’ by a set of adjoining practices. Its materialisation as a **technology of addiction recovery** constitutes a prime example. Although the discourses of addiction recovery are largely absent from policy narratives,⁴ its values and logic can be seen to resonate in several dimensions of the intervention’s material implementation, including the code of conduct reflected in the murals of the courtyard and regulations which practice abstinence as a condition of treatment. We see (addiction) recovery configured as the objective of MMT as well. Such is the case with the expectation of morning-based methadone consumption and the privileged status accorded to those who enact high recovery potential. Additionally, a wide range of practices can be seen to enact the client of the intervention according to the intensified neoliberal rationality which is privileged in discourses of addiction recovery (Duke, 2013; Fomiatti, Moore and Fraser, 2019; Lancaster, Duke and Ritter, 2015). At the same time as addiction recovery is being enacted, there are elements of intervention delivery which

⁴ The relative non-appearance of addiction recovery in national policy is likely purposeful. As I have illustrated, discourses are strategically deployed as part of negotiating competing stakeholder interests. The inclusion of that which potentially troubles the principals of harm reduction may be seen to unsettle the negotiated meaning of the intervention which holds space for its inscription as both HIV prevention and addiction treatment.

are potentially compromising it as well. Among the most notable are those practices which potentiate the use of heroin through restricting or withholding methadone provision (e.g. the inflexible timetable for dispensing methadone, denying methadone to late-arriving clients who receive HIV and/or TB medication, the involuntarily termination or disruption of treatment). Other sites of contestation also arise. For instance, the time demands of daily clinic attendance enact MMT as an obstacle to the productive action which it is seen to mobilise. In the ‘making’ and ‘unmaking’ of particular meanings and effects, we are able to glimpse the myriad of paradoxes which arise and are being negotiated through the implementation and uptake of MMT.

While exploring local enactments of MMT I have had occasion to consider some of the ways in which spatial, temporal, and procedural dimensions of the intervention’s material implementation at the MAT clinic are (re)inscribed and (re)produced by forces of **disciplinary and regulatory biopower**. Multiple strategies of biopolitical control are at work’ in this context—from the architectural features which promote surveillance and segregation and the random toxicological testing of urine, to the stringent timetable for dispensing methadone and enforced waiting. These and other similarly configured practices are a common feature of MMT (Bourgeois, 2000; Smith, 2011), particularly when it is implemented as a low tolerance, high threshold intervention like that which we see in Kenya. The discipline and control which is enacted through these practices are

embedded in the 'fabric' of MMT. As Bennett (2011) has illustrated, these effects are not by-products of training deficits or dysfunctional protocols, but rather strategically deployed components of a treatment modality which seeks to transform the 'addict' into a compliant, conforming, and self-regulating subject. It is to the end that MMT is primarily orientated. Since its inception, the primary institutional justification of MMT has been its capacity to neutralise deviance and regulate the body in such a way as to 'rehabilitate' the 'criminal addict' into a 'stable and socially productive member of the community' (Dole, Nyswander and Warner, 1968, p. 2710). The objective of MMT in Nairobi is configured in much the same way. We see it performed through several dimensions of its delivery such as the disciplinary techniques exercised at the clinic, the code of treatment conduct prioritising abstinence from drug use and self-regulation, and the local ascriptions of treatment 'success' emphasising economic participation and community engagement. Taken together, such practices enact MMT as a **technology of governmentality** which encourages the client to adopt a version of subjecthood predicated upon the logic and values of neoliberalism. While it is not an explicit focus of my research, the subject positioning of the MAT client evolved into a reoccurring consideration while writing. It is to this analytical thread that I now turn.

The ‘making’ of the MMT subject

At various points throughout this thesis my attention has drifted from the ‘making’ of MMT to the ‘making’ of its consuming subjects. This slippage is not particularly surprising, for as Fraser and valentine (2008) persuasively illustrate, the discursive and material practices of MMT enact its meanings, effects, and subjects in equal measure. Of particular interest to me are those facets which can be seen to produce the MAT client according to an intensified neoliberal political rationality—an autonomous, responsibalised subject who overcomes addiction and socio-economic disadvantage through self-management, individual enterprise and active engagement. Multiple treatment practices (e.g. the regulations which govern conduct inside the clinic, the rigid methadone dispensing schedule) can be seen to encourage and/or oblige the client to manifest the attributes which enact neoliberal subjectivity as a condition of treatment access. Accordingly, treatment ‘success’ is primarily configured as the fulfilment of conditions (e.g. full-time employment, active participation) which embody the qualities of the neoliberal subject. As is suggested by the title of the client education manual ‘My Methadone, My Responsibility’ (NASCOP, 2016), treatment compliance and its ‘success’ are narrowly circumscribed as the responsibility of the client; few considerations appear to be given to the social, economic, and political forces which

shape their agency. Within such a dynamic, the goal of MMT, as well as the avenues available for achieving it, are determined *for* the client.

There are few among us who can be seen to embody model subjecthood in a neoliberal society. Not only is the code of conduct unrealistic, but the conditions are also largely unattainable through individual efforts, even for those with access to the resources often unavailable to people who use drugs. The subject positioning of the client according to this impractical and difficult to achieve standard has potentially stigmatising repercussions because failure is seen to reflect personal deficiency (Fomiatti, Moore and Fraser, 2019). While I was in Nairobi, I spent time with several clients who expressed feelings of shame about not having fulfilled a particular expectation (e.g. abstinence from drugs, ‘gainful’ employment, permanent housing) of MMT. A number of social-scientific scholars have raised concerns about the stigmatising effects of addiction recovery discourses which mobilise normative understandings of health and citizenship (Fomiatti, Moore and Fraser, 2019; Frank, 2018; C. Smith and Riach, 2016), as well as their capacity to adversely impact expectations of treatment (Neale, Nettleton and Pickering, 2011, 2013). The normalising and individualising political rationality which underpins the addiction recovery paradigm may have even greater consequence for individuals in a developing nation like Kenya where entrenched structural inequalities make the achievement of healthy ‘normal’ subjecthood particularly elusive.

Due to the intervention's nascent status in Kenya, the pressure exerted upon the client to adopt this subject position may be even more acute than in other contexts. As we saw with the enrolment of individuals who perform high recovery potential, manifesting 'positive' treatment effects constitutes a valuable resource for reinscribing MMT as an effective and legitimate policy response. To my mind, the value of MMT and the certainty of its promise is contingent upon what it is capacitated *to do* in Kenya. If the objective of the intervention is to treat heroin addiction by transforming the 'addict' into a healthy, 'productive' and 'legitimate' citizen, it may not prove to be the dynamic technical solution for which it was hoped. And yet, as Rhodes (2018) indicates, the hope for a 'recovered' future—for the renewed citizenship and social inclusion it is seen to embody—continues to reverberate through the treatment narratives of the clients who attend the clinic at Mathari Hospital.

A reimagining of MMT

The clients' sustained sense of hope inspires within me a similar feeling for the future of MMT in Kenya. As a newly introduced intervention, MMT may be particularly open to transformation because its locally-mediated identities have not acquired the (relative) fixedness which comes with reiterative and sustained enactments (Latour and Woolgar, 1986). Making visible the variability of its meanings and effects presents us with an opportunity to contemplate other 'versions' of MMT which may be

possible in Kenya. Likewise, recognising MMT as a fluid object—one which invariably changes as it ‘travels’ between different geographical locations (de Laet and Mol, 2000; Law and Mol, 2002)—expands the ‘topography of reality-possibilities’ in such a way that we are able to imagine something *new* (Law, 2004, p. 34), rather than simply that which is transplanted from another context. The ‘version’ of MMT which resonates most strongly for me is the one envisioned by the people for whom it is intended. I cannot deny that I have formed many of my own beliefs about what the future of MMT in Kenya *could be*, but foremost among them is that it should not be decided by me. As Bourgois (2000, p. 169) aptly warns, using one’s knowledge to promote a particular addiction treatment modality or policy over another risks perpetuating or even intensifying the very oppression and dependence that one seeks to reduce.

Contemporary discourses of global health increasingly prioritise community engagement as both an ethical imperative and a key resource for sustainable and effective practice (Chapman *et al.*, 2021; Haldane *et al.*, 2019; Reynolds and Sariola, 2018). A wide range of practices may be appreciated as ‘engagement’, but its most robust form empowers communities and individuals to take control over decisions and activities which affect their health and well-being (WHO, 2020). A similar ethos has been embraced in many areas of preventative and curative medicine (Cooke *et al.*, 2006). Displacing a care model emphasizing the technical authority of treatment

providers, ‘patient-centred care’ situates the holistic individual at the functional and figurative focal point of the medical encounter (R.M. Epstein and Street, 2011).

Treatment providers are expected to share with patients not only the information necessary for making informed decisions but also the authority and control over such decisions (Institute of Medicine, 2001). Active community engagement is also a core principle of harm reduction (S.R. Friedman *et al.*, 2007; Jurgens, 2008). For decades people who use drugs have played a vital role in the development and implementation of community-based interventions to reduce health harms linked to drug injecting practices and prevent overdoses (Z. Marshall *et al.*, 2015; Razaghizad *et al.*, 2021; Ti, Tzemis and Buxton, 2012). Despite the enthusiasm with which community engagement and patient-centeredness are promoted and embraced in discourse, in numerous settings, and for a variety of reasons, their application is minimal, perfunctory or superficial (Afulani *et al.*, 2019; Biehl and Petryna, 2013; Daftary and Viens, 2020; Elwyn *et al.*, 2013). The MMT programme at the MAT clinic in Nairobi appears to have followed a similar trajectory.

The protocols and regulations are primarily informed by expert forms of knowledge generated outside of Kenya. Neither community stakeholders nor people who use drugs were involved in their development and there are few channels for the clients of the intervention to influence their implementation. Furthermore, the clients are afforded neither the flexibility nor control which would allow them to make decisions regarding

their treatment and its objectives. The power imbalances which are manifested in this context are not unique to Kenya or the global South; they have been observed in a range of settings and models of intervention implementation (Bourgois, 2000; Frank, 2019; Fraser and valentine, 2008; J. Harris and McElrath, 2012; Petersson, 2013; Selin *et al.*, 2013). As we saw with the clients who spend their afternoons under the footbridge or threaten to ‘strike’, those who use MMT perform their agency in ways other than those afforded to them by the programme. However, as Fraser and valentine (2008) have observed, such acts often have a limited democratising effect on treatment. As long as their legitimacy goes unrecognised, there remains a need for a more inclusive, participatory model of intervention delivery which holds space for negotiation and consensus building between clients and clinical stakeholders.

