



## Motivational Interviewing in HIV Care

Antoine Douaihy (ed.), K. Rivet Amico (ed.)

<https://doi.org/10.1093/med/9780190619954.001.0001>

Published: 2019

Online ISBN: 9780190619985

Print ISBN: 9780190619954

### CHAPTER

## 17 Ethical Challenges in the Applications of Motivational Interviewing in HIV Care

Isra Black, Lisa Forsberg

<https://doi.org/10.1093/med/9780190619954.003.0017> Pages 157–166

Published: December 2019

### Abstract

This chapter engages with ethical challenges of using motivational interviewing (MI) and MI-based interventions in HIV care. The chapter first outlines 2 general ethical worries in respect of MI use. The authors argue that the relational and technical components of MI provide insufficient ethical action guidance and ethical safeguards, respectively. It is necessary to consider factors external to the method of MI to establish the ethical permissibility of its applications. The authors subsequently consider the ethics of MI in the context of HIV care, specifically in relation to pre-exposure prophylaxis, medication adherence, and disclosure of HIV/AIDS diagnosis/prognosis. This framework for discussion of these specific issues may be relevant to other applications of MI in HIV care.

**Keywords:** motivational interviewing, MI, ethics, challenges, HIV care

**Subject:** Communication Skills, Psychiatry

**Collection:** Oxford Medicine Online

### Introduction

Miller and Rollnick<sup>1p12</sup> define motivational interviewing (MI) as:

A collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal [or target behavior] by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion.

On this definition, MI is an intervention administered by one person that is designed to facilitate another person's behavior change. The available evidence suggests that MI can be effective in bringing about behavior change in clients.<sup>2,3,4,5</sup> On the one hand, the fact that MI aims to and can change behavior might be thought morally desirable. Change may be good for a client, or good in general. And if a particular behavior change is desirable, MI may be an effective means to this end. For example, it seems good for individuals to

reduce harmful and hazardous drinking and hence appropriate to use MI to facilitate this change. On the other hand, the fact that MI can be effective in altering motivation and behavior may give rise to concerns about its moral permissibility and that of its applications.<sup>6,7,8</sup> For instance, Miller and Rollnick<sup>1,9</sup> have consistently cited sales as an example of a setting in which MI-type interventions would be ethically inappropriate.

p. 158 In this chapter, we engage with ethical challenges of using MI and MI-based interventions in HIV care (for brevity, we use MI to refer to both MI and MI-based interventions). First, we briefly describe the technical and relational components of MI and discuss 2 general ethical worries in respect of MI use: (i) that the relation component fails to provide sufficient ethical action guidance and (ii) that the technical component fails to safeguard against manipulation. Second, we consider these ethical concerns in the context of HIV care, specifically in relation to pre-exposure prophylaxis (PrEP), medication adherence, and disclosure of HIV/AIDS diagnosis/prognosis. C17.P4

## Two Ethical Worries about MI

---

In this section, we briefly describe the components of MI. We draw on these components in the subsequent discussion of 2 ethical concerns in respect of MI use: (i) ethical action guidance and (ii) safeguards against manipulation. C17.P5

As a caveat to what follows, while we argue that MI practitioners and institutions considering adopting MI interventions should be aware of these ethical issues, it is important to recognize the need for comparative ethical analysis. The use of MI requires consideration against possible alternatives, including treatment-as-usual approaches, delegation to individual practitioner discretion, or doing nothing. Even taking into account the ethical concerns about MI we discuss in the following text, MI may be ethically preferable to these alternatives, all things considered. C17.P6

By way of clarification of terminology, we understand by “permissible” and “permissibility” that an option is ethically appropriate. The claim that an option is ethically permissible etc. is weaker than the claim that an option is ethically obligatory or required. C17.P7

## The Components of MI

MI can be described in terms of its technical and relational components, and the core skills that operationalize the former. C17.P8

