

**Wasting sperm:
The cultural context of condom use among the Maasai in Northern Tanzania**

Dr Ernestina Coast

Introduction

The male condom offers a safe, cheap and effective means of both preventing conception and the sexual transmission of infections, including HIV. The “ABC” approach to HIV risk reduction is the most widely used model for HIV prevention programme design and implementation, where A=Abstinence, B=Be faithful and C=Condom use. The focus of this paper is on the latter element, C for Condom use. Underpinning the advocacy of condoms as an HIV risk-reduction strategy are models in which individuals make rational, self-interested, autonomous decisions about condom use based on factual knowledge about HIV risks. Thus, condom use is constructed as a form of economic-rationalist behaviour, driven by an individual’s (or couple’s) abstractions of the costs and benefits of condom use. Reproductive health service design and provision has been, of necessity, predicated on the assumption that individuals are in a position to make rational, informed decisions about their sexual behaviour (and thus fertility, contraceptive practice, exposure to risks, etc.). A variety of individual functional theories or models of human behaviour have been used in condom programme design, including: health belief model¹; theory of reasoned action; social cognitive theory; stages of change model; and, AIDS risk reduction model (after UNAIDS, 1999).

Sexual behaviour remains the “primary target” of AIDS prevention efforts worldwide (UNAIDS, 1999: 5). However, many authors have argued that sexual behaviour alone is far too narrow a lens through which to examine the experience and behaviour of individuals (MacPhail & Campbell, 2001; Holland et al, 1990; Kippax & Crawford, 1993; Dixon-Mueller, 1993; Collumbien & Hawkes, 2000; Zeidenstein & Moore, 1995). Social scientists, most notably demographers, have tended to focus on just one element of sexuality – sexual behaviour. In part this is due to the focus on fertility – the production of live births. It must also, in part, be due to the fact that sexual behaviour – whilst not open to participant observation – is amenable to retrospective “decontextualised and quantifiable individual behaviours” (MacPhail and Campbell, 2001: 1614). Indeed, Herrell, for example, describes sexual behaviour as a “hidden discourse” (1991:200). Such data do not tell us anything of the individual contexts of condom use, and how these conflicts are mediated through society and experience. Motivations for condom use (and non-use) are complex and are not necessarily the result of premeditated thought.

Absent from most of the research and practice about condom use as a HIV risk-reduction strategy is a consideration of the sexuality of the people – generally, heterosexual adults – at whom most of the condom intervention programmes are targeted. Here, sexuality is defined as “a social construction of a biological drive” (Zeidenstein & Moore, 1995:2). Individual’s (and couple’s) condom use – and the reasons for non-use – tend to be removed from the context - economic, social, political, cultural - in which the decision is made. A narrow sexual behaviour change approach is at odds with wider changes within the broad disciplines of reproductive health and demography, in which there has been a shift away from structural “explanations” of behaviour (what people say they should do) towards a perspective that takes into account agency (what people actually do) (Kreager, 1982; Hammel, 1990; Greenhalgh, 1995; Lockwood, 1995; Fricke, 1997; Basu & Aaby, 1998). For example, Bledsoe’s work on fertility and contraception in The Gambia demonstrates that reproduction is a complicated outcome of based upon locally constructed notions of the body and age (Bledsoe, 1994), and not on some structurally determined notion of “correct” reproduction. Institutional approaches (for example, McNicoll, 1980) argue that behaviour (reproduction) is an outcome of political processes involving power and inequality at a variety of scales from the

¹ Developed in the 1950s by Hochbaum, Kegels and Rosenstock

individual to society. These broader epistemological shifts in both approach and methodology contrast sharply with an emphasis thus far on narrowly deterministic sexual behaviour vis a vis condom use.

This study argues that there is a need to move away from a narrow focus on sexual behaviour and move towards a broader notion of sexuality, that incorporates sexual behaviour as just one dimension (after Dixon-Mueller, 1993). Local meanings and explanations of sexuality and sexual behaviour are rare in HIV/AIDS documentation in general, and those relating to condom use in particular. A cursory keyword² search, for example, of the UNAIDS website revealed a total of 29 references to sperm and semen, of which: spermicides (1); questionnaire question (1); technical information (including condom use) (22); knowledge levels (1); and, the cultural context of semen (1)³. I argue that unless local constructions and expressions of sexuality in general, and condom use in particular, are explicitly explored and integrated, then low levels of reported condom use in many populations are unlikely to change, issues of service delivery and logistics notwithstanding. Levels of condom use with “low risk” partners such as spouse or cohabiting partner remain very low, even in countries with limited evidence of reductions in HIV incidence such as Uganda (Table 1).

Table 1: Data on condom use and knowledge, individual aged 15-49, sub-Saharan African countries with 2 or more Demographic and Health Surveys

Country	Spontaneous mention of condom		Condom use									
			at last higher risk sex		at last sex with spouse or cohabiting partner		at last sex with anyone		at last commercial sex, reported by client			
			Male	Female	Male	Female	Male	Female	Male	Female	Male	
Burkina Faso												
1992/3	47	14	-	-	-	-	-	-	-	-	-	-
1998/9	57	21	58	39	9	2	24	5				
Cote d'Ivoire												
1994	57	31	-	-	-	-	25	7				
1998	69	45	50	21	7	3	-	-				
Kenya												
1993	32	16	-	-	-	-	-	-				
1998	50	37	44	16	8	3	21	6				
Malawi												
1992	27	8	-	-	-	-	-	-				
2000	72	55	39	29	6	3	15	5				41
Senegal												
1992	-	5	-	-	-	-	-	-				
1997	51	26	-	-	-	-	-	-				
Tanzania												
1996	56	38	32	16	4	2	12	4				
1999 ⁴	73	56	35	22	6	4	18	8				
Uganda												
1995	33	21	37	20	3	1	10	3				
2000/1	73	54	60	38	4	3	15	7				70 ⁵
Zambia												
1992	-	5	-	-	-	-	-	-				
1996	51	38	40	20	8	5	22	8				
Zimbabwe												
1994	67	57	60	38	12	7	29	10				
1999	77	66	70	43	7	4	29	9				81

² Semen. Sperm.

³ <http://www.unaids.org/wac/2001/background/msmfinal%5Freport%20.doc> Accessed 13/05/03

⁴ Reproductive and Child Health Survey

⁵ Small sample: 25-49 cases

Source: www.measuredhs.org 13th May 2003

Linked to the argument for a more detailed assessment of sexuality is the need to expand the focus of perspective away from the population of interest (be it individual or community or society), and to incorporate how perceptions of non-members of the population perceive the population's sexuality. Of importance is how others, particularly service providers in the context of condom promotion and provision, view a group's sexuality. If, for example, a group of people is perceived as being unwilling or opposed to condom use, then a resource-poor service provider is unlikely to focus efforts on condom distribution among that particular population. Perceptions of one group about another group's "otherness" or "difference" have been proven to have a large impact on the level and quality of reproductive health services in general⁶. This study explores whether perceptions about a population's sexualities might have an impact on others' willingness (and ability) to provide sexual health services.

