M&E for MCP Programmes

Guidance for National AIDS Commissions, HIV monitoring and evaluation officials, and HIV implementing organisations on the monitoring and evaluation of programmes addressing multiple and concurrent sexual partnerships (MCP) in Eastern and Southern Africa

July 2009
# Table of Contents

1. **Introduction** ............................................................................................................................. 1
2. **Definitions, Epidemiological Evidence, and Current Response** ............................................. 2
3. **Results that MCP Efforts Should Lead To** .................................................................................. 5
4. **Measuring Whether These Changes Are Taking Place** ............................................................. 7
   4.1. **Measuring MCP Inputs** ........................................................................................................ 8
   4.2. **Measuring MCP Outputs** .................................................................................................... 8
   4.3. **Measuring MCP Outcomes** ................................................................................................ 9
      4.3.1 Outcomes at the Individual and Couple Level .................................................................... 9
      4.3.2 Outcomes at the Community and Society Level ................................................................. 11
   4.4. **Measuring MCP Impacts** .................................................................................................... 12
5. **Measurement Tools** .................................................................................................................. 13
   5.1. **Sources of Bias as an Overall Challenge for Measuring MCP Prevalence** ......................... 13
   5.2. **National Household-Based Surveys** ................................................................................... 14
   5.3. **Smaller Population-Based Sample Surveys** ...................................................................... 15
   5.4. **Programme and Financial Monitoring Systems** ................................................................. 16
   5.5. **Operations Research, Economic Evaluations and Qualitative Research** ......................... 17
      5.5.1 Operations Research ........................................................................................................... 17
      5.5.2 Economic Evaluations of MCP Programmes ..................................................................... 17
      5.5.3 Qualitative Research ......................................................................................................... 17
6. **Incorporating MCP M&E into existing HIV monitoring and evaluation efforts** .......... 18
   6.1. **Incorporating MCP M&E into National HIV Strategic Plans and National HIV Monitoring and Evaluation Systems** .................................................................................. 18
   6.2. **Incorporating MCP M&E into the Monitoring and Evaluation of National HIV Prevention and MCP Strategies** ............................................................................................................. 19
   6.3. **Incorporating MCP M&E into the Monitoring and Evaluation of Individual Social and Behaviour Change Communication Programmes** ................................................................. 19
7. **Bibliography** ............................................................................................................................. 20

**Appendix 1:** Meetings about MCP and Additional Resources Relating to MCP ............. 25
**Appendix 2:** Supplementary Options for Measuring Concurrency: A Guide for MCP Researchers ......................................................................................................................... 28
**Appendix 3:** Guidelines and Tools for Qualitative Research ................................................. 34
**Appendix 4:** Recommendations on Measuring Concurrency from the UNAIDS Reference Group on Estimates, Modeling and Projections ............................................. 54
List of Tables and Figures

Table 1: Comparison of measures of concurrency and multiple partner prevalence in Lesotho ........................................28
Table 2: Comparison of measures of concurrency and multiple partner prevalence in Swaziland.................................29
Table 3: Measures of multiple partnerships .........................................................................................................................30
Table 4: Different rates of multiple partner behaviour reported in 2007 in Botswana .........................................................30

Figure 1: Illustration of some types of multiple and concurrent sexual partnerships .........................................................3
Figure 2. Results chain for MCP efforts, linked to the levels of monitoring and evaluation ..............................................7
Figure 3: The social acceptability of MCP measured in a DHS survey ..............................................................................12
Figure 4: 12 components of a functional HIV M&E system ..............................................................................................18
Figure 5: Algorithm used to classify interviewees according to sexual behaviour pattern .............................................31

Abbreviations and Acronyms

AIDS Acquired Immune Deficiency Syndrome
AIS AIDS Indicator Survey
ALFA Apparel Lesotho Alliance to Fight AIDS
ART Antiretroviral Therapy
CIET Centro de Investigación de Enfermedades Tropicales (Tropical Disease Research Centre)
CSP Concurrent Sexual Partnership
DHS Demographic and Health Survey
FGD Focus Group Discussion
HIV Human Immunodeficiency Virus
IPC Interpersonal communication
LDHS Lesotho Demographic and Health Survey
MCP Multiple and Concurrent (Sexual) Partnership
NDHS Namibia Demographic and Health Survey
NSP National Strategic Plan
PEPFAR (U.S.) President’s Emergency Plan for AIDS Relief
PSI Population Services International
RHS Reproductive Health Survey
SADC Southern African Development Community
STD Sexually Transmitted Disease
STI Sexually Transmitted Infection
TWG Technical Working Group
UNAIDS Joint United Nations Programme on HIV/AIDS
UNAIDS RST ESA UNAIDS Regional Support Team for Eastern and Southern Africa
WHO World Health Organization
ZDHS Zambia Demographic and Health Survey
Acknowledgements

This document was prepared by The World Bank and the United Nations Joint Programme on AIDS (UNAIDS). It was principally authored by Allison Herling Ruark (a consultant), with extensive inputs from Masauso Nzima (UNAIDS), Marelize Görgens (The World Bank), Peter Ghys (UNAIDS), Mary Mahy (UNAIDS), Susan Kasedde (UNAIDS), Helen Jackson (UNAIDS), and David Wilson (The World Bank). Useful inputs and suggestions for improvement were also received from the following colleagues (listed in alphabetical order by last name):

Miguel ARAGON (UNAIDS Mozambique)
Barbara DE ZALDUONDO (UNAIDS Geneva)
Boaz CHELUGET (UNAIDS Lesotho)
Michael GBOUN (UNAIDS Zambia)
Wayne GILL (UNAIDS Botswana)
Edward C. GREEN (Harvard AIDS Prevention Research Project)
Daniel HALPERIN (Harvard AIDS Prevention Research Project)
Stéphane HELLERINGER (University of Columbia, Mailman School of Public Health)
Toby KASPER (Population Services International Botswana)
Susan KIPPAX (University of Sydney Centre for AIDS Research)
Mari LUNTAMO (UNAIDS Mozambique)
Timothy MAH (USAID HIV Prevention Advisor)
Sara NELSON (University of Washington)
Andy SEALE (UNAIDS Regional Support Team for Eastern and Southern Africa)
Mark STIRLING (UNAIDS Regional Support Team for Eastern and Southern Africa)
1. Introduction

In countries where HIV is primarily spread heterosexually, having multiple sexual partners, having concurrent sexual partners, or having a partner with any of these sexual practices, puts one at risk of HIV infection. Population-based surveys and smaller sexual behaviour surveys have associated higher HIV prevalence with individuals who have multiple sexual partnerships (Gregson et al., 2002; Gournevec et al., 2007; Mishra and Bignami-Van Assche, 2009). Sexual network modeling and sociocentric surveys (surveys of sexual networks, not individuals) have suggested that if some of these multiple sexual partnerships are concurrent, the risk of HIV transmission is heightened. The reason for this, as suggested by modeling, is that having concurrent sexual partners (or having a partner who has concurrent sexual partnerships) creates an instantly large sexual network in a short period of time during which acute infection can spread rapidly (Kretzschmar and Morris, 1996; Gorbach et al., 2005; Helleringer et al., 2009).

Although data suggest that men and women in Africa report roughly similar, if not fewer, numbers of lifetime partners than do heterosexuals in many western countries (Halperin and Epstein, 2004), the proportion of sexually active adults who report multiple sexual partnerships in the past year is generally higher in Eastern and Southern Africa (ESA) than in other parts of the world (Mishra and Bignami-Van Assche, 2009). In general, people in the ESA region have not yet acknowledged the HIV transmission risk associated with concurrent partnerships. The general perception is that persons with many sexual partners are at risk of HIV transmission whereas those with smaller numbers of partners (such as two) are not (Shisana et al., 2005; Leclerc-Madlala, 2003; Halperin and Epstein, 2007). The practice of multiple and concurrent partnerships (MCP) is also seen to be a cultural phenomenon: society disapproves but tacitly accepts that such relationships frequently occur (NDHS, 2007; ZDHS, 2007; CIET, 2007). Amongst men such partnerships are often seen as a status symbol, and amongst women such partnerships can create access to wealth and resources (Parker et al., 2007; Gourvenec et al., 2007; Leclerc-Madlala, 2008).

Various landmark meetings have been held over the last three years to acknowledge the impact of this cultural practice on HIV transmission risk in the ESA region, and to find ways of addressing the behaviours and norms that underpin these practices (see Appendix 1 for more details). In January 2009, at one of these meetings, it was agreed to develop guidance on (i) MCP programming and (ii) how to monitor and evaluate MCP efforts in the ESA region.

Importance of monitoring and evaluating MCP efforts. The reasons for monitoring and evaluating MCP efforts are wide-ranging: to understand and quantify the prevalence and pervasiveness of structural factors impacting on MCP behaviour; to contribute towards an understanding of the epidemic drivers (Zaba et al., 2009); to establish baseline values and targets against which to track the outcomes of social and behaviour change communication programmes in National HIV Strategic Plans; to better understand how to implement successful MCP programmes; and to measure the extent of the political will to address MCP behaviour head-on. Obtaining data on the cost-effectiveness of MCP programming expenditures per infection averted will be important in advocacy for MCP programming.

Recent efforts have underlined challenges with monitoring and evaluating MCP efforts. During a joint UNAIDS and World Bank-supported effort by six governments in the region to improve HIV prevention responses in the ESA region, analysis efforts were limited by various MCP-related measurement challenges.

- First, there were challenges with measuring multiple partner prevalence. Proportions of persons who self-reported multiple sexual partnerships differed dramatically between studies conducted over the same period within the same country – see Appendix 2. The reported proportions were dependent on how the question was phrased, the method used to collect data (Gregson et al., 2002; Gournevec et al., 2007 – see Appendix 2), which age range was used, and which denominator was used. Mismatches between

---

1 These ‘know your epidemic, know your response’ studies were carried out between October 2007 and March 2009 in six countries of Eastern and Southern Africa (Kenya, Lesotho, Mozambique, Swaziland, Uganda and Zambia) to analyze national HIV epidemics, estimate the modes of transmission (to determine the sources of new infections), and the responses. This work aimed to contribute to improved alignment between the evidence on the epidemic, HIV prevention needs, evidence about which HIV prevention programmes work, and prevention responses and resource allocation (an approach summarized by ‘Know Your Epidemic, Know Your Evidence, Know Your Response’).
qualitative data (which suggested that multiple and concurrent partnerships is the norm in society – ‘everybody does it’) and quantitative data (which suggested that smaller percentages of men and women engage in such practices) were also evident (Kasper, 2009).

- **Second**, data about concurrency prevalence were, for the most part, not available. Where data about the prevalence of concurrency were available, such data were mostly collected through proxy (e.g. the percentage of persons who reported that they had multiple sexual partners over a short period of time), and it was not possible to determine the proportion of multiple partnerships that were concurrent.

- **Third**, all data about self-reported sexual behaviour, especially those data reported in face-to-face interviews, are subject to desirability bias (Slaymaker and Gorgens, forthcoming) with participants being more likely to report those behaviours that were perceived to be acceptable (Cleland et al., 2004). As almost all surveys rely on self-reported sexual behaviour data, and data about the behaviour of the partners of those surveyed were typically not available.

- **Fourth**, there is a lack of programme monitoring and financial monitoring data about the extent, nature, and focus of programmes addressing MCP. It was therefore difficult to assess whether the country’s behaviour change communication programmes directly addressed MCP, and the impact of these programmes.

- **Fifth**, despite the availability of quantitative data on number of partners and practices to reduce risk with non-regular partners, there was a lack of data about social norms that influence the public acceptability or tacit acceptance of MCP.

Clearly, there was a need to find standardised and more relevant ways to monitor and evaluate the results of programmes addressing MCP. To address the challenges relating to the measuring concurrency prevalence, the global HIV Monitoring and Evaluation Reference Group (MERG) requested the UNAIDS Reference Group on HIV Estimates, Modeling and Projections to produce a definition of concurrency and an indicator to measure concurrency. The latter Reference Group held a meeting in April 2009 and agreed on a definition of concurrency and on indicators with which to measure the prevalence of concurrency. In addition, the group suggested standard questions to include in large population-based household surveys relating to the agreed indicator, and suggested that complementary methods to collect data about concurrency be researched – see Appendix 4 for the final recommendations by the group.

**Purpose and structure of these guidelines.** These guidelines were developed to guide monitoring and evaluation professionals, national AIDS commissions, ministries of health, statistics offices, and researchers to better understand and plan for the monitoring and evaluation of MCP efforts as part of national M&E plans. The purpose of these guidelines is to offer practical guidance to national governments in the region as to how they can incorporate MCP monitoring and evaluation into existing HIV M&E systems, and to offer practical guidance to implementers of behaviour and social change communication programmes about how to monitor and evaluate them.

- **Section 2** of the guidance provides a short summary of what we know about MCP in the region, and how national HIV programme managers have addressed MCP in their behaviour change communication programmes and, less commonly, in programmes about communication for social change.

- **Section 3** addresses “Which changes do we want to see?” and describes changes in individual behaviour, in society and cultural norms, and in the HIV community’s priorities and practices that are necessary to reduce the risk of HIV transmission.

- **Section 4** answers the question “How can we measure the changes?” This section presents what and how to measure MCP programme inputs, outputs, outcomes, and impacts.

- **Section 5** summarises MCP measurement tools (such as surveys) and research methodologies, and discusses sources of bias that should be considered.

- **Section 6** offers guidance on incorporating MCP into the monitoring and evaluation of HIV prevention programmes and into national HIV monitoring and evaluation systems.

## 2. Definitions, Epidemiological Evidence, and Current Response

**Definitions of multiple sexual partnerships and concurrent sexual partnerships.** Different types of multiple and concurrent sexual partnerships exist (Figure 1), each with different levels of transmission risk. Transmission risk is influenced by variables such as the duration of overlap, the nature of the overlap pattern\(^2\), and coital frequency (Mah and Halperin, 2008). Other factors that influence the risk of HIV transmission include the stage of infection, condom use, young age of female partner, the nature of sexual contact (e.g. vaginal or anal sex), presence of STIs, clade of HIV, whether the male is circumcised, and so on, although none of these factors are unique to concurrent relationships.

---

\(^2\) If A represents sex with person A, and B represents sex with person B, then the pattern of overlap ABABABABABA, during the same period of time, carries higher epidemiological risk than AAAAAAAA BBBBBBBB AAAAAAAA – see Figure 1 on the next page.
Figure 1: Illustration of some types of multiple and concurrent sexual partnerships

Within the table below, a ‘sexual partnership’ is a single or many sexual acts with a person of either gender. It does not necessarily constitute a romantic relationship, and may include casual sexual partners.

<table>
<thead>
<tr>
<th></th>
<th>Jack</th>
<th>Kondwani</th>
<th>Thabo</th>
<th>Thuli</th>
<th>Mary</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Lombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>Lombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>Lombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>Lombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>Lombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>Lombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July</td>
<td>Lombe</td>
<td></td>
<td>Laura</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>Lombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>Lombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>Lombe</td>
<td>Mary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>November</td>
<td>Lombe</td>
<td></td>
<td>Laura</td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>Lombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Description of partnership
- **Blue sexual partnerships** are concurrent (sex with Mary in between having sex with Lombe)
- **Abstinence** (no sex)
- **Pink sexual partnerships** are multiple but not concurrent (no concurrency, because no overlap of partners)
- **Serial monogamy** (one partnership finishes before another starts)
- **Monogamy** (just one partner)

**Yellow sexual partnerships** are concurrent (sex with Halima in between having sex with Laura)
Increased epidemiological risk with multiple partnerships and concurrent partnerships:

Although both multiple and concurrent sexual partnerships create large sexual networks over time, concurrent sexual partnerships create instant and active networks. If HIV is introduced in the network, therefore, it spreads over a short period of time to others in the network (Morris and Kretzschmar, 2000; Helleringer and Kohler, 2007) - unless condoms are used consistently and correctly. While multiple but non-concurrent partnerships (serial monogamous partnerships - see Scenario 2 in Figure 1) also carry risk, serial partnerships generally contain HIV within the partnership for the duration of the relationship, slowing HIV transmission within the population. The level of risk in serial monogamous partnerships varies with the duration of the partnership. Multiple partnerships in quick succession – see Scenario 3 in Figure 1 – also carry significant risk because any single partnership is shorter than the duration of acute infection (4 weeks to 6 months, depending on the virus sub-type). Modeling suggests that concurrent partnerships—compared to serial partnerships—can increase the size of an HIV epidemic, the speed at which it infects a population, and its persistence within a population (Morris and Kretzschmar, 2000).

Whether multiple partnerships are serial or concurrent, partner reduction remains the key. In fact, the evidence for reduced HIV risk associated with reduced multiple partnerships is stronger and better established than is the evidence for reduced HIV transmission with reduced levels of concurrency (which has been limited by a lack of data and inconsistency of definitions and measurements) (Lagarde et al., 2001). Partner reduction has now been associated with declines in HIV prevalence in Uganda, Kenya, Zimbabwe, and in certain populations in Cote d’Ivoire, Ethiopia, Malawi, and Zambia (Shelton et al., 2004; Hallett et al., 2006; Green et al., 2009). Furthermore, Demographic and Health Survey (DHS) data consistently show that greater lifetime numbers of sexual partners are consistently associated with higher HIV prevalence. (The Swaziland DHS 2007, Tanzania HIV/AIDS and Malaria Indicator Survey 2007, and Zambia 2007 DHS are three of the latest examples that show these trends.)

Data from East and Southern Africa suggest that rates of concurrency may be particularly high in these regions. In the early 1990s the World Health Organization’s Global Programme on AIDS found that the percentage of men and women having two or more regular sexual partners (defined as someone with whom one has had sexual encounters for at least one year) was higher in sites and countries in sub-Saharan Africa than in other regions of the world (Caraël et al., 1995). More recent surveys have reported high rates of concurrent sexual partnerships including: 27% of married men in rural Kenya reported concurrency in past year (Voeten et al., 2004); 63% of young men in Kisumu, Kenya reported concurrency at any time in the past (Mattson et al., 2007); 18% of sexually active men and women in Botswana reported concurrency in past year (Meyerson et al., 2003); 40% of men in rural KwaZulu-Natal, South Africa reported concurrency in past 3 months (Colvin et al., 2004); 17% of individuals in spousal or regular partnerships reported concurrency in past year in Khayelitsha, South Africa (Mah, 2008a); 33% of black men 16-26 years in the Cape Metropolitan Area, South Africa reported concurrency during last sexual partnership (Mah, 2008b). In rural Swaziland, a small study of only 300 women reported that 70% of males and 62% of females reported multiple sexual partnerships in past 3 months, suggesting a high rate of concurrency (James and Matikanya, 2006). Wellings et al. (2006), in a global survey of sexual behaviour, note that “evidence is available that, although lifetime numbers of partners might be lower, concurrent relationships in men in some African countries might have been more common and of longer duration than in other regions.”

Case study: Low knowledge among South African young adults of risk posed by MCP behaviours

A recent national survey of South Africans between the ages of 20 and 30 found that knowledge of the risk posed by MCP behaviours was very low. According to the report, “Respondents were asked, without any prompting, which ways they knew of that HIV could be prevented. Nearly all mentioned ‘using condoms’ (males 94.3% and females 93.3%), and just under half the respondents mentioned abstaining from sex. Sticking to one partner and being faithful was however only mentioned by around a quarter – 20.2% of males and 24.5% of females – whilst reducing the number of sex partners was only mentioned by less than 5%.”

The report continues, “There was low ‘top-of-mind’ awareness of the importance of being faithful or reducing or limiting one’s number of sexual partners for HIV prevention. Even when prompted, only around half agreed that having fewer sexual partners was related to lower HIV risk, although most agreed that being faithful was important, and that a man having more than one girlfriend was not acceptable.” (Parker et al., 2007)

Efforts to reduce the prevalence and incidence of multiple partnerships and concurrent partnerships in the ESA region: The recent World Bank and UNAIDS-supported studies by the Governments of Kenya, Uganda, Mozambique, Lesotho, Swaziland and Zambia on ‘know your epidemic, know your response’ in the
region have shown that, in most countries: (a) individual behaviour and social norm change communication programmes are awarded the least amount of funding of all HIV prevention efforts; and (b) few behaviour change communication programmes directly address multiple partnerships and especially concurrent partnerships as a social norm and as a behaviour that needs to change in order to reduce new infections (Kenya NACC, 2009; Lesotho NAC, 2009; NERCHA, 2009; Mozambique CNCS, 2009; Uganda AIDS Commission, 2009; Zambia NAC, 2009).

At the Addressing MCP in Southern Africa meeting in Gaborone, Botswana in January 2009 (see Appendix 1), it was clear that the low-priority status of concurrency is changing and that many countries in the Southern Africa region have now embarked on or are planning programmes to reduce multiple and especially concurrent partnerships. As of June 2009, the coverage, outcomes and impacts of these programmes are not yet known as these programmes have just been established.