The technical component of MI involves 4 “sequential and recursive” overlapping processes: *engagement*, *focusing*, *evocation*, and *planning*.<sup>1pp25,26</sup> *Engagement* involves the practitioner seeking to “establish a helpful connection and working relationship” with the client.<sup>1p26</sup> *Focusing* involves selection of a conversational target, such as quitting smoking. Through the *evocation* process, the MI practitioner engages with the conversational target by “selectively eliciting and reinforcing the client’s own arguments and motivations for change” — change talk, while taking care not to evoke sustain talk that favors current behavior.<sup>10p28</sup> MI is unlike “traditional conceptions of client-centred counselling,” therefore, in that through focusing and evocation, it is “consciously goal-oriented, in having intentional direction toward change.”<sup>10pp27,28</sup> The fourth technical process of MI is *planning*: the development of commitment to change and formulation of a plan for its achievement. C17.P9

The counterpart to the technical component of MI is its relational, person-centered spirit, which consists of 4 interrelated practitioner dispositions: *partnership*, *acceptance*, *compassion*, and *evocation*.<sup>1</sup> *Partnership* requires the practitioner to see the MI encounter as an “active collaboration between experts” in which the C17.P10

“interviewer seeks to create a positive interpersonal atmosphere that is conducive to change but not coercive.”<sup>1p15</sup> Second, *acceptance* requires (i) recognition of the client’s *absolute worth*; (ii) *empathy*, that is, “an active interest in and effort to understand the other’s internal perspective”; (iii) respect for the client’s *autonomy* and power of decision in respect of behavior change; and (iv) *affirmation* of the client’s strengths and efforts.<sup>1pp16,17</sup> Third, *compassion* enjoins the MI practitioner to “to pursue the welfare and best interests of the other.”<sup>1</sup> Fourth, the MI spirit requires *evocation* of the client’s own motivation and resources to change.

p. 159 Four core skills operationalize the technical and relational components of MI: *open-ended questions*, *affirmation*, *reflections*, and *summaries*.<sup>1</sup> *Open-ended questions* promote collaboration between the parties and invite the client to reflect and elaborate. *Affirmation* involves active acknowledgement of the client’s positive dispositions. Through *reflections* that attempt (selectively) to clarify meaning, the MI practitioner offers an opportunity to the client to replay her thoughts and feelings. *Summaries* are reflections that collate the client’s utterances; these may help to establish alliance, identify themes, transition between the technical processes, and provide the client an opportunity to add meaning and clarity for themselves and the practitioner. C17.P11

## Ethical Action Guidance and Safeguards against Manipulation C17.S4

In this section, we discuss the adequacy of the ethical action guidance and safeguards against manipulation theorized to exist within the relational and technical components of MI, respectively. We argue that the relational component of MI alone cannot guide against the use of MI for inappropriate target behaviors. In addition, it is implausible to think that the technical component of MI could never have a manipulative effect. It is necessary, in our view, to consider factors external to the method of MI to establish the ethical permissibility of its use in a particular setting. C17.P12

Miller and Rollnick<sup>10</sup> argue that “it would be unethical, for example, to attempt to use MI as a way to sell a product, fill private treatment beds, or obtain consent to participate in research.” What is there to prevent MI use in ethically inappropriate settings or to ethically inappropriate ends, for example, in sales and advertising or to encourage migrants to coalesce to their impending deportation? A possible response to this question is that elements of the MI spirit, namely, *respect for autonomy* or *compassion*, provide ethical action guidance against such use. C17.P13

It might be thought that respect for autonomy can provide sufficient guidance for ethical MI practice. In this sense, MI use in pursuit of a behavioral outcome might be grounded on the claim that an individual desires that outcome or that people in general desire that outcome. However, respect for autonomy is both too broad and too narrow a criterion for ethical action guidance. It is too broad because what individuals’ desires do not necessarily determine their best interests to the extent that if one can show that a client desires an outcome, this dispels all ethical concern. For example, a bookmaker might respect a thrill-seeking individual’s autonomy by using MI to encourage them to stake bets with the possibility of huge gains yet probability of significant losses. Nevertheless, we might be uneasy about the use of MI to this end. Respect for autonomy is also too narrow because it might be possible for things that are not desired to be good for individuals. For example, we argue in the following discussion that it may be permissible to use MI to direct toward disclosure of HIV transmission risk, even if an individual has a preference not to disclose. C17.P14