The importance of sperm

As a barrier method, either for the prevention of HIV or as a contraceptive, or both, condoms involve the "removal" of sperm from the sexual act. In order to begin to understand the importance of sperm to the sexual act (beyond procreation) it is therefore pertinent to identify groups of beliefs about sperm and its significance. This section does not deal with the cultural significance of sperm for procreation, of itself the subject of a wide-ranging literature (for example, Mill & Anarfi, 2002; Bond & Dover, 1997; Feldman-Savelsberg, 1995; Piot, 1995; Taylor, 1990). A quote from Bond and Dover's work into the context of condom use by migrant workers in rural Zambia succinctly highlight the overlapping roles of semen in sex, "the release of semen into a woman not only fulfils a man's productive role, it is also seen as important in satisfying the woman. Both sexes say it makes her feel 'sweeter and warmer' after coitus. Condoms 'deny this last warmth because the penis is in a sack' as a young migrant man put it" (1997:382).

In many populations, sperm, or rather its "wasting", is considered harmful to male physical and mental well-being. For example, in an Indian context, many authors report a widespread conception that excessive sexual activity (including masturbation and night-time ejaculation) leads to a "weakening" of men (Caldwell, Reddy & Caldwell, 1983; Edwards, 1983; Rahman et al, 1980; Lakhani et al, 2001; Verma et al, 2001). Similar constructions have been reported in other populations, including Chinese (Goodkind, 1991), Guinean (Gorgen et al, 1998), and Sri Lanka. (Caldwell et al, 1987).

Sperm as being important for women (beyond its procreative capacity) has been noted in a variety of settings. In Bangladesh Rahman et al, for example, refer to semen as "a tonic" for women (1980:196), and go on to note that frequent condom use is considered to cause impotence. Santow notes, "Marie Stopes...espoused such mystical nonsense as that the 'male secretion' had a beneficial effect on women's health" (1995:35). In a historical review of the early Twentieth century, Kirk notes, "Leaders of the British Medical Association condemned contraception as unnatural, and warned that all sorts of maladies would befall their users. Semen was envisaged by some as an elixir for women's health when absorbed through the vaginal wall" (1996:375⁷). Finally, in a Peruvian context, Maynard-Tucker reports, "Male respondents reported that once the woman is pregnant she must have sexual intercourse repeatedly so that the baby's development is

⁶ For example Tweedie, I. & M. Lemba (1996) "Perceptions of health providers, family planning, and contraceptives in Zambia: "Smoke that Thunders". Johns Hopkins School of Public Health, Center for Communication Programs. Miller K; Miller R; Fassihian G; Jones H "How providers restrict access to family planning methods: results from five African countries". Haddad and Fournier (1995)"Quality, cost and utilisation of health services in developing countries. A longitudinal study in Zaire"

⁷ Quoting E. Secombe "Men's 'marital rights' and womens' wifely duties: Changing conjugal relations in the fertility decline" in Gillis *et al* in fn.46 p.71

aided with needed additional sperm” (1989: 217). It is not hard to understand that condom use (for whatever purpose) is at odds in contexts in which sperm is integral to sexuality, for both men and women.

Finally, if sperm is considered beneficial in a variety of contexts, it is also considered as harmful in others, most notably the classic lactational taboo, reported widely throughout sub-Saharan Africa (for example, Lockwood, 1995, Walle & Walle, 1988).

The setting

The Maasai of Kenya and Tanzania are one of the best-known pastoralist populations in the world, indeed Spear suggests, “Everyone ‘knows’ the Maasai” (1993: 1). Ties (economic, structural, social, marital, linguistic) with other ethnic groups have been identified by a number of authors (Spencer, 1973; Berntsen, 1979; Galaty, 1981; Spear and Waller, 1993), and the traditional notion of the Maasai as an independently functioning ethnic unit, which practices no agriculture, has now largely been discarded (Coast, 2002). Livestock remain very important to socio-economic organisation, with over 98% of all households owning livestock, and 99% of adults describing themselves either as pastoralists or agropastoralists (Coast, 2000). In recent decades the influence of nation states, monetisation of the traditional economy, formal education, land tenure changes and demographic factors have all played a part in shaping the current socio-economic situation of Maasai in Kenya and Tanzania. Long-held beliefs that place high value for men on livestock, wives and children, still pertain. In Tanzania, Maasailand includes much of Arusha Region (Ngorongoro and Monduli Districts), and that area known as Maasai Steppe to the south of the Pangani River.

To date, there are no published data on the prevalence levels at the population level in Ngorongoro District. There is currently an epidemiological study being undertaken⁸, but the data have not yet been published, but it is estimated that prevalence rates among women attending for antenatal treatment are 5-6%. Seroprevalence levels in Kenyan Maasailand (Narok and Kajiado Districts) are rising rapidly. For example, in neighbouring Kajiado District in Kenya, rates of 18% seroprevalence have been cited⁹. The relatively high proportion of HIV+ Kenyans who are being tested at Wasso Hospital is testament to the geographic mobility of the population. A prevalence

⁸ Anonymous testing of blood of women attending antenatal clinics provided by Wasso Hospital, Endulen Hospital and the Flying Medical Service started Sept 2002.

⁹ To date, there are only two published reports on the HIV serostatus of the Maasai. The first study was by Lopez-Corral *et al* (1992) in Arusha region, northwest Tanzania. The study used blood specimens (n=80) from outpatients at a clinic. No cases of seropositivity were found, although 79% of the sample had a STD at the time of the enquiry. Lopez-Corral *et al* refer to a 1987 study (no provenance given) in which 144 pregnant women were tested for HIV, and 1 case was found to be HIV positive. Valadez *et al*'s study in Kajiado District used antenatal blood specimens (n=2,082) from pregnant women over the period 1989-1992. The communities from which the women were drawn live very close to a high transmission area - a major trucking route. Valadez *et al* reported annual prevalence ranging between 0.95% and 2.23%, with no evidence of an increasing trend over the time period. It must be noted that Valadez *et al*'s study also collected syphilis prevalence data over the same period. The trend in this infection increased, from 2.9% in 1989 to 5.3% in 1991. Both reports imply relatively low levels of HIV prevalence for Maasai samples. However, attention is drawn to the dates of these studies, with the fieldwork for Valadez *et al*'s study taking place over a decade ago. Given the potential for rapid increases in seropositivity levels in a low risk population, these figures must be interpreted as reflection of a historical situation. A third, unpublished, source of data is provided by Wasso Hospital records (Loliondo, Ngorongoro District). Of 277 blood samples tested in 1994, 15 cases tested positive for HIV, representing 5.4% of the sample (Lembikas *et al*, 1996:45). Given the location of the hospital (Wasso), it is reasonable to assume that the large majority of the tested individuals were Maasai. It is pertinent to note that of the 15 positive cases of HIV, 12 were female and 3 male. This gender-difference probably represents differences in propensity to be tested, as women attending Wasso hospital for antenatal tests were far more likely to be tested than males. Two further sources are included for completeness. Owuor's (1994) report is drawn from the Daily Nation (March 31st 1994) newspaper, and its provenance cannot be verified. It reports seropositivity levels of 1% for a group of 308 Maasai women in northern Tanzania. Talle reported, “blood screening of pregnant women at some mother and child health (MCH) clinics does show that HIV is present in their communities, but up to now on a relatively small scale (personal communication with local health care personnel)” (1995:78).