3. Results that MCP Efforts Should Lead To

The ultimate goal of all HIV prevention initiatives must be to reduce HIV incidence. To maximize prevention outcomes around MCP, the programmatic guidance on strategic MCP communications suggests that the following two outcomes be prioritized.

- **First Priority**: A reduction in multiple and concurrent partnerships through social and behavioural change and, where feasible, through addressing structural factors (such as lengthy separation of partners) that increase the likelihood of MCP.

- **Second Priority**: A reduction in the transmission of HIV within multiple and concurrent partnerships as well as within known discordant relationships including through consistent correct male or female condom use, male circumcision, HIV testing (although antibody tests during the acute infection period are generally negative) and treatment adherence.

To address these two priorities, more is needed than individual-focused education or communication programmes aimed at ‘convincing’ individuals to change their behaviours or practices. Individual approaches have shown impact, but to stem transmission on a larger scale for longer term maintenance of changed behaviour, community and structural level programmes are a critical complement (UNAIDS, 1999:35). In the search for better HIV prevention strategies and as the field of epidemiology has evolved, “there is now a growing consensus that these strategies must be complemented by more participatory approaches that work through and address broader underlying social and economic influences” (Gregson et al., 2004).

Social and cultural norms influence the acceptability of multiple and concurrent sexual partner practices. Concurrent relationships are often long-term and “trusted” relationships, a context in which condom use has consistently been found to be low (Hearst and Chen, 2004; Soul City Institute, 2008; Zambia Society for Family Health, 2008; Adetunji, 2000; Hendriksen et al., 2007; Sayles et al., 2006). Concurrent relationships often have a transactional component (exchange of gifts or money) which may influence the tendency towards concurrency, especially for girls and women (Luke, 2003; Leclerc-Madlala, 2003; Parker, 2007; Hunter, 2002; Soul City Institute, 2008). Therefore, reducing the number of sexual partners (the first priority listed above) also requires changing or reinforcing social and cultural norms: changing norms that could lead to higher risk behaviour, and reinforcing norms that could be protective against HIV transmission. As such, programmes to reinforce positive social norms and change cultural and social norms that create acceptance of MCP are needed.

Structural and socio-economic factors could also create an enabling environment in which MCP practices could be sustained. Factors such as late marriage, low marriage rates, seasonal labor migration, and non co-residence of spouses could influence the likelihood of MCP practices being initiated or maintained. These factors may be influenced by structural and socio-economic factors such as lack of employment opportunities (leading to labor migration), and lack of housing for families at places of employment. Lack of income and a perceived inability to afford marriage (bride wealth) may cause young adults to delay or forego marriage and even to develop alternative expressions of “maturity” and independence (e.g. multiple sexual partnerships). Marriage rates are much lower in southern Africa and it is more common for spouses not to co-reside than elsewhere in the continent. One researcher has suggested that low marriage rates may be contributing to higher HIV prevalence in southern Africa, noting that countries with the largest “gap” between first sex and first

---

3 Add reference when finalized

4 We should remember that “in real life, people do not engage in “sexual behaviours” rather they enact sexual practices to communicate their love for one another, in response to sexual desire, to build intimacy and trust, and so on: they ‘make love’ or ‘have a one-night-stand’ or ‘lose their virginity’” (Kippax, 2008).
marriage are also the countries with the highest HIV prevalence (Bongaarts, 2007). Whereas it would be outside the scope of MCP programmes to address such factors as age at marriage, it is important to acknowledge these factors and measure them so as to design the best possible interventions.

With the understanding that sexual behaviour must be understood as sexual practices and that changes are needed beyond the individual level, efforts to address MCP need to achieve four main results:

**Result 1.** More MCP programmes are needed, as are changes in the HIV community’s priorities, strategies, and knowledge about MCP programming. Explicit policies and stated priorities must be adjusted to prioritize MCP programmes, and where needed, funding allocations must be changed to reflect this priority. HIV experts must themselves be well-informed about issues surrounding MCP, and the prevention community’s messages must be harmonised and mutually-reinforcing. Where needed, training in MCP programming for HIV implementers should be promoted.

**Result 2.** Changing sexual practices in the context of MCP means that the sexual networks need to be broken, and requires changes in individual behaviours towards fewer partners and fewer concurrent partners, or male circumcision and correct and consistent condom use as harm reduction strategies if the practice continues.

**Result 3.** Individual behaviour change may not easily be brought about without decreasing the acceptability of MCP in communities and families. Therefore, changes in society and cultural norms are needed, which may include increased risk awareness of MCP, of sexual partnerships motivated by material gain, and of inter-generational sex and “secret” partners. Positive cultural and societal changes could also include better support for families in which one or more spouses migrates for work, and changes in societies’, communities’, families’ and couples’ coping mechanisms during such work-related migration. Positive cultural norms should be strengthened, including partner faithfulness and strengthening of the family unit.

**Result 4.** More explicit changes in society may also be necessary, such as advocacy and legislative changes (for example, enforcing laws to protect girls and young women and prosecute sex with minors).

**Case study: Decline of MCP behaviours and HIV in Uganda**

Uganda is well-known for being the first and the greatest HIV prevention success in Africa. Significant declines in the number of men and women reporting multiple and concurrent sexual partnerships, as well as increases in abstinence among youth and condom use among all ages, slowed the rate of new infections. (Shelton et al., 2004; Green et al., 2006). The epidemic appears to have peaked in the early 1990s, with antenatal prevalence as high as 25 to 30 percent in the most affected urban areas, but prevalence has since stabilized at approximately 8 percent for women and 5 percent for men (UHSBS, 2004).

These behaviour changes occurred in the context of a coordinated national effort to openly discuss the threat of AIDS and mobilize people to change their behaviour. President Museveni provided strong political leadership, and illustrated the danger of AIDS with stories that drew on African folk tales or Ugandans’ recent experiences (such as emphasizing that AIDS was a war which Ugandans had a patriotic duty to fight) (Green et al., 2006; Kirby, 2008). “Zero grazing” was a widely-used and culturally-understood message to reduce number of sexual partners and/or be faithful to one’s spouse (or spouses, in the case of polygamy).

Uganda’s highly successful response to AIDS was characterized not by technologically sophisticated donor-driven approaches, but rather by low-tech, inexpensive, community-driven responses which relied on simple messages and interpersonal communication channels and networks (Wilson, 2004; Green et al., 2006). In fact, according to DHS surveys in the mid-1990s, Ugandans were much more likely than residents of other African countries to cite friends, relatives, or community meetings as sources of AIDS information (Green et al., 2006).

Uganda’s clear call to change sexual behavior (more recently referred to as the ABC approach for Abstain, Be faithful, use a Condom) was accompanied by a number of other important social, cultural, and legal changes. These included “practical measures to increase women’s participation in higher education and political life and to protect women from gender violence and sexual coercion” (Wilson, 2004). Sex with a minor became a punishable offense, and women were assigned one third of seats in Parliament (Green et al., 2006; Kirby, 2008).
4. Measuring Whether These Changes Are Taking Place

Ultimately, the changes described above should lead to fewer new HIV infections, and therefore a positive change (a decrease) in the spread of HIV in the population. These changes form a logical results chain, as illustrated in Figure 2. Monitoring and evaluation of MCP efforts should focus on measuring these changes. This requires measuring inputs (more funding and skilled resources for MCP programmes), outputs (coverage of target audiences with MCP programmes), outcomes (fewer multiple and concurrent sexual partnerships, changed social norms, changed relationship values, changed ‘rules and regulations’), and impacts (fewer new infections) – as illustrated in Figure 2.

Figure 2. Results chain for MCP efforts, linked to the levels of monitoring and evaluation

```
INPUTS
More comprehensive MCP programmes, skills to deliver and funding for them

OUTPUTS
All target audiences reached with comprehensive MCP programmes

OUTCOMES AT SOCIETY AND COMMUNITY LEVEL
Changed social norms and society ‘rules and regulations’ about relationships
Increased knowledge about the risks of MCP
Strengthened community, family and couple relationships

OUTCOMES AT INDIVIDUAL AND COUPLE LEVEL
Fewer MCPs – fewer multiple partners and fewer concurrent partners
More harm reduction during MCP

IMPACTS
Fewer new HIV infections
```

The sections below contain a comprehensive list of indicators to measure changes at each of these four levels. It is not intended that all indicators be included in a national M&E system. A national HIV M&E system might select only the most critical indicators, whereas MCP programmes might choose to use other indicators. MCP programmes should treat these indicators as a list of possible indicators that may be useful for M&E of specific MCP programmes, but not all indicators will be or should be used for all programmes. It is important that a “core” of critical indicators be collected by national programmes to allow tracking of MCP programmes at a national level. The most critical “core” indicators for national programmes have been placed in bold at the top of each list.
4.1. Measuring MCP Inputs

**WHAT TO MEASURE**

To address MCP, it is first necessary to measure the extent to which funding and resources are available for implementing comprehensive MCP programmes. **Inputs** to be measured include:

- **1.1 Behaviour and Social Change Programme Spending**: Percentage of HIV prevention funding spent on behaviour and social change communication programmes.
- **1.2 HIV Prevention Spending**: Percentage of HIV funding spent on prevention (all prevention efforts, as opposed to treatment, care, impact mitigation and response management).
- **1.3 MCP Policies (where applicable and needed) and Strategies**: Number of policies and/or strategies relating to HIV that define MCP as an epidemic driver and that includes as a key focus area for the HIV prevention response in the country.
- **1.4 MCP Inclusion in other Prevention Guidelines**: Percentage of existing HIV prevention guidelines (VCT, PMTCT, STI, life skills, workplace programmes) that have incorporated MCP.
- **1.5 HIV Implementers Trained in MCP**: Percentage (or number, if denominator not available) of HIV implementers trained to implement programmes addressing MCP.
- **1.6 MCP Research**: Number of research activities that have aspects of MCP programming as a research question.

**HOW TO MEASURE**

**Inputs** can be measured in different ways. *Funding and expenditure data* can be measured through the National AIDS Spending Assessments or National Health Accounts. *Policy-related data* can be measured through the national composite policy index (NCPI) questionnaire of the UNGASS reporting process or through a desk review of all existing strategies and policies in the country. Training data can be accessed through countries’ routine programme monitoring systems, and research efforts can be assessed through a national research inventory. These data sources should already form part of a country’s national HIV monitoring and evaluation system and there should therefore be no need to create new data sources specifically to measure these indicators, although some data sources (NASA and NCPI) may need to be adapted.

4.2. Measuring MCP Outputs

**WHAT TO MEASURE**

**Outputs** measure what implementers achieve by spending resources on comprehensive MCP programmes, i.e. the direct, ‘countable’ and immediate effects of programmes that address MCP. They include:

---

5 Policies for MCP should only be developed if there is a need to do so – otherwise, a

6 The denominator for this indicator would be the number of HIV implementers in the country, which requires an inventory of implementers. Many countries have developed such inventories.

7 A specific category for MCP programmes needs to be included in the NASA for it to be used for monitoring purposes.

8 A specific category for MCP policies and strategies needs to be included in the NCPI for it to be used for monitoring purposes.
2.1 **Communities** with MCP Programmes: Number and percentage of communities in which comprehensive MCP programmes (including behaviour and social norm change programmes; family unit strengthening programmes, relationship skills for couples, and communication for social change programmes) have been implemented.

2.2 **Community Leaders** Trained in MCP: Number and percentage of community leaders trained in MCP.

2.3 **CBOs** (including FBOs) with MCP Programmes: Percentage of community-based organisations (including faith-based organizations) with programmes that address MCP behaviour for couples in relationships, and for persons not in steady relationships.

2.4 **MCP Mass Media Spots**: Number of mass media spots that address MCP.

2.5 **People Reached with MCP Mass Media**: Percentage of people reached with mass media activities focusing on MCP.

2.6 **People Reached with Interpersonal MCP Communications**: Number and percentage of individuals and couples who have been reached, through interpersonal communications, with behaviour change communication programmes and social change communication programmes that focus on MCP.

**HOW TO MEASURE**

Outputs can be measured through national and implementer HIV programme monitoring systems, which should track not only the number of people reached with programmes, but also the nature of the messaging in the programmes (for example, what behaviours they target, which audience they target, etc.). Coverage of MCP service provision can be measured with programme monitoring data, population-based surveys, or other affordable and easily-implemented approaches such as Lot Quality Assurance Sampling (LQAS). Mass media exposure can be measured, for example, through target audience surveys. Section 5 contains more information about each of these measurement tools.

4.3. **Measuring MCP Outcomes**

**MCP outcomes** measure the attitudes, perceptions, behaviour, practices and norms that individuals, couples, communities and society modify as a result of MCP programme delivery and other transformative factors (such as an economic crisis, which is outside the control of any individual project). Therefore, MCP outcomes should be measured at the level of individual, couple, community, and society. When analysing data about MCP outcomes, it is important to remember that there is a ‘place’ dimension to MCP behaviours, which may be confounding. Persons who live in an isolated area are, for example, more likely to have sex with each other due to the lack of partner diversity. Data about MCP practices, as described below, therefore needs to take this dimension into account by collecting appropriate demographic data and disaggregate data according to key demographic parameters.

4.3.1 **Outcomes at the Individual and Couple Level**

**WHAT TO MEASURE**

Changes in individual knowledge and risk perception:

3.1 **Identification of Increased Risk of MCP**: Percentage of men and women aged 15 - 49 who can correctly identify the increased risks associated with MCP.

3.2 **Identification of Behaviors that Would Minimize Risk of MCP**: Percentage of men and women aged 15 - 49 who can correctly identify the behavioural changes that would minimise risk associated with MCP.

3.3 **Intention to Have Multiple Partners**: Percentage of men and women aged 15 - 49 who intend to have multiple partners in the next 12 months.

---

9 Each country should define what is meant, in their country context, by ‘community’. It could be cities, towns, villages, rural administrative districts, magisterial districts, etc.

10 Each country has to define a list of types of community leaders (this definition of community leaders in each country is dependent on each country’s definition of ‘community’. Community leaders could include, for example, teachers, members of parliament, and members of the local parent-teacher associations.

11 For this indicator, each country needs to define those mass media programmes that focus on MCP, and include reference to these programmes in their national population based surveys. To measure this indicator, questions about these programmes need to be included in national surveys. Questions might be asked as follows ? (Khomanani is a mass media programme in South Africa): Have you ever seen the Khomanani programme on TV? Do you know about the Khomanani programme? Have you ever heard about the Khomanani programme on radio?
Changes in individual behaviour:

3.4 **Point Prevalence of Concurrency**: Percentage of men and women aged 15 - 49 with more than one ongoing sexual partnership at the point in time six months before the interview.

3.5 **Prevalence of Multiple Partnerships**: Percentage of men and women aged 15 - 49 who have had sexual intercourse with more than one partner in the last 12 months (see detailed description of indicator 16 in the 2010 UNGASS reporting guidelines).

3.6 **Cumulative Prevalence of Concurrency**: Percentage of men and women aged 15 - 49 who had concurrent partnerships in the last 12 months.

It should be noted that epidemiological modeling (Morris and Kretzschmar, 2000, 1995; Helleringer and Kohler, 2007; Mah and Halperin, 2008) suggests that even a relatively small reduction in concurrency prevalence and in multiple partnerships would break up extensive sexual networks and could significantly slow the spread of HIV in the sexually active population. Therefore even small changes in this indicator are significant.

3.7 **Percentage of Multiple Partnerships that Are Concurrent**: Percentage of multiple partnerships that are concurrent (cumulative prevalence of concurrency divided by the prevalence of multiple partnerships).

If indicators 3.4 and 3.6 were both calculated with the same denominator, then indicator 3.7 is simply the ratio of indicator 3.6 to 3.4.

3.8 **Condom Use at Last Sex with Non-Marital Partner**: Percentage of men and women aged 15 - 49 who had more than one partner in the past 12 months who used a condom during their last sexual intercourse (see description of indicator 17 in the UNGASS 2010 reporting guidelines for more details).

**HOW TO MEASURE**

Changes at the individual and couple levels are measured using behavioural surveillance surveys that sample a given population in such a way that generalisations can be made about the population from which the sample was drawn. Sections 5.1 to 5.3 explain in detail how these behavioural surveillance surveys work, their limitations, and alternative options. Special consideration should be given to the measurement of multiple sexual partnerships and concurrent sexual partnerships, which is therefore discussed here in more detail.

**A: Measuring the Prevalence of Multiple Sexual Partnerships**

Multiple sexual partnerships are typically measured as the number of sexual partners in past year, or the number of high-risk (typically non-marital, non-cohabiting) partners in past year. Data are commonly given as the percentage of respondents who had 2 or more partners in past year, or 1 or more high-risk or non-regular partner in past year, of the total number of respondents. One then observes how the indicator value changes in order to determine trends over time. When determining trends, it is important that surveys with similar sampling designs be used, and that the total populations being surveyed (the denominators) are the same.

**B: Measurement of the Point Prevalence and Cumulative Prevalence of Concurrent Sexual Partnerships**

Measuring concurrent sexual partnerships has proven to be more complex than measuring multiple sexual partnerships. A number of methods have been used, each with advantages and disadvantages. In the past, many surveys have used multiple partnerships over a short period of time as a proxy measure for concurrency. The UNAIDS Reference Group on Estimates, Modeling and Projections (2009) now recommends measuring concurrency primarily using a measure called *point prevalence* (the percentage of surveyed adults aged 15 - 49 with more than one ongoing sexual partnership at the point in time six months before the interview). See Appendix 4 for the Reference Group’s recommendations. To measure point prevalence in household surveys at a point in the past (exactly six months ago was recommended by the Reference Group), the following questions need to be asked about the last three individuals with whom the respondent has had sexual intercourse within the previous 12 months:

- **Q1**: When was the last time you had sexual intercourse with this person? (answer in days/weeks/months ago—[also years for the most recent partner])
- **Q2**: When was the first time you had sexual intercourse with this person? (answer in weeks/months/years ago)
If the survey would like to measure point prevalence of concurrency at the time of the survey, then a third question needs to be asked:

- Q3: Are you still having sex with this person?

The cumulative prevalence of concurrency, the proportion of the adult population who have had any overlapping relationships in the past year, can also be measured, but does not distinguish as clearly as does the point prevalence between the populations having multiple sustained overlapping partnerships, compared to having many partners (UNAIDS Reference Group on Estimates, Modelling, and Projections, 2009).

In summary:

In order to measure outcomes at the individual and couple level, one would use behavioural surveillance surveys to measure:

- changes in individual knowledge
- changes in individual behaviour (including but not limited to multiple and concurrent partnerships)

Although various methods and indicators have been used to measure multiple and concurrent partnerships (see Appendix 2 for a discussion of supplementary methods of measuring concurrency), a standard indicator using the date method plus a direct question approach – with standard indicators – is now recommended by the UNAIDS Reference Group on Estimates, Modeling and Projections (see Appendix 4). The standard questions can be used to measure both point prevalence and cumulative prevalence of concurrency, and also to measure the prevalence of multiple partners.

4.3.2 Outcomes at the Community and Society Level

WHAT TO MEASURE

3.9 **Societal Attitudes about MCP Practices by Men**: Percentage of men and women aged 15 - 49 who think that men should only have sex with their wives or cohabitating partner.

3.10 **Societal Attitudes about MCP Practices by Women**: Percentage of men and women aged 15 - 49 who think that women should only have sex with their husbands or cohabitating partner.

3.11 **Societal Attitudes about MCP Practices by Young People**: Percentage of men and women who are not married and are having sex should have sex with only one partner.

3.12 **Societal Acknowledgement of the Practice of MCP**: Percentage of men and women aged 15 - 49 who believe that most married or cohabiting men and women in their community have sex only with their partners.

3.13 **Women Justified in Insisting on Condom Use**: Percentage of men and women aged 15 - 49 who believe that a woman is justified in insisting on condom use if she believes her partner has another sexual partner.

3.14 **Cabinet Members Speaking about HIV**: Percentage of members of cabinet who have addressed the risks of MCP in public speeches of national interest.

3.15 **Non Co-Resident Spouse**: Percentage of men and women aged 15 - 49 who have a spouse/partner who works or stays away from home and is not co-resident for more than 6 months of the year.

3.16 **Marriage among Young People**: Percentage of young men and women aged 15 - 24 who are married.

HOW TO MEASURE

Social norms are difficult to measure directly because they are implicit and often taken for granted. They are central to HIV prevention because norms must change in order for behaviour change to occur and be sustained. Community and social norms regulate behaviour (or practice). They tell us ‘how’ to do things, or ‘the appropriate way’ to do things, such as how to behave sexually when one is ‘in love’ or how to behave sexually as a husband or wife. Social norms will differ from country to country, region to region in a country, community to community, even from couple to couple, and will change over time. Norms are themselves governed by understanding of gender and sex.