To date, there are few examples of MMT programmes which recognise the client as an active participant in its development and/or implementation. The more cynical among us may argue that unequal power relations are an intractable feature of the treatment modality; but to my mind (and as my research may be seen to imply), MMT is not so fixed that it cannot be transformed. Indeed, change may already be underway. An emerging discourse in addiction medicine emphasises the value of patient-centred care—both as a form of social justice and a strategy for improving treatment outcomes and retention (K. Marshall, Maina and Sherstobitoff, 2021; Park *et al.*, 2020; Schwartz

et al., 2017). What's more, the COVID-19 pandemic has accelerated OAT policy reforms which have enabled the development and scale-up of novel delivery practices and technologies to lower thresholds for OAT by more adequately meeting clients' needs. Such innovations have occurred across the globe—from South Africa and India to the US, Australia, and the UK (Krawczyk *et al.*, 2021). The feasibility of these innovations, along with their inconsistent application, has catalysed advocacy for the implementation and expansion of client-driven, patient-centred MMT (Joseph *et al.*, 2021; Nunes *et al.*, 2021; Simon *et al.*, 2021). Despite their relative absence at Mathari Hospital's MAT clinic, participatory approaches are *not* unprecedented in Nairobi. Since 2013, the national government has employed a vast network of peer educators to materially implement the country's needle and syringe exchange programme. Aside from disseminating clean injecting equipment, the peer educators are responsible for identifying and recruiting individuals for MMT. I accompanied many different groups of peer educators in the 'field' while I was in Nairobi and have deep respect for the diligence and enthusiasm with which they carry out their work. There is also the example of Triumph—an income generating organisation and addiction recovery support group established by a small group of MAT clients in 2015. I attended several Triumph meetings as an observer and was struck by its members' strong commitment to empowerment and inclusiveness. These peer-led and peer to-peer initiatives, together

with the experiential and embodied knowledge(s) of MAT clients and people who use drugs in the community, could serve as both a source of inspiration and a foundation through which MMT can be ‘made’ anew.

Conclusion

In evidence-*based* approaches towards health improvement, there is an absence of critical reflection on evidence and policy making as a product of negotiation born out of social relations. Shifting the focus away from the production of evidence as a foundation for intervention responses to given policy problems, a (critical social science) evidence-*making* approach considers how ‘evidence’, ‘intervention’ and ‘problem’ came to be (Rhodes, *et al.*, 2016; Rhodes and Lancaster, 2019). Drawing on the case of MMT in Kenya, this thesis has explored the ways in which an evidence-based, globally endorsed intervention, and the knowledge about it, is constituted through (instead of preceded by) its implementation. As we have seen, MMT is not as singular or stable as discourses of evidence-based intervention imply. Rather, there is an array of context-based ‘MMTs’ (Gomart, 2002), with the meaning of the intervention enacted differently by different forms of knowledge (empirical; experiential; embodied), as by different stakeholders (e.g. international donors, policy officials, journalists, treatment providers, clients). This form of social scientific research stands in contrast with global frameworks of evidence-based intervention which often seek to minimise uncertainty ‘undecidability’ until such time as

‘all controversies have been resolved” (Law, 2004, p. 31). Here the object of MMT is embraced as contingent, ambiguous and shifting. Each of its enactments—from its articulations in policy documents and accounts in the media, to its local negotiations flowing from practice and experience – can be seen to constitute its own ‘evidence-making’ intervention. Emphasising the fluidity of claims- and evidence-making problematises the taken-for-granted essence of MMT because it brings into sharp relief the politics of intervention knowledge and the realities they make present (Rhodes *et al.*, 2016). As Rhodes *et al.* (2019, p. 1632) assert, by rendering its ontological openness visible, we invite ‘speculation about how intervening with MMT...might be otherwise’, for if MMT is only ever constituted through its practices, it is also possible that it can be practised differently.

References

- Abdallah, S. (2011) 'Time ripe in Kenya for needle and syringe programme and opiate substitution therapy', *Drug News Africa*, (no. 2), pp. 1-3.
- Adams (2008) 'Evidence-based global public health', in Biehl, J. and Petryna, A. (eds.) *When people come first: Critical studies in global health*. Princeton, NJ: University Press, pp. 54-90.
- Afulani, P., Phillips, B., Aborigo, R. and Moyer, C. (2019) 'Person-centred maternity care in low-income and middle-income countries: Analysis of data from Kenya, Ghana, and India', *The Lancet Global Health*, 7(1), pp. e106-e109.
- Altman, D. (1998) 'Globalization and the "AIDS industry"', *Contemporary Politics*, 4(3), pp. 233-245.
- Apondi, B. (2016) 'Kenya: Drug users need doctors not policemen', *The Nation* (Nairobi edn.), 11 February [Online]. Available at: <https://nation.africa/kenya/blogs-opinion/opinion/drug-users-need-doctors-not-policemen-1169400> (Accessed: 15 February 2016).
- Atkinson, P., Coffey, A., Delamont, S., Loftland, J. and Loftland, L. H. (2001) 'Editorial introduction', in Atkinson, P., Coffey, A., Delamont, S. and Loftland, L.H. (eds.) *Handbook of ethnography*. London: Sage, pp. 1-7.
- Bacchi, C. (2000) 'Policy as discourse: What does it mean? Where does it get us?', *Discourse: Studies in the Cultural Politics of Education*, 21(1), pp. 45-57.
- Bacchi, C. (2009) *Analysing policy: What's the problem represented to be?* Frenchs Forest, NSW: Pearson
- Bacchi, C. (2012) 'Why study problematizations? Making politics visible', *Open Journal of Political Science*, 2(1), pp. 1-8.
- Bacchi, C. and Goodwin, S. (2016) *Poststructural policy analysis: A guide to practice*. New York, NY: Palgrave.
- Ball, A. L. (2007) 'HIV, injecting drug use and harm reduction: A public health response', *Addiction*, 102(5), pp. 684-690.

Ball, J. C. and Ross, A. (2012) *The effectiveness of methadone maintenance treatment: Patients, programs, services, and outcome*. New York, NY: Springer Science and Business Media.

Barnes, A. and Parkhurst, J. (2014) 'Can global health policy be depoliticized? A critique of global calls for evidence-based policy', *The handbook of global health policy*, pp. 157-173.

Bart, G. (2012) 'Maintenance medication for opiate addiction: The foundation of recovery', *Journal of Addictive Diseases*, 31(3), pp. 207-225.

Beckerleg, S. (1995) '"Brown sugar" or Friday prayers: Youth choices and community building in coastal Kenya', *African Affairs*, 94(374), pp. 23-38.

Beckerleg, S. (2004) 'How 'cool' is heroin injection at the Kenya coast', *Drugs: Education, Prevention and Policy*, 11(1), pp. 67-77.

Beckerleg, S., Telfer, M. and Hundt, G. L. (2005) 'The rise of injecting drug use in east Africa: A case study from Kenya', *Harm Reduction Journal*, 2(1), pp. 1-9.

Beckerleg, S., Telfer, M. and Sadiq, A. (2006) 'A rapid assessment of heroin use in Mombasa, Kenya', *Substance Use and Misuse*, 41(6-7), pp. 1029-1044.

Behague, D., Tawiah, C., Rosato, M., Some, T. and Morrison, J. (2009) 'Evidence-based policy-making: The implications of globally-applicable research for context-specific problem-solving in developing countries', *Social Science and Medicine*, 69(10), pp. 1539-1546.

Bennett, C. (2011) 'Methadone maintenance treatment: Disciplining the 'addict'', *Health and History*, 13(2), pp. 130-157.

Berger, P. L. and Luckmann, T. (1966) *The social construction of reality: A treatise in the sociology of knowledge*. New York, NY: Doubleday.

Berridge, V. (2012) 'The rise, fall, and revival of recovery in drug policy', *The Lancet*, 379(9810), pp. 22-23.

Beyrer, C., Malinowska-Sempruch, K., Kamarulzaman, A., Kazatchkine, M., Sidibe, M. and Strathdee, S. A. (2010) 'Time to act: A call for comprehensive responses to HIV in people who use drugs', *The Lancet*, 376(9740), pp. 551-563.

- Biehl, J. and Moran-Thomas, A. (2009) 'Symptom: Subjectivities, social ills, technologies', *Annual Review of Anthropology*, 38, pp. 267-288.
- Biehl, J. and Petryna, A. (2013) *When people come first: Critical studies in global health*. Princeton, NJ: Princeton University Press.
- Biesma, R. G., Brugha, R., Harmer, A., Walsh, A., Spicer, N. and Walt, G. (2009) 'The effects of global health initiatives on country health systems: A review of the evidence from HIV/AIDS control', *Health Policy and Planning*, 24(4), pp. 239-252.
- Bigsten, A., Manda, D. K., Mwabu, G. and Wambugu, A. (2016) 'Incomes, inequality, and poverty in Kenya', in Arndt, C., McKay, A. and Tarp, F. (eds.) *Growth and poverty in sub-Saharan Africa*. Oxford: Oxford University Press, pp. 343-369.
- Bil, J. S. (2016) 'Stigma and architecture of mental health facilities', *British Journal of Psychiatry*, 208(5), pp. 499-500.
- Boesten, J. (2011) 'Navigating the AIDS industry: Being poor and positive in Tanzania', *Development and Change*, 42(3), pp. 781-803.
- Borup, M., Brown, N., Konrad, K. and Van Lente, H. (2006) 'The sociology of expectations in science and technology', *Technology analysis and strategic management*, 18(3-4), pp. 285-298.
- Bourgois, P. (2000) 'Disciplining addictions: The bio-politics of methadone and heroin in the United States', *Culture, Medicine and Psychiatry*, 24(2), pp. 165-195.
- Bowring, A. L., Luhmann, N., Pont, S., Debaulieu, C., Derozier, S., Asouab, F., Toufik, A., Van Gemert, C., Dietze, P. and Stooze, M. (2013) 'An urgent need to scale-up injecting drug harm reduction services in Tanzania: Prevalence of blood-borne viruses among drug users in Temeke District, Dar-es-Salaam, 2011', *International Journal of Drug Policy*, 24(1), pp. 78-81.
- Brodish, P., Singh, K., Rinyuri, A., Njeru, C., Kingola, N., Mureithi, P., Sambisa, W. and Weir, S. (2011) 'Evidence of high-risk sexual behaviors among injection drug users in the Kenya PLACE study', *Drug and Alcohol Dependence*, 119(1-2), pp. 138-141.
- Bruner, J. (1991) 'The narrative construction of reality', *Critical Inquiry*, 18(1), pp. 1-21.

- Bueger, C. (2014) 'Pathways to practice: Praxiography and international politics', *European Political Science Review*, 6(3), pp. 383-406.
- Burningham, K. and Cooper, G. (1999) 'Being constructive: Social constructionism and the environment', *Sociology*, 33(2), pp. 297-316.
- Burr, V. (1995) *An introduction to social constructionism*. New York, NY: Routledge.
- Callon, M. and Rabeharisoa, V. (1998) 'Articulating bodies: The case of muscular dystrophies', in Akrich, M. and Berg, M. (eds.) *Bodies on trial: Performance and politics in medicine and biology*. Durham, NC: Duke University Press, pp. 74-96.
- Campbell, N. D., and Lovell, A. M. (2012) 'The history of the development of buprenorphine as an addiction therapeutic', *Annals of the New York Academy of Sciences*, 1248(1), pp. 124-139.
- Chapman, R. R., Raige, H., Abdulahi, A., Mohamed, S. and Osman, M. (2021) 'Decolonising the global to local movement: Time for a new paradigm', *Global Public Health*, pp. 1-14.
- Charmaz, K. (2006) *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage.
- Clarke, J. and Newman, J. (1997) *The managerial state: Power, politics and ideology in the remaking of social welfare*. London: Sage.
- Coffey, A. and Atkinson, P. (1996) *Making sense of qualitative data: Complementary research strategies*. Thousand Oaks, CA: Sage
- Cooke, M., Irby, D. M., Sullivan, W. and Ludmerer, K. M. (2006) 'American medical education 100 years after the Flexner report', *New England Journal of Medicine*, 355(13), pp. 1339-44.
- Courtwright, D. T. (2010) 'The NIDA brain disease paradigm: History, resistance and spinoffs', *BioSocieties*, 5(1), pp. 137-147.
- Craig, J. (2012) 'Kenyan needle exchange program faces opposition', *Voice of America*, 19 December 2012 [Online]. Available at: <https://www.voanews.com/africa/kenyan-needle-exchange-program-faces-opposition> (Accessed: March 10, 2015).