rate of 6% among the general population in mid-2002 against a background of increased risk, and the S-shape of an epidemic curve, show that HIV prevalence is increasing rapidly among the study population, and will continue to do so for several years. The perceived absence of AIDS-related deaths (which will always lag behind HIV incidence) contributes to the low visibility of the disease in the district at the moment. Some AIDS deaths have been recorded at the district hospitals, although levels of personal knowledge of people affected by the disease remain very low (Coast, 2002). High individual fertility means that mother to child transmission (MTCT) will be an important element of the future transmission of the disease. The presence of an untreated STD is a major co-factor in HIV transmission. STDs are a major cause of morbidity among the Maasai population, with pre-pubescent girls (aged from 8 years) frequently presenting with symptoms. There are no published data on STD prevalence, and hospital-based data on STDs cannot be used to estimate levels of STD among the general population because of very high levels of self-treatment using either over-the-counter generic drugs or traditional medicine. There is little social stigma attached to having a symptomatic STD among the Maasai, although attempts at anonymous partner tracing and treatment have proved futile¹⁰. The result is high levels of untreated STDs, incomplete treatment, and high levels of re-infection.

In the introduction to his ethnography *The Maasai of Matapato*, Spencer observed “Writers had tended to note that the Maasai do this or that, rather than noting, for instance, that the Purko Maasai do this or the Kisonko Maasai do that” (1988:2). Whilst acknowledgement is made here of subtle differences between, say, clans and sub-clans, such a discussion is beyond the scope of this study. In terms of the broader social organisations and major demographic behaviour, the similarities are far greater than the sum of the detailed differences.

Sexuality and condoms

This study uses Dixon-Mueller’s multi-dimensional framework of sexuality, based on the premise that “Sexuality has different meanings for different people in different contexts” (1993: 273). Because the focus of demography has tended to be on (generally) quantifiable outcomes, in particular live births, the focus has been on a “model of mutually monogamous, penile-vaginal intercourse” (Zeidenstein and Moore, 1995: 5) and sexual behaviour, which is readily quantifiable¹¹, if not observable. Dixon-Mueller refers to this as the “quantity, not quality” (1993: 270) approach, one which ignores the multi-dimensional nature of sexuality and sexual behaviour, an outcome of, amongst others: age; gender; ethnicity; race; patronage; physical strength; marital status; access to material and social resources; ideology; expectations; desire; agency; expectations; and, cultural concepts of masculinity and femininity. Further, each of these factors operates at a variety of scales, from the individual actor to the household to the community, and may operate in different directions. The framework is summarised in Table 2.

¹⁰ Pers. Comm. Dr Zurre, Flying Medical Service, Tanzania

¹¹ Assuming correct retrospective reporting

Table 2: Framework of sexuality based on Dixon-Mueller (1993)

Behavioural and objective	
<p style="text-align: center;">Sexual partnerships</p> <p>Number of each person’s sexual partners, current and past; Timing and duration of sexual partnerships throughout the person’s lifetime; Identity of partners (socio-economic characteristics, relationship); Conditions of choice under which each partner is selected or imposed; Rate and conditions of change of partners</p>	<p style="text-align: center;">Sexual acts</p> <p>Nature, frequency, and conditions of choice of specific sexual practices in which individuals and couples engage</p>
Physiological or cultural and subjective	
<p style="text-align: center;">Sexual meanings</p> <p>Process by which sexual thoughts, behaviours and conditions are interpreted and ascribed cultural meaning Collective and individual beliefs about the nature of the body; What is considered erotic or offensive; What and with whom it is appropriate or inappropriate for men and women (according to their age and other characteristics) to do or to talk about sexuality; Cultural concepts of masculinity and femininity; Shifts in the meaning and expression of sexuality over the life cycle</p>	<p style="text-align: center;">Sexual drives</p> <p>Physiological and socio-psychological aspects of sexuality; Individual’s’ perceptions of their on and others’ sex drives and enjoyment</p>

Using Dixon-Mueller’s (1993) schema, the next section outlines the cultural context of sexuality for Maasai. Firstly, I describe the broad situational context of Maasai lifecycles. Secondly, gender and age aspects of Maasai sexuality are summarised using the four headings: sexual partnerships; sexual acts; sexual meanings; and sexual drives.

Maasai sexuality and description

It is acknowledged that the Maasai are not a homogenous group, and that different authors will produce slightly different accounts of Maasai social structure. This summary attempts to underline those features that are pertinent to a description of Maasai social organisation at the broadest level. The Maasai have a strong division of responsibilities, roles and labour between age groups and sexes. This section will describe the main lifestages for men and women in Maasai society and will be limited to an overview of the major phases and will not refer to the well-documented rituals associated with them, nor to their regional variations (Spencer, 1988; Spear and Waller, 1993).

Maasai society is both gerontocratic and patriarchal in its structure, and is viewed by many authors as detrimental to women, forcing them into subjugation to men throughout their life - wives to husbands and mothers to sons (Llewelyn-Davies, 1978; Talle, 1987; Spencer, 1988). Kipuri, herself a Maasai describes such interpretations as “reductive”, and containing “major flaws” (1989:67), constrained by an economically deterministic viewpoint. Instead, she summarises the structural elements of Maasai social organisation as “mutual dependence” and “mutual obligations” (1989:97) between men and women.

Any consideration of social roles among the Maasai must place at its core the “age set” system. An age set is composed of a group of male contemporaries, united by their communal circumcision. An age set provides a man with a further network of social and political allies, supplementary to that provided by his immediate family. Because the formation of the newest age set relies upon the relinquishing of power by the age set immediately preceding it, there is an in-built lifelong tension and opposition between the two adjacent sets. This results in affinities and allegiances being sought with the age set once-removed.

Approximately every 15 years, each section produces a new age set. Upon circumcision, a boy becomes a *murran* (warrior), and the previous age set *murran* become elders. The precise timing of the decision to form a new age set depends on the strength of opposition from the existing youngest age set relative to the emerging age set. Over a period of time, all of the boys (who have usually reached puberty) are circumcised and incorporated into the newest age set. Because of the length of time between age set formations, members of an age set can vary quite substantially in age. It is possible for a particularly young boy to be incorporated into the age set if his father is elderly and has no circumcised sons. Within each age set of *murran* there are junior and senior warriors with differing norms for dress, behaviour and responsibilities.

Circumcised young men are unable to occupy the same house as their fathers, and are expected to be sexually active, despite the normative prohibition on their marrying. There are strict rules forbidding a *murran* having sexual relations with a married woman. This is because she will inevitably be the wife of a man in a superior age set, and for the *murran* to have sex with an elder's wife could be seen as a threat to the gerontocratic organisation of Maasai society. The acceptable sexual partners of the *murran* are young, pre-pubescent, unmarried girls (*entito*). Warriors are to share all possessions, including girlfriends (Saitoti 1986). This is not to deny that sexual relations between married women and *murran* take place, for the anthropological evidence is overwhelming (Talle, 1987; Mitzlaff, 1994; Llewelyn-Davies, 1978)¹². Ideally, a man should marry once he has become an elder.