---

12 This section was contributed by Prof Susan Kippax of the University of New South Wales’s Centre for Social HIV Research
Social norms can also be measured directly, by asking people what “most people do,” such as in Indicator 3.13. Community and social norms can also be measured indirectly, by measuring changes in individual behaviour as a proxy for sexual norm change (i.e. using Indicators 3.4 to 3.9 as proxies for changes in social norms). The hypothesis is that individual sexual behaviour changes would only have occurred if social norms had changed. Qualitative research can also be used to explore social norms, and will be discussed in the next section.

The following figure illustrates both that it is possible to measure social norms, and also that there is often a difference between what people say they or others should do (ideal behaviour) and what they themselves do, or perceive others to actually do (actual behaviour). Although the great majority of Namibian men and women express that married men and women should only have sex with their spouses, considerably fewer men and women express that “most” married men or women they know have sex only with their spouses. This illustrates that although social norms do strongly influence behaviour, actual behaviour may not line up precisely with social norms of ideal behaviour.

Figure 3: The social acceptability of MCP measured in a DHS survey

In summary:
- In order to measure outcomes at the community and society level using the direct method, one would ask individuals about the norms for sexual behaviour in their community (and track how these change over time).
- Using the indirect method, one would ask individuals about their own sexual behaviour (and track how these change over time, using changes in individual behaviour as a proxy for sexual norm change).
- Either direct or indirect measures can be collected through surveys, through qualitative research, or through other analyses.

4.4. Measuring MCP Impacts

Impacts are the true endpoint of behaviour change efforts: did programmes and resulting behaviour change result in decreases in new HIV infections?

**WHAT TO MEASURE**

4.1 **HIV Incidence:** Number of new HIV infections over the last 12 months (HIV incidence rate).

**HOW TO MEASURE**

Changes in the rate of new HIV infections over a given period of time (HIV incidence) can be measured indirectly using HIV prevalence among young people as a proxy measure, through modeling estimates of incidence, or through laboratory-based methods that involve testing blood samples to determine whether or not infections are recent. HIV incidence can be measured directly by conducting cohort studies in surveillance sites to directly observe incidence (new infections in the population). Such incidence measures are not likely to be collected just for an MCP intervention, and should be linked into the broader national plans of conducting surveillance or calculating estimates. Go to [insert link to new UNAIDS RST ESA document about incidence options] to find out more information about how HIV incidence can be measured and estimated.
5. Measurement Tools

To measure the various changes defined in Section 4, different measurement tools are needed. This section summarises what is known about MCP measurement tools (household surveys, other survey techniques, programme monitoring, qualitative research, operations research, economic and outcome evaluations), gaps in the current body of knowledge, and how these may be addressed. It should be noted that not every measurement tool discussed in this section is appropriate for every setting. These methodologies should therefore be viewed as a “toolkit” of possible methodologies and tools, which should be used selectively depending on the type of monitoring and evaluation being done and the type of information needed. For instance, a national-level MCP programme may require national programme and financial monitoring systems and may measure impact by using national household-based surveys. A smaller MCP programme may obtain data about impact of the programme using a combination of population-based sample surveys, qualitative research, and operations research, or by using LQAS.

As this “toolkit” of MCP measurement tools is expanded, new tools and lessons learned will be listed at

NEW MCP WEBSITE URL

If you have “lessons learned” in using these measurement tools that may be useful to others monitoring and evaluating MCP programmes, please share them on the website.

5.1. Sources of Bias as an Overall Challenge for Measuring MCP Prevalence

At a population level, multiple partner prevalence and concurrency prevalence can only be determined through surveys. Biases can skew survey results, and therefore need to be planned for (and if possible, steps taken to minimise them), and accounted for in the analysis. According to Cleland et al. (2004), the methodological challenges posed by biases are particularly great in low and middle income countries, since the range of possible data collection modes is narrowed by variable literacy levels, and problems of response validity may be more serious because of biases stemming from restrictive codes of permissible sexual behaviour (as Figure 3 illustrates).

Non-response bias is created when persons refuse to respond. These non-respondents may differ from the rest of the population in important ways (such as having riskier sexual behaviours or higher HIV prevalence), meaning that their non-inclusion could bias results if those differences are substantial. Non-response bias can be minimised by using survey techniques that will make participants feel safe and open to answer questions, and not pressured.

For example, young women may refuse to answer questions on sexual behaviour if they feel such behaviour is undesirable or could be discovered by their families.

Recall bias can occur when respondents may not accurately recall and report, for example, their sexual histories. Recall bias seems to increase with longer time frames for recall. Brewer et al. (2006) showed that two partners were correct in almost 40% of cases for reporting the exact date of first and last sexual intercourse, and suggested that using dates of first and last sex to determine cumulative concurrency had approximately an 80% predictive value. Nelson et al. (2007) encountered significant challenges in measuring concurrency using a sexual history approach. Significant discrepancies were found, such as with persons who said they had a concurrent partnership when asked a direct question, and then provided non-overlapping dates for those two sexual partnerships. The recall bias seemed to increase the longer the time period of recall required for the study, and became particularly weak after more than 3 months of recall. It has been suggested that recall bias can be minimised by shortening the recall period, e.g. to no longer than 4 to 6 weeks. However, recent research indicates that recent relationships may be the least reliably reported during population-based surveys (Helleringer et al., 2009).

For example, asking about sexual behaviour in the past year or another time period that is beyond the respondent’s ability to accurately recall – or even about recent sexual experiences with partners that may be painful to recall – may lead to false reporting.

Sampling bias occurs when the study population is not representative of the population as a whole. Certain sub-populations such as young men, migrant workers or those without a permanent home, or other vulnerable or stigmatized members of society may be more difficult to locate and include in a study population. In order to
minimise sampling bias, the possibility of longitudinal studies and recruiting respondents in venues away from home should be explored. If this approach is used, the researchers should then pay great attention to the probability of inclusion of various migrant communities in the sample, i.e. weigh the communities according to distance or size if they should to conveniently work in the closest or most popular migrant destinations.

For example, conducting a survey in a community in which a large proportion of men (or women) are working far away and are not present will not provide an accurate assessment of that community, and efforts should be made to trace those migrant persons from the community as well.

Social desirability bias refers to inaccurate reporting by respondents due to the perceived social desirability of certain responses or stigma associated with other responses (such as reporting multiple sexual partners). Mah and Halperin (2008) argue that given the intensely personal nature of questions about sexual behaviour, certain types of household surveys which do not guarantee privacy and/or a presumed sense of confidentiality are not the ideal methodology for collecting such data. For instance, a study in Zimbabwe found that young unmarried women reported 2 to 3 times more sexual partners using an interview method that afforded greater confidentiality compared with face-to-face interviews (Gregson et al., 2002). Nnko et al. (2004) found that women in rural Tanzania tended to under-report and men tended to over-report sexual behaviour, whereas Helleringer et al. (2009) found, in a survey of a sexual networks on Likoma Island, Malawi, that both men and women tended to both over- and under-report – and that in the surveyed sexual network less than 30% of men and women accurately reported each other as partners.

For example, men and women may not report non-marital sexual partnerships if they feel such behaviour is undesirable or might be discovered by their spouses, whereas young men may over-report their number of sexual partners, if such partners are seen as a status symbol in society (Zaba et al., 2005).

**Case study: Using different methodologies to measure concurrency (PSI Botswana)**

A study performed by PSI Botswana (Gourvenec et al., 2007) found that asking about MCP in different ways yielded significantly different estimates of prevalence of MCP (see also Table 4, p. 33). Respondents were asked about MCP behaviours using the following 3 questions:

Method 1. How many different partners did you have sex with during the last 12, 6 and 1 month(s)?
Method 2. How many different people did you have sex with during each of the last 6 months?
Method 3. When did you first have sex with your last (up to) 3 sexual partners, and are you still having sex with that partner?

The three methods yielded statistically significant differences in reported prevalence of MCP behaviours. The differences were even more pronounced by sex: Methods 1 and 2 produced statistically significant differences between men and women (with approximately twice as many men as women reporting MCP behaviours), while Method 3 produced identical results for men and women (21% of men and 20% of women reported concurrency using this method).

The researchers hypothesized that the difference in responses between sexes could be because many women considered a sexual relationship ongoing even if they had not recently had sex with that partner, or because the third question was less direct and felt less intrusive to women, and therefore elicited more truthful responses.

This research highlights the complexity of measuring concurrency. The research does not reveal which approach is most reliable, and so suggests that there is benefit to asking about concurrency in multiple ways, when practicable.

The full KAPB survey used by PSI Botswana, which included questions on exposure to an MCP mass media campaign, is available at [www.unaidsrsta.org](http://www.unaidsrsta.org) and [www.worldbank.org/gamet](http://www.worldbank.org/gamet).

### 5.2. National Household-Based Surveys

Large, population-based household surveys are conducted approximately every five years in most developing countries, including most countries in the East and Southern Africa region. Currently, these types of surveys are the most frequently-used tool for measuring trends in sexual behaviour. These surveys provide values that can be generalisable to the national population from which the sample was drawn. Some of these surveys also
collect biological samples from which to determine HIV status. These data can be analysed with sexual
behaviour data and other individual-level information to understand associations between HIV status and other
characteristics and behaviours.

The Demographic and Health Surveys (DHS) are the most common national surveys conducted in the region.
These are typically conducted every 4 or 5 years. More recently, AIDS Indicator Surveys (AIS), smaller versions
of the DHS are conducted between the DHS rounds to produce more frequent data specific to HIV. Both the
DHS and AIS are supported by the US Government and other partners and usually include technical
assistance from Macro International, Inc. In addition, there are some locally supported surveys such as the
Botswana AIDS Impact Survey and the South African National HIV Prevalence, HIV Incidence, Behaviour and
Communication Survey (supported by the Nelson Mandela Foundation with technical assistance from Human
Science Research Council).

At the April 2009 meeting of the UNAIDS Reference Group on Estimates, Modelling and Projections,
recommendations were made for for collecting data on concurrency using population-based household
surveys. Some modifications were required to existing standard questionnaires used by the Demographic and
Health Surveys and the Multiple Indicator Cluster Surveys in order to generate the needed data to measure
concurrency and to analyse trends over time. See Appendix 4 for the recommendations for population-based
household surveys from that meeting.

One limitation to such household-based surveys is that a lack of privacy and understanding of cultural
dynamics may compromise accurate reporting, especially for sensitive topics such as sexual behaviour. For
example, women typically report very low rates of multiple partnerships in DHS, while as already noted other
surveys using different methodologies have reported much higher rates of multiple partnerships among
women. There is therefore the question of how accurate self-reported data in surveys such as DHS may be
considered to be. One possible solution may be to do surveys on a household frame but out of the household
and village context, such as through interviewing people at clinics, community health centers, or other
locations other than in the household.

Another strategy is to use simple tools such as probing or recall cues, which have been shown useful in
improving data quality in US settings (Brewer et al., 2005). While the use of probing is occasionally
recommended in training manuals for DHS interviewers, it is rarely used in practice. Typically questions on
sexual behaviours are only asked after long series of questions dealing with household assets, family planning,
maternal and child health, at a time when interviewers have an incentive to keep probing to a minimum in order
to fulfill their daily quotas of interviews. Removing this incentive could help to increase the accuracy of data
collected.

Confidentiality is essential, but it is by no means the only ingredient needed to make household-based surveys
successful. One needs to understand how local communities function and react to strangers. In most sub-
Saharan African populations, there is a strong tradition of great hospitality towards strangers, and social
interactions are accompanied by long exchanges of introductions and explanations. These exchanges are
absent from most surveys, or kept to a minimum. Furthermore, community-based research often does not
include community sensitization. Research participants are only given a vague idea of the goals of the
research, and the rest of the local population is kept in the dark as to why strangers are asking all these
questions about sex. Feedback on study results is rare at the local level. Instead, it is suggested that survey
research on sexual behaviours be seen as the first, critical, step in fostering local ownership of HIV prevention
activities.

5.3. Smaller Population-Based Sample Surveys

Different samples from DHS: Sexual behavioural surveillance surveys have also focused on specific sub-
populations (usually involving smaller sample sizes) for the purposes of evaluating programme impact and
guiding decision-making. Examples in East and Southern Africa include surveys performed by Population
Services International and CIET. Although these surveys are subject to the same biases as noted above, they
can typically be repeated more frequently than national household surveys (due to their smaller sample sizes),
making them more flexible.

One challenge to using smaller population-based sample surveys is ensuring that concurrency measurements
are applied consistently over time, so that trend analyses are possible. Another challenge is to ensure that the
sample is representative of the population, so that the survey results are generalisable. It may be necessary to
focus on and survey a sub-population, instead of the entire population.
Different data collection techniques: Whereas national household-based population surveys such as DHS are essential to track national trends over long periods of time, MCP programmes need more frequent measures of MCP behaviours to determine the outcomes that these programmes achieve. For this reason, and to enable country-level data about MCP behaviours to be compared to DHS results, smaller sexual behaviour surveillance surveys are recommended. Such surveys should (a) be conducted at intervals between DHSSs; (b) use different methods than the DHSSs for data collection, and (c) ask a range of questions so as to determine prevalence of MCP behaviours in different ways. Some of the different data collection methods may include:

- **Self-administered questionnaire** – this method assures a high level of privacy and confidentiality. However, varying levels of literacy within a population is a noted issue, as well as the tendency for some respondents to skip sections of the questionnaire.
- **Assisted self-completion questionnaire** – a method in which the interviewer reads questions/answers but does not record them.
- **Computerised interviewing** – this includes audio or computer assisted self interviewing (ACASI) and personal digital assistant (PDA) assisted self interviewing. These methods are confidential and can reduce entry errors. However, they are fairly new technologies that may not be available and familiar to some portions of a population.
- **Non-computerised methods** – includes tape recorders and other informal confidential voting interviews (ICVI).
- **Use of cell phone technology** – allows for random sampling of the population, and removes social desirability bias associated with a face-to-face interview method of data collection.
- **Voting boxes** – assures a high level of privacy and confidentiality, although only one response at a time can be measured, and the method does not allow linking the response to an individual.

Research is currently underway to determine the best-possible data collection methods and combinations of questions in the ESA region. Whichever methods are chosen, it is important that the same method be used consistently over time, so that trend analyses are possible.

### 5.4. Programme and Financial Monitoring Systems

**HIV programme monitoring systems:** Many countries in the ESA region have established multi-sectoral systems with which to monitor the delivery of HIV services in the community and at health facilities. These systems operate complementarily to the monitoring systems of individuals sectors. In the health sector, for example, a national health information system is already in place. A multisectoral HIV programme monitoring system would work with and extract data from this existing system, instead of collecting more data. Typically, social and behaviour change communication programmes take place in the community at community venues such as schools, work places, and taxi ranks. These programmes need to be monitored to ensure that coverage targets are met, that the programmes implemented are of sufficient quality, and that they focus on appropriate target audiences. As a minimum, it is recommended that programme monitoring systems that manage data about the implementation of MCP programmes collect the following data elements, which are then added up to calculate output indicator values:

- **Number of HIV implementers trained, and number of men and women trained to provide MCP communication programmes (related to Indicator 1.4)**
- **Individual target audiences for the MCP programme (organised by key messages for each target audience) and number of each target audience reached (relating to Indicators 2.1, 2.5 and 2.6)**
- **Number of communities where MCP programmes are being implemented (relating to Indicator 2.1)**
- **Number of community leaders (men and women) trained in MCP (relating to Indicator 2.2)**
- **Number of community-based organisations (CBOs) that provide MCP programmes (related to Indicator 2.3)**
- **Number of faith-based organisations (FBOs) that provide MCP programmes (relating to Indicator 2.3)**
- **Number of men in the general population reached with MCP programmes (relating to Indicators 2.5 and 2.6)**
- **Number of women in the general population reached with MCP programmes (relating to Indicators 2.5 and 2.6)**
- **Number of couples (persons with their regular or non-regular partner) reached together with MCP programmes (related to indicator 2.6)**

**HIV financial monitoring systems:** Collecting uniform financial data about the HIV response is a challenge. Countries usually ask implementers to report on their overall expenditure in a given financial year by broad HIV theme, or carry out a national assessment, such as a Public Expenditure Review or a National AIDS Spending Assessment. Neither of these methods can usually pinpoint the costs of one individual intervention compared
to another, but they can be used to assess overall funding for, for example, social and behaviour change communication programmes for HIV prevention. The following is recommended:

a) National AIDS Spending Assessments should include specific categories for programmes addressing MCP (both programmes with main focus on MCP or any programmes having a component addressing MCP), in addition to overall behaviour change communication programmes.

b) Individual MCP programmes should assess the cost effectiveness of their implementation strategies through cost effectiveness analysis and by comparing their programme implementation costs with that of other organisations involved in similar activities.

c) Alternatively, countries could use the unit costing data they generate in Global Fund proposal preparation processes to measure funding for MCP programmes. A good example of such data can be found in recent Global Fund proposals of Lesotho, Tanzania and Zambia.

5.5. Operations Research, Economic Evaluations and Qualitative Research

5.5.1 Operations Research

Operations research is conducted to measure service delivery and the success of a programme or campaign on an “operations level”. Operations research cannot answer the question of whether an MCP campaign is working to change attitudes or MCP behaviours, but it can answer the question of whether the programme is being efficiently and successfully carried out. Some operational questions include: Are programme activities happening as planned and on schedule? How could the programme personnel work together more productively and collaboratively? How could programme resources, including human resources, be better utilized? How could the logistics of the campaign be improved?

The Horizons programme offers a free online Operations Research HIV/AIDS Toolkit that may be helpful in understanding the principles and processes associated with operations research. This toolkit is available online at http://www.popcouncil.org/horizons/ORtoolkit/index.htm.

5.5.2 Economic Evaluations of MCP Programmes

Economic evaluations look at costs and funding associated with development interventions, to assess value for money (i.e. how efficient the interventions are). These studies are usually done when new interventions are planned, using cost estimates and projections, so as to determine the most cost-effective method of implementation.

Given that programmes to address MCP can be implemented in different ways and that some of the programmes are new, economic evaluations of MCP programmes are needed to: (a) understand whether programmes are implemented in the most efficient ways (best use of available resources to reach as many people as possible); and (b) to determine the cost effectiveness of these programmes (how much money it will take to avert how many new infections).

5.5.3 Qualitative Research

Qualitative research is a valuable tool for gaining deeper understanding of behaviours and social norms and of the motivations for thoughts, attitudes, and behaviours. Although qualitative research cannot prove behaviour change as can quantitative data, it can amplify and complement what is learned from other sources and types of data. Qualitative methods can be particularly useful for gaining information about private, highly personal behaviours such as sexual behaviour. Qualitative and quantitative research methods should be viewed as complementary methods, producing different kind of data, and should be triangulated to better understand sexual behaviours.

For more information on qualitative research and tools including questionnaires for conducting interviews and focus groups, see Appendix 3.

---

\(^{13}\) The majority of this section is based on comments contributed by Edward C. Green, Director, Harvard AIDS Prevention Research Project.
6. Incorporating MCP M&E into existing HIV monitoring and evaluation efforts

These guidelines on MCP measurement are not meant to stand on their own. They are meant to be used in conjunction with other M&E guidelines and to enhance, not radically change, a country’s existing national M&E monitoring and evaluation system. For this reason, this section summarises how the monitoring and evaluation of MCP programmes can be incorporated into national HIV M&E systems, into the monitoring and evaluation of national MCP strategies, and into the monitoring and evaluation of individual social and behaviour change communication programmes.

6.1. Incorporating MCP M&E into National HIV Strategic Plans and National HIV Monitoring and Evaluation Systems

If MCP is a driver of the HIV epidemic in your country, there should be objectives in your country’s national HIV strategic plan about addressing MCP. Finding out if this is indeed the case is therefore the first step towards incorporating MCP M&E into your country’s national HIV M&E system. A national HIV M&E system is the system used by your country to track progress towards achieving its national HIV response goals, and consists of 12 components (see Figure 4).