- Csete, J., Gathumbi, A., Wolfe, D. and Cohen, J. (2009) 'Lives to save: PEPFAR, HIV, and injecting drug use in Africa', *The Lancet*, 373(9680), pp. 2006-2007.
- Daftary, A. and Viens, A. M. (2020) 'Solidarity in global health research—are the stakes equal?', *The American Journal of Bioethics*, 20(5), pp. 59-62.
- de Laet, M. and Mol, A. (2000) 'The Zimbabwe bush pump: Mechanics of a fluid technology', *Social Studies of Science*, 30(2), pp. 225-263.
- Deacon, R. (2000) 'Theory as practice: Foucault's concept of problematization', *Telos: Critical Theory of the Contemporary*, 2000(118), pp. 127-142.
- Dean, M. (2010) *Governmentality: Power and rule in modern society*. 2nd edn. London: Sage.
- Degenhardt, L., Grebely, J., Stone, J., Hickman, M., Vickerman, P., Marshall, B. D. L., Bruneau, J., Altice, F. L., Henderson, G. and Rahimi-Movaghar, A. (2019) 'Global patterns of opioid use and dependence: harms to populations, interventions, and future action', *The Lancet*, 394(10208), pp. 1560-1579.
- Degenhardt, L., Mathers, B., Vickerman, P., Rhodes, T., Latkin, C. and Hickman, M. (2010) 'Prevention of HIV infection for people who inject drugs: why individual, structural, and combination approaches are needed', *The Lancet*, 376(9737), pp. 285-301.
- Degenhardt, L., Peacock, A., Colledge, S., Leung, J., Grebely, J., Vickerman, P., Stone, J., Cunningham, E. B., Trickey, A. and Dumchev, K. V. (2017) 'Global prevalence of injecting drug use and sociodemographic characteristics and prevalence of HIV, HBV, and HCV in people who inject drugs: a multistage systematic review', *The Lancet Global Health*, 5(12), pp. e1192-e1207.
- Deleuze, G. (1988) *Foucault*. Translated by: Hand, S. Minneapolis, MN: University of Minnesota Press.
- Deleuze, G. and Guattari, F. (1987) *A thousand plateaus: Capitalism and schizophrenia*. Translated by: Massumi, B. Minneapolis, MN: University of Minnesota Press.
- Deveau, C., Levine, B. and Beckerleg, S. (2006) 'Heroin use in Kenya and findings from a community based outreach programme to reduce the spread of HIV/AIDS', *African Journal of Drug and Alcohol Studies*, 5(2), pp. 95-107.

- Dole, V. P. (1988) 'Implications of methadone maintenance for theories of narcotic addiction', *Journal of the American Medical Association*, 260(20), pp. 3025-3029.
- Dole, V. P. and Nyswander, M. (1965) 'A medical treatment for diacetylmorphine (heroin) addiction: A clinical trial with methadone hydrochloride', *Journal of the American Medical Association*, 193(8), pp. 646-650.
- Dole, V. P. and Nyswander, M. E. (1967) 'Heroin addiction—a metabolic disease', *Archives of Internal Medicine*, 120(1), pp. 19-24.
- Dole, V. P., Nyswander, M. E. and Warner, A. (1968) 'Successful treatment of 750 criminal addicts', *Journal of the American Medical Association*, 206(12), pp. 2708-2711.
- Douglas, J. D. (1985) *Creative interviewing*. Beverly Hills, CA: Sage.
- Duggan, B. (2016) '56 patients missing after escape from Kenyan mental facility', *CNN*. Available at: <https://www.cnn.com/2016/12/07/africa/medical-workers-in-kenya-strike/index.html> (Accessed: March 27, 2021).
- Duke, K. (2013) 'From crime to recovery: The reframing of British drugs policy?', *Journal of Drug Issues*, 43(1), pp. 39-55.
- Ellis, C. and Berger, L. (2003) 'Their story/my story/our story: Including the researcher's experience in interview research', in Holstein, J. and Gubrium, J. (eds.) *Inside interviewing: New lenses, new concerns*. Thousand Oaks, CA: Sage, pp. 467-492.
- Elwyn, G., Scholl, I., Tietbohl, C., Mann, M., Edwards, A. G. K., Clay, C., Légaré, F., Weijden, T. v. d., Lewis, C. L., Wexler, R. M. and Frosch, D. L. (2013) "Many miles to go ...": A systematic review of the implementation of patient decision support interventions into routine clinical practice', *BMC Medical Informatics and Decision Making*, 13(Supplement 2), pp. S14.
- Epstein, H. (2007) *The invisible cure: Africa, the West, and the fight against AIDS*. New York, NY: Picador.
- Epstein, R. M. and Street, R. L. (2011) 'The values and value of patient-centered care', *Annals of Family Medicine*, 9(2), pp. 100-103.
- Fan, E. L. and Uretsky, E. (2017) 'In search of results: anthropological interrogations of evidence-based global health', *Critical Public Health*, 27(2), pp. 157-162.

Fareed, A., Casarella, J., Roberts, M., Sleboda, M., Amar, R., Vayalapalli, S. and Drexler, K. (2009) 'High dose versus moderate dose methadone maintenance: Is there a better outcome?', *Journal of Addiction Disease*, 28(4), pp. 399-405.

Finlay, L. (2002) 'Negotiating the swamp: The opportunity and challenge of reflexivity in research practice', *Qualitative Research*, 2(2), pp. 209-230.

Finlay, L. (2006) 'The body's disclosure in phenomenological research', *Qualitative Research in Psychology*, 3(1), pp. 19-30.

Fitzgerald, J. L. and Threadgold, T. (2004) 'Fear of sense in the street heroin market', *International Journal of Drug Policy*, 15(5), pp. 407-417.

Flore, J., Kokanović, R., Callard, F., Broom, A. and Duff, C. (2019) 'Unravelling subjectivity, embodied experience and (taking) psychotropic medication', *Social Science and Medicine*, 230, pp. 66-73.

Foley, D. E. (2002) 'Critical ethnography: The reflexive turn', *International Journal of Qualitative Studies in Education*, 15(4), pp. 469-490.

Fomiatti, R., Moore, D. and Fraser, S. (2019) 'The improvable self: Enacting model citizenship and sociality in research on 'new recovery'', *Addiction Research and Theory*, 27(6), pp. 527-538.

Forrester, H. (2014) *Russia seeks international anti-methadone coalition ahead of UNGASS*. Talking Drugs: Release. Available at: <https://www.talkingdrugs.org/russia-seeks-international-anti-methadone-coalition-ahead-of-ungass-0> (Accessed: March 13, 2022).

Foucault, M. (1976) *The history of sexuality: Volume 1*. Translated by: Hurley, R. New York, NY: Vintage Books.

Foucault, M. (1977) *Discipline and punish: The birth of the prison*. Translated by: Sheridan, A. London: Allen Lane.

Author (1985) *Discourse and truth: The problematization of parrhesia*. Edited by Pearson, J. Evanston, IL: Northwestern University.

Foucault, M. (1988) 'The concern for truth', in Kritzman, L.D. (ed.) *Michel Foucault: Politics, philosophy, culture. Interviews and other writings, 1977-1984*. New York, NY: Routledge, pp. 255-267.

- Frame, A. (2014) 'Reflexivity and self-presentation in multicultural encounters', in Clark, J.S.B. and Dervin, F. (eds.) *Reflexivity in language and intercultural education: Rethinking multilingualism and interculturality*. Abingdon: Routledge, pp. 81-99.
- Frank, D. M. 'Bad apples: Recovery narratives and deviance in methadone maintenance treatment ', *Society for the Study of Social Problems*, New York, NY, August 9-11, 2013.
- Frank, D. M. (2018) "'I was not sick and i didn't need to recover": Methadone maintenance treatment (MMT) as a refuge from criminalization', *Substance Use and Misuse*, 53(2), pp. 311-322.
- Frank, D. M. (2019) "'We are going to be addressing your Pepsi use": How recovery limits methadone maintenance treatment's ability to help people in the era of overdose', *Journal of Extreme Anthropology*, 3(2), pp. 1-20.
- 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), pp. 192-202.
- Fraser, S. and valentine, k. (2008) *Substance and substitution: Methadone subjects in liberal societies*. New York, NY: Palgrave MacMillan.
- Friedman, J. and Alicea, M. (2001) *Surviving heroin: Interviews with women in methadone clinics*. Gainesville, FL: University Press of Florida.
- Friedman, S. R., de Jong, W., Rossi, D., Touzé, G., Rockwell, R., Des Jarlais, D. C. and Elovich, R. (2007) 'Harm reduction theory: Users' culture, micro-social indigenous harm reduction, and the self-organization and outside-organizing of users' groups', *International Journal of Drug Policy*, 18(2), pp. 107-117.
- Fullerton, C. A., Kim, M., Thomas, C. P., Lyman, D. R., Montejano, L. B., Dougherty, R. H., Daniels, A. S., Ghose, S. S. and Delphin-Rittmon, M. E. (2014) 'Medication-assisted treatment with methadone: Assessing the evidence', *Psychiatric Services*, 65(2), pp. 146-57.
- Gardner, J., Samuel, G. and Williams, C. (2015) 'Sociology of low expectations: Recalibration as innovation work in biomedicine', *Science Technology and Human Values*, 40(6), pp. 998-1021.

- Gastrow, P. (2011) *Termites at work: Transnational organized crime and state erosion in kenya*. New York, NY: International Peace Institute.
- Glenza, J. (2016) 'Russia's 'cold turkey' approach highlights global divide over drug treatment at UN', *The Guardian*, April 20, 2016. Available at: <https://www.theguardian.com/world/2016/apr/20/ungass-russia-drug-treatment-heroin-methadone> (Accessed: October 2, 2021).
- Gluck, S. B. and Patai, D. (1991) *Women's words: The feminist practice of oral history*. New York, NY: Routledge.
- Gomart, E. (2002) 'Methadone: Six effects in search of a substance', *Social Studies of Science*, 32(1), pp. 93-135.
- Government of Kenya (2015) *Government to treat drug addicts in coast region*. Available at: <https://www.mygov.go.ke> (Accessed: September 26, 2016).
- Gowing, L., Farrell, M. F., Bornemann, R., Sullivan, L. E. and Ali, R. (2011) 'Oral substitution treatment of injecting opioid users for prevention of HIV infection', *Cochrane Database of Systematic Reviews*, 8(CD004145).
- Green, J. (2000) 'Epistemology, evidence and experience: Evidence based health care in the work of accident alliances', *Sociology of Health and Illness*, 22(4), pp. 453-476.
- Guba, E. G. and Lincoln, Y. S. (1994) 'Competing paradigms in qualitative research', in Denzin, N.K. and Lincoln, Y.S. (eds.) *Handbook of qualitative research*. London: Sage, pp. 105-117.
- Guise, A., Dimova, M., Ndimbii, J., Clark, P. and Rhodes, T. (2015) 'A qualitative analysis of transitions to heroin injection in Kenya: Implications for HIV prevention and harm reduction', *Harm Reduction Journal*, 12, pp. 27-27.
- Haldane, V., Chuah, F. L. H., Srivastava, A., Singh, S. R., Koh, G. C. H., Seng, C. K. and Legido-Quigley, H. (2019) 'Community participation in health services development, implementation, and evaluation: A systematic review of empowerment, health, community, and process outcomes', *PLoS One*, 14(5), pp. e0216112.
- Halperin, D. M. (2015) 'TEN / the biopolitics of HIV prevention discourse', in Vernon, W.C. and Nicolae, M. (eds.) *Biopower: Foucault and beyond*. Chicago, IL: University of Chicago Press, pp. 199-227.