Women do not have formal age sets like the men, although they too pass through specific stages in their lifecycle and do play a ritualistic part in male age set ceremonies. Rather than a woman's life being marked by a specific ritual ceremony, it is instead a gradual transition based upon age. Women tend to be classified with certain age sets, according to the age group of *murran* with whom they associated whilst young girls. Pre-pubescent girls are the sexual partners of the *murran*, but these early sexual partners rarely form the basis of future marriage partners. Thus, young girls are socialised to become sexually active at a young age, beginning from about 10 years old. Prior to puberty, a Maasai girl gradually acquires her "right" to fertility. Talle states that the "acquisition of [female] fertility is not recognised as a natural process, but has to be mediated and constituted culturally" (1994:280) among the Maasai. The construction of female fertility may be seen at both the community- and the individual- level, for both men and women. The process includes the gradual sexual initiation of a pre-pubescent girl by one or more *murran* of her choosing. The Maasai have a widely held belief that semen helps a girl to develop physically. *Murran* are considered the epitome of healthiness, therefore their sperm is best for pre-pubescent girls. The public ceremony associated with "choosing" a *murran* involves the girl giving the *murran* milk to drink. Talle suggests, "the exchange of milk and semen, two body fluids with inherent regenerative capacity, symbolizes a complementary, although not equal, relationship" (1994:281). Given the young age at sexual debut for Maasai girls, it is reasonable to hypothesise that the average age at HIV infection for Maasai girls will be substantially lower than in other ethnic groups, even though young women aged 15-24 have the highest rate of HIV infection in sub-Saharan Africa.

Unlike males, where circumcision takes place at a public ceremony and in a large cohort group, girls tend to be circumcised individually. Circumcision occurs at puberty and the undertaking of clitoridectomy for females indicates both physical maturity and a change in the girl's social status. She is now ready for marriage and childbearing. Female circumcision is almost universal among the Maasai, and is considered essential for correct sexual behaviour and fertility¹³.

¹² Women sing about their *murran* lovers when they are working (Pers. Ob.).

¹³ For example, Kramer (1980) states that 95.5% of ever married Maasai women in a sample (n=134) were circumcised. After circumcision, girls cease to be the sexual partners of the *murran*. The most recent quantitative data on female circumcision amongst the Maasai are those collected during the 1998 Kenya DHS. The DHS data are useful in

Female circumcision represents the acquisition of social adulthood and sanctions childbearing¹⁴. A girl is normally circumcised around the time of the onset of puberty. It is important for a Maasai girl not to be a virgin by the time of her marriage, for reasons neatly summarised by Talle: “a virgin bride is looked upon as an awkward phenomenon and somehow brings embarrassment on her family. She is considered to be a child. The Maasai say that she does not have a “door” (1994:282)¹⁵. As *murran*, men are instrumental in constructing a girl’s societal approval of her fertility, mainly through sexual initiation and the exchange of milk and semen. Whist *entito* are described as “choosing” their own partners, it should be noted that coercion, both covert and overt, is condoned. For example, a good-looking or popular *murran* will be chosen by several *entito*, and it is therefore possible for him to begin to develop his own network of influence and power by asking his partners to have sex with his less popular or good-looking *murran* friends. *Murran* often employ the services of old women (*endingi*) to “persuade” an *entito* to become their partner, and these old women can exert a lot of pressure on the *entito*.

Girls are married usually within one year of circumcision, normally to a pre-determined partner. Perhaps the strictest rule relating to marriage partners is that the husband may not be of the same age-set as the wife’s father¹⁶. The internal alliances between alternate age sets make the “ideal wife” the daughter of a man who is two age sets older than the prospective husband. Spencer suggests that this model of behaviour “draws attention to the power that is retained by the elders by delaying the marriages of younger men...creating a surplus of marriageable girls as brides for the elders themselves, enhancing their chances of polygyny” (1993:141). Women rarely have legal access to property; their rights to livestock ownership have to be mediated through men - fathers, husbands, and sons. The only material good to which women have absolute right is the milk off-take from those animals allotted to her by her husband. The obligation of a woman to provide her husband and his age-mates with milk is representative of the reciprocal milk-semen relationship established when, as a pre-pubescent girl, she participated in the milk-giving ceremony. A woman gains prestige ultimately by the number of children she bears and the way in which she cares for them, although she never has legal claim to her children. Children, especially sons, represent a woman’s chief source of material acquisition through milking rights from animals held in trust. This theme is reiterated by Talle who concludes “By having a womb, women embody life and continuity, recurrent themes in Maasai prayers and communication with the divine. In order to lead a full life as a Maasai it is imperative to marry and beget children, and those who have been blessed by old age and high fertility in children and animals symbolise the image of the good life” (1994:282).

Many ethnographies refer to the importance of *social* rather than *biological* paternity of Maasai children. The sexual access of age-mates to each other’s wives has been noted by several authors (Jacobs, 1973; Llewelyn-Davies, 1978; Talle, 1994). Indeed, Talle goes on to suggest, “a husband may urge a wife to be impregnated by a certain age-mate of his, whom he admires either for his oratory skills, bravery or certain physical qualities” (1994:283). A comparison may be made with

providing substantive information on the sensitive topic of female circumcision. However, the sample sizes are very small, particularly the number of respondents’ eldest daughters that have been circumcised. Further, most respondents will be aware of the negative image of female circumcision within the wider national context. It is therefore quite possible that the data represent an underestimation of the current extent of female circumcision among the Maasai.

¹⁴ “The Maasai say that an uncircumcised girl cannot conceive or will give birth to deformed children. The clitoris, if not excised, will continue to grow and hence not only obstruct the free passage of the child at delivery but, equally bad, also penetration” (Talle, 1994:282). A similar explanation is provided by Jacobs, who describes the “belief that any girl who has not had her clitoris cut will either be unable to conceive or will give birth to a deformed child” (1973:402).

¹⁵ The use of “door” or “gate” metaphors to represent independence/ maturity is widespread in Maa. For example, when a man marries and has a household separate to that of his father, he literally acquires “gates”

¹⁶ Such “quasi incest” (after von Mitzlaff (1994:99)) rules also apply to sexual relationships more generally, and are very strictly observed, with large punishments and fines for individuals that break them

Kreager's work on the Nuer, pastoralists from southern Sudan. Kreager states, "the critical matter is the child's *pater* (i.e.: his or her legal father), not *genitor*" (1982:244).

Whilst male fertility *per se* is relatively unimportant, sexual activity (pre-, extra- and marital) is very important. From the time that a Maasai male has become a *murran*, he is expected to have a high level of sexual activity¹⁷, and *murran* embody the height of male sexual prowess. Extra-marital sex is a very "open secret" in Maasai society, providing rules relating to acceptable sexual partners are observed¹⁸, together with a degree of discretion. The "openness" of extra-marital sex is clearly reflected in male jewellery. Only women make jewellery, and a man only receives jewellery if it is a gift from a lover. All Maasai men wear some jewellery, and Talle describes an unadorned Maasai man as "an unthinkable phenomenon in Maasai culture" (1995:74).