If MCP is not a driver of the epidemic in your country, you do not need to do anything else. If, however, it is a driver of the epidemic and is included in the National HIV Strategic Plan (NSP), the following steps are recommended to incorporate this guidance into your country’s national HIV M&E system (the italicized comments after the steps refer to the components in Figure 4):

a) Build the capacity of the M&E Technical Working Groups (TWGs) to be able to understand and contribute towards issues relating to MCP measurements [M&E system component: Partnerships and human capacity].

b) Agree with the M&E TWG on indicators to measure MCP. Choose from the list of indicators suggested in Section 4 of this guidance note. (Complete indicator protocols are available online at XXXX [insert link]). Choose those indicators that can be measured by either routine programme or financial monitoring data, or through routine surveys. (This would mean making choices, for example, about which concurrency questions to ask—see Appendix 2 for more details.) [M&E system component: M&E plan].

c) Investigate the latest survey reports to see if MCP data have already been reported in them. If not, set up a task team to review the questionnaires of the surveys, to decide which approach to follow to measure concurrency, and to advocate for inclusion of MCP questions and participate in the planning of the next survey to ensure that the appropriate questions are being included [M&E system component: Surveys and surveillance].

d) Review the programme monitoring and financial monitoring systems used in your country to ensure that these capture the points raised in Section 5.5 [M&E system component: Routine monitoring].

e) Review your country’s national HIV research agenda to ensure that research addressing data gaps on MCP is undertaken and that appropriate questions about the effectiveness of MCP programmes and the execution of such programmes are included [M&E system component: Research and evaluation].

f) Review the regular information products (reports) produced by your organisation to see whether MCP is explained, addressed and reported on [M&E system component: Data dissemination and use].
g) Build the capacity of senior managers, the media, and HIV programme planners about MCP, how to measure it, and how to measure HIV incidence, so as to enable them to understand and interpret the data that you provide to them about MCP [M&E system component: Human capacity].

h) Use the MCP data collected to guide policies and strategic and implementation plans at the national and sub-national levels [M&E system component: Data dissemination and use].

i) Finally, build in measures of HIV incidence in your national HIV surveillance efforts to ensure that the impact of HIV prevention programmes can be measured [M&E system component: Surveys and surveillance].

The other option, of course, is that MCP is a driver of the epidemic but is not included in or focused on in the NSP. If this is the case, then the national HIV M&E system should continue to collect data about the prevalence and incidence of MCP, so that you can use this data during the next HIV response review or NSP review to explain why MCP should be included in your country’s national strategic priorities. This is important, because the lack of data about MCP prevalence is partly the reason why MCP is only now being focused on as a driver of the epidemic in the ESA region.

6.2. Incorporating MCP M&E into the Monitoring and Evaluation of National HIV Prevention and MCP Strategies

National HIV prevention strategies often provide and require more detailed information than an NSP. Therefore, when considering how to incorporate this guidance on MCP M&E into the monitoring and evaluation component of the national HIV prevention or MCP strategy, you should consider (in addition to what is mentioned in Section 6.1) the following to ensure that your country ‘learns by doing’ MCP programme implementation:

a) Initiate qualitative research on MCP norms and attitudes in monitoring and evaluation strategies.

b) Undertake economic evaluations to assess the cost effectiveness of individual programmes and approaches.

c) Structure and organise operations research as needed to understand how programmes are being implemented.

d) Schedule supervision visits and other mechanisms to assess the quality of MCP programmes delivered.

e) Ensure that HIV service providers who implement MCP programmes have the appropriate monitoring and evaluation tools to collect data, manage data and report data to the national AIDS authority using the national HIV programme monitoring system tools and forms.

f) Ensure that at the sub-national level, MCP-related data are incorporated into annual plans and evaluation strategies.

6.3. Incorporating MCP M&E into the Monitoring and Evaluation of Individual Social and Behaviour Change Communication Programmes

As an HIV service provider focusing on MCP behaviours and practices, your organisation is responsible for not only implementing programmes, but also for monitoring and evaluating the implementation and effectiveness of your programme. Therefore, it is recommended that your organisation:

a) Capture data about MCP programme implementation on a routine basis. Such routine data should include: geographic area in which programme was implemented, methodology of implementation, target audience(s) (type(s) and number of people), key messages, follow-up actions, suggestions and reactions from target audiences.

b) Undertake outcome evaluations to assess the outcomes of your programme.

c) Use the national survey results (often disaggregated by district or other geographical area in which you work) to understand whether MCP behaviours and practices are changing, and how.

d) Conduct qualitative research to assess whether norms and values about MCP are changing, and how.

e) Ensure that your programmes are implemented cost effectively (review costs incurred by other organisations to ensure that you implement your programmes in the most cost-effective way).
f) Work with other organizations to harmonise and possibly brand MCP messages and to improve coverage (population, geographical and different methodologies). Consider getting involved in the MCP task force in your country.

7. Bibliography


Central Statistical Office (CSO) [Swaziland], and Macro International Inc. *Swaziland Demographic and Health Survey 2006-07.* 2008. Mbabane, Swaziland: Central Statistical Office and Macro International Inc.

Central Statistical Office (CSO) [Zambia], Ministry of Health (MOH) [Zambia], Tropical Diseases Research Centre (TDRC) [Zambia], University of Zambia, and Macro International Inc. *Zambia Demographic and Health Survey 2007.* 2009. Calverton, Maryland, USA: CSO and Macro International Inc.


Drumright LN, Gorbach PM, Holmes KK. Do people really know their sex partners? Concurrency, knowledge of partner behaviour, and sexually transmitted infections within partnerships. *Sexually Transmitted Diseases* 2004; 31: 437-42.


Ghani A, Swinton J, Garnett G. The role of sexual partnership network in the epidemiology of gonorrhea. *Sexually Transmitted Diseases* 1997; 24: 45-56.


Kasper T. Personal correspondence, 28 March 2009.


Kippax S. Personal correspondence, 20 March 2009.


Ministry of Health and Social Services (MoHSS) [Namibia] and Macro International Inc. *Namibia Demographic and Health Survey 2006-07.* 2008. Windhoek, Namibia and Calverton, Maryland, USA: MoHSS and Macro International Inc.


Parker W, Makhubele B, Ntilabati P, Connolly C. Concurrent Sexual Partnerships Amongst Young Adults in South Africa. 2007. Johannesburg, South Africa: CADRE.


Slaymaker E, Gorgens M. forthcoming


Appendix 1: Meetings about MCP and Additional Resources Relating to MCP

1) Previous MCP Meetings—Presentations and Reports

**Southern African Development Commission (SADC) Expert Think Tank Meeting on HIV Prevention in High-Prevalence Countries in Southern Africa** (Maseru, Lesotho, 10-12 May 2006)

The **Southern African Development Commission (SADC) Expert Think Tank Meeting on HIV Prevention in High-Prevalence Countries in Southern Africa** identified high levels of multiple and concurrent partnerships by men and women with low consistent condom use, and in the context of low levels of male circumcision as the key drivers of the epidemic in southern Africa. This group of experts concluded that priority should be given to interventions that aim to reduce the number of multiple and concurrent partnerships.


**Satellite Session at HIV Implementer’s Meeting** (Kampala, Uganda, 3-7 June 2008)

UNAIDS convened a **satellite session on social change communication at the HIV Implementer’s meeting in Kampala, Uganda**. At this session, the need to ‘move beyond’ individual behaviour change communication programmes to programmes that target the social norms and values that support higher risk behaviours or encourage lower risk behaviour (‘programmes to communicate for social change’), was emphasised. A session at the implementer’s meeting also focused on addressing MCP.


**Multiple Concurrent Partnerships: Campaigns and Communications Towards a Coordinated Regional Response** (Johannesburg, South Africa, 17-18 September 2008)

The UNAIDS Regional Support Team for Eastern and Southern Africa (UNAIDS RST ESA) and the Soul City Institute convened the meeting **Multiple Concurrent Partnerships: Campaigns and Communications: Towards a Coordinated Regional Response** to discuss MCP communication in the region. The meeting aimed to shape future plans for HIV prevention communication in the region, in part by establishing a community of practice.


**USAID Technical Consultation on Multiple and Concurrent Partnerships** (Washington, DC, USA, 28-29 October 2008)

This technical consultation, **Addressing Multiple and Concurrent Sexual Partnerships in Generalized Epidemics**, reviewed available data on MCP derived from models and surveys, and noted the gap in consistent guidance on measurement of concurrency and multiple partners.


**Addressing MCP in Southern Africa: Developing Guidance for Bold Actions** (Gaborone, Botswana, 28-29 January 2009)

The Harvard University AIDS Prevention Research Program, UNAIDS RST ESA, and The World Bank convened a group of MCP experts and regional partners for the meeting **Addressing MCP in Southern Africa: Developing Guidance for Bold Actions**. At the meeting, a set of consensus points around MCP programming and MCP M&E was agreed on; the consensus included agreement to develop guidance on MCP programming and guidance on how to monitor and evaluate MCP efforts. The guidance on MCP programming was finalized at a follow-up Soul City/UNAIDS RST meeting from 14 to 15 May 2009.

2) Tools

**OneLove: Preventing HIV in South Africa** (Soul City Institute, 2009)


**Multiple and Concurrent Sexual Partners: What's Culture Got to do With It? A Handbook for Journalists** (Soul City Institute, 2009)


**Men, Women, and HIV and AIDS** (Thela Health and Development Communications, Lesotho, 2009)


“Break the Sex Network” flyer (Thela Health and Development Communications, Lesotho, 2009)


3) Research Reports on MCP

All Soul City Institute reports available from:

[http://www.onelovesouthernafrica.org/index.php/resources](http://www.onelovesouthernafrica.org/index.php/resources) (scroll to bottom of webpage)


**Botswana**


Gourvenec D, Taruberekera N, Mochaka O, Kasper T. **Multiple Concurrent Partnerships among Men and Women aged 15-34 in Botswana: Baseline Study.** PSI Botswana: December 2007. Available by emailing obakeng.mochaka@psi.co.bw.

**Lesotho**


**Malawi**


**Mozambique**


PSI. HIV behavioural (TRaC) study among men and women aged 15-35 in Gaza, Sofala and Zambézia. Maputo, Moçambique. September 2008. Available by emailing fmussa@psi.org.mz


Streel E. Multiple and Concurrent Partnership - A support document for advocacy actions and decision making process in Mozambique. Maputo, Moçambique. JHU/USAID/PEPFAR. 2008. Available by emailing pdevos@jhuccp.org.mz
4) Websites

OneLove Southern Africa (includes booklets and flyers, OneLove videos, and links to research reports and OneLove programme summaries by country under Resources) http://www.onelovesouthernafrica.org/

The following website has been established in order to make available this guidance document as well as other resources related to MCP M&E, and to facilitate information sharing and learning between those monitoring and evaluating MCP programmes.

NEW MCP WEBSITE URL

This website will also be a repository for other resources that are produced by MCP programmes and governments in the region related to MCP M&E, such as survey tools and questionnaires and programme and national-level reports. Towards developing a community of practice for MCP M&E, you are also invited to share “lessons learned” at the above website.
Appendix 2: Supplementary Options for Measuring Concurrency: A Guide for MCP Researchers

A number of measures and methods have been used to measure or estimate the point prevalence and cumulative prevalence of concurrency. The main text (as well as Appendix 4) provide the definition, method and questions to be asked as a minimum standard for measuring the outcomes of MCP programmes at a national level, as agreed on by the UNAIDS Reference Group on Estimates, Modeling, and Projections.

However, there are also other methods of determining concurrency prevalence. Proxy measures, direct question, date method, coital diaries, and partner's concurrency will all be discussed below. The sample frame may differ: it may be the general population, may consist of only men or only women, or may be another specific population, such as youth or individuals at high risk. Recruitment of specific populations may be done in a variety of ways, such as purposively recruiting persons who have had unprotected sex (e.g. clients at STI clinics) (Gorbach et al., 2005), or HIV positive persons attending support groups or ARV clinics (Kalichman et al., 2007), or through a randomly-dialed telephonic survey (Manhart et al., 2002).

Variance in Measures of MCP Behaviours

Research has found that reported prevalence of MCP behaviours may vary widely depending on the methodology used, question asked, and sample frame chosen, as the two tables with data from Lesotho and Swaziland illustrate. In both tables there are fairly significant differences between the samples. Some studies are among only sexually active adults, while others are among all adults (RHS, ALAFA, CIET Swaziland). Inclusion of non sexually-active adults in the sample will lead to underestimation of the frequency of multiple partnerships by increasing the denominator from all sexually active adults in a given age range to “all adults” in that age range, while leaving the numerator unchanged (number reporting more than one sexual partner). In some samples the age range is 15 to 19 years while in others it goes up to 60 or 65 years.

Table 1: Comparison of measures of concurrency and multiple partner prevalence in Lesotho

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Sample</th>
<th>Frequency</th>
<th>Year of measurement</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than one partner, last 12 months</td>
<td>Not known</td>
<td>39% (F) 55% (M)</td>
<td>1989-90</td>
<td>WHO, 1995</td>
</tr>
<tr>
<td>More than one partner, last 12 months</td>
<td>Adults who had sex in last 12 months, females 15-49 yrs, males 15-59 yrs</td>
<td>11% (F) 29% (M)</td>
<td>2003</td>
<td>LDHS, 2004</td>
</tr>
<tr>
<td>More than one partner, last 12 months</td>
<td>Adults with at least one partner, 16-60 yrs</td>
<td>44% (all)</td>
<td>2002-03 baseline</td>
<td>CIET, 2008</td>
</tr>
<tr>
<td>More than one partner, last 12 months</td>
<td>Adults with at least one partner, 16-60 yrs</td>
<td>30% (all) approx. 21% (F) approx. 48% (M)</td>
<td>2007</td>
<td>CIET, 2008</td>
</tr>
<tr>
<td>More than one partner, last month</td>
<td>Adults with at least one partner, 16-60 yrs</td>
<td>17% (all) approx. 11% (F) approx. 27% (M)</td>
<td>2007</td>
<td>CIET, 2008</td>
</tr>
<tr>
<td>More than one partner, last 4 weeks</td>
<td>Females 12-49 yrs, males 12-54 yrs</td>
<td>5% (F) 20% (M)</td>
<td>2002</td>
<td>RHS, 2002</td>
</tr>
<tr>
<td>More than one current sexual partner</td>
<td>Adults with at least one partner, 16-60 yrs</td>
<td>24% (all) 16% (F), 36% (M)</td>
<td>2007</td>
<td>CIET, 2008</td>
</tr>
<tr>
<td>More than one current sexual partner</td>
<td>Apparel workers, 17-65 yrs, mean age 30 yrs</td>
<td>19% (all) 17% (F), 38% (M)</td>
<td>2007</td>
<td>ALAFA, 2008</td>
</tr>
</tbody>
</table>

Note: the arrow points to data values that are directly comparable as the indicator definitions are exactly the same.
Table 2: Comparison of measures of concurrency and multiple partner prevalence in Swaziland

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Sample</th>
<th>Frequency</th>
<th>Year of measurement</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than one partner, last 12 months</td>
<td>Adults who had sex in last 12 months, females 15-49 yrs, males 15-49 yrs</td>
<td>2% (F) 23% (M)</td>
<td>2006</td>
<td>SDHS, 2006-07</td>
</tr>
<tr>
<td>More than one partner, last 12 months</td>
<td>Adults with at least one partner, 16-60 yrs</td>
<td>35% (all)</td>
<td>2002-03 baseline</td>
<td>CIET, 2008</td>
</tr>
<tr>
<td>More than one partner, last 12 months</td>
<td>Adults with at least one partner, 16-60 yrs</td>
<td>13% (all) 7% (F) 33% (M)</td>
<td>2007</td>
<td>CIET, 2008</td>
</tr>
<tr>
<td>More than one partner, last 6 months</td>
<td>Adults, mean age 28 yrs</td>
<td>6% (F) 39% (M)</td>
<td>2005 baseline</td>
<td>CIET, 2006</td>
</tr>
<tr>
<td>More than one partner, last 6 months</td>
<td>Adults, mean age 28 yrs</td>
<td>6% (F) 31% (M)</td>
<td>2006</td>
<td>CIET, 2006</td>
</tr>
<tr>
<td>More than one partner, last 3 months</td>
<td>Sexually active adults in rural area (Ngudzeni)</td>
<td>62% (F) 45% (M)</td>
<td>2006</td>
<td>James V and Matikanya R, 2006</td>
</tr>
<tr>
<td>More than one partner, last month</td>
<td>Adults with at least one partner, 16-60 yrs</td>
<td>6% (all) 2% (F), 20% (M)</td>
<td>2007</td>
<td>CIET, 2008</td>
</tr>
<tr>
<td>More than one partner, last 4 weeks</td>
<td>Adults sexually active in last 4 weeks, mean age 28 yrs</td>
<td>4% (F), 31% (M)</td>
<td>2005 baseline</td>
<td>CIET, 2006</td>
</tr>
<tr>
<td>More than one partner, last 4 weeks</td>
<td>Adults sexually active in last 4 weeks, mean age 28 yrs</td>
<td>4% (F), 17% (M)</td>
<td>2006</td>
<td>CIET, 2006</td>
</tr>
<tr>
<td>More than one current sexual partner</td>
<td>Adults with at least one partner, 16-60 yrs</td>
<td>7% (all) 2% (F), 22% (M)</td>
<td>2007</td>
<td>CIET, 2008</td>
</tr>
</tbody>
</table>

Note: the arrows point to data values that are directly comparable as the indicator definitions are exactly the same.

Alternative Options for Measuring Concurrency

Given these variances, a minimum standard for measurement of MCP (see main text and Appendix 4) has been agreed on. In addition, supplementary methods of measuring or estimating the cumulative and point prevalence of concurrency are summarized here for research or programme evaluation purposes, in addition to the minimum requirements set out in the main part of the guidelines.  

1. Proxy measures (using multiple partnerships over a given period of time as a proxy for the cumulative prevalence of concurrency)

Data about multiple partnerships within a certain period of time are an indirect (substitute) measure of concurrency. However, such proxy measures are some of the most widely available data as these data are collected by DHS and other large surveys. In the proxy approach, the cumulative prevalence of concurrency is inferred from data about multiple partnerships within a specific period of time (typically 4 weeks to one year), as per the examples given in Table 3 below.

Strength: Already widely used, such as by DHS.

Limitations: Provides data about multiple partnerships only, and these partnerships are not necessarily concurrent.

---

14 The following summary is adapted from guidance provided by Sara J. Nelson, Center for AIDS and STDs, University of Washington.
Table 3: Measures of multiple partnerships

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of persons with 2 or more partners in past year</td>
<td>DHS</td>
</tr>
<tr>
<td>% of persons with 1 or more non-regular/high-risk partner in past year</td>
<td>DHS</td>
</tr>
<tr>
<td>Average number of partners in past 12 months</td>
<td>DHS</td>
</tr>
<tr>
<td>% of persons with more than one partner in the last 6 months</td>
<td>CIET, 2006 (Swaziland)</td>
</tr>
<tr>
<td>% of persons with more than one partner in last 3 months</td>
<td>James and Matikanya, 2006 (Swaziland)</td>
</tr>
<tr>
<td>% of persons with more than one partner in the last month</td>
<td>CIET, 2008 (Swaziland)</td>
</tr>
<tr>
<td>% of persons with more than one partner in last 4 weeks</td>
<td>CIET, 2006 (Swaziland)</td>
</tr>
<tr>
<td>% of persons with more than one partner in a month in any of the previous 6 months</td>
<td>PSI, 2008 (Botswana)</td>
</tr>
</tbody>
</table>

Note that the period selected for the reported multiple partners might dramatically change the reported behaviour, as Table 4 illustrates.

Table 4: Different rates of multiple partner behaviour reported in 2007 in Botswana

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>All</th>
<th>Gender</th>
<th>Significance†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had more than one partner in same month during any of the last 6 months</td>
<td>19%</td>
<td>Male 25%</td>
<td>Female 12%</td>
</tr>
<tr>
<td>Had more than one partner in last month</td>
<td>11%</td>
<td>Male 14%</td>
<td>Female 6%</td>
</tr>
<tr>
<td>Had more than 1 partner in last 12 months</td>
<td>25%</td>
<td>Male 33%</td>
<td>Female 17%</td>
</tr>
<tr>
<td>Had more than 1 partner in last 6 months</td>
<td>16%</td>
<td>Male 22%</td>
<td>Female 9%</td>
</tr>
<tr>
<td>Had any casual partner in last 12 months</td>
<td>16%</td>
<td>Male 23%</td>
<td>Female 10%</td>
</tr>
</tbody>
</table>

Source: Gourvenec et al., 2007

†Significant when adjusted for residence, age, educational level, employment, marital status and parenthood

2. Direct Question Method

This method uses a single question to ask about additional partners during a sexual relationship. The following questions are asked about the most recent partner, and can be continued with previous partners, as per the examples listed below.

Example 1:
Ask: “Did you have at least 1 other partner during the time you’ve been seeing this partner?” (Jennings et al., 2004, cited in Nelson, 2008)

Example 2:
Ask: “Since you first had sex with your most recent partner, how many other people did you have sex with during the sexual relationship?” (Nelson, 2007)

Example 3:
Ask: “During the time you were having a sexual relationship with this partner, did you have sex with other people?” (U.S. Centers for Disease Control National Health Behaviour Survey, cited in Nelson, 2008)

**Strength**: It is a single question and minimises the risk of missing data.

**Limitations**: It does not provide an estimate of overlap duration, and there is social desirability bias in the sense that it may not be socially desirable or acceptable for a person to ‘admit’ to having another partner whilst being in a steady partnership. May also be effected by recall bias.

