

Sexually-transmitted disease risk in a Micronesian atoll population*



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Abstract

The potential health threat of AIDS to the native island-based populations in the Pacific is now widely appreciated by those working in the public-health sector throughout the region. Although several countries in the region are yet to identify any cases of AIDS or HIV seropositivity, there is reason to suspect that heterosexual contact may emerge as a predominant mode of spread of HIV infection into native Pacific island populations. Sexual networks and their relationship to potentially 'risky behaviours' are described for a single native Micronesian atoll community on the basis of ethnographic observation and interviewing. This description is combined with the investigation of historic-demographic dimensions of the epidemiology of sexually-transmitted diseases in the same population to draw some conclusions about the opportunities for HIV transmission and acquisition among the sexually-active portions of this community. Although sexually-transmitted diseases have not had an appreciable epidemiological or demographic impact on the population in the past, the sexual networks within the community and beyond provide ample opportunity for the introduction and spread of sexually transmitted diseases, including HIV and its sequel AIDS.

In the Island Pacific regions of Micronesia and Polynesia sexually-transmitted diseases, especially gonorrhoea, syphilis, and HIV/AIDS, are emerging as important public health concerns. In particular, concerns over the future of HIV infection and AIDS have prompted considerable discussion about and implementation of educational and intervention plans in countries in the area. This is a region where health resources are often inadequate for the task of dealing with current health concerns; strained by inadequate funding, irregular drug supply, and a shortage of trained staff, especially in rural and isolated areas. In terms of the likely level of spread of infection, there is reason to suspect that heterosexual contact, following a 'pattern II transmission' model, may emerge as a predominant mode of spread from the earliest phases: that is, sexually active men and women will both be placed at (roughly) comparable and considerable risk of sexual exposure to HIV infection.

The aim of this paper is to make some predictive comments, from an anthropological perspective, on the behavioural dimensions of the risk of acquiring sexually-transmitted diseases; a single island population in the Micronesian nation of Kiribati is used as a case study, with particular attention to the possibilities for the sexual spread of HIV infection. This discussion draws on two perspectives: first, the historical-demographic and epidemiological evidence for patterns of sexually-transmitted disease

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infection in a single island population; second, an ethnographic investigation of sexual activity and sex-associated behaviours in this population as potentially risky behaviour for acquisition of sexually-transmitted diseases (STDs) at the community level.

Emphasis is placed on developing some notions of how sexual networks and behaviour patterns might provide opportunities for the transmission and acquisition of HIV infection. There are other opportunities for transmission of HIV, such as through serum contact in traditional obstetric and medical procedures, during tattooing and through vertical transmission; but here the focus is on the sexual act itself, from epidemiological, demographic and ethnographic perspectives.

Sexually-transmitted diseases and sexual behaviour in the Pacific: an overview

The Pacific Island region has a dramatic history in the apocalyptic impact of sexually-transmitted disease. The historical lessons in the region are clear: that such diseases can spread widely with disastrous social, demographic, and health consequences.

Throughout the Pacific region native populations declined dramatically, or virtually collapsed, in the late 1800s and early 1900s (see, for example, McArthur 1967; Carroll 1975; Pool 1977; Stannard 1989). Although STDs constituted only one mechanism for widespread decimation of native populations between the middle of the nineteenth and twentieth centuries, their impact is well documented for many of the island groups in the region.¹ Gonorrhoea, a disease introduced into the region with European contact, was a widespread cause of subfecundity and precursor to substantial declines in fertility, and had a devastating influence on the health and demographic history of many island groups (for example, Lessa and Myers 1962, Pirie 1972, Underwood 1973). It has been argued that the differential impact of gonorrhoea in different island groups in the Pacific shows some clear links to culturally-specific variations in sexual behaviour, most especially to social expectations and opportunities for female premarital and extramarital sexual activity (Pirie 1972:203). The pattern and extent of contact between foreigners and locals, as well as the level of local inter-island contact (see Underwood 1989:19) are also implicated in determining varying histories of STDs. The history of venereal syphilis is more difficult to trace, but it appears that yaws-linked immunity provided protection from the disease in the more humid central and western Pacific islands (Pirie 1972), even though there is no doubt that the arrival of European traders and sailors provided sufficient opportunities for the widespread and repeated introduction of the disease.