Children are highly valued, and are one element of wealth and power for men, together with livestock and the number of wives. In general, there is a desire to have as many children as possible. Fertility (both male and female) are highly prized within Maasai society (TFR 8.6 children per woman) (Coast, 2001), although its "abuse" is condemned, a common feature in almost all African populations. For example, if the birth interval between two births is considered too short, or if a woman conceives whilst still breastfeeding the preceding child, then both she and her husband will be liable to both criticism and a livestock fine (Pers. Ob.; Sindiga, 1987; Llewelyn-Davies, 1978).

A large sexual network is a major risk factor in HIV transmission. What evidence exists relating to rates of partner change among the Maasai? To date, only two studies of Maasai partner change have been published. Morley (1991) reports the results from 132 Maasai¹⁹ men, questioned on their rate of sexual partner change for the previous three years (1985-1987). Averaged over the 3 years, the mean number of different sexual partners per year was 11.8. Talle collected data relating to sexual practices from approximately 100 male and female respondents using an unstructured questionnaire survey in northern Tanzania. She concludes that "Maasai of both sexes, married and unmarried, are involved in sexual relationships with several partners simultaneously...reported having two or three permanent lovers (*esindani*) in addition to their spouses. People also may have temporary or occasional love relationships (*engare engeene*)" (1995:76). Further, unmarried or divorced women were found to have between 10 and 20 partners at any one point in time. The role of polygyny in facilitating HIV transmission between spouses and co-wives should not be ignored. Beyond the intra-marriage potential for HIV transmission, the increased likelihood of extra-marital sex by a young woman married to a much older husband is another contributory factor.

¹⁷ It should be noted that uncircumcised boys are theoretically not permitted to have sex with any female (of whatever age), and two authors (Kipuri, 1983; Talle, 1995) make reference to the use of donkeys by young boys for sex acts. However, there is evidence to suggest that uncircumcised boys are sexually active (Kipuri, 1983:205).

¹⁸ One of the most commonly flouted rules is that a married woman cannot have sexual relations with a *murran*. However, it is very common for a newly married young woman to continue sexual relations with the *murran* she chose as an uncircumcised girl, especially if she has been married to a much older man.

¹⁹ The published report simply refers to "tribes", but personal communication from one of the authors confirms that the ethnic group concerned was Maasai.

Table 3: *Murran*

Behavioural and objective	
<p>Sexual partnerships</p> <p>Sexual initiator for <i>entito</i></p> <ul style="list-style-type: none"> - possibly imposed by <i>endingo</i> <p>Clandestine partner of married woman</p> <p>Use of CSW if travelling to urban areas for livestock trading</p>	<p>Sexual acts</p> <p>With <i>entito</i></p> <ul style="list-style-type: none"> - sperm integral to the sex
Physiological or cultural and subjective	
<p>Sexual meanings</p> <p>With <i>entito</i></p> <ul style="list-style-type: none"> - to confer physical and social development <p>With married woman</p> <ul style="list-style-type: none"> - an act of defiance across age sets - lover to a young woman married to much older man 	<p>Sexual drives</p> <p>As the epitome of physical development, <i>murran</i> are expected to have very high sex drives</p>

Table 4: *Male elders*

Behavioural and objective	
<p>Sexual partnerships</p> <p>Polygamy highly prized, with more wives (and children) equating to greater wealth</p> <ul style="list-style-type: none"> - Acquisition of new wives continues throughout lifetime - High spousal age difference <p>Extra-marital lover is expected</p> <p>Sexual access of age mates to wives (negotiable)</p>	<p>Sexual acts</p> <p>Theoretical post-partum abstinence, used as an explanation for the rationale of polygamy</p>
Physiological or cultural and subjective	
<p>Sexual meanings</p> <p>Procreation</p> <ul style="list-style-type: none"> - possible for a man to ask an age mate to impregnate a wife 	<p>Sexual drives</p> <p>A husband's duty to "provide" his wives with as many children as is appropriate</p>

Table 5: *Entito*

Behavioural and objective	
<p>Sexual partnerships</p> <p>Sexual initiation prior to puberty</p> <p>Partner might be selection by older woman</p> <p>Virginity not highly prized</p>	<p>Sexual acts</p> <p>Socially sanctioned heterosexual sex</p>
Physiological or cultural and subjective	
<p>Sexual meanings</p> <p>Male semen essential for physical development to puberty</p>	<p>Sexual drives</p> <p>Acquisition of social and physiological maturity</p>

Table 6: Married woman

Behavioural and objective	
<p style="text-align: center;">Sexual partnerships</p> Husband (probably polygynous) chosen by father Extra-marital partnerships frequent, particularly for divorced or widowed women	<p style="text-align: center;">Sexual acts</p> Theoretical post-partum abstinence
Physiological or cultural and subjective	
<p style="text-align: center;">Sexual meanings</p> Procreation - continued childbearing by widows socially sanctioned	<p style="text-align: center;">Sexual drives</p> Procreation

The aim of Tables 3-6 is not to be reductive in a structural-functional sense. Individual agency operates throughout the lifecycle, but it cannot be represented here. For example, there are high levels of temporary husband-wife separation as wives leave husbands due to, for example, ill-treatment. Rather, these tables draw together some key aspects of Maasai sexuality by gender, over the lifecycle. By examining aspects of sexuality over the lifecycle, specific aspects of an ABC approach, in this case condom use, can be highlighted and explored.

Perceptions of others about the Maasai

In a context of condoms as a HIV intervention strategy, the perceptions of outsiders are as important as those held by the Maasai themselves. There is a generally held view among both non-Maasai and educated Maasai that rural Maasai are extremely traditional and conservative. Indeed, the use of the adjective "conservative" to describe the Maasai is common²⁰. The various conceptualisations of Maasai have tended to rely on images and preconceptions relating to Maasai men, both in historical and contemporary accounts (Hodgson, 1999). Ideas of Maasai traditionalism and conservatism are closely bound together with images of the Maasai male alternately as a fierce warrior or recalcitrant pastoralist.

Perceptions and assumptions about the Maasai are very entrenched, a position reflected both in the literature and in the opinions of key informants. The role of perceptions relating to the morbidity status (in this case seroprevalence) should not be ignored. Talle, for example, notes "locally based rumours of pastoralists being less exposed to HIV transmission, as they are considered to be "fresh from the bush"" (1999: 122), noting that "the bush" is generally associated with freedom from disease.

Most HIV-related NGOs in Arusha Region are urban-based and centred, and have neither the capacity (funding, logistics, personnel) nor an interest in operating outside of the urban area. Informally, many of these NGOs are referred to as "briefcase NGOs" with little interest in primary intervention activities. Perceptions and assumptions about the Maasai are so entrenched that it would be difficult for such NGOs to operate in a rural context. This is reflected both in the literature produced by such NGOs and in the opinions of the staff. For example, in an interview with Ms Nsiima (Director, Life Concern Organisation), the Maasai were described as "sexually reckless" and being "far too conservative and alone" for HIV/AIDS intervention programmes to work. Misconceptions are rife, for example, reference is made frequently to widow inheritance being a common practice among the Maasai.