It is possible to combine the proxy and direct question measure and ask a series of questions about both multiple and concurrent partners so as to determine the cumulative prevalence of concurrency, point prevalence of concurrency and the prevalence of multiple partners. These data can then be analysed using an algorithm such as the following (from Le Pont et al., 2003).

**Figure 5: Algorithm used to classify interviewees according to sexual behaviour patterns**

3. **Date Method**

The date method establishes dates of partnerships intervals, and then calculates the overlap (or gap) between partnership intervals. This method requires 6 or 9 questions (depending on whether survey includes last 2 or 3 partners). The definition, method and questions to be asked recommended by the UNAIDS Reference Group on Estimates, Modeling, and Projections (see Appendix 4) are an example of the date method. Two other slight variations are given below.

**Example 1**: Ask about last 2 or 3 partners:

"When did you last have sex with this partner?" (day/month/year)
"When did you first have sex with this partner?" (day/month/year)
"Do you expect to have sex with this person in the future?"
Example 2: (Respondents may be more easily able to recall length of relationship than start date; start date can then be calculated by researcher.) Ask about last 2 or 3 partners:

“When did you last have sex with this partner?” (day/month/year)

“How long have you been sexually involved with this partner?” (number of days/weeks/months/years)

“Do you expect to have sex with this person in the future?”

Strengths: It provides the ability to establish prevalence and duration of overlap. It is also less prone to social desirability bias, and it is possible to collect data on relationship context and partner-specific behaviours and practices.

Limitations: It requires a large number of questions (the minimum number of questions to establish prevalence and overlap duration is 4). Also, to increase accuracy of risk assessment, more questions are needed. Missing date elements will require some additional effort during the analysis.

There is also the risk of recall bias. Recall bias can occur when the sexual history approach to measuring multiple and sexual partners is used. Brewer et al. (2006) showed that two partners were correct in almost 40% of cases for reporting the exact date of first and last sexual intercourse. Nelson et al. (2007) encountered significant challenges in measuring concurrency using a sexual history approach. Significant discrepancies were found, such as with persons who said they had a concurrent partnership when asked a direct question, and then provided non-overlapping dates for those two sexual partnerships. The recall bias seemed to increase the further the time period of recall required for the study, and became particularly weak after more than 3 months of recall.

Nelson et al. (2007) compared the direct questioning and date method and found that although both yield the same values for concurrency (56% reported concurrency by direct questioning and 54% by overlapping dates), the agreement between measures was only fair and each of the measures had dissimilar correlates. The overlapping method also had many more missing variables (21%) than the direct question method (2%).

One of the key analysis questions is what to do with the missing values (which create a non-response bias, if the missing values were not random). Almost all surveys assume that non-response occurs randomly and therefore do not attach significance to the non-response in the survey (Lesotho RDHS, 2002), whereas others assign specific values to non-responses during the analysis (Nelson et al., 2007). Ghani et al. (2002) warn against ignoring non-response bias and not using random sampling, as this could lead to an under-estimation of the risk of transmission of STIs.

The same may hold true for MCP prevalence measurements in the general population: those who do not respond to questions about MCP practices, may do so because they are more likely to have engaged in the practice (but more reluctant to admit it due to social disireability bias).

4. Coital Diaries

Respondents are asked to keep a daily survey of sexual behaviour.

Strengths: It enables one to establish the prevalence, incidence, and the duration of the sexual overlap. Due to the longitudinal design, it minimises recall bias.

Limitations: It is a resource intensive process, and the process of completing such a diary may be an MCP intervention in itself, in the sense that keeping the diary may alter the person’s risk perception and therefore their sexual practices and behaviours.
5. **Partner’s Concurrency**

Rather than the respondent’s concurrency, the respondent’s partner’s concurrency is assessed.

*Example 1:* Partner is enrolled in study and asked directly about concurrency.

*Example 2:* Respondent is asked if he/she believes that his/her partner has a concurrent relationship. Ask: “To the best of your knowledge, did he/she ever have other sex partners while you two were having a sexual relationship?” (Kerrigan, 2008)

**Strengths:** It is the most relevant measure for assessing respondent’s HIV/STI acquisition risk (since risk is created not by the index person’s concurrency, but rather by his/her partner’s concurrency).

**Limitations:** It is difficult to enroll partners, and requires agreement between the respondent’s perception of concurrency and his/her partner’s reported behaviour has been shown to be poor (Lenoir et al., 2006; Drumright et al., 2004).

**Other considerations when measuring MCP behaviours.**

- Consider length of questionnaire: how many questions are feasible? Direct questioning can be done using 1 question, while date method requires 6 or 9 questions.

- Research has shown that there is fair agreement between measures, but low agreement within couples.

- Be specific about the sexual behaviour you are asking about. If using the date method, record dates exactly.

- Do not ‘force’ respondents to report more accurately than they can remember.

- Confidentiality is of course essential, but it is by no means the only ingredient needed to make household-based surveys successful. One needs to understand how local communities function and react to strangers. In most sub-Saharan populations, there is a strong tradition of (great) hospitality towards strangers, but it is also necessarily accompanied by long exchanges of introductions and explanations. These are absent from most surveys, or kept to a minimum.

- Often, no sensitization is conducted; participants are only communicated a vague idea of the goals of research; the rest of the local population is kept in the dark as to why strangers are asking all these questions about sex; feedback on study results is rare at the local level. Instead, survey research on sexual behaviours should be seen as the first, critical, step in fostering local ownership of HIV prevention activities.

- Simple tools such as probing or recall cues have been shown useful in improving data quality in US settings (Brewer, et al., 2005).

- Remove the incentives for interviewers to minimize probing by reducing the daily quotes for interviews.

- Try to avoid asking questions on sexual behaviours after a long series of questions, when there is minimum incentive for probing (see previous point).
Appendix 3: Guidelines and Tools for Qualitative Research

Qualitative research is a valuable tool for gaining deeper understanding of behaviours and social norms and of the motivations for thoughts, attitudes, and behaviours. Qualitative methods can be particularly useful for gaining information about private, highly personal behaviour such as sexual behaviour. Qualitative research can also be used to generate hypotheses that can then be tested through survey research or other means. Qualitative and quantitative research methods should be viewed as complementary methods, producing different kind of data.

One goal of qualitative research is to determine patterns and exceptions. For example, qualitative research might establish a pattern of MCP within a population, but may also reveal some exceptions (persons who do not engage in MCP), and investigation of these exceptions may also be important. While qualitative research does not technically quantify a behaviour, it can answer the question, “How common is a certain behaviour?” (e.g. MCP).

Qualitative research typically produces information from a smaller number of respondents than quantitative research methods such as surveys. Yet qualitative research can produce in-depth information on questions which surveys or other qualitative methods cannot easily investigate, and may have higher “validity” than quantitative research (i.e. produces information which more closely matches the true situation or reality).

Qualitative research can be used to investigate social norms, through asking what most people would do in particular situations or circumstances. For particularly sensitive subjects, more accurate responses may be obtained if the respondent is asked not about his or her own personal beliefs or behaviours, but rather about the beliefs and behaviours of others in the community. Changes in social norms could be measured by repeating these questions yearly, or at longer intervals (Kippax, 2009).

Two common qualitative methods include interviews and focus groups. In these methods, rather than randomly selecting persons or households as might be done in a quantitative survey, members of a particular population may be selected through a “convenience sample.” Interviews may be done with “key informants” (persons who are felt to have particular knowledge of the information sought) or with representative members of a particular population or demographic group sampling (e.g. rural teenage girls, urban married men, female sex workers). Interviews are often semi-structured: they use an interview questionnaire (a pre-determined set of questions) to guide the discussion and probe into topics of interest. Focus groups involve a similarly semi-structured discussion, held among a group of people.

Individual interviews may be more appropriate than focus groups when peer pressure or other dynamics of group interaction are likely to make the discussion non-productive, limited, or formal (so that questions are not answered frankly). If participants are embarrassed or unwilling to talk freely in a group setting, individual interviews may be a better alternative. On the other hand, focus groups involve interactions between members of the group and may produce valuable information about social norms and group consensus.

Other sources of qualitative data include existing surveys and studies, media sources such as radio, television, and newspapers, and direct observation. Non-scientific counting of objects or occurrences may also be employed. One example of this might be to count positive and negative portrayals of MCP in the media, and track such representations over time. Changes in positive or negative portrayals of MCP might suggest broader social changes.

Various investigators have reported on the effectiveness of focus groups for such research (Fern, 2001; Morgan, 1993). Stewart and Shamdasani (2007) state that focus groups “provide a rich and detailed set of data about perceptions, thoughts, feelings, and impressions.” This is critical for understanding the social, cultural and economic contexts within which MCP exists and under which contexts such risk behaviours may be modified.

One strength of this methodology is the richness of data that can emerge from a diverse group of participants. The focus groups can contribute a broader and more contextual understanding of concurrent partnerships compared to the data that have been elicited in the KPS and in other surveys. In this research setting, qualitative methods may be better able to answer questions about the rationale behind the occurrence of concurrent partnerships, which surveys may not be as well suited for. Additionally, given current methodological difficulties with measuring concurrency on survey tools, qualitative data may provide a more general indication of the occurrence of

---

The majority of this section is based on comments contributed by Edward C. Green, Senior Research Scientist, Harvard Center for Population and Development Studies.
concurrency. Acceptance or derision of concurrent sexual partnerships may reflect a community norm that can best be examined and discussed in a group context, rather than in face-to-face interviews (Rice and Ezzy, 1999).

Various researchers have previously demonstrated the suitability of qualitative research and in particular of focus groups for examining “sensitive” issues, such as HIV/AIDS and sexual partnerships both in South Africa and in the sub-region (Epstein, 2007; Psaki et al., 2008; Rice and Ezzy, 1999; Romero-Daza, 1994; Selikow, 2004; Varga, 2003). For instance, Selikow (2004) successfully used both group interviews and semistructured interviews to discuss sex and sexuality with young South Africans living in townships. These discussions included similar topics to those presented here, such as sexual partnerships. Additionally, a study recently published by Parker et al., (2007) on concurrent partnerships in South Africa successfully utilized methodologies similar to those outlined here.


1. Guidelines

Qualitative research is characterized by a flexible and iterative approach, and is more open-ended than quantitative research. In qualitative research, hypotheses are continually developed, tested, and redefined during data collection. Unlike survey research, analysis is ongoing during the process of data collection, allowing the researcher to identify areas that need further investigation and develop new approaches to address these questions. False leads or unproductive areas of research can be eliminated.

The guidelines for qualitative research may seem looser than that of quantitative research. For example, how many focus groups or interviews should be conducted to ensure validity? A general rule is to persist in research until “saturation” is reached—in other words, the information being gathered is a repeat of information already gathered, and there is no new information being produced.

In qualitative research, the following questions should be kept in mind:

- Am I getting good quality information? Does the information I am getting seem reasonable? True?
- Is the information consistent with what we know from other sources (such as quantitative data or surveys)?
- Am I hearing about the way things ought to be or how they actually are? Am I encountering a probability bias, slant, or distortion?

**Guidelines for Interviews**

Interviews should be held in a location in which the interviewee is comfortable, and where the interview will be private and undisturbed.

Trust between the interviewer and interviewee is important. Thought should be given to selecting an interviewer with whom the interviewee will be willing to talk openly. The interviewer should explain that he or she is neutral and has no personal opinions, that there are no right or wrong answers, and that everything that is said in the interview will be kept confidential.

**Guidelines for Focus Groups**

In addition to the above guidelines, the following guidelines should be observed.

There should be at least one focus group for each population of interest (for example, in a study of married men and women from a particular town, at least one focus group of men and one of women would be needed). For each variable added (for example, women and men 20-30 years and women and men 30-40 years), another set of focus groups would be needed. Focus groups should be homogenous (contain members of only one population or group) in order to create an atmosphere in which people can speak freely, and to make sure that information gathered is valid for that particular group or population.

Focus groups typically involve between 6 and 12 participants, all from the same population or demographic group. A trained facilitator or moderator will guide the discussion using a questionnaire of pre-determined questions. He or she has the responsibility of posing questions and keeping the discussion “on track” while still allowing for a natural and free discussion, in an open and permissive atmosphere. The facilitator should also make sure to encourage the participation of all members of the group, while keeping any participants from dominating or disrupting the conversation.
The facilitator should emphasize that the discussion is confidential and that the participants should keep what is discussed in the focus group private. The facilitator should also remind the group that there is no right or wrong answer, and that divergent opinions and disagreement or encouraged.

Focus groups should also have a recorder present, who can keep a written record of the discussion. While the discussion may also be taped and transcribed, a recorder plays the critical role of observing (and noting) non-verbal communication (such as body language), writing down key comments, notes, and impressions during the discussion, and writing a summary of the discussion soon after.
2. Sample Questionnaires

Focus Group Questionnaire 1

1. Let’s talk about sexual relationships. How would you describe a relationship?
   a. What are terms you might use? (*e.g. boyfriend, girlfriend, partner, sex worker, minister, etc.*)
   b. What are the different kinds of relationships?
   c. What are the reasons for having these different kinds of relationships?

2. Do men in [name of community] ever have more than one girlfriend or partner at the same time? Do women have more than one boyfriend or partner at a time?
   a. How frequent/common is it for people you know to have more than one partner at a time? Why do people have more than one partner at the same time?
   b. How many partners do people typically have at one time? Why do they have this number of partners?
   c. Can you describe the type of people who have more than one partner at the same time?
   d. Do married people you know have more than one partner at a time?
      i. How many partners do married men you know have at a time? How many partners do married women you know have at a time?
      ii. What might be the reasons that they have more than one partner?
   e. Do young men have more than one partner at a time? Do older men have more than one partner at a time?
      i. Which has more?
      ii. Why do young men have more than one partner at a time?
      iii. Why do older men have more than one partner at a time?
   f. Do young women have more than one partner at a time? Do older women have more than one partner at a time?
      i. Which has more?
      ii. Why do young women have more than one partner at a time?
      iii. Why do older women have more than one partner at a time?
   g. Why do some people only have one partner at a time?

3. If people have more than one partner, how do they manage these relationships?
   a. How do the different relationships work?
   b. Can you give me an understanding about how it works?
   c. How long do the different relationships sometimes/often last?
   d. Are all the partners viewed as equal? What are the different terms used to describe different partners?
   e. Do the other partners know about these other relationships?
   f. What do people think about their partner having other boyfriends/girlfriends?
   g. Are the other boyfriends/girlfriends treated differently from the main partner? If so, why?
   h. Do people use condoms with all their partners? Why or why not?

4. Do people talk about having more than one girlfriend or boyfriend to their friends?
   a. To same-sex peers? Opposite sex peers? Why or why not?
   b. Do people in the community know about other people having multiple girl/boyfriends?
   c. What do people in the community think about people who have more than one partner?
   d. Do they usually approve or disapprove?

5. Do you think it’s possible for most people to have only one partner?
   a. For men? Why/Why not?
   b. For women? Why/Why not?

6. Do you think that having more than one partner at the same time might affect a person’s risk of getting HIV?
a. How does having more than one sex partner at the same time affect a person's risk?

7. Do people in your community know about HIV?
   a. Do people change their behaviours if they think they are at risk?
   b. Does knowing about HIV influence a person to have more than one or only one boyfriend/girlfriend at a time? How does/doesn’t it?
   c. How easy or hard is it for them to change their behaviours? Why?

8. If having two boyfriends/girlfriends at the same time can increase the chance of getting HIV, how can the community change this behaviour?
   a. What kinds of messages would be needed?
   b. What kinds of changes need to happen?
   c. Who do these messages need to target?

9. Let’s say you were the Minister of Health and you want to find ways to change peoples’ sexual behaviour. How would you do it?

Source: Mah, 2009
Focus Group Discussion Guide 2

For women involved in MCP

Introduction

Welcome
"Welcome and thank you for taking the time to participate in this discussion today. My name is (moderator) and we’re working on behalf of PSI and the O icheke campaign to find out about sexual partnerships among women aged between 18 and 24 years old.

We are interested in your experiences, opinions and ideas so that we can find better ways to design campaign messages that are effective. Although we are here to ask for your help with the campaign, we are researchers and we were not involved in the design of the current campaign messages. So, even if you have something bad to say, please go ahead and feel free to say it. We will not mind it at all; in fact we will welcome it. We are very keen on listening to your candid views in our discussion today. So, please be frank."

Ground Rules
"We are interested in all of your opinions and feelings. There is no right or wrong answer. Some of you may agree or disagree with each other, which is perfectly normal and we encourage you to openly share your ideas so that we can learn from each other. Don’t wait for the moderator to ask for your opinion, feel free to speak at any time. However, please try to avoid interrupting others while they are talking. Everyone will have a chance to speak and all ideas, concerns and opinions are of value. The session will last approximately 2 hours."

Confidentiality
“Everything that is said in this room is confidential. Only first names will be used, and we will not tell anyone that you participated in this discussion. We are using a tape recorder only because it is very difficult to take notes and discuss at the same time. After using so much of your time, we do not want to lose out precious information that you will be giving us. By using the tape recorder, we can go back to our offices and analyze what was said during these discussions. We will not be able to relate/attribute what was said to any particular person. Further, we are doing many other such group discussions and will be compiling all this information together. When we report, we only report as ‘women aged 18-24 in Francistown felt this or that …’ As you can see no names are taken anywhere and we absolutely respect your confidentiality."

Warm Up

Introduction of participants
“To begin with, we would like each of you to introduce yourself and to tell us your name, age, occupation, and what do you do in your free time."

Introduction of subject matter
- What kinds of sexual relationship are common among your friends?
- How common is it among your friends to have more than one sexual partner at the same time?
- What words do you use to describe men who have more than one sexual partner at the same time?
- What words do you use to describe men who stick to one partner?
- What words do you use to describe women who have more than one sexual partner at the same time?
- What words do you use to describe women who stick to one partner?

Emergent Responses

Emergent MCP behaviours
- What words do young women use to talk about men they have sex with who are not their main/primary partners? [Note all responses on flipchart, probe until the group cannot come up with any other words, but do not ask leading questions]
- Tell me more about [first response on flipchart]. What do you mean by […]? How common are […] among your friends?
- Do […] tend to be older or younger men? How much older / younger?
• How much time do women spend with each of the partners they have at the same time?
• What kinds of activities (other than sex) do women do with [....]?
• Where do women spend time with [....]? Where do they meet [....]?
• Do women have [....] for a long or short time? About how long is this?
• Do [....] tend to provide any financial or material support to women they are involved with? What kind of support?
• With what type of partners do women replace [....]?
• Do women typically use condoms with [....]? Why or why not?
• [Repeat questions above for all responses on flipchart]

Emergent drivers of MCP

• Why do women you know of your age have more than one partner at the same time? [Note all responses on flipchart, probe until the group cannot come up with any other reasons, but do not ask leading questions]
• What do you mean by [first reason]? How would you describe [....]?
• How does [....] lead to having more than one partner at the same time?
• What is an example of [....] that leads to having more than one partner at the same time?

Adaptive Responses

Adaptive MCP behaviours

• [Ask for all terms in bold below that did not come out in the emergent section]
• How common is it for women to get involved with men who give them material or financial assistance or who help them with personal needs? What kinds of material, financial or personal needs do women look to men to fulfill? Why are men needed to provide in these ways? [Probe if not offered to find out whether the needs are basic survival needs such as food and housing or more consumerist needs such as clothes, transport, airtime or nights out]
• How common is it for women to be small houses to men who have another main / primary partner? Do women who are small houses usually have another partner?
• How common is it for women to have small houses in addition to their main / primary partner? How long do small houses usually last for? Do small houses ever replace the main / primary partner?
• How common is it for women of your age to be involved with older men? What is the attraction of an older man? Are older men usually in addition to a main / primary partner or instead of a main/primary partner? Do the older men usually provide some financial assistance? How long do these older men usually last for? What words are used to describe younger women involved with older men? What words are used to describe the older men?
• How common is it for young women to have one night stands? Are these one night stands usually in addition to a main/primary partner? Why do women have one night stands? [Probe to find out whether women have one night stands in return for a man buying them meals or drinks and how common the group thinks this is.] What other words are used to describe one night stands?

Adaptive drivers of MCP: 1 – Consumerism and personal / material aspirations

• [Ask all questions that did not come out in the emergent section]
• What do young women aspire to; what do they want out of life? What do young women want out of life now? What do young women want out of life in the long term? [Probe for material aspirations, educational and professional aspirations, relationship / family aspirations] What has more effect on young women’s lifestyles – their short term aspirations or their long term aspirations?
• What do young women look for from sexual partners? How important are looks and personality? How important is material / financial support? How important are love and emotional commitment? How important is possible marriage? How important is whether the man can help in your education or career? [Ask the group to rank these items in order of importance.]