- Hammersley, M. and Atkinson, P. (1995) *Ethnography: Principles in practice*. New York, NY: Routledge.
- Haraway, D. J. (1988) 'Situated knowledges: The science question in feminism and the privilege of partial perspective', *Feminist Studies*, 14(3), pp. 575-599.
- Haraway, D. J. (1989) *Primate visions: Gender, race, and nature in the world of modern science*. New York, NY: Routledge.
- Haraway, D. J. (1997) *Modest_witness@second_millennium. Femaleman_meets_oncomouse: Feminism and technoscience*. London: Routledge.
- Harm Reduction International (2012) *The global state of harm reduction 2012* [Online]: Harm Reduction International. Available at: https://www.hri.global/files/2012/07/24/GlobalState2012_Web.pdf (Accessed: October 10, 2015).
- Harm Reduction International (2020) *The global state of harm reduction 2020* [Online]. London: Harm Reduction International. Available at: <https://www.hri.global/global-state-of-harm-reduction-2020> (Accessed: February 1, 2022).
- Harris, J. and McElrath, K. (2012) 'Methadone as social control: institutionalized stigma and the prospect of recovery', *Qualitative Health Research*, 22(6), pp. 810-24.
- Harris, M. (2015) "'Three in the room" embodiment, disclosure, and vulnerability in qualitative research', *Qualitative Health Research*, 25(12), pp. 1689-1699.
- Harris, M. and Rhodes, T. (2013) 'Methadone diversion as a protective strategy: the harm reduction potential of 'generous constraints'', *International Journal of Drug Policy*, 24(6), pp. e43-50.
- Harris, S. (2015) 'To be free and normal: Addiction, governance, and the therapeutics of buprenorphine', *Medical Anthropology Quarterly*, 29(4), pp. 512-30.
- Henry-Edwards, S., Gowing, L., White, J., Ali, R., Bell, J., Brough, R., Lintzeris, N., Ritter, A. and Quigley, A. (2009) 'Clinical guidelines and procedures for the use of methadone in the maintenance treatment of opioid dependence', in Mattick, R., Ali, R. and Lintzeris, N. (eds.) *Pharmacotherapies for the treatment of opioid dependence: Efficacy, cost-effectiveness, and implementation guidelines*. New York, NY: Informa Healthcare, pp. 354-389.

Herget, G. (2005) 'Methadone and buprenorphine added to the WHO list of essential medicines', *HIV and AIDS Policy Law Review*, 10(3), pp. 23-24.

Holt, M. (2007) 'Agency and dependency within treatment: Drug treatment clients negotiating methadone and antidepressants', *Social Science and Medicine*, 64(9), pp. 1937-1947.

Hunter, D. J. (2009) 'Relationship between evidence and policy: A case of evidence-based policy or policy-based evidence?', *Public Health*, 123(9), pp. 583-586.

Institute of Medicine (2001) *Crossing the quality chasm: A new health system for the 21st century*. Washington, D.C.: National Academies Press

Jaffe, J. H. (1990) *Opioid analgesics and antagonists. Goodman and Gilman's The Pharmacological Basis of Therapeutics* 8th edn. New York, NY: Pergamon Press.

Jaffe, J. H. and O'Keeffe, C. (2003) 'From morphine clinics to buprenorphine: Regulating opioid agonist treatment of addiction in the United States', *Drug and Alcohol Dependence*, 70(Supplement 2), pp. S3-S11.

Janes, C. R. and Corbett, K. K. (2009) 'Anthropology and global health', *Annual Review of Anthropology*, 38(1), pp. 167-183.

Järvinen, M. (2008) 'Approaches to methadone treatment: Harm reduction in theory and practice', *Sociology of Health and Illness*, 30(7), pp. 975-991.

Jasper, J. M. (2014) 'Constructing indignation: Anger dynamics in protest movements', *Emotion Review*, 6(3), pp. 208-213.

Johnston, L., Sauntally, A., Corceal, S., Mahadoo, I. and Oodally, F. (2011) 'High HIV and hepatitis C prevalence amongst injecting drug users in Mauritius: Findings from a population size estimation and respondent driven sampling survey', *International Journal of Drug Policy*, 22(4), pp. 252-258.

Joseph, G., Torres-Lockhart, K., Stein, M. R., Mund, P. A. and Nahvi, S. (2021) 'Reimagining patient-centered care in opioid treatment programs: Lessons from the Bronx during COVID-19', *Journal of Substance Abuse Treatment*, 122(108219).

Jurgens, R. (2008) *"Nothing about us without us" - greater, meaningful involvement of people who use illegal drugs: a public health, ethical, and human rights imperative, International edition*. Toronto: Canadian HIV/AIDS Legal Network International,

HIV/AIDS Alliance, Open Society Institute. Available at: https://www.opensocietyfoundations.org/publications/nothing-about-us-without-us#publications_download (Accessed: November 8, 2021).

K24 News (2015) K24 TV, 18 August. Available at: <https://www.youtube.com/watch?v=bAgTugTQoow> (Accessed: October 10, 2015).

Karki, P., Shrestha, R., Huedo-Medina, T. B. and Copenhaver, M. (2016) 'The impact of methadone maintenance treatment on hiv risk behaviors among high-risk injection drug users: a systematic review', *Evidence-Based Medicine And Public Health*, 2(e1229).

Karnieli-Miller, O., Strier, R. and Pessach, L. (2009) 'Power relations in qualitative research', *Qualitative Health Research*, 19(2), pp. 279-289.

Kazatchkine, M. (2014) 'Russia's ban on methadone for drug users in Crimea will worsen the HIV/AIDS epidemic and risk public health', *British Medical Journal*, 348(g3118).

Keane, H. (2009) 'Foucault on methadone: Beyond biopower', *International Journal of Drug Policy*, 20(5), pp. 450-2.

Keane, H. (2013) 'Categorising methadone: Addiction and analgesia', *International Journal of Drug Policy*, 24(6), pp. e18-24.

Kenya Institute for Public Policy Research and Analysis (2013) *Kenya economic report* [Online]. Available at: <https://kippra.or.ke/download/ker2013/> (Accessed: May 1, 2016).

Kermode, M., Crofts, N., Kumar, M. S. and Dorabjee, J. (2011) 'Opioid substitution therapy in resource-poor settings', *Bulletin of the World Health Organization*, p. 243. Available at: <https://www.scielo.org/article/bwho/2011.v89n4/243-243/en/> (Accessed: October 2, 2015).

Knorr-Cetina, K. D. (1983) 'The ethnographic study of scientific work: Towards a constructivist interpretation of science', in Knorr-Cetina, K.D. and Mulkay, M.J. (eds.) *Science observed: perspectives on the social study of science* London: Sage, pp. 115-140.

Knutsson, B. (2016) 'Responsible risk taking: The neoliberal biopolitics of people living with HIV/AIDs in Rwanda', *Development and Change*, 47(4), pp. 615-639.

Kourounis, G., Richards, B. D. W., Kyprianou, E., Symeonidou, E., Malliori, M.-M. and Samartzis, L. (2016) 'Opioid substitution therapy: lowering the treatment thresholds', *Drug and Alcohol Dependence*, 161, pp. 1-8.

Krawczyk, N., Fawole, A., Yang, J. and Tofighi, B. (2021) 'Early innovations in opioid use disorder treatment and harm reduction during the COVID-19 pandemic: A scoping review', *Addiction Science and Clinical Practice*, 16(68).

KTN Prime News (2015) Kenya Television Network, August 19 [Online]. Available at: <https://www.youtube.com/watch?v=zOPHocsAIDA> (Accessed: October 10, 2015).

Kvale, S. (1996) *InterViews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

Lambdin, B. H., Masao, F., Chang, O., Kaduri, P., Mbwambo, J., Magimba, A., Sabuni, N. and Bruce, R. D. (2014) 'Methadone treatment for HIV prevention—feasibility, retention, and predictors of attrition in Dar es Salaam, Tanzania: A retrospective cohort study', *Clinical Infectious Diseases*, 59(5), pp. 735-742.

Lancaster, K., Duke, K. and Ritter, A. (2015) 'Producing the 'problem of drugs': A cross national-comparison of 'recovery' discourse in two Australian and British reports', *International Journal of Drug Policy*, 26(7), pp. 617-25.

Larney, S., Peacock, A., Leung, J., Colledge, S., Hickman, M., Vickerman, P., Grebely, J., Dumchev, K. V., Griffiths, P., Hines, L., Cunningham, E. B., Mattick, R. P., Lynskey, M., Marsden, J., Strang, J. and Degenhardt, L. (2017) 'Global, regional, and country-level coverage of interventions to prevent and manage HIV and hepatitis C among people who inject drugs: A systematic review', *The Lancet Global Health*, 5(12), pp. e1208-e1220.

Latour, B. (2004) *Politics of nature: How to bring the sciences into democracy*. Cambridge, MA: Harvard University Press.

Latour, B. and Woolgar, S. (1986) *Laboratory of life: The construction of scientific facts*. Princeton, NJ: Princeton University Press.

Law, J. (2004) *After method: Mess in social science research*. Abingdon: Routledge.

Law, J. (2015) *STS as method*. Milton Keynes: The Open University. Available at: <http://heterogeneities.net/publications/Law2015STSAsMethod.pdf> (Accessed: October 12, 2017).

Law, J., Ruppert, E. and Savage, M. (2011) *The double social life of methods*. Milton Keynes: Open University Press.

Le, T. A., Ha, G. H., Le, M. Q. T., Tran, L. M. H., Pham, D. T. T., Tran, N. H. T., Vu, G. T., Nguyen, L. H., Pham, H. Q., Nguyen, C. T., Tran, T. H., Pham, K. T. H., Tran, B. X., Latkin, C. A., Ho, C. S. H. and Ho, R. C. M. (2020) 'Treatment adherence amongst drug users attending public and private methadone maintenance clinics in a northern province of Vietnam', *Substance Abuse Treatment, Prevention, and Policy*, 15(31), pp. 1-10.

Lefebvre, H. (1991) *The production of space*. Translated by: Nicholson-Smith, D. Oxford: Blackwell Publishing.

Leshner, A. I. (1997) 'Addiction is a brain disease, and it matters', *Science*, 278(5335), pp. 45-47.

Lewine, E. (1997) 'Who Is he?', *The New York Times*, August 10 [Online]. Available at: <https://www.nytimes.com/1997/08/10/nyregion/who-is-he.html> (Accessed: June 14, 2020).

Lin, V. (2003) 'Competing rationalities: evidence-based health policy? ', in Lin, V. and Gibson, B. (eds.) *Evidence-based health policy: problems and possibilities*. Oxford: Oxford University Press.

Lincoln, Y. S. and Guba, E. G. (1985) *Naturalistic inquiry*. London: Sage.

MacArthur, G. J., Minozzi, S., Martin, N., Vickerman, P., Deren, S., Bruneau, J., Degenhardt, L. and Hickman, M. (2012) 'Opiate substitution treatment and HIV transmission in people who inject drugs: systematic review and meta-analysis', *British Medical Journal*, 345(e5945).