Condom provision in the study area is extremely low. Using a "mystery shopper" approach in local shops and beer houses, it was found that condoms are rarely available. Tanzania has a national social marketing strategy for *Salama* condoms, however in the study area few shops sold condoms

²⁰ For example "The Maasai are not labelled Kenya's most conservative tribe for nothing" (Rugene and Newbery, 1998:76)

at all, and *Salama* brand condoms appeared to be absent. Occasionally, condoms are available in the bars for drivers in the tourist hotels, but these bars are closed to local Maasai residents.

Methodology

Data are drawn from a study conducted in September 2002 that investigated that context of HIV/AIDS knowledge and attitudes among rural Tanzanian Maasai men and women. A primary focus of the work was exploration of the cultural context of condom knowledge and use. The study site was Ngorongoro District in rural northern Tanzania. A series of 4 focus-group discussion was carried out, 2 for women and 2 for men. Local research team members solicited volunteers and discussions were sex-segregated. The number of participants in each group ranged between eight and ten individuals, and a total of 35 individuals were involved. The focus group discussions were preceded by short individual questionnaires, administered in KiMaasai, on HIV/AIDS awareness and knowledge.

The socio-demographic profile of the respondents was generally typical of rural Maasai in northern Tanzania (Coast, 2002) (Table 7). Polygyny is common, and marriage for women and men is virtually universal. School attendance is low, particularly for women

Table 7: Focus group participants, by selected socio-demographic characteristics

	Percent distribution (n=36)
Sex	
- Male	53
- Female	47
Marital status	
- Married	75
- Widowed	10
- Never-married	15
Age distribution	
- 20-29 years	43
- 30-39 years	29
- 40-49 years	20
- >49 years	8
Years of schooling	
- none	59
- less than primary	3
- completed primary	32
- 9-11 years	6
Number of wives (ever-married men only)	
- monogamous	50
- 2 wives	50

Results

This section summarises the responses to the brief questionnaire (Appendix 1) administered individually, and the focus group discussions. Comparisons with other sources of Maasai knowledge about HIV/AIDS (*biitia* in KiMaasai) are made wherever possible. All of the respondents had heard of *biitia*, and three quarters stated that they knew of a way to protect themselves from infection. It soon became clear in discussions, however, that even the naming of the disease as *biitia* (meaning, literally, to shrink) is highly problematic. Many illnesses and diseases among the Maasai are attributed to or described as “shrinking”, and many focus group participants suggested that the *biitia* being talked about was simply another disease belonging to this group. Another major group of beliefs about HIV was that it was simply a new name for a parasitic infection widely reported among Maasai (*enamuratuni*), manifested by small white maggots around the anus and genitalia, an infection often associated with weight loss, hence, *biitia*. This simple integration of quantitative responses to “Have you ever heard of an illness called *biitia*

or *ukimwi* (KiSwahili) or HIV or AIDS?” and free-response discussions about what *biitia* means, is a salutary lesson in the superficial use of questionnaire responses.

Of those who stated that they did know of a way to prevent getting HIV/AIDS (n=27) the following routes were mentioned voluntarily: avoiding sex (93%); using a condom (15%); avoid needles (11%); avoid knives (22%); avoid razors (38%); avoid blood transfusions (8%); avoid kissing/saliva (8%); avoid sharing latrines (4%); pray to God (12%); avoid touching clothes (4%); avoid touching sweat (4%); and, avoid sharing toothbrushes(4%). These data are comparable with Kulzer’s study, a sample of 170 Maasai men and women in Simanjiro District²¹.

Condom knowledge

The low levels of condom knowledge reported in the individual questionnaires were reiterated in the focus group discussions, and can be summarised into three groups: myths and rumours; impact on quality of sex and sexual meaning; impact on fertility; and, HIV and condoms are “not Maasai”. A minority of participants expressed the view that Maasai would have to contemplate condom use, “People will have to use condoms - You cannot take out your heart and lay it on the grass - You cannot take the risk.”. However, the overwhelming response was that prevention of the disease was useless, and that “It is like an elephant in your path”, there is nothing to do but wait and see what happens.

Myths and rumours

Given the low levels of condom knowledge, it is unsurprising that incorrect beliefs about condoms and their efficacy abound. It should also be noted that several faith-based organisations had conducted IEC in the study area, and it would appear that condom inefficacy was a major element of these IEC campaigns. Scepticism about the practicalities of condoms abound, not least that such a thin material could prevent a deadly disease.

“It will not prevent this diseases because it is too thin. Besides, what is there to stop a drunk man not wearing it properly, or lying about wearing it when you cannot see in the dark?” (F, widowed, 44 years, 10 children, 7 years schooling)

“I do not believe that they will work – the liquid will escape. Anyway, is it not possible for the liquid of the woman to pass through to the man?” (F, married, 31 years, 2 children, no schooling)

“I don’t believe that they work – they’re too thin and easy to break. Besides, what happens if they break inside the woman and cause her problems?” (F, married, 40s, 7 children, no schooling)

“I have heard about them, but never used. I am afraid to use something like that because it can burst or get left inside the woman, and might cause disease” (M, 42 years, 2 wives, 7 children, completed primary school)

“I don’t think that they can work – the high temperature in bodies will move the disease between people whatever you do” (M, 34 years, 1 wife, no children, no schooling)

“I heard a rumour that condoms in Dar Es Salaam were thrown away because condoms were full of disease. Besides, they can tighten and cause an injury to the man...they are too thin and will break anyway, so what is the point?” (M, 26 years, 1 wife, no children, 11 years schooling)

The association of condoms with non-Maasai, or at least, non-ruralites (and thus non-Maasai), was expressed:

²¹ 98%, have heard of HIV/AIDS. Most know it is not curable (92% of males, 88% of females). 53% of men and 39% of women report that HIV/AIDS is preventable. 31% of men and 18% of women are able to identify more than one prevention technique. Knowledge of condoms is high among men, 96%, and less for women, 78%.

“Where is the proof that condoms can work? If it is so, then why are so many people dying in the towns? Condoms are everywhere – they are a big business – you see them everywhere in the towns”

Quality of sex

Good sex, in addition to procreation, involves the “giving” of sperm from men to women, for the benefit of women. Sperm is essential to the social and physiological development of young girls, and all participants agreed that to introduce condoms for *murran* and *entito* would be impossible. Both women

“It is shameful to see my boyfriend wearing something between me and him”
and men

“What about the enjoyment for the women? They need what we can give them”
expressed such concerns.

Similar themes are found in other ethnographic work about Maasai. For example, Talle summarises the attitude to Maasai men to the use of commercial sex workers " Maasai men are not used to the idea of prostitutes and find it both ridiculous and slightly embarrassing to spend money on sex. Why should they pay for giving away their "blood" (i.e.: semen) which basically is to a woman's benefit?" (1999:119)

Fertility

The key issue of condom use by a husband and his wife/wives related to fertility, and was articulated by both men and women. Married adults have sex (although not necessarily with each other), primarily for reasons of procreation. Large families are still an ideal for many Maasai men and women, and mature adulthood is achieved through the production of children.