One might instead attempt to use compassion as the criterion for determining ethical appropriate target behaviors. Miller and Rollnick<sup>1p20</sup> argue that compassion precludes the practice of MI “in pursuit of self-interest.” Conceived in this way, the compassion criterion may be able to ward against some of worst applications of MI. For example, it might rule out using MI to exploit an individual’s thrill-seeking nature for profit by encouraging gambling. However, compassion construed as the disavowal ↵ of self-interest p. 160 C17.P15

may still permit too much, ethically speaking. For example, we grant, like Miller and Rollnick<sup>1p14</sup> that “ ‘promotion of others’ welfare is . . . one motivation that draws people into helping professions.” But the fact that an MI practitioner is well-intentioned, or acts with the client’s best interests at heart, does not rule out the seeking of inappropriate target behaviors. The conception of compassion within MI spirit is practitioner-focused. However, practitioners may be mistaken in their view of a client’s best interest. For example, an MI-trained oncologist might consider that an additional cycle of chemotherapy is in their client’s best interests and direct toward this outcome, when many factors count against curative treatment, from the client’s own perspective or more objectively.

It might be argued that ethical action guidance is not provided by the use of respect for autonomy or compassion alone, but together. However, respect for autonomy and compassion may conflict, which may lead to difficulty in knowing whether an MI intervention is ethically permissible. Consider a version of the previously noted cancer case, in which the MI-trained oncologist is correct that a further cycle of chemotherapy would be in their client’s best interest, but the client expresses an autonomous wish not to undergo the treatment. If the practitioner was to use MI to seek consent to treatment, this would be paternalistic. Paternalism by definition involves a failure to respect an individual’s autonomy in pursuit of their well-being<sup>11</sup> It is often thought to be (highly) morally problematic in healthcare settings. Yet, according to the MI spirit, it would be an open question whether seeking consent in this scenario would be an appropriate target behavior, given the tension between respect for autonomy and compassion. As such, respect for autonomy and compassion together fail to give sufficient ethical action guidance.

One might accept that one cannot derive before the fact ethical action guidance from MI spirit. However, it might be argued that this is unnecessary or irrelevant given the way in which the technical component of MI is theorized to operate. Miller and Rollnick<sup>1chapter 2,p14</sup> argue that “[u]nless the change is in some way consistent with the client’s own goals or values, there is no basis for MI to work.” This might be interpreted, despite what Miller and Rollnick claim elsewhere, to permit MI use for any target behavior, since MI will be effective only if the outcome is consistent with the client’s goals or values, and if this is the case, the intervention is ethically permissible. However, this seems to be very ethically undemanding.

In any event, we think that the claim about the technical component of MI such that it works only when a client possesses a goal or value that aligns with the target behavior is implausible. We have suggested elsewhere that evocation of any change talk, that is, “the selective reinforcement of any utterances, not just those which align with core values and beliefs,” may influence behavior.<sup>7</sup> Black and Helgason<sup>8</sup> argue: “The idea is that the evocation of talk that favours a distinct outcome may distort or pervert the interviewee’s decision-making processes by minimising potentially cogent reasons against that choice. In so doing, MI potentially inhibits the ability of the interviewee to reach an adequately deliberated decision.” The upshot of this argument is that we cannot be confident that MI is never problematically manipulative, that is, that MI never involves intentional conduct that “infringes upon the autonomy of the victim by subverting and insulting their decision-making powers.”<sup>12</sup> It is not clear that when MI use is successful in bringing about behavior change, it always respects client autonomy.

p. 161 Where does the foregoing leave us in respect of the ethics of MI? First, we argue that the respect for autonomy or compassion requirements of MI spirit do not provide ↵ sufficient action guidance for ethical MI use. Second, we argue that MI may be problematically manipulative. In respect of the first concern, we cannot rely on the relational component of MI alone to ward against practice that seeks unethical behavioral outcomes. We must confront this challenge head on, through consideration of factors external to the method of MI to establish the ethical permissibility of its applications. In particular, we ought not to outsource or delegate the determination of ethical permissibility to individual MI practitioners or institutions. In respect of the second concern, we believe that it is necessary to accept the risk that MI is manipulative and engage in frank discussion about when manipulation might be justified given the benefits to be gained from a given application of MI.

C17.P16

C17.P17

C17.P18

C17.P19

C17.P20

C17.P21

In general, there may not be a one-size-fits-all answer to whether an application of MI is ethically permissible. In all cases, careful consideration of factors such as the expected benefit of the intervention to the client or others, the degree to which the intervention is likely to be respectful of autonomy, and social and institutional factors that may affect benefit or respect for autonomy etc. will be required.