MacLean, S. and Hatcher, S. (2019) 'Constructing the (Healthy) Neoliberal Citizen: Using the Walkthrough Method "Do" Critical Health Communication Research', *Frontiers in Communication*, 4.

Malins, P., Fitzgerald, J. L. and Threadgold, T. (2006) 'Spatial 'folds': The entwining of bodies, risks and city spaces for women injecting drug users in Melbourne's Central Business District', *Gender, Place and Culture*, 13(5), pp. 509-527.

- Marsch, L. A. (1998) 'The efficacy of methadone maintenance interventions in reducing illicit opiate use, HIV risk behavior and criminality: A meta-analysis', *Addiction*, 93(4), pp. 515-532.
- Marshall, K., Maina, G. and Sherstobitoff, J. (2021) 'Plausibility of patient-centred care in high-intensity methadone treatment: Reflections of providers and patients', *Addiction Science and Clinical Practice*, 16(42), pp. 1.
- Marshall, Z., Dechman, M. K., Minichiello, A., Alcock, L. and Harris, G. E. (2015) 'Peering into the literature: A systematic review of the roles of people who inject drugs in harm reduction initiatives', *Drug and Alcohol Dependence*, 151, pp. 1-14.
- Mathers, B. M., Degenhardt, L., Ali, H., Wiessing, L., Hickman, M., Mattick, R. P., Myers, B., Ambekar, A. and Strathdee, S. A. (2010) 'HIV prevention, treatment, and care services for people who inject drugs: A systematic review of global, regional, and national coverage', *The Lancet*, 375(9719), pp. 1014-1028.
- Mattick, R. P., Breen, C., Kimber, J. and Davoli, M. (2003) 'Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence', *Cochrane Database of Systematic Reviews*, 2(CD002209).
- Mattick, R. P., Breen, C., Kimber, J. and Davoli, M. (2009) 'Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence', *Cochrane Database of Systematic Reviews*, 3(CD002209).
- Mattick, R. P., Breen, C., Kimber, J. and Davoli, M. (2014) 'Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence', *Cochrane Database of Systematic Reviews*, 2(CD002207).
- Mbwambo, J., McCurdy, S. A., Myers, B., Lambdin, B., Kilonzo, G. P. and Kaduri, P. (2012) 'Drug trafficking, use, and HIV risk: The need for comprehensive interventions', *Journal of Social Aspects of HIV/AIDS*, 9(3), pp. 154-159.
- McElrath, K. (2018) 'Medication-assisted treatment for opioid addiction in the united states: Critique and commentary', *Substance Use and Misuse*, 53(2), pp. 334-343.
- McFarlane, C. (2009) 'Translocal assemblages: Learning, space and development', *Geoforum*, 40, pp. 561-567.

Meskus, M. and Oikkonen, V. (2020) 'Embodied material encounters and the ambiguous promise of biomedical futures: The case of biologically derived medicines', *New Genetics and Society*, 39, pp. 441-458.

Mghenyi, C. (2013) 'Kenya: Nacada Blames Religious Chiefs for Failed Project', *The Star* (Nairobi edn.), 19 March 2013 [Online]. Available at: <https://allafrica.com/stories/201303191443.html> (Accessed: March 10, 2015).

Miettinen, R., Samra-Fredericks, D. and Yanow, D. (2009) 'Re-turn to practice: An introductory essay', *Organization Studies*, 30(12), pp. 1309-1327.

Mitchell, K. (2016) 'Neoliberalism and Citizenship', in Springer, S., Birch, K. and Macleavy, J. (eds.) *Handbook of Neoliberalism*. London: Routledge, pp. 104-115.

Moerman, D. E. (2002) *Meaning, medicine, and the "placebo effect"*. Cambridge: Cambridge University Press.

Moerman, D. E. and Jones, W. B. (2002) 'Deconstructing the placebo effect and finding the meaning response', *Annals of Internal Medicine*, 136(6), pp. 471-476.

Mol, A. (1999) 'Ontological politics. A word and some questions', *The Sociological Review*, 47(Supplement), pp. 74-89.

Mol, A. (2001) *The body multiple: Artherosclerosis in practice*. Durham, NC: Duke University Press.

Mol, A. and Law, J. (2002) *Complexities: an introduction: Social studies of knowledge practices*. Durham, NC: Duke University Press.

Monaghan, M. (2011) *Evidence versus politics: Exploiting research in UK drug policy making?* Bristol: Policy Press.

Morgan, N., Daniels, W. and Subramaney, U. (2019) 'Smoking heroin with cannabis versus injecting heroin: unexpected impact on treatment outcomes', *Harm Reduction Journal*, 16(1).

Mosse, D. (2005) *Cultivating development: an ethnography of aid policy and practice*. London: Pluto Press.

Moyer, E. and Igonya, E. K. (2014) 'When families fail: shifting expectations of care among people living with HIV in Nairobi, Kenya', *Anthropology and Medicine*, 21(2), pp. 136-148.

Murphy, E. and Dingwall, R. (2001) 'The ethics of ethnography', in Atkinson, P., Coffey, A., Delamont, S., Loftland, J. and Loftland, L.H. (eds.) *Handbook of ethnography*. London: Sage pp. 339-351.

Musyoki, H., Bhattacharjee, P., Blanchard, A. K., Kioko, J., Kaosa, S., Anthony, J., Javalkar, P., Musimbi, J., Malaba, S. J., Olwande, C., Blanchard, J. F., Sirengo, M., Isac, S. and Moses, S. (2018) 'Changes in HIV prevention programme outcomes among key populations in Kenya: Data from periodic surveys', *PLoS One*, 13(9), pp. e0203784.

Mwangi, M. (2015) 'Kenya: Why drugs users are trooping to methadone clinics', *The Star* (Nairobi edn.), 24 August [Online]. Available at: <https://www.the-star.co.ke/> (Accessed: October 10, 2015).

Nachega, J. B., Marconi, V. C., van Zyl, G. U., Gardner, E. M., Preiser, W., Hong, S. Y., Mills, E. J. and Gross, R. (2011) 'HIV treatment adherence, drug resistance, virologic failure: evolving concepts', *Infectious Disorders Drug Targets*, 11(2), pp. 167-174.

National AIDS and STIs Control Programme (2012) *Kenya Most-At-Risk Populations Surveillance Report 2012*. Nairobi: Ministry of Health, Kenya. Available at: <https://www.nascop.or.ke/key-populations-downloads/> (Accessed: October 4, 2015).

National AIDS and STIs Control Programme (2013a) *Heroin crisis; its implications on the health of heroin users and government response*. Nairobi: Ministry of Health, Kenya. Available at: <https://www.nascop.or.ke/key-populations-downloads/> (Accessed: October 4, 2015).

National AIDS and STIs Control Programme (2013b) 'NASCOPs harm reduction partners meeting', *Key populations newsletter (vol. 3)*, p. 6.

National AIDS and STIs Control Programme (2013c) *Standard operating procedures for medically assisted therapy*. Nairobi: Ministry of Health, Kenya. Available at: <https://www.nascop.or.ke/key-populations-downloads/> (Accessed: October 23, 2015).

National AIDS and STIs Control Programme (2013d) *Standard operating procedures for needle and syringe exchange programmes for people who inject drugs* Nairobi: Ministry of

Health, Kenya. Available at: <https://www.nascop.or.ke/key-populations-downloads/> (Accessed: October 21, 2015).

National AIDS and STIs Control Programme (2014a) *Medically assisted therapy (methadone)*. Nairobi: Ministry of Health, Kenya.

National AIDS and STIs Control Programme (2014b) *Methadone: What, why, how to use, where to access*. Nairobi: Ministry of Health, Kenya.

National AIDS and STIs Control Programme (2014c) *National key populations communication strategy*. Nairobi: Ministry of Health, Kenya. Available at: <https://www.nascop.or.ke/key-populations-downloads/> (Accessed: April 6, 2017).

National AIDS and STIs Control Programme (2014d) *A Pledge to change: 2014-2015*. Nairobi: Ministry of Health, Kenya.

National AIDS and STIs Control Programme (2016) *My methadone, my responsibility: Patient education module*. Nairobi: Ministry of Health, Kenya.

National AIDS Control Council (2014) *Kenya aids strategic framework*. Nairobi: Ministry of Health, Kenya. Available at: http://nacc.or.ke/wp-content/uploads/2015/09/KASF_Final.pdf (Accessed: October 2, 2015).

Neale, J. (2013) 'Opioid pharmacotherapy: Treatment, regimes, constructions and control', *International Journal of Drug Policy*, 24(6), pp. e1-e4.

Neale, J., Nettleton, S. and Pickering, L. (2011) 'What is the role of harm reduction when drug users say they want abstinence?', *International Journal of Drug Policy*, 22(3), pp. 189-93.

Neale, J., Nettleton, S. and Pickering, L. (2013) 'Does recovery-oriented treatment prompt heroin users prematurely into detoxification and abstinence programmes? Qualitative study', *Drug and Alcohol Dependence*, 127(1), pp. 163-169.

Nelson, P. K., Mathers, B. M., Cowie, B., Hagan, H., Des Jarlais, D., Horyniak, D. and Degenhardt, L. (2011) 'Global epidemiology of hepatitis B and hepatitis C in people who inject drugs: Results of systematic reviews', *The Lancet*, 378(9791), pp. 571-583.

Nettleton, S., Neale, J. and Pickering, L. (2013) 'I just want to be normal': An analysis of discourses of normality among recovering heroin users', *Health and History*, 17, pp. 174-190.

Nguyen, V. K. (2005) 'Antiretroviral globalism, biopolitics, and therapeutic citizenship', in Ong, A. and Collier, S.J. (eds.) *Global assemblages*. Oxford: Blackwell Publishing, pp. 124-144.

Nguyen, V. K. (2009) 'Government-by-exception: Enrolment and experimentality in mass HIV treatment programmes in Africa', *Social Theory and Health*, 7(3), pp. 196-217.

Nguyen, V. K., Ako, C. Y., Niamba, P., Sylla, A. and Tiendrébéogo, I. (2007) 'Adherence as therapeutic citizenship: impact of the history of access to antiretroviral drugs on adherence to treatment', *AIDS*, 21 (Supplement 5), pp. S31-S35.

Nieburg, P. and Carty, L. (2011) *New opportunities for progress: HIV prevention among injection drug users in kenya and tanzania*. Washington, D.C: Center for Strategic and International Studies.

Nimmo, R. (2011) 'Actor-network theory and methodology: Social research in a more-than-human world', *Methodological Innovations Online*, 6(3), pp. 108-119.

Ning, A. M. (2005) 'Games of truth: Rethinking conformity and resistance in narratives of heroin recovery', *Medical Anthropology*, 24(4), pp. 349-382.

Njenga, F. (2002) 'Focus on psychiatry in East Africa', *British Journal of Psychiatry* 181, pp. 354-359.

Nosyk, B., Marsh, D. C., Sun, H., Schechter, M. T. and Anis, A. H. (2010) 'Trends in methadone maintenance treatment participation, retention, and compliance to dosing guidelines in British Columbia, Canada: 1996-2006', *Journal of Substance Abuse Treatment*, 39(1), pp. 22-31.

NTV News Tonight (2015) NTV Kenya, 15 August (Accessed: October 10, 2015).