“The husband would make a quarrel with his wife and fight with her and say ‘Why do you not want a child from me?’”

“Even if a young girl gets this disease, she will still have a baby, so it is God telling you to have children, but just die sooner”

“What do I do if my wife says that we need to get more children?”

“If you are looking for children than you cannot use condoms”

The contraceptive effect of condoms is widely cited in many contexts as a reason for their non-use (Bond & Dover, 1997; Preston-Whyte and Zondi, 1991; Abdool Karim et al, 1992; Mill & Anarfi, 2002). In populations where supply methods of contraception are little used, and fertility reduction is not yet seen as advantageous, then the introduction of condoms (albeit for HIV risk reduction) are out of step with fertility needs. Levels of contraception among the Maasai are very low – evidenced in part by the high TFR – and are not widely used (Holloos and Larsen, 1997)²². It should be noted that condom use is consonant with resumption of sexual intercourse during breastfeeding, and was twice referred to by service provider key informants as a clandestine reason for condom use.

HIV as non-Maasai

“They do not directly say it will attack the Maasai, so other people must have brought it”

The “otherness” of HIV and consequent condom use manifests itself in a variety of ways. For example, the highly ritualised nature of Maasai male circumcision results in a strongly held belief that condoms are unsuitable for penises that have undergone a Maasai circumcision. Attempts by outreach teams from local hospitals to demonstrate the use of condoms using wooden model penises foundered because the models had not been correctly “circumcised”. The Primary Health Care team subsequently had the wooden penis model “circumcised” by a local carpenter. The frequent

²² A purposive questioning by the author of 138 ever-married Maasai women in Tanzania (1996) resulted in 1 report of ever use of contraception.

reference to condoms being a “Swahili” (non-Maasai) device underline the ethnic “otherness” of condoms in a Maasai context.

Discussion

While the focus in this paper has been on condoms, it is worth noting that comprehension of sexuality also impacts on “A” and “B” as well as “C”. Thus, translating ABC is not as simple as ABC. What is of interest here is not sexuality in and of itself, rather how it combines with and influences potential programmatic responses to HIV risk reduction. Rarely do programme documents refer to a broader sexuality context, instead focusing on (quantifiable) sexual behaviour. This has led to a sidelining of concerns about the context of condom use, not least the importance of sperm, in the drive towards condom use as HIV prevention

A for abstinence: The social construction of maturity for both male and females involves the socially sanctioned sexual partnering of young girls (aged from 8 or 9 years to puberty) with the *murrani* (aged from late teens to mid twenties). After puberty, a young woman can then be married to a man who is considerably older than herself, and who will almost certainly already have other wives. Women in general and young girls in particular, it could be argued, lack the social power to reject sexual relations, regardless of their perceived “riskiness”.

Be Faithful: In a polygynous society, it is unclear exactly what this concept entails. Some faith-based organisations, for example, preach that a man remains faithful to all of his wives, and that individual wives remain faithful to that one husband.

This paper concludes that there is a rationale for the development of culturally-specific HIV/AIDS programmes. This is underscored by the fact that, although human biology is the same everywhere, sexual behaviour in general and condom use in particular are the result of complex of socio-cultural values and economic and political conditions, which differs from one society to another and between different groups within a society.

Drawn from 1999 Tanzania DHS questionnaire, Section 8

- 1 Have you ever heard of an illness called biitia or ukimwi or HIV or aids?
- 2 Is there anything that a person can do to avoid getting this disease?
- 3 What can a person do (free answer)?
- 4 Can somebody stop himself or herself from getting this disease by only having one sex partner?
- 5 Is it possible to get this disease from a mosquito bite?
- 6 Do you know what a condom is?
- 7 Will using a condom protect somebody from getting biitia/ukimwi/HIV?
- 8 Is it possible to get this disease by sharing food with an infected person?
- 9 If somebody abstains completely from sex, are they protected from getting this disease?
- 10 Without giving me the name, do you know anybody / do you know of anybody has been affected by this disease?
- 11 Can a mother infect her unborn baby with the disease?
- 12 Can a mother infect her baby when she is giving birth?
- 13 Does breast milk carry the disease?

Bibliography

- Basu, A. M. and P. Aaby (1998). *The methods and uses of anthropological demography*. Oxford, Clarendon Press.
- Berntsen, J. L. (1979). "Economic variations among Maa-speaking people." *Hadith: Ecology and history in east Africa* 7.
- Bledsoe, C. et al (1994). "Constructing natural fertility: The use of western contraceptive technologies in rural Gambia." *Population and Development Review* 20(1): 81-113.
- Bond, V. & P. Dover (1997) "Men, women and the trouble with condoms: problems associated with condom use by migrant workers in rural Zambia" *Health Transition Review, Supplement to Vol. 7: 377-391*
- J. C. Caldwell, P. H. Reddy, & P. Caldwell (1983) "The Social Component of Mortality Decline: An Investigation in South India Employing Alternative Methodologies" *Population Studies, Vol. 37, No. 2. pp. 185-205.*
- Caldwell, J. C., K. H. W. Gaminiratne, P. Caldwell, S. de Silva, B. Caldwell, N. Weeraratne, & P. Silva (1987) "The Role of Traditional Fertility Regulation in Sri Lanka" *Studies in Family Planning, Vol. 18, No. 1. pp. 1-21.*
- Coast, E. (2000) *Maasai Demography* Unpublished PhD Thesis, University of London
- Coast, E. (2002) "HIV/AIDS in Ngorongoro District, Tanzania" Report prepared for DANIDA
- Coast, E. (2002) "Maasai socio-economic conditions: cross-border comparison" *Human Ecology* Vol. 30 No. 1 pp.79-105
- Collumbien, M. & S. Hawkes (2000) "Missing men's messages: does the reproductive health approach respond to men's sexual health needs?" *Culture, health and sexuality* 2(2) 135-150
- Dixon-Mueller, R. (1993) "The sexuality connection in reproductive health" *Studies in Family Planning* 24(5) 269-
- Edwards, J. W. (1983) "Semen anxiety in south Asian cultures; Cultural and transcultural significance" *Medical Anthropology* pp.51-67
- Feldman-Savelsberg, P. (1995) "Cooking inside: Kinship and Gender in Bangangte Idioms of Marriage and Procreation" *American Ethnologist, Vol. 22, No. 3 pp. 483-501.*
- Fricke, T. (1997). "The uses of culture in demographic research: a continuing place for community studies." *Population and Development Review* 23(4): 825-832.
- Galaty, J. G. (1981). "Land and livestock and Kenyan Maasai." *Journal of Asian and African Studies* 16(68-88).
- Goodkind, D. M. (1991) "Creating New Traditions in Modern Chinese Populations: Aiming for Birth in the Year of the Dragon" *Population and Development Review, Vol. 17, No. 4. pp. 663-686.*
- Gorgen, R. Mohamed L. Yansane; Michael Marx; Dominique Millimounou (1998) "Sexual Behavior and Attitudes Among Unmarried Urban Youths in Guinea" *International Family Planning Perspectives, Vol. 24, No. 2. pp. 65-71.*
- Greenhalgh, S. (1995) *Situating fertility: anthropology and demographic inquiry* Cambridge University Press
- Hammel E. (1990). "A theory of culture for demography." *Population and Development Review* 16(3): 455-485.
- Herrell, R. K. (1991) *Current Anthropology, Vol. 32, No. 2. pp. 199-203.*
- Hodgson, D. L. (1999). "'Once intrepid warriors': modernity and the production of Maasai masculinities." *Ethnology* 38(2): 121-150.
- Hollos, M. and U. Larsen (1997). "From lineage to conjugality: the social context of fertility decisions among the Pare of northern Tanzania." *Social Science and Medicine* 45(3): 361-372.
- Jacobs, A. H. (1973) in Molnos, A., Ed. *Cultural source materials for population planning in East Africa* (4 Vols.). Nairobi, East African Publishing House.
- Kipuri, N. (1983). *Oral literature of the Maasai*. Nairobi, Heinemann Educational Books.