C17.P22

## Ethical MI Use in HIV Care

C17.S5

In this section, we tentatively discuss the ethical permissibility of MI use in 3 contexts relevant to HIV care: PrEP, medication adherence, and disclosure of HIV/AIDS diagnosis/prognosis. Our framework for discussion of these issues may be relevant to other applications of MI in HIV care. However, we stress that the substantive conclusions we draw may not transfer directly to other MI applications.

C17.P23

### PrEP

C17.S6

PrEP involves HIV-negative individuals following a course of daily antiretroviral medication to reduce the risk of infection. Clinical trials have shown PrEP to reduce the risk of HIV transmission significantly,<sup>13,14</sup> with possible attendant health and psychological benefits.<sup>15</sup> However, there exist possible negative health effects<sup>13,14</sup> of PrEP, as well as social stigma around its use in certain populations.<sup>16</sup> Since individuals may be ambivalent about the use of PrEP or these latter reasons, it may seem a good candidate for an MI intervention. Indeed, research into MI-based PrEP interventions is underway.<sup>17</sup>

C17.P24

Would it be ethically permissible to employ MI to help clients resolve ambivalence in the direction of PrEP use? At first blush, it seems straightforwardly ethically permissible to seek PrEP use as a behavioral outcome. PrEP is clearly good for a great majority of individuals who take it, and there is a population health interest in reducing the number of HIV infections. The risk of manipulation, that is, the risk that some individuals who do not wish to use PrEP might have their autonomy infringed by MI, will vary according to local acceptance of PrEP. However, it is arguable that this risk is acceptable in general given the benefits both to individuals who do not have a prior desire for PrEP and the community at large.

C17.P25

That being said, PrEP is perhaps a good example of the necessity to consider very carefully the ethical permissibility of MI interventions in context. It is possible that PrEP uptake gives rise to community-level risk compensation, or “prevention optimism,” that is, increased risk tolerance toward condomless sex among non-PrEP users in virtue of “a belief that they are indirectly protected from HIV because of the greater use of PrEP by others.”<sup>18,19</sup> In addition, there are possible non-HIV-related negative consequences from condomless sex, such as the increased risk of certain sexually transmitted infections. These factors potentially make PrEP use less beneficial to individuals who use it and possibly pit the benefits of PrEP for users against population health. That is not to say that the use of MI to help resolve ambivalence in favor of PrEP use would be ethically impermissible. Rather the permissibility of any such intervention depends on the existence and availability of counterpart measures such as public education campaigns, accessible sexual health services, and interventions (including those that are MI-based) aimed at increasing medication adherence.

C17.P26

## Medication Adherence

C17.S7

Antiretroviral medication adherence is key to the prophylactic effect of PrEP and reduction in viral load among individuals living with HIV/AIDS. However, some individuals may experience difficulty maintaining high levels of medication adherence or be ambivalent about it. For example, an individual may experience a tension between concern for their own health (because of nonadherence) as well as that for others (through transmission risk) and responsibilities toward others arising from work or family circumstances. Or an individual may experience negative side effects of antiretroviral therapy (ART) that disincentivize medication adherence. Again, MI would seem to be a good candidate intervention for resolving ambivalence in the direction of adherence.

C17.P27

Similar to our argument in respect of PrEP use, we submit that medication adherence clearly is good for individuals taking PrEP or ART and good for the community at large, and any risk of manipulation is acceptable for these reasons.

C17.P28

However, MI use for medication adherence among individuals with HIV may be more complicated than initially appears, to the extent that respect for a client's inconsistent ART adherence may implicitly involve taking a stance on the potential trade-off between viral load and drug resistance. Reduced ART adherence is associated with increased risk of drug resistance,<sup>20,21</sup> and reduced ART adherence correlates with increased viral load.<sup>22</sup> While we are not certain, it is possible that it may ethically appropriate in respect of some clients to switch target behavior to a decision about whether to take ART at all, because it ought to be for the client to decide how to manage this trade-off. In addition, in the face of confirmed opposition to ART adherence, it may be ethically permissible to direct clients toward (perhaps temporary) nonuse of ART, if inconsistent use carries a significant risk of drug resistance and HIV transmission.<sup>23</sup>