Nunes, E. V., Levin, F. R., Reilly, M. P. and El-Bassel, N. (2021) 'Medication treatment for opioid use disorder in the age of COVID-19: Can new regulations modify the opioid cascade?', *Journal of Substance Abuse Treatment*, 122(108196).

Oguya, F. O., Kenya, P. R., Ongecha, F., Mureithi, P., Musyoka, H., Muraguri, N., Mundia, B., Angira, C., Shose, M., Basheeb, T. A., Mohamed, A. A., Oyore, J. P., Ochieng, O. G., Dida, G. O., Abdalla, S. and Abdool, R. (2021) 'Rapid situational assessment of people who inject drugs (PWID) in Nairobi and coastal regions of Kenya: A respondent driven sampling survey', *BMC Public Health*, 21(1549).

Okal, J., Geibel, S., Muraguri, N., Musyoki, H., Tun, W., Broz, D., Kuria, D., Kim, A., Oluoch, T. and Raymond, H. F. (2013) 'Estimates of the size of key populations at risk for HIV infection: Men who have sex with men, female sex workers and injecting drug users in Nairobi, Kenya', *Sexually Transmitted Infections*, 89(5), pp. 366-371.

Okwany, R. (2015) 'Heroin addicts to begin getting injectable therapy', *The Nation* (Nairobi edn.), 22 January [Online]. Available at: <https://nation.africa/kenya/counties/mombasa/heroin-addicts-to-begin-getting-injectable-therapy-1062104> (Accessed: October 10, 2015).

Oliver, K., Lorenc, T. and Innvær, S. (2014) 'New directions in evidence-based policy research: A critical analysis of the literature', *Health Research Policy and Systems*, 12(34).

Oliver, K., Lorenc, T., Tinkler, J. and Bonell, C. (2019) 'Understanding the unintended consequences of public health policies: The views of policymakers and evaluators', *BMC Public Health*, 19(1), pp. 1-9.

Ooko, S. (2014) 'Drugs regulator approves methadone use to treat heroin addicts', *Business Daily* (Nairobi edn.), 28 November [Online]. Available at: <https://www.africanewshub.com/en/news/2313262-drugs-regulator-approves-methadone-use-to-treat-heroin-addicts> (Accessed: October 10, 2015).

Ortman, H. A. and Siegel, J. A. (2020) 'The effect of methadone on the hypothalamic pituitary gonadal axis and sexual function: A systematic review', *Drug and Alcohol Dependence*, 207(107823).

Paparini, S. and Rhodes, T. (2016) 'The biopolitics of engagement and the HIV cascade of care: A synthesis of the literature on patient citizenship and antiretroviral therapy', *Critical Public Health*, 26(5), pp. 501-517.

Park, S. E., Grogan, C. M., Mosley, J. E., Humphreys, K., Pollack, H. A. and Friedmann, P. D. (2020) 'Correlates of patient-centered care practices at U.S. substance use disorder clinics', *Psychiatry Services*, 71(1), pp. 35-42.

Parkhurst, J. (2017) *The Politics of evidence: From evidence-based policy to the good governance of evidence*. Abingdon: Routledge.

Parrott, F. R. (2014) 'At the hospital I learnt the truth': Diagnosing male infertility in rural Malawi', *Anthropology and Medicine*, 21(2), pp. 174-188.

- Pedersen, E. H. (2002) 'Practices of government in methadone maintenance', *Outlines. Critical Practice Studies*, 4(2), pp. 61-69.
- Peles, E., Linzy, S., Kreek, M. J. and Adelson, M. (2008) 'One-year and cumulative retention as predictors of success in methadone maintenance treatment: A comparison of two clinics in the United States and Israel', *Journal of Addictive Diseases*, 27(4), pp. 11-25.
- Petersson, F. J. (2013) 'Excusing exclusion: Accounting for rule-breaking and sanctions in a Swedish methadone clinic', *International Journal of Drug Policy*, 24(6), pp. e99-e104.
- Porter, S. (2007) 'Validity, trustworthiness and rigour: Reasserting realism in qualitative research', *Journal of Advanced Nursing*, 60(1), pp. 79-86.
- Probst, B. (2016) 'Both/and: Researcher as participant in qualitative inquiry', *Qualitative Research Journal*, 16(2), pp. 149-158.
- Rachlis, B., Brouwer, K. C., Mills, E. J., Hayes, M., Kerr, T. and Hogg, R. S. (2007) 'Migration and transmission of blood-borne infections among injection drug users: Understanding the epidemiologic bridge', *Drug and Alcohol Dependence*, 90(2-3), pp. 107-19.
- Radcliffe, P. and Stevens, A. (2008) 'Are drug treatment services only for 'thieving junkie scumbags'? Drug users and the management of stigmatised identities', *Social Science and Medicine*, 67(7), pp. 1065-1073.
- Razaghizad, A., Windle, S. B., Filion, K. B., Gore, G., Kudrina, I., Paraskevopoulos, E., Kimmelman, J., Martel, M. O. and Eisenberg, M. J. (2021) 'The effect of overdose education and naloxone distribution: An umbrella review of systematic reviews', *American Journal of Public Health*, 111(8), pp. e1-e12.
- Reid, S. R. (2009) 'Injection drug use, unsafe medical injections, and HIV in Africa: A systematic review', *Harm Reduction Journal*, 6(24), pp. 1-11.
- Reinharz, S. and Chase, S. E. (2003) 'Interviewing women', in Holstein, J. and Gubrium, J. (eds.) *Inside interviewing: New lenses, new concerns*. Thousand Oaks, CA: Sage, pp. 467-492.
- Reisinger, H. S., Schwartz, R. P., Mitchell, S. G., Peterson, J. A., Kelly, S. M., O'Grady, K. E., Marrari, E. A., Brown, B. S. and Agar, M. H. (2009) 'Premature

discharge from methadone treatment: Patient perspectives', *Journal of Psychoactive Drugs*, 41(3), pp. 285-296.

Reynolds, L. and Sariola, S. (2018) 'The ethics and politics of community engagement in global health research', *Critical Public Health*, 28(3), pp. 257-268.

Rhodes, T. (2018) 'The becoming of methadone in Kenya: How an intervention's implementation constitutes recovery potential', *Social Science and Medicine* 201, pp. 71-79.

Rhodes, T., Azbel, L., Lancaster, K. and Meyer, J. (2019) 'The becoming-methadone-body: on the onto-politics of health intervention translations', *Sociology of Health and Illness*, 41(8), pp. 1618-1636.

Rhodes, T., Closson, E. F., Papparini, S., Guise, A. and Strathdee, S. A. (2016) 'Towards "evidence-making intervention" approaches in the social science of implementation science: The making of methadone in East Africa', *International Journal of Drug Policy*, 30, pp. 17-26.

Rhodes, T., Guise, A., Ndimbii, J., Strathdee, S. A., Ngugi, E., Platt, L., Kurth, A., Cleland, C. and Vickerman, P. (2015a) 'Is the promise of methadone Kenya's solution to managing HIV and addiction? A mixed-method mathematical modelling and qualitative study', *BMJ Open*, 5(e007198).

Rhodes, T., Harris, M. and Martin, A. (2013) 'Negotiating access to medical treatment and the making of patient citizenship: the case of hepatitis C treatment', *Sociology of Health and Illness*, 35(7), pp. 1023-1044.

Rhodes, T. and Lancaster, K. (2019) 'Evidence-making interventions in health: A conceptual framing', *Social Science and Medicine*, 238(112488).

Rhodes, T., Ndimbii, J., Guise, A., Cullen, L. and Ayon, S. (2015b) 'Navigating the poverty of heroin addiction treatment and recovery opportunity in Kenya: Access work, self-care and rationed expectations', *Global Public Health*, 10(7), pp. 867-880.

Roberts, C. (2014) 'The entanglement of sexed bodies and pharmaceuticals: A feminist analysis of early onset puberty and puberty-blocking medications', *Subjectivity*, 7(4), pp. 321-341.

Roe, G. (2005) 'Harm reduction as paradigm: Is better than bad good enough? The origins of harm reduction', *Critical Public Health*, 15(3), pp. 243-250.

- Rosengarten, M. and Michael, M. (2009) 'The performative function of expectations in translating treatment to prevention: The case of HIV pre-exposure prophylaxis, or PrEP', *Social Science and Medicine*, 69(7), pp. 1049-1055.
- Rosengarten, M., Michael, M., Mykhalovskiy, E. and Imrie, J. (2008) 'The challenges of technological innovation in HIV', *The Lancet*, 372(9636), pp. 357-358.
- Rubin, H. J. and Rubin, I. S. (2005) *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage.
- Ruppert, E. S. (2008) 'I is; therefore I am': The census as practice of double identification', *Sociological Research Online*, 13(4), pp. 1-14.
- Russolillo, A., Moniruzzaman, A. and Somers, J. M. (2019) 'Association of methadone treatment with substance-related hospital admissions among a population in Canada with a history of criminal convictions', *Journal of the American Medical Association Network Open*, 2(3), pp. e190595.
- Sackett, D. L., Rosenberg, W. M. C., Gray, J. A. M., Haynes, R. B. and Richardson, W. S. (1996) 'Evidence based medicine: What it is and what it isn't', *British Medical Journal*, 312(7023), pp. 71-72.
- Sandset, T. and Wieringa, S. (2021) 'Impure policies: Controversy in HIV prevention and the making of evidence', *Critical Policy Studies*, 15(1), pp. 21-36.
- Savage, M. (2010) *Identities and social change in Britain since 1940: The politics of method*. Oxford: Oxford University Press.
- Schatzman, L. and Strauss, A. L. (1973) *Field research: Strategies for a natural sociology*. Englewood Cliffs, NJ: Prentice Hall.
- Schwartz, R. P., Kelly, S. M., Mitchell, S. G., Gryczynski, J., O'Grady, K. E., Gandhi, D., Olsen, Y. and Jaffe, J. H. (2017) 'Patient-centered methadone treatment: a randomized clinical trial', *Addiction*, 112(3), pp. 454-464.
- Scott, G. (2000) 'Political will, political economy and the AIDS industry in Zambia', *Review of African Political Economy*, 27(86), pp. 577-582.
- Selin, J., Hakkarainen, P., Partanen, A., Tammi, T. and Tigerstedt, C. (2013) 'From political controversy to a technical problem? Fifteen years of opioid substitution treatment in Finland', *International Journal of Drug Policy*, 24(6), pp. e66-72.

Simon, C., Brothers, S., Strichartz, K., Coulter, A., Voyles, N., Herdlein, A. and Vincent, L. (2021) 'We are the researched, the researchers, and the discounted: The experiences of drug user activists as researchers', *International Journal of Drug Policy*, 98(103364).

Singer, M. (2002) 'Toward the use of ethnography in health care program evaluation', in McDonald, J. (ed.) *The applied anthropology reader*. Boston, MA: Allyn and Bacon, pp. 88-104.

Smith, C. and Riach, K. (2016) 'Drug taking and employment: Exploring the employable citizen in UK policy', *Sociology*, 50(1), pp. 24-42.

Smith, C. B. R. (2011) 'A users' guide to 'juice bars' and 'liquid handcuffs': Fluid negotiations of subjectivity, space and the substance of methadone treatment', *Space and Culture: The Journal*, 14(3), pp. 291-309.

Smith, V. (2001) 'Ethnographies of work and the work of ethnographers', in Atkinson, P., Coffey, A., Delamont, S., Loftland, J. and Loftland, L.H. (eds.) *Handbook of ethnography*. London: Sage, pp. 220-233.

