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Commentary: Learning to be creative with HIV/AIDS studies: looking for the variation—not only the average

Joseph J Valadez

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A paper in this edition of the *IJE* analysing heterosexual partnerships in the United Kingdom is an example of how innovative research can advance our understanding of an important area of study while also creating opportunity to address new questions that can chart a course for future research.¹ The authors do this by addressing a methodological problem described in the current article and in a companion article.² In brief, both papers assess duration of partnerships and condom use not only in the most recent partnership, but also in all partnerships in the past year. The results provide insight about variation between genders in the stability of their relationships. For example, men display a higher proportion of *not regular relations* while women have a

higher proportion of relations that were marriages or cohabitations. This gender difference may reflect age mixing taking place because men were more likely to have casual relationships with younger partners. As a result they accumulated a large number of relationships. This pattern may also explain why men reported more frequently than women that they used condoms during their last sexual contact—condom use being more frequent in casual relationships. While this result about condom use in casual relationships suggests that men are embracing a protective behaviour during a risky activity, it is nevertheless worrying that 45% of men in their last sexual casual contact did not use a condom—a result that still indicates the importance of promoting condom use.

Patterns of condom use among women, however, were also informative. Women's condom use diminished in longer duration relationships (12+ months) that were ongoing at the time of the interview.

However, their condom use was higher in relationships of the same duration that had already ended at the time of the interview. This result raises the question of whether partners' experienced a higher sense of risk in relationships that end imminently and therefore used condoms. It may also suggest that women in unstable longer term relationships diminished condom use at a slower rate than women who had on-going longer term relationships. Future studies would benefit from obtaining more information about the quality of the relationship as perceived by women, as this information might lead to a clearer understanding about why couples choose to use condoms in their relationships.

Condom use patterns among males were complex and while not leading to an understanding of their heterosexual behaviour, the results do raise questions. For example, males in longer duration relationships (12+ months), either ongoing or ended, exhibited less condom use, both at the time of the interview and at the first sexual contact—as compared with relationships of 4–11 months. Why should this be the case? Why should there be differences in condom use at the first sexual contact for these two groups? This result raises questions about the antecedents of longer term vs shorter term relationships which are not considered in the analysis. Another question that emerges is: Are the characteristics of males the same in the group with the 12+ month vs the 4–11 month relationship? Can their motivations for seeking relationships be investigated? If the characteristics of the males in the shorter term vs longer term relationship groups differ could this explain condom use variations that appear to be associated with partnership duration?

Female condom use, however, does not display this same pattern. Females in longer term relationships (12+ months) exhibited condom use at levels similar to men at the time of the interview. However, condom use at the first contact differed. Females reported using condoms more frequently in longer term relationships that had ended vs those that still continued. This pattern was also evident among females in relationships with duration <4 months. As with men, this result raises several questions that could improve our understanding of factors associated with relationship stability.

While this article's description of condom use in stable and non-stable relationships is a valuable contribution, as is its discussion of this behaviour with respect to the maturity of the relationships and the ages of the partners—important questions loom that potentially could be examined in future studies. Macro-level studies have the advantage of producing point estimates with narrow confidence intervals even when the analyses are stratified (as in this study). Their limitation is that they measure an average condition. As a result, the estimates do not depict the underlying variation which may be present if the

results were further disaggregated. While this may not be possible with the current data set, since the sampling design would have had to take this form of analysis into account during the planning, it is an important limitation which needs to be addressed in future studies.

This problem is not new and has been addressed in various evaluations of HIV/AIDS programme indicators in Africa. Studies have demonstrated that when substantial spatial variation exists, use of an average can lead to policy making that does not address priorities problems.³ This situation was highlighted in an assessment of the Ugandan National HIV/AIDS Control Council's (NACC) programme during 2003.⁴ A specific example comes from the NACC's assessment of indicators associated with prevention of mother to child transmission of HIV. The results revealed that while a high proportion of pregnant women in the central and eastern districts delivered their babies in a health facility in the last 12 months, and hence were able to access PMTCT services—very low proportions of women in the west and north did so. The programme average (52%) masked this variation. Using an average value to guide policy making can lead to recommendations that are substantially different than those that measure spatial variation (Uganda district range: 95–17%, median = 47%, SD = 0.19). In broad terms, we intuitively understand that *a one size vestment* fits few people—similarly, one uniform policy would have been inappropriate for the Ugandan districts. The Ugandan's pre-empted this problem by establishing a decentralized assessment system—as have other nations.⁵

Examining condom use and sexual practices in the United Kingdom or in any other country for that matter may be subject to the same limitations when macro survey techniques are used. While studies, such as those published this month, advance theory and hopefully will be used to guide policy makers, it is our role to think to the future. Could HIV/AIDS epidemiology and policy benefit from assessing sexual practices and the stability of relationships in a manner that reveals the spatial variations? Yes they could. Can we benefit from mapping spatially the values of key indicators and focusing policy so that resources are targeted not only on specific problems, but also on those problems where they exist? Yes again. Once research of this style begins to come to the forefront, the effects will inevitably be beneficial to policy making and improve our understanding of HIV/AIDS related behaviour.

A final point about relationship studies is that while they are intended to help us understand HIV transmission, they have not as yet taken into account that most transmissions probably occur during the acute (high viremia) phase. So long-term relationships necessarily imply that they have passed the high probability phase—unless a partner was recently infected by a casual relationship. Should we link

behavioural studies with appropriate biomarkers, domestic and international epidemiology would benefit as would HIV/AIDS policy making.

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