C17.P29

## Disclosure of Diagnosis and Prognosis

C17.S8

Disclosure of diagnosis may be a difficult matter for individuals living with HIV/AIDS, in particular because of the severe stigma and discrimination attached to HIV-positive status in many communities. In this section, we discuss the ethical issues arising in 3 potentially overlapping contexts in which a practitioner might consider MI use: disclosure of transmission risk, disclosure to close personal relations, and disclosure at the end of life. In each case, the ethical question is, in our view, whether to use MI in the direction of disclosure or to use "decisional balance" MI to aid a client to take a decision about disclosure.

C17.P30

p. 163

So far as disclosure of transmission risk is concerned, for example, to sexual partners or to IV drug users through needle sharing, we take the view that it is invariably permissible to direct toward disclosure. It is difficult to see how knowing exposure of others to risk of HIV/AIDS infection could be morally justifiable, even taking into account the fact that disclosure may make the client worse off. And in many jurisdictions serious criminal law penalties attach to intentional or reckless HIV transmission. To approach disclosure of transmission risk as a decisional balance issue would give too much credence to nondisclosure of transmission risk being a legitimate choice.

C17.P31

In disclosure contexts in which transmission risk is absent, it may be less clear that directional MI is ethically appropriate. In respect of disclosure to close personal relations, it might be thought that disclosure could be beneficial to the client, because "[p]atients who have a support network function better than those who are isolated."<sup>24p6</sup> However, as the US Department of Health and Human Services<sup>24p6</sup> notes in its clinical guideline "patients fears of disclosure are often well founded." Close personal relations may not respond with support. Moreover, clients may fear stigma and discrimination in virtue of disclosure, particularly if their HIV status becomes widely known within their community. And we should not discount that in some populations, the risk of serious harms, such as personal violence and even death, can follow the disclosure of HIV-positive status. Of course, in other communities, HIV stigma is tricky to negotiate. By recognizing

C17.P32

that stigma counts as a reason against disclosure, the MI practitioner may be seen to reinforce or validate it. And arguably one way to combat HIV stigma is to increase the visibility of seropositive status within a community. Nevertheless, we think in general that decisional balance is the appropriate MI stance to take toward disclosure when transmission risk is absent.

A final specific disclosure context that may be relevant to individuals living with HIV/AIDS is end-of-life care. As Black and Helgason<sup>8</sup> note,

individuals may be ambivalent about disclosure of end-of-life diagnosis/prognosis to loved-ones. . . . On the one hand, an individual may wish to disclose so that loved-ones can prepare for bereavement, or in order to have support while dying, itself essential to good palliative care; on the other hand, an individual may wish not to disclose out of a desire to maintain hope of recovery, or to spare loved-ones trauma . . . or because of estrangement or other complicating interpersonal factors.

MI practitioners may consider using MI to facilitate disclosure of end-of-life diagnosis and prognosis by clients to mitigate the potential negative health effects of unprepared bereavement.<sup>8</sup> Black and Helgason<sup>8</sup> argue that whether disclosure is in an individual's best interests is likely to depend on her "wishes and preferences and her situation" and that it is difficult to gauge the risk that MI use would be manipulative in this setting. These factors point toward decisional balance MI being the ethically appropriate approach in respect of disclosure at the end of life.

p. 164 However, Black and Helgason<sup>8</sup> also argue that "insofar as non-directive MI may be more difficult to learn and [to] practise than directional MI . . . it may be ethically permissible, all things considered, to have disclosure as the target behavior of an MI-based [disclosure] intervention." The idea is that it may be unethical to gain ↪ client consent to a decisional balance MI intervention, yet fail to deliver it, in virtue of the "still higher level of clinical skilfulness [required compared to] the directive variety of counselling, because [in decisional balance MI] one must avoid inadvertently tipping the scales in one direction or the other."<sup>9</sup> Thus, while having disclosure as the target behavior for an MI intervention may not clearly be in a client's best interests and also potentially manipulate them into disclosure, it may be ethically preferable for practitioners to be open with clients that they favor disclosure when the alternative is infringing client autonomy by failing to provide a decisional balance MI intervention. This argument applies equally to disclosure to close personal relations outside of the end-of-life setting.