Strain, E. C., Bigelow, G. E., Liebson, I. A. and Stitzer, M. L. (1999) 'Moderate- vs high-dose methadone in the treatment of opioid dependence: a randomized trial', *Journal of the American Medical Association*, 281(11), pp. 1000-1005.

Strain, E. C. and Stitzer, M. L. (2006) *The treatment of opioid dependence*. Baltimore, MD: The Johns Hopkins University Press.

Strathdee, S. A., Shoptaw, S., Dyer, T. P., Quan, V. M., Aramrattana, A. and Substance Use Scientific Committee of the HIV Prevention Trials Network (2012) 'Towards combination HIV prevention for injection drug users: Addressing addictophobia, apathy and inattention', *Current Opinion in HIV and AIDS*, 7(4), pp. 320-325.

Strike, C., Millson, M., Hopkins, S. and Smith, C. (2013) 'What is low threshold methadone maintenance treatment?', *International Journal of Drug Policy*, 24(6), pp. e51-e56.

Sullivan, L. E., Metzger, D. S., Fudala, P. J. and Fiellin, D. A. (2005) 'Decreasing international HIV transmission: the role of expanding access to opioid agonist therapies for injection drug users', *Addiction*, 100(2), pp. 150-158.

Sun, H.-M., Li, X.-Y., Chow, E. P. F., Li, T., Xian, Y., Lu, Y.-H., Tian, T., Zhuang, X. and Zhang, L. (2015) 'Methadone maintenance treatment programme reduces criminal activity and improves social well-being of drug users in China: a systematic review and meta-analysis', *BMJ Open*, 5(e005997).

Tammi, T. (2007) *Medicalising prohibition: Harm reduction in Finnish and international drug policy*. Helsinki: Stakes. Available at: <https://www.julkari.fi/bitstream/handle/10024/75412/Tu161-Tammi.pdf?sequence=1&isAllowed=y> (Accessed: March 2, 2022).

Tan, J., Altice, F. L., Madden, L. M. and Zelenev, A. (2020) 'Effect of expanding opioid agonist therapies on the HIV epidemic and mortality in Ukraine: a modelling study', *The Lancet HIV*, 7(2), pp. e121-e128.

Ti, L., Tzemis, D. and Buxton, J. A. (2012) 'Engaging people who use drugs in policy and program development: a review of the literature', *Substance abuse treatment, prevention, and policy*, 7(47).

Trainer, A. and Bouchard, K. A. (2013) 'Exploring and developing reciprocity in research design', *International Journal of Qualitative Studies in Education*, 26(8), pp. 986-1003.

Tran, O. C., Bruce, R. D., Masao, F., Ubuguyu, O., Sabuni, N., Mbwambo, J. and Lambdin, B. H. (2015) 'Implementation and operational research: Linkage to care among methadone clients living with HIV in Dar es Salaam, Tanzania', *Journal of Acquired Immune Deficiency Syndromes*, 69(2), pp. e43-e48.

Treloar, C. and valentine, k. (2013) 'Examining structural violence in opioid pharmacotherapy treatment in Australia: Sweating the “small stuff” in a liberal paradise', *International Journal of Drug Policy*, 24(6), pp. e11-e13.

Tun, W., Sheehy, M., Broz, D., Okal, J., Muraguri, N., Raymond, H. F., Musyoki, H., Kim, A. A., Muthui, M. and Geibel, S. (2015) 'HIV and STI prevalence and injection behaviors among people who inject drugs in Nairobi: Results from a 2011 bio-behavioral study using respondent-driven sampling', *AIDS and Behavior*, 19(1), pp. 24-35.

Ubuguyu, O., Tran, O. C., Bruce, R. D., Masao, F., Nyandindi, C., Sabuni, N., McCurdy, S., Mbwambo, J. and Lambdin, B. H. (2016) 'Improvements in health-related quality of life among methadone maintenance clients in Dar es Salaam, Tanzania', *International Journal of Drug Policy*, 30, pp. 74-81.

United Nations Drug Control Programme (1999) *The drug nexus in Africa*. Vienna: UNODC. Available at: http://www.unodc.org/pdf/report_1999-03-01_1.pdf (Accessed: October 3, 2015).

United Nations Office on Drugs and Crime (2009) 'Africa under attack: Drug trafficking has acquired a whole new dimension'. *UN Security Council* New York, NY, December 8. Available at: <https://www.unodc.org/unodc/en/about-unodc/speeches/2009-08-12-africa-under-attack.html> (Accessed: October 5, 2015).

United Nations Office on Drugs and Crime (2013) *World drug report*. Vienna: UNODC. Available at: https://www.unodc.org/unodc/secured/wdr/wdr2013/World_Drug_Report_2013.pdf (Accessed: October 3, 2015).

United Nations Office on Drugs and Crime and International Centre for Health Interventions Research in Africa (2012) *Rapid situational assessment of hiv prevalence and risky behaviours among injecting drug users in Kenya*. Nairobi: UNODC.

United Nations Office on Drugs and Crime, International Network of People Who Use Drugs, Joint United Nations Programme on HIV/AIDS, United Nations Population Fund, World Health Organization and United States Agency for International Development (2017) *Implementing comprehensive hiv and hcv programmes with people who inject drugs: Practical guidance for collaborative interventions*. Vienna: UNODC. Available at: https://www.unaids.org/sites/default/files/media_asset/2017_HIV-HCV-programmes-people-who-inject-drugs_en.pdf (Accessed: March 1, 2022).

United States Agency for International Development (2011) *Regional workshop on HIV and drug use report*. Washington, D.C.: United States Agency for International Development,. Available at: <https://www.hivsharespace.net/sites/default/files/resources/FinRepNairobiJun2011.pdf> (Accessed: October 26, 2015).

University of Maryland Baltimore (2018) *Maryland Global Initiatives Corporation*. Available at: <https://www.umaryland.edu/mgic/> (Accessed: March 1, 2019).

University of Maryland Baltimore (2019) *Division of Addiction Research and Treatment*. Available at: <https://www.medschool.umaryland.edu/psychiatry/Clinical-Divisions/Division-of-Addiction-Research-and-Treatment/> (Accessed: March 1, 2019).

University of Maryland Baltimore (2021) *Collaborations*. Available at: <https://www.medschool.umaryland.edu/psychiatry/clinical-divisions/division-of-addiction-research-and-treatment/collaborations/> (Accessed: March 1, 2019).

valentine, k. (2007) 'Methadone maintenance treatment and making up people', *Sociology*, 41(3), pp. 497-514.

valentine, k. (2009) 'Evidence, values and drug treatment policy', *Critical Social Policy*, 29(3), pp. 443-464.

van der Kolk, B. A. (2014) *The body keeps the score: Brain, mind, and body in the healing of trauma*. New York, NY: Penguin Publishing Group.

Veyne, P. (1997) 'Foucault Revolutionizes History', in Davidson, A.I. (ed.) *Foucault and His Interlocutors*. Chicago: University of Chicago Press, pp. 146-182.

Vocal-NY and Community Development Project of the Urban Justice Center (2010) *Beyond methadone: Improving health and empowering patients in opioid treatment programs* [Online]. Available at: https://takerootjustice.org/wp-content/uploads/2019/06/Beyond_Methadone.pdf (Accessed: March 20, 2020).

Voß, J.-P. and Freeman, R. (eds.) (2016) *Knowing governance: the epistemic construction of political order*. Basingstok: Palgrave Macmillan.

Waal, H. (2007) 'Merits and problems in high-threshold methadone maintenance treatment', *European Addiction Research*, 13(2), pp. 66-73.

Wammes, J. J., Siregar, A. Y., Hidayat, T., Raya, R. P., van Crevel, R., van der Ven, A. J. and Baltussen, R. (2012) 'Cost-effectiveness of methadone maintenance therapy as HIV prevention in an Indonesian high-prevalence setting: A mathematical modeling study', *International Journal of Drug Policy*, 23(5), pp. 358-364.

Weinberg, D. (2000) '"Out there": The ecology of addiction in drug abuse treatment discourse', *Social Problems*, 47, pp. 606-621.

Williams, M. L., McCurdy, S. A., Bowen, A. M., Kilonzo, G. P., Atkinson, J. S., Ross, M. W. and Leshabari, M. (2009) 'HIV seroprevalence in a sample of Tanzanian intravenous drug users', *AIDS Education and Prevention*, 21(5), pp. 474-483.

Wood, M., Ferlie, E. and Fitzgerald, L. (1998) 'Achieving clinical behaviour change: A case of becoming indeterminate', *Social Science and Medicine*, 47(11), pp. 1729-38.

Woolgar, S. and Lezaun, J. (2013) 'The wrong bin bag: A turn to ontology in science and technology studies?', *Social Studies of Science*, 43(3), pp. 321-340.

Woolgar, S. and Pawluch, D. (1985) 'Ontological gerrymandering: The anatomy of social problems explanations', *Social Problems*, 32(3), pp. 214-227.

World Health Organization (2006) *The selection and use of essential medicines: Report of the WHO expert committee, 2005*. Geneva: World Health Organization. Available at: https://extranet.who.int/iris/restricted/bitstream/handle/10665/43292/WHO_TRS_933_eng.pdf?ua=1 (Accessed: March 13, 2020).

World Health Organization (2016) *Patient engagement: Technical series on safer primary care* Geneva: World Health Organization. Available at: <https://apps.who.int/iris/bitstream/handle/10665/252269/9789241511629-eng.pdf> (Accessed: March 10, 2020).

World Health Organization (2017) *Guidelines for treatment of drug-susceptible tuberculosis and patient care, 2017 update*. Geneva: World Health Organization. Available at: <https://apps.who.int/iris/bitstream/handle/10665/255052/9789241550000-eng.pdf?sequence=1> (Accessed: March 11, 2020).

World Health Organization (2020) *Community engagement: A health promotion guide for universal health coverage in the hands of the people*. Geneva: World Health Organization. Available at: <https://www.who.int/publications/i/item/9789240010529> (Accessed: February 1, 2022).

Wu, Z. and Clark, N. (2013) 'Scaling up opioid dependence treatment in low- and middle-income settings', *Bulletin of the World Health Organization*, 91(2), pp. 82-82A.

Yarmolinsky and Rettig (1995) 'Pharmacology and medical aspects of methadone treatment', in Institute of Medicine (ed.) *Federal regulation of methadone treatment*. Washington, D.C.: National Academy Press.

Yee, A., Loh, H. S. and Ng, C. G. (2014) 'The prevalence of sexual dysfunction among male patients on methadone and buprenorphine treatments: A meta-analysis study', *The Journal of Sexual Medicine*, 11(1), pp. 22-32.

Zafar, T. and ul Hasan, S. (2002) 'A sociodemographic and behavioral profile of heroin users and the risk environment in Quetta, Pakistan', *International Journal of Drug Policy*, 13(2), pp. 121-125.

Zelenev, A. (2018) 'Access to opioid agonist therapy in Russia: time for reform', *The Lancet HIV*, 5(10), pp. e542-e543.

Zhang, L., Chow, E. P., Zhuang, X., Liang, Y., Wang, Y., Tang, C., Ling, L., Tucker, J. D. and Wilson, D. P. (2013) 'Methadone maintenance treatment participant retention and behavioural effectiveness in China: a systematic review and meta-analysis', *PLoS One*, 8(7), pp. e68906.