Adaptive drivers of MCP: 2 - Temptation to have multiple partners

• [Ask all questions that did not come out in the emergent section]
• How much temptation is there for young women to have other partners apart from their main boyfriend, or to have different partners over the same period of time?
• In what situations do women get tempted to have other partners?
• How easy is it for a woman to resist the temptation to have other partners apart from her main partner, or to have different partners over the same period of time? What makes it difficult to resist?

Adaptive drivers of MCP: 3 – Peer pressure
• [Ask all questions that did not come out in the emergent section]
• How much are young women influenced by their friends’ opinions and what their friends do?
• Is there competition between young women about clothes, cell-phones, transport, where they go out, and so on? [Probe for examples.]
• Do you think that young women feel pressured to have the same possessions and lifestyle as their friends? [Probe for examples.]
• Do you think that young women get involved with extra sexual partners in order to keep up with their friends’ lifestyles? [Probe for examples.]

Adaptive barriers to MCP: 4 – Future desirability as wives and mothers
• [Ask all questions that did not come out in the emergent section]
• How do young women view marriage and motherhood?
• Do young women your age think about settling down, getting married and raising a family? Is this a dream or an aspiration for most young women that you know? [Probe for examples.]
• Do you think that men sleep with different kinds of women to the ones they eventually marry? [Probe for the differences.]
• Do young women worry that if they have sex with different men now, then later when they want to get married they may not be desirable? Why? Why not?

Adaptive drivers of MCP: 5 – Lack of knowledge about concurrency and HIV risk
• [Give the group the ‘Who’s in your sexual network’ leaflet to read. Run them through the transmission graphics, explaining how when each new person gets infected, they are highly infectious and therefore highly likely to transmit HIV to their other partners. Show them the chart on stages of HIV infection and explain how infectiousness changes over time. Make sure the group understands what a sexual network is and how being linked to others by having multiple partners puts you at risk – both because of the ‘network effect’ and because of acute HIV infection.]
• Did you know this before today? What did you know already and what was new information for you? Do you think most young women your age know this information?
• Do you think that if women understood the risks of having more than one partner during the same period of time better, they would think differently about the material benefits that different partners can provide? Why? Why not?
• Do you think that if women understood the risks of having more than one partner at the same time better they would find it easier to resist the temptation to have other partners? Why? Why not?
• Do you think that if young women understood the risks of having more than one partner at the same time better they would want their friends to protect themselves by sticking to one partner at a time? Do you think that young women would discourage each other from getting involved with different men who give them material things if they understood the risks better? Why? Why not?
• Do you think that if young women understood the risks of having more than one partner at the same time better they think more about their long term future and less about immediate desires? Why? Why not?

Wrap-up
• [The purpose of today’s discussion was to:]
  o Find out how young women talk about having more than one partner at the same time
  o Find out reasons that lead women to have more than one partner at the same time]
• Is there anything else that you like to add to help us better understand the things that we talked about today?
• Do you have any questions about how having more than one partner at the same time increases the risk of HIV transmission?
• [Thank participants for their time and contributions and close.]

Source: Toby Kasper/PSI Botswana
Focus Group Discussion Guide 3

For women not involved in MCP

Introduction

Welcome
"Welcome and thank you for taking the time to participate in this discussion today. My name is (moderator) and we’re working on behalf of PSI and the Oicheke campaign to find out about sexual partnerships among women aged between 18 and 24 years old. We are interested in your experiences, opinions and ideas so that we can find better ways to design campaign messages that are effective. Although we are here to ask for your help with the campaign, we are researchers and we were not involved in the design of the current campaign messages. So, even if you have something bad to say, please go ahead and feel free to say it. We will not mind it at all; in fact we will welcome it. We are very keen on listening to your candid views in our discussion today. So, please be frank."

Ground Rules
"We are interested in all of your opinions and feelings. There is no right or wrong answer. Some of you may agree or disagree with each other, which is perfectly normal and we encourage you to openly share your ideas so that we can learn from each other. Don’t wait for the moderator to ask for your opinion, feel free to speak at any time. However, please try to avoid interrupting others while they are talking. Everyone will have a chance to speak and all ideas, concerns and opinions are of value. The session will last approximately 2 hours."

Confidentiality
"Everything that is said in this room is confidential. Only first names will be used, and we will not tell anyone that you participated in this discussion. We are using a tape recorder only because it is very difficult to take notes and discuss at the same time. After using so much of your time, we do not want to lose out precious information that you will be giving us. By using the tape recorder, we can go back to our offices and analyze what was said during these discussions. We will not be able to relate/attribute what was said to any particular person. Further, we are doing many other such group discussions and will be compiling all this information together. When we report, we only report as ‘women aged 18-24 in Francistown felt this or that …’ As you can see no names are taken anywhere and we absolutely respect your confidentiality."

Warm Up

Introduction of Participants
"To begin with, we would like each of you to introduce yourself and to tell us your name, age, occupation, and what do you do in your free time."

Introduction of subject matter
- What kinds of sexual relationship are common among your friends?
- How common is it among your friends to have more than one sexual partner at the same time? How common is it to stick to just one partner? How common is it for young women to abstain when they are not in a relationship?
- What words do you use to describe men who have more than one sexual partner at the same time?
- What words do you use to describe women who have more than one sexual partner at the same time? What do you think this behaviour tells you about a woman’s character?
- What words do you use to describe young women who stick to one partner or abstain from sex when they are not in a relationship? What do you think these behaviours tell you about a young woman’s character?

Emergent Responses

Emergent MCP behaviours
- What words do you use to talk about young women who have sex with more than one man at a time or with different men over the same period of time? [Note all responses on flipchart, probe until the group cannot come up with any other words, but do not ask leading questions]
- Tell me more about [first response on flipchart]. What do you mean by [...]? How common are [...] among your friends?
Emergent one partner behaviours

- What words do you use to talk about young women who stick to one partner at a time?
- What words do you use to talk about women who abstain from sex when they are not in a relationship? [Note all responses on flipchart, probe until the group cannot come up with any other words, but do not ask leading questions]
- Tell me more about [first response on flipchart]. What do you mean by [...]?
- [Repeat question above for all responses on flipchart]
- What kinds of activities do young women like you do with their partner? [Probe: Where do you spend time together, where do you meet up, etc]
- Where did you meet your current or most recent boyfriends?
- If you break up with a partner, do you look for a replacement right away? Why? Why not?
- Do you prefer to date men close to your own age or older men? Why?
- Do young women typically use condoms with their main partner? Why or why not?

Emergent barriers to MCP

- Why do women you know of your age choose to stick to one partner at a time? Why do women you know of your age choose to abstain from sex when they are not in a serious relationship? [Note all responses on flipchart, probe until the group cannot come up with any other reasons, but do not ask leading questions]
- What do you mean by [first reason]? How would you describe [...]?
- How does [...] prevent having more than one partner at the same time?
- What is an example of [...] that prevents having more than one partner at the same time?

Adaptive Responses

Adaptive one partner behaviours

- [Ask for all terms in bold below that did not come out in the emergent section]
- How common is it for young women to refuse to be involved with men for whom they are not the main / primary partner?
- How common is it for young women to take breaks (of say 3 months or more) in between relationships and not have sex during this time?
- How common is it for young women to look for men who will give them love and emotional commitment, rather than men who can offer them material benefits?

Adaptive barriers of MCP: 1 – Self worth and dignity

- [Ask all questions that did not come out in the emergent section]
- What does it mean to you to be a young Motswana woman?
- What values are most important to you as a young Motswana woman?
- What do you think gives a young woman dignity? What do you think takes away a young woman’s dignity?

Adaptive barriers to MCP: 2 – Self efficacy to resist temptation to have multiple partners

- [Ask all questions that did not come out in the emergent section]
- How much temptation is there for young women to have other partners apart from their main boyfriend, or to have different partners over the same period of time?
- In what situations do women get tempted to have other partners?
- How easy is it for a woman to resist the temptation to have other partners apart from her main partner, or to have different partners over the same period of time? What makes it easy or difficult to resist?
- In what situations do women not get tempted to have other partners? What factors make it easy for young women to resist the temptation to have other partners apart from her main partner, or to have different partners over the same period of time?

Adaptive barriers to MCP: 3 – Peer social support

- [Ask all questions that did not come out in the emergent section]
- What do you think makes a real friend?
- How much are young women influenced by their friends’ opinions and what their friends do?
- How do you think that young women feel pressured to have the same possessions and lifestyle as their friends? [Probe for examples.] How easy or difficult is it to resist this pressure? [Probe for examples of resisting peer pressure.]
• How do you think that young women can support each other to stick to one partner, or to reject men who cheat on them, or to abstain when they are not in a relationship?

**Adaptive barriers to MCP: 4 – Future desirability as wives and mothers**

• [Ask all questions that did not come out in the emergent section]

• How do young women view marriage and motherhood?

• Do young women your age think about settling down, getting married and raising a family? Is this a dream or an aspiration for most young women that you know? [Probe for examples.]

• Do you think that men sleep with different kinds of women to the ones they eventually marry? [Probe for the differences.]  

• Do young women worry that if they have sex with different men now, then later when they want to get married they may not be desirable? Why? Why not?

**Adaptive barriers to MCP: 5 – Knowledge about concurrency and HIV risk**

• [Give the group the ‘Who’s in your sexual network’ leaflet to read. Run them through the transmission graphics, explaining how when each new person gets infected, they are highly infectious and therefore highly likely to transmit HIV to their other partners. Show them the chart on stages of HIV infection and explain how infectiousness changes over time. Make sure the group understands what a sexual network is and how being linked to others by having multiple partners puts you at risk – both because of the ‘network effect’ and because of acute HIV infection.]

• Did you know this before today? What did you know already and what was new information for you? Do you think most young women your age know this information?

• Do you think that if women understood the risks of having more than one partner at the same time better they would find it easier to resist the temptation to have other partners? Why? Why not?

• Do you think that if young women understood the risks of having more than one partner at the same time better they would want their friends to protect themselves by sticking to one partner at a time? Do you think that young women would discourage each other from getting involved with different men who give them material things if they understood the risks better? Why? Why not?

• Do you think that if women understood the risks of having more than one partner at the same time better they think more about their long term future and less about immediate desires? Why? Why not?

**Wrap-up**

• [The purpose of today’s discussion was to find out reasons why young women choose to stick to one partner at a time and to abstain from sex with they are not in a relationship]

• Is there anything else that you like to add to help us better understand the things that we talked about today?

• Do you have any questions about how having more than one partner at the same time increases the risk of HIV transmission?

• [Thank participants for their time and contributions and close.]

**Source:** Toby Kasper/PSI Botswana
Focus Group Discussion Guide 4

For men involved in MCP

Introduction

Welcome
"Welcome and thank you for taking the time to participate in this discussion today. My name is (moderator) and we're working on behalf of PSI and the O ichoke campaign to find out about sexual partnerships among men aged between 25 and 35 years old. We are interested in your experiences, opinions and ideas so that we can find better ways to design campaign messages that are effective. Although we are here to ask for your help with the campaign, we are researchers and we were not involved in the design of the current campaign messages. So, even if you have something bad to say, please go ahead and feel free to say it. We will not mind it at all; in fact we will welcome it. We are very keen on listening to your candid views in our discussion today. So, please be frank."

Ground Rules
"We are interested in all of your opinions and feelings. There is no right or wrong answer. Some of you may agree or disagree with each other, which is perfectly normal and we encourage you to openly share your ideas so that we can learn from each other. Don’t wait for the moderator to ask for your opinion, feel free to speak at any time. However, please try to avoid interrupting others while they are talking. Everyone will have a chance to speak and all ideas, concerns and opinions are of value. The session will last approximately 2 hours."

Confidentiality
"Everything that is said in this room is confidential. Only first names will be used, and we will not tell anyone that you participated in this discussion. We are using a tape recorder only because it is very difficult to take notes and discuss at the same time. After using so much of your time, we do not want to lose out precious information that you will be giving us. By using the tape recorder, we can go back to our offices and analyze what was said during these discussions. We will not be able to relate/attribute what was said to any particular person. Further, we are doing many other such group discussions and will be compiling all this information together. When we report, we only report as ‘men aged 25-35 in Francistown felt this or that …’ As you can see no names are taken anywhere and we absolutely respect your confidentiality."

Warm Up

Introduction of Participants
"To begin with, we would like each of you to introduce yourself and to tell us your name, age, occupation, and what do you do in your free time."

Introduction of subject matter
• What kinds of sexual relationship are common among your friends?
• How common is it among your friends to have more than one sexual partner at the same time?
• What words do you use to describe men who have more than one sexual partner at the same time?
• What words do you use to describe men who stick to one partner?
• What words do you use to describe women who have more than one sexual partner at the same time?
• What words do you use to describe women who stick to one partner?

Emergent Responses

Emergent MCP behaviours
• What words do men use to talk about women they have sex with who are not their main/primary partners? [Note all responses on flipchart, probe until the group cannot come up with any other words, but do not ask leading questions]
• Tell me more about [first response on flipchart]. What do you mean by […]? How common are […] among men you know?
• How much time do men spend with each of the partners they have at the same time?
Where do [...] tend to be located?  [Probe: In the same place where the man’s main partner / family lives?  In a different location?  What is the man’s connection with that other location?]

Are [...] usually older or younger?  By how much?

What kinds of activities (other than sex) do men do with [...]?

Where do men spend time with [...]?  Where do they meet [...]?

Do men have [...] for a long or short time?  About how long is this?

With what type of partners do men replace [...]?

Do [...] ever replace a man’s main / primary partner?

Do men typically use condoms with [...]?  Why or why not?

[Repeat questions above for all responses on flipchart]

Emergent drivers of MCP

Why do men you know of your age have more than one partner at the same time?  [Note all responses on flipchart, probe until the group cannot come up with any other reasons, but do not ask leading questions]

What do you mean by [first reason]?  How would you describe [...]?

How does [...] lead to having more than one partner at the same time?

What is an example of [...] that leads to having more than one partner at the same time?

Adaptive Responses

Adaptive MCP behaviours

[Ask for all terms in bold below that did not come out in the emergent section]

How common is it for men to have one night stands in additional to their primary partner?  What other words are used to describe one night stands?

How common is it for men to have ‘no-strings’ partners?  Are these usually in addition to their main / primary partner or instead of a main/primary partner?  What other words are used to describe somebody you just have sex with but don’t have any commitment or responsibility to?  How long do these partners usually last for?

How common is it for men to have sidekicks in addition to their main / primary partner?  What other words are used to describe sidekicks?  How long do sidekicks usually last for?  Do sidekicks ever replace the main / primary partner?

How common is it for men to have small houses in addition to their main / primary partner?  What other words are used to describe small houses?  How long do small houses usually last for?  Do small houses ever replace the main / primary partner?

How common is it for men to have Ma14?  Are these usually in addition to their main / primary partner or instead of a main/primary partner?  What other words are used to describe younger women that men have sex with?  How long do Ma14 usually last for?

Adaptive drivers of MCP: 1 – Male-male norms

[Ask all questions that did not come out in the emergent section]

What does it mean to be a man or to be masculine?

How should a man act / what should a man do for others to consider him masculine or a real man?

Do the men you know compare themselves against each other, in terms of being masculine?  How?

Are men considered more masculine if they have more than woman?  Why?  Why not?

If a man sticks to only his primary partner is he considered more or less of a man by other men?  Why?

If a man turns down opportunities for sex with other women, is he considered more or less of a man by other men?  Why?

Do you think that men have different sexual partners to boost their image with their friends?

Adaptive drivers of MCP: 2 – Lack of communication about sex within relationships

[Ask all questions that did not come out in the emergent section]

How easy do men find it to discuss problems relating to sex and relationships with their wife or main girlfriend?  Why can these discussions be difficult?

What do the men you know do if they are having problems in their relationship with their wife or primary partner?  Why?

If men you know are not getting enough sex or good enough sex with their main partner, what do they do?  Why?
- Do you think that men who find it difficult to discuss problems about sex and relationships with their wife or main partner end up having other partners?
- What kinds of other partners do men have when they are having problems with their main partner?

**Adaptive drivers of MCP: 3 – Attitudes to sex and commitment**
- [Ask all questions that did not come out in the emergent section]
- Do you think you need to love somebody in order to have sex with them? Why? Why not?
- Do you think that for most men your age sex has an emotional value? Why? Why not?
- Do you think that you can be in love with or committed to a woman but still have sex with another woman? Why? Why not?

**Adaptive drivers of MCP: 4 – Norms about gender and relationships**
- [Ask all questions that did not come out in the emergent section]
- Do you think women expect men to stick to one partner at a time? Why? Why not?
- What does a woman typically do if she thinks her husband or boyfriend is having other partners?
- Do you expect your wife to be faithful to you? Why? Why not?
- Do you expect your main girlfriend to be faithful to you? Why? Why not?
- What should a man do if he finds out that his wife or girlfriend is having sex with another man?

**Adaptive drivers of MCP – 5: Beliefs about the benefits of having multiple partners**
- [Ask all questions that did not come out in the emergent section]
- What do you think are the benefits of having more than one partner at the same time? [Record all responses that were not discussed in the emergent section earlier on a flipchart]
- [Probe if not offered] What about choosing the best one between them? Would this be a benefit of having more than one partner?
- [Probe if not offered] What about making it easier to move on to the next partner if you have a fight with one of them? Would this be a benefit of having more than one partner?
- [Probe if not offered] What about never having to sleep alone? Would this be a benefit of having more than one partner?
- [Probe if not offered] What about getting more sexual satisfaction? Would this be a benefit of having more than one partner?
- [Probe if not offered] What about getting prestige with your friends? Would this be a benefit of having more than one partner?
- [Ask the questions below for all benefits on the list, including the ones that you added through probing]
- What do you mean by [first benefit]?
- What is an example of [.... ] that leads to men having more than one partner at the same time?

**Adaptive drivers of MCP: 6 - Temptation to have other partners apart from the main partner**
- [Ask all questions that did not come out in the emergent section]
- For men who are married or who are in any kind of relationship, are they ever tempted to have other partners apart from the wife or main girlfriend?
- In what situations do men get tempted to have other partners?
- How easy is it for a man to resist the temptation to have other partners apart from his wife or main girlfriend? What makes it difficult to resist?
- [If the discussion becomes repetitive and the participants become restless as a result] Are there any other factors that we have not already talked about that make it difficult for men to resist the temptation to have other partners?

**Adaptive drivers of MCP: 7 – Lack of knowledge about concurrency and HIV risk**
- [Give the group the ‘Who’s in your sexual network’ leaflet to read. Run them through the transmission graphics, explaining how when each new person gets infected, they are highly infectious and therefore highly likely to transmit HIV to their other partners. Show them the chart on stages of HIV infection and explain how infectiousness changes over time. Make sure the group understands what a sexual network is and how being linked to others by having multiple partners puts you at risk – both because of the ‘network effect’ and because of acute HIV infection.]
- Did you know this before today? What did you know already and what was new information for you? Do you think most men your age know this information?
• Do you think that if men understood the risks of having more than one partner at the same time better they would think differently about the benefits of having multiple partners that we discussed before? Why? Why not?
• Do you think that if men understood the risks of having more than one partner at the same time better they would find it easier to resist the temptation to have other partners? Why? Why not?
• Do you think that if men understood the risks of having more than one partner at the same time better they would think differently about the emotional value of sex? Why? Why not?
• Do you think that if men understood the risks of having more than one partner at the same time better they would think differently about what makes someone a real man? Why? Why not?
• Do you think that if men understood the risks of having more than one partner at the same time better they would make more effort to resolve problems with their main partner (instead of looking for another partner on the side)? Why? Why not?

Wrap-up
• [The purpose of today’s discussion was to:
  o Find out how men talk about having more than one partner at the same time
  o Find out reasons that lead men to have more than one partner at the same time]

  • Is there anything else that you like to add to help us better understand the things that we talked about today?
  • Do you have any questions about how having more than one partner at the same time increases the risk of HIV transmission?

[Thank participants for their time]

Source: Toby Kasper/PSI Botswana
Focus Group Discussion Guide 5

For men not involved in MCP

Introduction

Welcome
"Welcome and thank you for taking the time to participate in this discussion today. My name is (moderator) and we’re working on behalf of PSI and the O ’icheke campaign to find out about sexual partnerships among men aged between 25 and 35 years old. We are interested in your experiences, opinions and ideas so that we can find better ways to design campaign messages that are effective. Although we are here to ask for your help with the campaign, we are researchers and we were not involved in the design of the current campaign messages. So, even if you have something bad to say, please go ahead and feel free to say it. We will not mind it at all; in fact we will welcome it. We are very keen on listening to your candid views in our discussion today. So, please be frank.”