## Conclusion

In this chapter we described the relational and technical components of MI. We argued that these components fail to provide sufficient ethical action guidance and safeguards against manipulation, respectively. We subsequently considered the ethical permissibility of MI use in HIV care in respect of PrEP, medication adherence, and disclosure of HIV/AIDS diagnosis and prognosis. It is necessary to consider factors external to the method of MI to establish the ethical permissibility of its applications, including the expected benefit of the intervention to the client or others, the degree to which the intervention is likely to be respectful of autonomy, and social and institutional factors that may affect benefit or respect for autonomy.

C17.P33

C17.P34

C17.P35

C17.P36

C17.S9

C17.P37

## References

- C17.S10
1. Miller WR, Rollnick S. *Motivational Interviewing, Helping People Change*. New York, NY: Guilford Press; 2012. C17.P38  
[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)
  2. Hettema J, Steele J, Miller WR. Motivational interviewing. *Annu Rev Clin Psychol*. 2005;1:91–111. [10.1146/annurev.clinpsy.1.102803.143833](#) C17.P39  
[Google Scholar](#) [WorldCat](#) [Crossref](#) [PubMed](#) [Web of Science](#)
  3. Lundahl B, Moleni T, Burke BL, et al. Motivational interviewing in medical care settings: a systematic review and meta-analysis of randomized controlled trials. *Patient Educ Couns*. 2013;93(2):157–168. [10.1016/j.pec.2013.07.012](#) C17.P40  
[Google Scholar](#) [WorldCat](#) [Crossref](#) [Web of Science](#)
  4. Lundahl BW, Kunz C, Brownell C, Tollefson D, Burke BL. A meta-analysis of motivational interviewing: twenty-five years of empirical studies. *RSWP*. 2010;20(2):137–116. C17.P41  
[Google Scholar](#) [WorldCat](#)
  5. Rubak S, Sandbaek A, Lauritzen T, Christensen B. Motivational interviewing: a systematic review and meta-analysis. *Br J Gen Pract*. 2005;55(513):305–312. C17.P42  
[Google Scholar](#) [WorldCat](#) [PubMed](#) [Web of Science](#)
  6. Miller WR. Motivational interviewing: III. On the ethics of motivational intervention. *Behav Cogn Psychother*. 1994;22(02):111–123. [10.1017/S1352465800011905](#) C17.P43  
[Google Scholar](#) [WorldCat](#) [Crossref](#)
  7. Black I, Forsberg L. Would it be ethical to use motivational interviewing to increase family consent to deceased solid organ donation? *J Med Ethics*. 2014;40(1):63–68. [10.1136/medethics-2013-101451](#) C17.P44  
[Google Scholar](#) [WorldCat](#) [Crossref](#)
  8. Black I, Helgason AR. Using motivational interviewing to facilitate death talk in end-of-life care: an ethical analysis. *BMC Palliat Care*. 2018;17(1):51. [10.1186/s12904-018-0305-5](#) C17.P45  
[Google Scholar](#) [WorldCat](#) [Crossref](#) [Web of Science](#)
  9. Miller WR, Rollnick S. *Motivational Interviewing, Preparing People to Change Addictive Behavior*. New York, NY: Guilford Press; 2002. C17.P46  
[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)
  10. Miller WR, Rollnick S. Ten things that motivational interviewing is not. *Behav Cogn Psychother*. 2009;37(2):129–140. C17.P47  
[Google Scholar](#) [WorldCat](#) [PubMed](#) [Web of Science](#)
  11. Dworkin G. *The Theory and Practice of Autonomy*. Cambridge, England: Cambridge University Press; 1988. C17.P48  
doi:10.1017/CBO9780511625206 [10.1017/CBO9780511625206](#)  
[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#) [Crossref](#)
  12. Wilkinson TM. Nudging and manipulation. *Polit Stud*. 2013;61(2):341–355. [10.1111/j.1467-9248.2012.00974.x](#) C17.P49  
[Google Scholar](#) [WorldCat](#) [Crossref](#) [Web of Science](#)
  - p. 165 13. Choopanya K, Martin M, Suntharasamai P, et al. Antiretroviral prophylaxis for HIV infection in injecting drug users in Bangkok, Thailand (the Bangkok Tenofovir Study): a randomised, double-blind, placebo-controlled phase 3 trial. *Lancet*. 2013;381(9883):2083–2090. [10.1016/S0140-6736\(13\)61127-7](#) C17.P50  
[Google Scholar](#) [WorldCat](#) [Crossref](#) [Web of Science](#)
  14. Grant RM, Lama JR, Anderson PL, et al. Preexposure chemoprophylaxis for HIV prevention in men who have sex with men. *N Engl J Med*. 2010;363(27):2587–2599. doi:10.1056/NEJMoa1011205 [10.1056/NEJMoa1011205](#) C17.P51