Appendices

- I. Information sheet for qualitative interviews (English)
- II. Information sheet for observations (English)
- III. Informed consent for qualitative interview (English)
- IV. Contact summary form
- V. Qualitative interview guide

NB: In these documents I refer to myself as 'Rose', which is my preferred name.

Appendix I – Information sheet for qualitative interviews (English)

STUDY INFORMATION SHEET- INTERVIEWS

Version 1.0 May 22, 2015

LONDON
SCHOOL of
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MEDICINE



Full Title of Project:

Intervention in translation: Exploring the localized and contested meanings of opioid pharmacotherapy in Kenya

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and to talk to others about the study if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

As you may know, there is a new programme in Kenya that will provide opioid pharmacotherapy (a.k.a. methadone) to people who use heroin. This is a social science study aimed at exploring perceptions of methadone and drug use in Kenya. The study will take place in Nairobi and Malindi. Rose Closson, M.Sc. is conducting the research as part of a Ph.D. degree at The London School of Hygiene & Tropical Medicine (LSHTM). It is an independent study which is not affiliated with the methadone programme or the Kenyan Ministry of Health.

Why have I been chosen?

You are eligible for the study if you have publicly voiced an opinion about methadone in Kenya or have been involved with the new methadone programme. Up to 30 people will take part in the study. Participants are recruited through word of mouth or referrals from professional colleagues.

Do I have to take part?

It is up to you to decide to join the study. We will describe the study and go through this information sheet. If you agree to take part, we will then ask you to sign a consent form. You are free to withdraw at any time, without giving a reason.

What will happen to me if I take part?

The study lasts up to 8 months.

Over the course of the study, you will complete up to 3 one-on-one interviews with the researcher. The number and timing of the interviews will be decided as the study goes on. We will make sure that the interviews are conducted at a day/time and location that is convenient for you.

Each interview is ~60 minutes long.

The interviews will be audio-recorded. The recordings will be identified by an ID number that is unique to each participant. No identifying information (e.g., name, place of work) will be recorded.

Your verbatim quotes may be included in the PhD thesis, publications, or reports that result from this study; however no identifying information (e.g., name, place of work) individual identities will be reported.

You may also be asked to have brief telephone conversations with the researcher once a month. These conversations will not be recorded, but the researcher will take detailed notes.

Expenses and payments

There are no costs associated with participating in the study. Participants will be offered light refreshments during the interviews. Participants with limited resources may also receive a small food pack.

What do I have to do?

You will meet with the researcher in a private space. Before the first interview begins you will complete an informed consent process. Once you have signed the informed consent form, the researcher will ask you a few questions about your background and affiliations. This will be followed by a ~45 minute interview. The interview will focus on your perceptions of methadone, drug use, and the new methadone programme in Kenya. The second and third interviews will follow-up on some of what you discussed in the previous interview and explore if/how your ideas have changed since then.

The researcher may ask you to have brief telephone conversations with her once a month. She will ask you about the recent changes and happenings related to the methadone programme. This is a way for the researcher to stay up to date with the latest news while she is away from the site.

What are the possible disadvantages and risks of taking part?

As the study involves interviews only, the risk of physical injury is low. Although the risk is low, a breach in confidentiality of your research records may occur. Preserving your confidentiality is one of our top priorities. See #10 for more information.

What are the possible benefits of taking part?

You may not receive any direct benefit from the study; however, your participation will contribute to our understanding of factors that may impact the use and uptake of methadone in Kenya.

What happens when the research study stops?

You will no longer be a participant in the study after the study stops.

Will my participation in the study be kept confidential?

Yes. We will keep all the information you give us confidential as provided by law. We will take the following steps to preserve your confidentiality:

1. Interviews will take place in a private room.
2. You are free to refuse to answer any of the interview questions.
3. Only the research team will have access to your study records.
4. Your records will be stored in a locked cabinet and a secure, password protected computer.
5. We will not place your name on any study records and your name will not be recorded during the interviews.
6. Your records will be labelled with a unique participant ID number. A link between names and ID numbers will be kept separately under lock and key.
7. Locator information and signed informed consent forms will be stored separately from study records.
8. No individual identities will be used in the Ph.D. thesis, publications or reports that may result from the study.

If you join the study, some parts of your research record may be looked at by authorised persons from LSHTM and the Kenya Medical Research Institute (KEMRI) to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and nothing that could reveal your identity will be disclosed outside the research site.

What if relevant new information becomes available?

During the course of the research study, you will be told about any significant new findings that may be beneficial or harmful to you and that might influence their willingness to continue participation in the study.

What will happen if I don't want to carry on with the study?

You can agree to be in the study now and change your mind at any time. If you wish to stop, please tell us right away. If you leave the study early, we may use the information that has already been collected.

What if something goes wrong?

If you have a concern about any aspect of the study, you should ask to speak to Rose Closson who will do her best to answer your questions. If you are harmed due to someone's negligence, then you may have grounds for a legal action. Regardless of this, if you wish to

complain, or have any questions or concerns about any aspect of the way you have been treated during the course of the study then you should immediately inform Rose Closson.

What will happen to the results of the research study?

Findings from the study will be published as part of a Ph.D. thesis at LSHTM. Data from the study may be published as articles in peer reviewed journals and presented at scientific conferences. No individual identities will be used in the Ph.D. thesis, publications, or reports that result from the study.

Who is organising and funding the research?

The study is organized by Rose Closson as part of a Ph.D. degree at LSHTM. It is supported by a grant from the British Sociological Association.

Who has reviewed the study?

The study was given a favourable ethical opinion by the Research Ethics Committee at LSHTM and the KEMRI Scientific Review Unit (SERU).

Contact Details

I can contact ...	 At ...	? About ...
Rose Closson, M.Sc.	254(0)711304914 Rose. Closson@lshtm.ac.uk	Questions about the study Concerns and complaints Research-related emergencies
KEMRI SERU	254(020)2777541 seru@kemri.org P.O. Box 54840-00200 Nairobi, Kenya	Rights of a research subject Concerns and complaints

You will be given a copy of the information sheet and a signed consent form to keep. Thank you for considering taking the time to read this sheet.

Appendix II – Information sheet for observations (English)

STUDY INFORMATION SHEET- OBSERVATIONS

Version 1.0 May 22, 2015

LONDON
SCHOOL of
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Full Title of Project:

Intervention in translation: Exploring the localized and contested meanings of opioid pharmacotherapy in Kenya

Thank you for your interest in the study. This information sheet explains what the study is about and what you would have to do if you agree to participate.

As you may know, there is a new programme in Kenya that will provide opioid pharmacotherapy (a.k.a. methadone) to people who use heroin. This is a social science study aimed at exploring perceptions of methadone and drug use in Kenya. The study will take place in Nairobi and Malindi. Rose Closson, M.Sc. is conducting the research as part of a Ph.D. degree at The London School of Hygiene & Tropical Medicine (LSHTM). It is an independent study and is not affiliated with the methadone programme or the Kenyan Ministry of Health.

We intend to carry out interviews with stakeholder—individuals who have been involved with the new methadone programme or have publicly voiced an opinion about methadone in Kenya. We also wish to carry out observations of stakeholder interactions in Nairobi and Malindi, including those that take place at meetings, trainings, and other events. Observing these situations will allow us to gain insight into how meanings and perceptions of methadone are deployed and negotiated in context.

In order to record accurate observations, we will take field notes. The information will be used for research purposes only and will be kept confidential as provided by law. Your verbatim quotes may be included in the PhD thesis, publications, or reports that result from this study; however no identifying information will be reported. The study has been approved by the ethics committee at LSHTM and the Kenya Medical Research Institute Scientific Review Unit (KEMRI SERU).

We are happy to answer any questions you may have at this time. If you have questions or concerns at any stage of the research, please do not hesitate to contact Ms. Closson or the KEMRI SERU.

I can contact ...	 At ...	 About ...
Rose Closson, M.Sc.	254(0)711304914 Rose.Closson@lshtm.ac.uk	<ul style="list-style-type: none">• Questions about the study• Concerns and complaints• Research-related emergencies

KEMRI SERU	254(020)2777541 seru@kemri.org P.O. Box 54840-00200 Nairobi, Kenya	<ul style="list-style-type: none">• Rights of a research subject• Concerns and complaints
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Appendix III- Informed consent qualitative interviews (English)



Kenya Medical Research Institute
Scientific and Ethics Review Unit
254(020)2777541; seru@kemri.org
P.O. Box 54840-00200 Nairobi, Kenya

INFORMED CONSENT FORM

Version 1.0 May 22, 2015

Full Title of Project:

Intervention in translation: Exploring the localized and contested meanings of opioid pharmacotherapy in Kenya

Name of Researcher (Principal Investigator):

Rose Closson, MSc

**Please
initial box**

1. I confirm that I have read and understand the participant information sheet dated May 22, 2015 Version 1.0 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered fully.	
2. I understand that my participation is voluntary and I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.	
3. I understand that sections of the data collected during the study may be looked at by responsible individuals from the London School of Hygiene & Tropical Medicine and the Kenya Medical Research Institute, where it is relevant to my taking part in this research. I give permission for these individuals to access my records.	
4. I agree for a direct quote to be used in the publication, PhD thesis, or report released on this study.	
5. I agree to take part in the above study.	

_____ Name of Participant (printed)	_____ Signature/Thumbprint	_____ Date
_____ Name of Person Taking Consent	_____ Signature	_____ Date

Appendix IV– Qualitative interview guiding questions

QUALITATIVE INTERVIEW GUIDING QUESTIONS

Version 1.0 January 10, 2015

LONDON
SCHOOL of
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MEDICINE



Full Title of Project:

Intervention in translation: Exploring the localized and contested meanings of opioid pharmacotherapy in Kenya

The following questions are intended to guide the qualitative interviews conducted with stakeholders. Interviewing will follow a process of conversational partnership, whereby follow-up questions will evolve from what participants share. Over the course of the study, the interview questions will be honed based on the identification of emergent themes.

Heroin use

- Please tell me about heroin use in [Malindi or Nairobi, in Kenya].
- Is heroin use a problem in [Malindi or Nairobi, in Kenya]? If so, why?
- What are the effects of heroin use in [Malindi or Nairobi, in Kenya]?
- How should heroin use in [Malindi or Nairobi, in Kenya] be addressed?
- What is your perception of people who are addicted to heroin?—Who are they? Why do they use heroin? What is their experience like?
- What should we do about the people who are addicted to heroin?

Methadone (*'Methadone' is shorthand for OPT; interviewer will use the word that participant uses*)

- What is methadone?
- What is the purpose of methadone?
- How does it address the problem of heroin use?
- How effective do you think methadone is?
- What are the advantages of methadone?
- What are the drawbacks to methadone?
- How do you know about methadone? / Where or from who have you learned about methadone?

Methadone Programme

- What is your involvement with the programme? (*if relevant*)
- When did you first hear about the programme? What was your reaction? (*if relevant*)
- How did the programme come to be? (*if relevant*)
- How were the policies and protocols developed for the programme? (*if relevant*)
- What is the purpose of the programme?
- How effective do you think the programme will be?
- What effects of the programme have you seen thus far?
- What are your concerns about the programme?
- How do you think people who use heroin in [Malindi or Nairobi] view the programme?
- How do people in the community view the programme?

- What information about the programme has been communicated to [people who use heroin, health workers, people in the community, religious leaders, etc.]? (*depending on relevancy to stakeholder*)
- How has this information been communicated?