- Kipuri, N. (1989). *Maasai women in transition: class and gender in the transformation of a pastoral society*. Temple University. PhD
- Kirk, D. (1996) "Demographic Transition Theory" *Population Studies*, Vol. 50, No. 3. pp. 361-387.
- Kramer, J. M. (1980). *Production and reproduction at various levels of participation in the modern world system: an analysis of the effects of urbanisation on fertility for 12 communities in Kenya*. The University of North Carolina at Chapel Hill: 371. PhD
- Kreager, P. (1982). "Demography in situ." *Population and Development Review* 8(1): 237-266.
- Lakhani, A., K. Gandhi, M. Collumbien (2001) "Addressing semen loss concerns: Towards culturally appropriate HIV/AIDS interventions in Gujarat, India" *Reproductive Health Matters* 9(18) 49-
- Lembikas, W., N. Sivini, et al. (1996). *A study of primary education sector in Ngorongoro District, Tanzania*. Ololosukwan, Tanzania, Pastoral Resource Management Centre.
- Llewelyn-Davies, M. (1978). *Two contexts of solidarity among pastoral Maasai women. Women united, women divided: Cross-cultural perspectives on female solidarity*. J. Caplan and J. M. Bujra. London, Tavistock: 206-338.
- Lockwood, M. (1995). "Structure and behaviour in the social demography of Africa." *Population and Development Review* 21(1): 1-32.
- Lopez-Corral, J. et al (1992). "The absence of infection with the human immunodeficiency viruses type 1 and 2 in an African Masai population." *Medicina Clinica* 98(6): 237.
- MacPhail, C. & C. Campbell (2001) " 'I think condoms are good but, aai, I hate those things': condom use among adolescents and young people in a southern African township" *Social Science and Medicine* 52:1613-1627
- Maynard-Tucker, G. (1989) "Knowledge of Reproductive Physiology and Modern Contraceptives in Rural Peru" *Studies in Family Planning*, Vol. 20, No. 4., pp. 215-224.
- McNicoll, G. (1980). "Institutional determinants of fertility change." *Population and Development Review* 6(3).
- Mill, J. E. & J. K. Anarfi (2002) "HIV risk environment for Ghanaian women: challenges to prevention" *Social science and medicine* 54:325-337
- Mitzlaff, U. von (1994). *Maasai women: life in a patriarchal society: Field research among the Parakuyo, Tanzania*. Munich, Trickster Verlag.
- Morley, D. (1991) "Kenya: Maasai warriors and their sexual partners" *The Lancet* 337: 667-8
- Piot, C. (1995) *Journal of the Royal Anthropological Institute*, Vol. 1, No. 3. (Sep., 1995), pp. 611-624.
- Rahman, M. W. H. Mosley, Atiqur Rahman Khan, A. I. Chowdhury, J. Chakraborty (1980) *Studies in Family Planning*, Vol. 11, No. 6. (Jun., 1980), pp. 191-201.
- Rugene, N. and B. Newbery (1998). "No more sleeping with the enemy." *New Statesman* Dec: 67-68.
- Saitoti, T. Ole (1986) *The worlds of a Maasai warrior: an autobiography* University of California Press
- Santow, G. (1995) "Coitus interruptus and the Control of Natural Fertility" *Population Studies*, Vol. 49, No. 1. (Mar., 1995), pp. 19-43.
- Sindiga, I. (1987). "Fertility control and population growth among the Maasai." *Human Ecology* 15(1): 53-66.
- Spear, T. (1993) "Introduction" in Spear, T. and R. Waller, Eds. (1993). *Being Maasai: ethnicity and identity in east Africa*. London, James Currey.
- Spear, T. and R. Waller, Eds. (1993). *Being Maasai: ethnicity and identity in east Africa*. London, James Currey.
- Spencer, P. (1973). *Nomads in alliance: symbiosis and growth among the Rendille and Samburu of Kenya*. London, OUP.
- Spencer, P. (1988) *The Maasai of Matapato: a study of rituals of rebellion* Manchester: Manchester University Press.

- Talle, A. (1987). "Women as heads of houses: the organisation of production and the role of women among pastoral Maasai." *Ethnos* 1-2: 50-80.
- Talle, A. (1994). "The making of female fertility: anthropological perspectives on a bodily issue." *Acta Obstet Gynecol Scand* 73: 280-283.
- Talle, A. (1995) in Klepp, K. I., P. M. Biswalo, et al., Eds. *Young people at risk: fighting AIDS in Northern Tanzania*. Oslo, Scandinavian University Press.
- Talle, A. (1999) "Pastoralists at the border: Maasai poverty and the development discourse in Tanzania" in D. M. Anderson & V. Broch-Due *The poor are not us: poverty and pastoralism in eastern Africa* James Currey: Oxford
- Taylor, C. C. (1990) "Condoms and cosmology: the 'fractal' person and sexual risk in Uganda" *Social Science and Medicine* 9:1023-1028
- UNAIDS (1999) "Sexual behavioural change for HIV: Where have theories taken us?" UNAIDS: Geneva
- Valadez, J. J., P. M. Loolpapit, et al. (1999). "HIV and syphilis serostatus of antenatals in traditional Maasai pastoralist communities in Kajiado District, Kenya: 1989-1992." *Tropical Doctor* 29: 94-98.
- Verma, R. K., G. Rangaiyan, R. Singh, S. Sharma, P. J. Peltó (2001) "A study of male sexual health problems in a Mumbai slum population" *Culture, Health and Sexuality* 3(3): 339-352
- Walle, E van de & F. van de Walle (1988) "Birthspacing and abstinence in Sub-Saharan Africa" *INTERNATIONAL FAMILY PLANNING PERSPECTIVES*. 1988 Mar;14(1):25-6.
- Zeidenstein, S. & K. Moore (eds) (1995) *Learning about sexuality: A practical beginning* New York: The Population Council