15. Holt M, Lea T, Bear B, et al. Trends in attitudes to and the use of HIV pre-exposure prophylaxis by Australian gay and bisexual men, 2011–2017: implications for further implementation from a diffusion of innovations perspective. *AIDS Behav.* 2019;23(7):1939–1950. [10.1007/s10461-018-2368-y](#)

[Google Scholar](#)   [WorldCat](#)   [Crossref](#)   [Web of Science](#)

16. Calabrese SK, Underhill K. How stigma surrounding the use of HIV preexposure prophylaxis undermines prevention and pleasure: a call to destigmatize “Truvada whores.” *Am J Public Health.* 2015;105(10):1960–1964. [10.2105/AJPH.2015.302816](#)

[Google Scholar](#)   [WorldCat](#)   [Crossref](#)   [Web of Science](#)

17. John SA, Rendina HJ, Starks TJ, Grov C, Parsons JT. Decisional balance and contemplation ladder to support interventions for HIV pre-exposure prophylaxis uptake and persistence. *AIDS Patient Care STDS.* 2019;33(2):67–78. [10.1089/apc.2018.0136](#)

[Google Scholar](#)   [WorldCat](#)   [Crossref](#)   [Web of Science](#)

18. Holt M, Lea T, Mao L, et al. Community-level changes in condom use and uptake of HIV pre-exposure prophylaxis by gay and bisexual men in Melbourne and Sydney, Australia: results of repeated behavioural surveillance in 2013–17. *Lancet HIV.* 2018;5(8):e448–e456. [10.1016/S2352-3018\(18\)30072-9](#)

[Google Scholar](#)   [WorldCat](#)   [Crossref](#)

19. Holt M, Murphy DA. Individual versus community-level risk compensation following preexposure prophylaxis of HIV. *Am J Public Health.* 2017;107(10):1568–1571. [10.2105/AJPH.2017.303930](#)

[Google Scholar](#)   [WorldCat](#)   [Crossref](#)   [Web of Science](#)

20. Gardner EM, Hullsiek KH, Telzak EE, et al. Antiretroviral medication adherence and class- specific resistance in a large prospective clinical trial. *AIDS.* 2010;24(3):395–403. [10.1097/QAD.0b013e328335cd8a](#)

[Google Scholar](#)   [WorldCat](#)   [Crossref](#)   [PubMed](#)   [Web of Science](#)

21. Gardner EM, Sharma S, Peng G, et al. Differential adherence to combination antiretroviral therapy is associated with virological failure with resistance. *AIDS.* 2008;22(1):75–82. [10.1097/QAD.0b013e3282f366ff](#)

[Google Scholar](#)   [WorldCat](#)   [Crossref](#)   [PubMed](#)   [Web of Science](#)

22. Genberg BL, Wilson IB, Bangsberg DR, et al. Patterns of antiretroviral therapy adherence and impact on HIV RNA among patients in North America. *AIDS.* 2012;26(11):1415–1423 [10.1097/QAD.0b013e328354bed6](#)

[Google Scholar](#)   [WorldCat](#)   [Crossref](#)   [Web of Science](#)

23. Wertheim JO, Oster AM, Johnson JA, et al. Transmission fitness of drug-resistant HIV revealed in a surveillance system transmission network. *Virus Evol.* 2017;3(1):vex008. [10.1093/ve/vex008](#)

[Google Scholar](#)   [WorldCat](#)   [Crossref](#)   [Web of Science](#)

24. US Department of Health and Human Services. Guide for HIV/AIDS clinical care. C17.P61

p. 166 <https://hab.hrsa.gov/sites/default/files/hab/clinical-quality-management/2014guide.pdf>. Published April 2014. [WorldCat](#)