Ground Rules
"We are interested in all of your opinions and feelings. There is no right or wrong answer. Some of you may agree or disagree with each other, which is perfectly normal and we encourage you to openly share your ideas so that we can learn from each other. Don’t wait for the moderator to ask for your opinion, feel free to speak at any time. However, please try to avoid interrupting others while they are talking. Everyone will have a chance to speak and all ideas, concerns and opinions are of value. The session will last approximately 2 hours.”

Confidentiality
“Everything that is said in this room is confidential. Only first names will be used, and we will not tell anyone that you participated in this discussion. We are using a tape recorder only because it is very difficult to take notes and discuss at the same time. After using so much of your time, we do not want to lose out precious information that you will be giving us. By using the tape recorder, we can go back to our offices and analyze what was said during these discussions. We will not be able to relate/attribute what was said to any particular person. Further, we are doing many other such group discussions and will be compiling all this information together. When we report, we only report as ‘men aged 25-35 in Francistown felt this or that …’. As you can see no names are taken anywhere and we absolutely respect your confidentiality.”

Warm Up

Introduction of Participants
“To begin with, we would like each of you to introduce yourself and to tell us your name, age, occupation, and what do you do in your free time.”

Introduction of subject matter
• What kinds of sexual relationship are common among your friends?
• How common is it among your friends to have more than one sexual partner at the same time? How common is it to stick to just one partner? How common is it for men who have been with the same woman for quite a long time to never have other partners?
• What words do you use to describe women who have more than one sexual partner at the same time?
• What words do you use to describe men who have more than one sexual partner at the same time?
• What words do you use to describe young women who stick to one partner or abstain from sex when they are not in a relationship? What do you think these behaviours tell you about a young woman’s character?

Emergent MCP behaviours
• What words do men use to talk about women they have sex with who are not their main/primary partners? [Note all responses on flipchart, probe until the group cannot come up with any other words, but do not ask leading questions]
• Tell me more about [first response on flipchart]. What do you mean by […]? How common are […] among men you know?

Emergent one partner behaviours
What words do you use to talk about men who stick to one partner at a time?
What words do you use to talk about men who have been with the same woman for quite a long time but never had other partners?
What words would you use to describe a man who turns down opportunities to have sex with other women apart from his wife or main partner?
[Note all responses on flipchart, probe until the group cannot come up with any other words, but do not ask leading questions.]
Tell me more about [first response on flipchart]. What do you mean by [....]?
[Repeat question above for all responses on flipchart]
Where did you meet your wife / current partner / most recent partner?
For those of you who are not married, if you break up with a partner, do you look for a replacement right away? Why? Why not?
What do you look for in a woman? Why?

Emergent barriers to MCP

Why do men of your age choose to stick to one partner at a time? Why do men of your age choose to abstain from sex when they are not in a serious relationship? Why do men of your age turn down opportunities to have other partners apart from their wife / girlfriend? [Note all responses on flipchart, probe until the group cannot come up with any other reasons, but do not ask leading questions]
What do you mean by [first reason]? How would you describe [....]?
How does [....] prevent having different partners?
What is an example of [.... ] that prevents having different partners?

Adaptive Responses

Adaptive barriers to MCP: 1 – Male-male norms

[Ask all questions that did not come out in the emergent section]
What does it mean to be a man or to be masculine?
How should a man act / what should a man do for others to consider him masculine or a real man?
Do the men you know compare themselves against each other, in terms of being masculine? How?
Are men considered more masculine if they have more than woman? Why? Why not?
If a man sticks to only his primary partner is he considered more or less of a man by other men? Why?
If a man turns down opportunities for sex with other women, is he considered more or less of a man by other men? Why?

Adaptive barriers to MCP: 2 – Peer social support

[Ask all questions that did not come out in the emergent section]
What do you think makes a man a real friend?
How much are men influenced by their friends’ opinions and what their friends think?
Do men talk among themselves about problems with their wife or girlfriend? What kinds of things do you talk about?
How do you think that men can support each other to stick to one partner, or to resist the temptation to have other partners, or to resolve problems in their relationships?

Adaptive barriers to MCP: 3 – Communication about sex within relationships

[Ask all questions that did not come out in the emergent section]
How easy do men find it to discuss problems relating to sex and relationships with their wife or main girlfriend? Why can these discussions be difficult? How can they be made easier?
What do the men you know do if they are having problems in their relationship with their wife or primary partner? Why?
If men you know are not getting enough sex or good enough sex with their main partner, what do they do? Why?
Do you think that men who find it difficult to discuss problems about sex and relationships with their wife or main partner end up having other partners?
What advice would you give to men who are having relationship problems and are tempted to look elsewhere for sex?
Adaptive barriers to MCP: 4 – Attitudes to sex and commitment

- Ask all questions that did not come out in the emergent section
- Do you think you need to love somebody in order to have sex with them? Why? Why not?
- Do you think that for most men your age sex has an emotional value? Why? Why not?
- Do you think that you can be in love with or committed to a woman but still have sex with another woman? Why? Why not?
- Do you think that sex is better / more satisfying with somebody who you love and are committed to? How? Why? Why not?

Adaptive barriers to MCP – 5: Beliefs about the benefits of having just one partner

- Ask all questions that did not come out in the emergent section
- What do you think are the benefits of having just one partner at a time? [Record all responses that were not discussed in the emergent section earlier on a flipchart]
- [Probe if not offered] What about less risk of your partner cheating if she found out you had cheated on her? Is that a benefit of sticking to one partner?
- [Probe if not offered] What about a stronger sexual connection? Is that a benefit of sticking to one partner?
- [Probe if not offered] What about better communication because you are honest with each other and don’t cheat? Is that a benefit of sticking to one partner?
- [Probe if not offered] What about getting more sexual satisfaction? Is that a benefit of sticking to one partner?
- [Probe if not offered] What about less stress from having to juggle women and worrying about your main partner finding out about other women? Is that a benefit of sticking to one partner?
- [Probe if not offered] What about the financial side – are there financial benefits from sticking to one partner?
- [Ask the questions below for all benefits on the list, including the ones that you added through probing]
- What do you mean by [first benefit]?
- What is an example of [.....] that prevents men having different partners?

Adaptive barriers to MCP: 6 – Self efficacy to resist temptation to have other partners

- Ask all questions that did not come out in the emergent section
- For men who are married or who are in any kind of relationship, are they ever tempted to have other partners apart from the wife or main girlfriend?
- In what situations do men get tempted to have other partners?
- How easy is it for a man to resist the temptation to have other partners apart from his wife or main girlfriend? What makes it easy or difficult to resist?
- In what situations do men not get tempted to have other partners? What factors make it easy for men to resist the temptation to have other partners apart from their main partner?

Adaptive barriers to MCP: 7 – Knowledge about concurrency and HIV risk

- Give the group the ‘Who’s in your sexual network’ leaflet to read. Run them through the transmission graphics, explaining how when each new person gets infected, they are highly infectious and therefore highly likely to transmit HIV to their other partners. Show them the chart on stages of HIV infection and explain how infectiousness changes over time. Make sure the group understands what a sexual network is and how being linked to others by having multiple partners puts you at risk – both because of the ‘network effect’ and because of acute HIV infection.
- Did you know this before today? What did you know already and what was new information for you? Do you think most men your age know this information?
- Do you think that if men understood the risks of having more than one partner at the same time better they would think differently about the benefits of having multiple partners? Why? Why not?
- Do you think that if men understood the risks of having more than one partner at the same time better they would find it easier to resist the temptation to have other partners? Why? Why not?
- Do you think that if men understood the risks of having more than one partner at the same time better they would think differently about the emotional value of sex? Why? Why not?
- Do you think that if men understood the risks of having more than one partner at the same time better they would make more effort to resolve problems with their main partner (instead of looking for another partner on the side)? Why? Why not?
Wrap-up

- [The purpose of today’s discussion was to find out reasons that lead men to stick to only one partner and not have other partners while they are in a relationship]
- Is there anything else that you like to add to help us better understand the things that we talked about today?
- Do you have any questions about how having more than one partner at the same time increases the risk of HIV transmission?
- [Thank participants for their time and contributions and close.]

Source: Toby Kasper/PSI Botswana
In-Depth Interview Questionnaire

Note: Use with people involved or who have been involved in MCP.

What kinds of sexual relationships exist in your community?

Tell me about the relationships you have had to date

What do you think of having more than one sexual partner at a time?
- What is good about having more than one partner?
- What is bad about having more than one partner?
- What do you think about having one sexual partner?
  - Explore for benefits/drawbacks

Why do you / did you have more than one sexual partner at (the) a time
- How long did you take between moving from one relationship to the other
- What role does sex play for you to have more than one sexual partner at a time?
- (explore the emotional aspect of sex) “Does sex have an emotional side?”

What kind of people do you usually get involved with? Why?

What do you think of having more than one sexual partner in relation to HIV infection?
- Why do you continue to behave in a risky way despite understanding the risks? (If applicable)
- Explore concurrency or relationships where you have a series of sexual relationships but one person at a time with a break of more than two months

What are some of the practices that may put you at the risk of HIV?

What promotes / facilitates you to have more than one sexual partner?
- Probe for cultural practices, peer pressure, gender imbalances
- What are some of the cultural practices that protect you in relation to HIV infection?

Source: Toby Kasper/PSI Botswana
Appendix 4: Recommendations on Measuring Concurrency from the UNAIDS Reference Group on Estimates, Modeling and Projections
Consultation on Concurrent Sexual Partnerships

Recommendations from a meeting of the UNAIDS Reference Group on Estimates, Modelling and Projections held in Nairobi, Kenya, April 20-21\textsuperscript{st} 2009

RECOMMENDATIONS
The meeting of the UNAIDS Reference Group on Estimates, Modelling and Projections (the ‘Epidemiology Reference Group’) was organised for UNAIDS by the UK secretariat of the Reference Group (www.epidem.org) based at Imperial College London. Participants of the meeting are listed at the end of this document. The recommendations in this document were arrived at through discussion and review by meeting participants and drafted at the meeting.

Introduction

The Reference Group on Estimates, Modelling and Projections
The Joint United Nations Programme on HIV/AIDS (UNAIDS) Reference Group on Estimates, Modelling and Projections exists to provide impartial scientific advice to UNAIDS, the World Health Organization (WHO) and other United Nations and partner organisations on global estimates and projections of the prevalence, incidence and impact of HIV/AIDS. The Reference Group acts as an ‘open cohort’ of epidemiologists, demographers, statisticians, and public health experts. It is able to provide timely advice and also address ongoing concerns through both ad hoc and regular meetings. The group is co-ordinated by a secretariat based in the Department of Infectious Disease Epidemiology, Imperial College London (www.epidem.org).

Aim of the meeting
The aim of this meeting was to bring together experts to reach consensus on a standard definition of concurrent sexual partnerships, recommend methods for measuring concurrency in a population, and set out a future research agenda around the study of concurrent sexual partnerships and its association with HIV transmission.

Approach
The meeting featured presentations on relevant topics and group discussions focusing on specific technical issues. Presentations and discussion topics are listed in Appendix I.

The meeting was attended by 34 experts representing large scale cross-sectional surveys, longitudinal cohort studies, researchers utilising sexual behaviour and concurrent partnership data, and programmatic implementations around concurrent partnerships (see Appendix III for a list of participants). We would like to thank each of the participants for their attendance and hard work at the meeting, and for their insights contributing to the set of recommendations drafted at the meeting.

The recommendations drafted at Reference Group meetings provide UNAIDS and WHO guidance on how best to produce estimates of HIV/AIDS, an opportunity to review current approaches and also help to identify information needs. Earlier reports are published on the Reference Group website www.epidem.org. This transparent process aims to allow the statistics and reports published by UNAIDS and WHO to be informed by impartial, scientific peer review.
Recommendations

1. Definition and Terminology

Definition
Overlapping sexual partnerships where sexual intercourse with one partner occurs between two acts of intercourse with another partner.

This definition emphasises that for the purpose of defining concurrent sexual partnerships in the context of HIV epidemiology, sexual partnerships matter in terms of acts of sexual intercourse.

Terminology
The abundance of terminology used to identify and describe concurrent sexual partnerships was a source of confusion in group discussions. A particular confusion was expressed with the acronym ‘MCP’, used in some literature as an acronym for ‘Multiple and Concurrent Partnerships’, a phrase for concomitantly discussing the correlated but not identical risk behaviours of having multiple sexual partners and having concurrent sexual partners. In other instances MCP is an acronym for the phrase ‘Multiple Concurrent Partnerships’, for which the definition is ambiguous, but is often used as a synonym for ‘concurrent sexual partnerships.’ Due to the ambiguity around the meaning of ‘MCP’, it is recommended that this acronym is not used to identify or describe concurrency, preferring the phrases ‘concurrent sexual partnerships’, ‘concurrent partnerships’, or simply ‘concurrency’. If an acronym is required, ‘CP’ is recommended.
2. Recommended Indicators for Measuring Concurrent Sexual Partnerships in Population-Based Household Surveys

Concurrent sexual partnerships potentially increase the spread of HIV by creating more connected sexual networks, reducing the time until onward HIV transmission after acquisition, and eliminating the ‘protective sequencing’ provided by serial monogamy. The Reference Group recommends that a measure of the amount of concurrent partnerships is included in the set of indicators for monitoring national HIV epidemics.

Main Indicator
The consensus is that the point prevalence of concurrency in a population be the main indicator of concurrency.

Point Prevalence of Concurrent Partnerships: The percentage of women and men aged 15-49 with more than one ongoing sexual partnership at the point in time six months before the interview.

Purpose: To assess progress in reducing the percentage of people who have concurrent sexual partnerships.

Applicability: All Countries

Data Collection Frequency: Every 4 to 5 years

Measurement Tool: National Population Based Surveys (Demographic & Health Survey, AIDS Indicator Survey, Multiple Indicator Clusters Survey, or other similar representative surveys).

Method of Measurement: Respondents are asked whether or not they have ever had sexual intercourse. If yes, they are asked how long ago they last had sexual intercourse, and how long ago they first had sexual intercourse with that person. If the last intercourse occurred in the past year, they are asked if they have had intercourse with any other person in the past 12 months, and if so, they are asked to give the time of last and first sex with that second partner. This is repeated for a third partner if one exists. The proportion of individuals who had more than one ongoing partnership at the exact point in time 6 months before the interview is calculated based on the dates of first and last intercourse with up to the last 3 partners in the past year.

Numerator: Number of respondents aged 15-49 with more than one ongoing partnership 6 months before the interview. In the case that one partnership ends and another begins in the 6th month before the interview, this individual will not be included in the numerator as it cannot be determined whether this is actual concurrency or serial monogamy.

Denominator: Number of respondents aged 15-49

The indicator should be presented as separate percentages for males and females and should be presented for age groups 15-24, and 25-49 as sample size allows, in addition to the overall age group of 15-49.
Interpretation
This indicator gives a picture of the proportion of population maintaining multiple ongoing sexual partnerships, which creates more connected sexual networks over which HIV may spread rapidly. Modelling suggests that even low levels of concurrency in a population can substantially increase the connectivity of the networks. The indicator does not distinguish between different ‘types’ of concurrency, for example polygynous marriages versus other casual partnerships. The proportion concurrent partnerships may not be directly related to risk of HIV transmission from concurrent partnerships, as this is also affected by the duration of overlap in partners, condom usage with concurrent partners, and patterns of coitus with each partner.

When interpreting the results it is important to note that if a person has concurrent partners it will affect their partners’ risk of being HIV positive; while if a person has multiple partners it will affect their own risk of being HIV positive.

Strengths
This indicator is recommended because it best distinguishes between actual concurrency and simply having many (potentially monogamous) partners. By considering partnerships that overlap at one point in time, the measure emphasises the importance of having multiple sustained overlapping partnerships versus having a single long-term partnership with occasional once-off sexual encounters.

Limitations
There is potential for censoring bias with this indicator based on the collection of sexual histories for only the three most recent sex partners. If a respondent with an sexual partnership that is ongoing for over six months has acquired, and most recently had sex with, two or more partners within the past six months, it may be the case that there was a concurrent partner six months before the interview who was not reported in the sexual partner history of the last three partners. In this situation, the respondent would be incorrectly classified by the recommended indicator as not having a concurrent partner. If the indicator is employed in populations with high rates of partner acquisition, the indicator could miss a proportion of concurrent partnerships. In such situations, it may be useful to collect information about more than 3 sexual partners.

Another potential bias is where sexual partnerships are ongoing, but the last sexual intercourse with the partner occurred more than six months before the interview (for example in the case of annual labour migration cycles), in which case the partnership would not be measured as ongoing at the instant six months before the interview, and a concurrent partnership may be missed.

The indicator will provide a conservative (low) estimate of the amount of concurrency in the population. Finally, this indicator is only valid to the extent that the sexual partner history data collected in representative household samples are complete and accurate.

Other Indicators
Aside from the above main indicator, the Reference Group recommends two other indicators that also provide useful summaries of concurrency in a population. Programmes may wish to use these indicators in addition to the point prevalence indicator.

The first additional indicator is the cumulative prevalence of concurrent partnerships, defined as the proportion of the adult population who have had any overlapping relationships in the past year. This is measured by identifying the individuals for whom any of the sexual partnerships reported in the past year have been overlapping based on the sexual partner histories. This measure may give a more complete picture of the total population engaging in
any form of concurrent partnership including short lived partnerships that may be missed in
the point prevalence, but does not distinguish as clearly as does the point prevalence between
the populations having multiple sustained overlapping partnerships, compared to having many
partners.

For both the point prevalence and cumulative prevalence measures, there was debate about
whether the entire population aged 15-49 or only the sexually active population is the more
appropriate denominator. The choice of denominator will affect how the values of the
indicators respond to other changes in sexual behaviour. The entire population was selected
for the recommended indicators for consistency with already established indicators of multiple
partnerships. However, further research into how the selection of the denominator affects the
implications of changes in the indicator over time is required.

The second additional indicator is the proportion of multiple partnerships which are concurrent,
calculated by dividing the number of adults with concurrent partnerships in the
past year by the number of adults with multiple partnerships in the past year. This indicator
seeks to isolate the effect of having concurrent partnerships from the already established risk
factor of multiple partnerships, which is an important measure for research into the role
of concurrency in HIV transmission. However, the interpretation of this indicator is subtle and the
programmatic implications of changes in this indicator over time can only be made carefully in
conjunction with other indicators.

Other measures of concurrency which have been employed in the literature are (1) the
percentage of individuals who have had more than one sexual partner in the past 30 days,
and (2) the proportion of individuals who have ever had sexual intercourse with another
person during their current or most recent partnership. Each of these measures were
discussed and rejected. The first has the limitation that it does not actually measure overlapping partnerships, but is rather a measure of having had recent multiple partnerships, which may have been concurrent or serially monogamous. The second measure does not control for the exposure to having had concurrent partnerships, as individuals in longer partnerships will have had increased exposure to having had another partner.
3. Recommended Data Collection for Measuring Concurrent Sexual Partnerships in Population-Based Household Surveys

Basic Data Collection Requirements
The Reference Group recommends that population based surveys include ‘sexual partner history’ modules to collect information about the last three individuals with whom the respondent has had sexual intercourse within the previous 12 months. Since these questions are of a sensitive nature, privacy should be ensured by the interviewer before starting to ask these questions. The privacy conditions of the interview, with regards to who else is in the room, within earshot, or in the house, should be assessed and recorded by the interviewer. In addition, respondents should be reminded to report all sexual partnerships, including once-off sexual partnerships as well as sexual partnerships with sex workers.

The essential questions which need to be asked for each partner to calculate indicators of concurrency are:

Q1: When was the last time you had sexual intercourse with this person? (Answer in days/weeks/months ago – [also years for the most recent partner])
Q2: When was the first time you had sexual intercourse with this person? (Answer in weeks/months/years ago)
Q3: Are you still having sex with this person?

The consensus was that questions about dates (e.g. first and last sex) should be asked in terms of how long ago (days ago, weeks ago, months ago, years ago) events occurred rather than the calendar date on which events occurred as in most settings, especially areas in which literacy is relatively low, this is likely to be easier for respondents to recall.

Questions about partners should be framed specifically around sexual partners and questions about dates should specifically refer to acts of sex to distinguish between disease risk behaviour and culturally defined notions of relationships. For example prompting questions should be similar to “Tell me about your most recent sexual partner,” rather than “Tell me about your most recent partner” or “Tell me about your most recent relationship,” and questions about dates of first and last sex should be “When was the first time you had sexual intercourse with this person?” rather than “When did this relationship begin?”

Finally interviewers should be well trained, and interview methods should be well designed to probe for all sexual partners in the past year, including those who are routinely under-reported in behavioural surveys.

Covariates
In addition to these three essential questions for measuring concurrency, it is recommended that surveys collect other information and risk behaviour about each partner, including:

- type of relationship (such as spouse, polygynous marriage, cohabiting partner, girlfriend/boyfriend not living with respondent, casual acquaintance, sex worker, etc)
- the partner’s age (for all partners)
- condom usage within the partnership
- coital frequency within the partnership
- and location of the partner.
Depending on the purpose of the survey, it may also be useful to collect information about the circumstances under which the respondent met the partner, alcohol and drug usage within the partnership, knowledge of the partner’s HIV status, the exchange of money or goods in the partnerships, or other characteristics of the partnerships that may be of interest.

Finally, additional routine information on lifetime and recent sexual behaviour, including age at first sex, lifetime numbers of partners and number of partners in the past year, and attitudes towards and knowledge about HIV should continue to be collected. The design, wording, and ordering of questionnaires should be carefully considered to minimise non-response and elicit the most accurate answers as the order and way in which questions are asked can influence the findings of the survey.
4. Research Agenda for the Study of Concurrency and its Association with HIV Transmission

The recommendations on definition and measures of concurrency are based on the best data, knowledge, and experiences of the meeting participants, which represent the most advanced thinkers in the field. However, through discussion it became clear that there are many open questions requiring further research in the area of measuring concurrency and understanding the relationship between concurrency and HIV.

Methodological Research

Meeting participants came with experience in a wide variety of methods and tools for measuring sexual behaviour. However, relatively little work has been done testing, validating, comparing, or adjudicating various methods of collecting the same or similar information.

The following are specific research areas that meeting participants recommended for further methodological research.

Date Reporting

Measuring cumulative concurrency and duration of overlapping partnerships is particularly sensitive to accurately recalling dates of first and last sex with previous partners. Research is needed to assess the accuracy of date recall in behavioural surveys and test methods for improving date recall.

Suggested research designs for validating date recall include:
1. Conduct in-depth follow-up interviews using calendars on a subset of national household survey participants.
2. Re-visit a sample of survey participants several months to a year later and administer the same survey.
3. In cohort studies, compare retrospective partnership histories with prospectively collected data.

Ongoing/Still Active Partnerships

One of the simplest methods for measuring the point prevalence of concurrency is for each of the sexual partnerships recorded in the partnership history, to ask the respondent whether or not they are still having sex with that partner. If the respondent reports they are still planning on having sex with more than one of their partners again, then they are having concurrent partnerships.

However, it is not known how well the reported intention to continue a partnership actually correlates to continuation of the sexual partnership. Cohort studies should investigate the validity of this question by investigating in subsequent rounds of data collection whether or not partnerships that were reported as ongoing at the previous round actually continued (and similarly whether partnerships that were reported as completed at the previous round in fact continued).

Completeness of Sexual Partner Histories

The accuracy of measures of concurrency is extremely sensitive to the sexual partner histories collected in behavioural surveys being complete. Unfortunately as there is no 'gold standard' for behavioural data with which to compare survey data, it is not possible to definitively assess the completeness of survey data; however, by triangulating different methods, it may be possible to increase our understanding.
Proposed methods for validating the completeness of partnership histories were:

1. Conduct in-depth interviews with prompting approach (“what about sex workers, truck drivers, etc”) to improve recall and elicit additional partner information. Compare the results with response to the standard survey.
2. ‘Network census’ surveys where both partners report partnerships. There may be opportunity to nest this sort of study within existing cohort studies.
3. ‘Coital diary’ surveys where individuals prospectively record each of their acts of coitus. Historically, coital diary methods have also been suspected to be unreliably completed. They may be improved by introducing SMS or other new technologies.

Coital Frequency and Condom Usage
The most common current methods for collecting information on coital frequency and condom usage tend to be fairly crude and ask respondents to report quantities that are difficult to reliably recall and estimate. Validation of, and perhaps innovation on, the existing instruments is necessary.

Method of Survey Administration
The results of using novel survey administration methods in African settings have been mixed. More experimental work needs to be done comparing self-administered questionnaires, face-to-face interview, randomised response, voting box methods, computerised methodologies and mobile phone technology. Validation should be built through triangulation of methods. Additional research is also needed to identify how these methods vary by setting and location.

It should not be assumed that novel methods are necessarily better than standard face-to-face interviews administered in private settings with well-trained fieldworkers. Any benefits associated with novel methods should be weighed against potential drawbacks such as an increase in missing data for important but difficult to answer questions.

Qualitative and methodological research is needed to understand why respondents refuse to answer or give inaccurate answers to certain questions. As noted, social desirability bias is only one possible reason, and research needs to better quantify the contribution of different sources of biases.

Substantive Research

Empirical Evidence of an Association between Concurrency and HIV
While intuition and mathematical models suggest that concurrency should increase the spread of HIV, empirical evidence of such an association remains meagre. Moreover, because concurrency does not increase ones risk of acquiring HIV beyond the risk associated with multiple partnerships, standard epidemiological analyses of identifying risk factors for having disease will not provide empirical evidence of the association. Also, because of the long timescale of HIV infection and the importance of the short period of high viraemia after infection, individual and partnership level association studies of HIV and concurrency need to consider HIV incidence rather than HIV prevalence.

Study designs that may be able to demonstrate the empirical association between concurrency and HIV include:

1. Incidence/Transmission Studies: Existing HIV cohorts are well set up for surveying HIV incidence in a population and monitoring sexual behaviour of HIV positive individuals. Further studies should seek to identify sexual partners and link HIV transmission events with partner’s sexual behaviour, including the incidence and prevalence of concurrency.
2. Ecological Association Studies: All else equal, according to the theory communities with more concurrency should have higher HIV prevalence. Previous investigations of such ecological associations have not supported this, but this may be because of too much heterogeneity in other risk factors between the communities and differences in epidemic stage. More analyses of this sort are useful. Incorporating mathematical models may allow for more appropriately controlling for heterogeneity in other risk factors. Analyses across multiple community-based cohorts will allow to study the association between concurrency and HIV incidence, with community clusters as the unit for analysis.

3. Contact tracing studies: Studies of public health based contact tracing of STI patients in the United States has provided evidence for the effect of concurrency on STI spread in that setting. As routine HIV testing becomes more common, similar studies could be considered in African settings.

4. Evidence from intervention programs: Intervention programs aimed at reducing concurrent sexual partnerships that are currently being planned and rolled out provide an opportunity to study the relationship between concurrency and HIV transmission. Ideally, concurrency based intervention programs will be tested in randomised and controlled trial (RCT) settings which would provide firm evidence for the effectiveness of reducing concurrency for HIV prevention, and thereby give evidence that concurrency affects the spread of HIV. Where RCTs are not deemed possible, alternative evaluation designs should be used. As many education and prevention programs targeted at concurrency are also likely to include components aimed at reducing other risk factors, detailed monitoring of intervention of knowledge, behavioural, and disease outcomes of interventions are necessary in order to evaluate precisely which components of the interventions are most effective.

**Types of Concurrency and HIV Risk**

Concurrent partnerships are formed in many different configurations and for many different reasons, and not all ‘types’ of concurrency may have the same risk of HIV associated with them. For example, faithful polygynous marriages are not at risk of HIV at all as long as none of the partners entering the marriage are infected. Condom usage, patterns of coitus, and duration of overlap are likely to vary greatly between different types of concurrency. In many areas with severe HIV epidemics, entrenched labour migration patterns are likely to give a unique signature to the patterns of coitus between concurrent partners.

Research into the types of concurrency and HIV risk first requires more qualitative work to define the relevant categories of concurrency and quantitative work to estimate the relative frequency of different forms of concurrency. Secondly, research needs to understand the particular risk behaviours associated with types of concurrency. Finally information of the types of concurrency and the risk behaviour needs to be intersected with HIV pathogenesis to create more accurate models of the role that concurrency has in the growth and maintenance of HIV epidemics.

**Social Norms about Concurrency**

Understanding local social norms around concurrency is essential for creating and targeting locally relevant messaging aimed at reducing concurrency. Some areas that require research are:

- Defining the reasons that people enter concurrent partnerships
- Understanding the social acceptability of concurrency
- Identifying the social and structural drivers of concurrency, and how changing norms around concurrency will affect other social institutions
Knowledge and Perceived Risk about Concurrency

Limited research indicates that while education campaigns have been fairly successful at conveying the HIV risk associated with some risk behaviours, such as non-condom usage and very high numbers of multiple partners, understanding by the general population of concurrent partnerships and the potential HIV risk associated with them remains fairly low. As increasing knowledge and risk perception about concurrency are likely to be a key outcome of prevention programmes targeting concurrent sexual partnerships, collecting quantitative baseline data on these targets is important for monitoring and evaluating the success of these programmes.

Innovative Research Designs

As our understanding of patterns of HIV spread becomes more detailed, the standard cross-sectional designs for epidemiological inquiry have become insufficient to answer the increasingly complicated research questions that are posed. The establishment of several HIV cohort studies have been an invaluable source of information about behavioural risk factors. More recently, partner studies including studies of sexual partnerships that span long distance labour migration and local network censuses have been innovative designs that have provided unique data on sexual networks and HIV transmission. In the future, these and other innovative study designs will be heavily relied upon for answering many of the research objectives outlined here. Established research programmes, such as cohort and surveillance sites, provide an organisational and scientific framework within which innovative studies such as local network surveys, partner tracing, or high frequency surveillance may be embedded.

Clinical trial populations may be a useful setting for investing questions around sexual networks and HIV risk because of the high frequency of contact and concentrated effort to maintain high follow-up rates, and should be encouraged to collect and output more behavioural and network data.
Appendix I: Specific Recommendations for DHS Questionnaire

1. The current DHS Questionnaire uses the following questions to determine the dates of first and last sex for each of the reported sexual partnerships:

"When was the last time you had sexual intercourse with this person?" and "For how long (have you had/did you have) a sexual relationship with this (second/third) person?"

The latter question is problematic because the answer is implicitly based on the respondent's perception of whether or not the relationship is ongoing, without explicitly asking the respondent's intention/perception about this. For example, if the first sex was 6 months ago, and the respondent perceives the relationship as ongoing, then they may answer "6 months", even if the last sex was 3 months ago. Then it is very hard to know if the sexual relationship lasted from 9 months ago to 3 months ago, or from 6 months ago to the current time.

For this reason, it is recommended that the following questions be used instead:

"When was the last time you had sexual intercourse with this person?" (days/weeks/months ago - [also years for the most recent partner]) and "When did you have first sexual intercourse with this person?" (days/weeks/months/years ago)

2. The questions about the age of partner should be asked for all respondents, instead of only for female respondents aged 15-24.

3. The privacy conditions of the interview, with regards to who else is in the room, within earshot, or in the house, should be recorded and kept as a variable in the public-use dataset. When sexual behaviour questions are skipped, it is essential to know whether the respondent refused to answer the question, or if the question was skipped because sufficiently private conditions could not be established to ask questions of a sensitive nature.

4. In addition to the questions regarding the dates of first and most recent sexual intercourse, for each reported partner the question “Are you still having sex with this person?” should be asked to determine if the partnership is ongoing or completed.

5. The response categories for the question “How many times have you had sex with this person in the past 12 months?” should be broadened. The current response categories are ‘Once’, ‘Twice’, and ‘More’. A possible recommendation for broadened response categories are ‘Once’, ‘2-5 times’, ‘5-10 times’, and ‘More than 10 times’.
## Appendix II: Meeting Agenda

### Session 1 - Definition and Measurement of Concurrency

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Duration</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>0900</td>
<td>Openning Remarks</td>
<td>30m</td>
<td>Opening Remarks</td>
</tr>
<tr>
<td>1000</td>
<td>John Eton</td>
<td>40m</td>
<td>Definition and Measurement of Concurrency</td>
</tr>
<tr>
<td>1030</td>
<td>Tim Mail</td>
<td>30m</td>
<td>Epidemiological Studies of Concurrent Sexual Partnerships and HIV Infection</td>
</tr>
<tr>
<td>1050</td>
<td>Swamy Mall</td>
<td>30m</td>
<td>Concurrency, Sexual Partnerships, and Other HIV Risk Factors</td>
</tr>
<tr>
<td>1120</td>
<td>Hana Mawe</td>
<td>30m</td>
<td>Overview of Concurrent Sexual Relationships and Concurrency</td>
</tr>
</tbody>
</table>

### Session 2 - Methodology and Tools for Data Collection and Measurement of Concurrent Partnerships

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Duration</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1150</td>
<td>Joelle Harum</td>
<td>40m</td>
<td>The Use of Network Analysis to Analyze Concurrent Relationships</td>
</tr>
<tr>
<td>1220</td>
<td>Michael Cash</td>
<td>30m</td>
<td>Review of Data Collection Methods and Tools</td>
</tr>
<tr>
<td>1250</td>
<td>Stephanie Hemenger</td>
<td>30m</td>
<td>The Use of Network Analysis to Analyze Concurrent Relationships</td>
</tr>
</tbody>
</table>

### Session 3 - Working Groups

<table>
<thead>
<tr>
<th>Time</th>
<th>Group</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300</td>
<td>Group A</td>
<td>Concurrent Sexual Partnerships and HIV in the DHS and Other Methods and Results</td>
</tr>
<tr>
<td>1330</td>
<td>Group B</td>
<td>Concurrent Sexual Partnerships and HIV in the DHS and Other Methods and Results</td>
</tr>
<tr>
<td>1400</td>
<td>Group C</td>
<td>Concurrent Sexual Partnerships and HIV in the DHS and Other Methods and Results</td>
</tr>
<tr>
<td>1430</td>
<td>Group D</td>
<td>Concurrent Sexual Partnerships and HIV in the DHS and Other Methods and Results</td>
</tr>
<tr>
<td>1500</td>
<td>Group E</td>
<td>Concurrent Sexual Partnerships and HIV in the DHS and Other Methods and Results</td>
</tr>
</tbody>
</table>

### Coffee Break

<table>
<thead>
<tr>
<th>Time</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330</td>
<td>30m</td>
</tr>
</tbody>
</table>

### Working Group Questions

1. What do we really want to know and what can effectively be collected? How might this be different in different populations across settings and countries?

---

**Meeting Agenda:** Consultation on Measuring Concurrency, Nairobi, Kenya, April 20-21, 2009

**Monday, April 20th**
<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Speaker</th>
<th>Title</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tuesday, April 2nd</td>
<td>Basa Zeba</td>
<td>5.6.5.4.3.2.1: Community Strategies: Gathering Evidence in Cross-Sectional and Longitudinal HIV Studies</td>
<td>45 minutes</td>
</tr>
<tr>
<td>2</td>
<td>Tuesday, April 3rd</td>
<td>Joseph Magaret</td>
<td>9.8.7.6.5.4.3.2.1: Country Studies: Chair, Basa Zeba</td>
<td>1 hour</td>
</tr>
<tr>
<td>3</td>
<td>Tuesday, April 4th</td>
<td>Joseph Magaret</td>
<td>9.8.7.6.5.4.3.2.1: Country Studies: Chair, Basa Zeba</td>
<td>1 hour</td>
</tr>
<tr>
<td>4</td>
<td>Tuesday, April 5th</td>
<td>Joseph Magaret</td>
<td>9.8.7.6.5.4.3.2.1: Country Studies: Chair, Basa Zeba</td>
<td>1 hour</td>
</tr>
<tr>
<td>5</td>
<td>Tuesday, April 6th</td>
<td>Joseph Magaret</td>
<td>9.8.7.6.5.4.3.2.1: Country Studies: Chair, Basa Zeba</td>
<td>1 hour</td>
</tr>
<tr>
<td>6</td>
<td>Tuesday, April 7th</td>
<td>Joseph Magaret</td>
<td>9.8.7.6.5.4.3.2.1: Country Studies: Chair, Basa Zeba</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

Session 2 - Working groups continued:

<table>
<thead>
<tr>
<th>Working Group Questions</th>
<th>Working Group Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What designs and instruments should be used for comparing the household survey methods in studies?</td>
<td></td>
</tr>
<tr>
<td>2. What research designs should be used for thinking about community-to-HIV transmission?</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix III: List of Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>City, Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eniko Akom</td>
<td>Population Services International</td>
<td>Washington, DC, USA</td>
</tr>
<tr>
<td>Priscilla Akwara</td>
<td>UNICEF</td>
<td>New York City, New York, USA</td>
</tr>
<tr>
<td>Sevgi Aral</td>
<td>Center for Disease Control</td>
<td>Atlanta, Georgia, USA</td>
</tr>
<tr>
<td>Bernard Barrere</td>
<td>ORC Macro</td>
<td>Calverton, Maryland, USA</td>
</tr>
<tr>
<td>Stefano Bertozzi</td>
<td>National Institute of Public Health</td>
<td>Cuernavaca, Mexico</td>
</tr>
<tr>
<td>Marie-Claude Boily</td>
<td>Department of Infectious Disease Epidemiology</td>
<td>Imperial College London, UK</td>
</tr>
<tr>
<td>Michel Caraël</td>
<td>UNICEF</td>
<td>Bangkok, Thailand</td>
</tr>
<tr>
<td>Kelsey Case</td>
<td>Department of Infectious Disease Epidemiology</td>
<td>Imperial College London, UK</td>
</tr>
<tr>
<td>Susan Cassels</td>
<td>Center for Studies in Demography and Ecology</td>
<td>University of Washington, Seattle, Washington, USA</td>
</tr>
<tr>
<td>Jeff Eaton</td>
<td>Department of Infectious Disease Epidemiology</td>
<td>Imperial College London, UK</td>
</tr>
<tr>
<td>Thaddeaus Egondi</td>
<td>African Population and Health Research Center</td>
<td>Nairobi, Kenya</td>
</tr>
<tr>
<td>Jaques Emina</td>
<td>African Population and Health Research Center</td>
<td>Nairobi, Kenya</td>
</tr>
<tr>
<td>Geoff Garnett</td>
<td>Department of Infectious Disease Epidemiology</td>
<td>Imperial College London, UK</td>
</tr>
<tr>
<td>Peter Ghys</td>
<td>UNAIDS</td>
<td>Geneva, Switzerland</td>
</tr>
<tr>
<td>Marelize Gorgens</td>
<td>World Bank</td>
<td>Washington DC, USA</td>
</tr>
<tr>
<td>Timothy Hallett</td>
<td>Department of Infectious Disease Epidemiology</td>
<td>Imperial College London, UK</td>
</tr>
<tr>
<td>Stephane Helleringer</td>
<td>Columbia Population Research Center</td>
<td>Columbia University, New York City, New York, USA</td>
</tr>
<tr>
<td>Joseph Kagaayi</td>
<td>Rakai Health Sciences Program</td>
<td>Kalsizoro, Rakai, Uganda</td>
</tr>
<tr>
<td>Toby Kasper</td>
<td>Population Services International</td>
<td>Gaborone, Botswana</td>
</tr>
<tr>
<td>Eva Kivango</td>
<td>UNAIDS</td>
<td>Geneva, Switzerland</td>
</tr>
<tr>
<td>Todd Koppenhaver</td>
<td>USAID</td>
<td>Windhoek, Namibia</td>
</tr>
<tr>
<td>Tim Mah</td>
<td>USAID</td>
<td>Washington DC, USA</td>
</tr>
<tr>
<td>Dermot Maher</td>
<td>MRC/Uganda Virus Research Institute on AIDS</td>
<td>Entebbe, Uganda</td>
</tr>
<tr>
<td>Mary Mahy</td>
<td>UNAIDS</td>
<td>Geneva, Switzerland</td>
</tr>
<tr>
<td>Nuala McGrath</td>
<td>London School of Hygiene and Tropical Medicine</td>
<td>Africa Centre for Health and Population Studies, University of KwaZulu Natal, Mtubatuba, South Africa</td>
</tr>
<tr>
<td>Martin Morris</td>
<td>Departments of Sociology and Statistics</td>
<td>University of Washington, Seattle, Washington, USA</td>
</tr>
<tr>
<td>Samuel Oti</td>
<td>African Population and Health Research Center</td>
<td>Johannesburg, South Africa</td>
</tr>
<tr>
<td>Warren Parker</td>
<td>Johannesburg, South Africa</td>
<td></td>
</tr>
<tr>
<td>Jim Todd</td>
<td>London School of Hygiene and Tropical Medicine</td>
<td>TAZAMA Project, National Institute for Medical Research, Mwanza, Tanzania</td>
</tr>
<tr>
<td>Nelli Westercamp</td>
<td>University of Illinois at Chicago</td>
<td>Kisumu, Kenya</td>
</tr>
<tr>
<td>Basia Zaba</td>
<td>London School of Hygiene and Tropical Medicine</td>
<td>London, UK</td>
</tr>
<tr>
<td>Iryna Zablotska</td>
<td>National Centre in HIV Social Research</td>
<td>University of New South Wales, Sydney, Australia</td>
</tr>
<tr>
<td>Carla Zelaya</td>
<td>Bloomberg School of Public Health</td>
<td>Johns Hopkins University, Baltimore, Maryland, US</td>
</tr>
</tbody>
</table>