With increasing availability of antibiotics in the region after World War II, the impact of these diseases was markedly curtailed and the rise in fertility seen in various Pacific Island groups in the last several decades is testament to the increased levels of reproductive success which occurred with increasing control of sexually-transmitted diseases. However, and in line with trends identified in other developing and developed countries (De Schryver and Meheus 1990), in the last decade venereal syphilis and gonorrhoea have become more prevalent and have included penicillin-resistant strains of syphilis (Willcox 1980a; 1980b; Gyaneshwar et al. 1987). And, with yaws now virtually eradicated (Willcox 1980b), previous resistances to syphilis are no longer in place.

The latest indications of a burgeoning of sexually-transmitted diseases in the Pacific do not augur well for projecting and anticipating sexual transmission of HIV infection. On January 1, 1992, Pacific Island countries reporting no cases of AIDS were American Samoa, Cook Islands, Kiribati, Nauru, Niue, Palau, Solomon Islands, Tokelau, Tuvalu and Vanuatu (World Health Organization 1992). Certainly, the reports of cases of AIDS and HIV seropositivity in Pacific nations underestimate the real

¹ Other mechanisms associated with population decline in the region included voluntary and forced-labour migration, the introduction of acute contagious diseases and warfare.

level of HIV infection (World Health Organization 1991). Often, cases are identified only once the clinical signs of AIDS manifest or HIV infection is identified in donor blood.² The successful tracking of previous sexual partners of seropositive HIV and AIDS patients is compounded by several factors, including non-disclosure by patients, lack of staff to track contacts and, especially in more isolated countries, the fact that off-island, and often casual, contacts are a common initial source of HIV infection.

The primary reported mode of spread varies between those countries in the region where cases exist. For example, in Papua New Guinea over half of all cases are reported to have been contracted through heterosexual intercourse, while in French Polynesia it is suspected to account for approximately a quarter of the cases (World Health Organization 1991). The statistics on this point are, however, difficult to interpret. The proportional representation of non-locals, such as expatriate employees and tourists, is not made clear in reportage, and this has enormous implications for anticipating the main routes of transmission which may emerge in smaller, more isolated Pacific Island nations.

Educational programs have now been initiated throughout the Pacific, but they often do not specifically address the concerns and motivations of local populations. This problem is magnified by a lack of studies focusing on the culturally-specific context in which sexual activity and other forms of potentially risky behaviour take place; information which can be of questionable credibility when it is elicited in structured-interview formats.³ This is the format in which sexual ideology (the rules) tends to be reiterated at the expense of descriptions of sexual experience (the actual behaviour).⁴

Research addressing the context and nature of sexual behaviour in the Pacific has a long, if chequered, history in anthropology. Studies conducted in the region emphasize that the context and expression of sexual behaviour vary considerably between different groups. Patterns of sexual activity, including premarital and extramarital intercourse, availability of partners, number of partners, and anal-genital or oral-genital contact, also vary in line with status, age and gender within different groups.⁵ The case described here, of an atoll-based population in Kiribati, is but one example of the variety of sexual expression and behaviour in the Pacific region. It highlights, however, the fact that heterosexual marital intercourse is by far the most common form of sexual activity. Although ritualized-institutionalized homosexual activity is common in Melanesian populations (for example, Herdt 1984), the cases of common or socially legitimized homosexual activity in the Micronesia-Polynesia culture areas are rare.⁶

The study population: Butaritari atoll

Kiribati is an independent Micronesian island nation located equatorially on the interface with Polynesia in the central Pacific Ocean. The epidemiological profile of the country demonstrates a very high proportional mortality from infectious disease, higher than any other group in Micronesia and Polynesia (Taylor, Lewis and Levy 1989). Diseases with a significant health impact include tuberculosis, hepatitis B, infectious diarrhoea, gastro-enteric parasitic infestation, measles, influenza,

² Routine screening of donated blood and blood products is now practised, as is the aggressive (and successful) promotion of clean needle use in clinic settings.

³ The study by Hughes (1991) is a notable exception.

⁴ This distinction is explored with regard to anthropology by Leavitt (1991).

⁵ Examples include the descriptions of Howard and Howard (1964), Davenport (1966), Suggs (1966; 1971), Marshall (1971), and Carroll (1976).

⁶ One exception is the Tahitian institution of *mapu*, where **one** adult male in each village may practise fellatio as inserter with local boys (Levy 1971).

childhood malnutrition, and A and B group vitamin deficiencies. Life expectancy is low, approximately 50 years for males and 55 years for females (Booth 1990), and population growth rates are high; about 2.2 per cent in the last intercensal period (1985-90) (Rouatu 1991).

Data discussed here were collected as part of a broader project concerned with biocultural-demographic perspectives on fertility in Kiribati. Fieldwork took place over twelve months in 1990-91, and was centred in a large central village with a population of about 1250 on Butaritari Atoll, the second most northerly atoll in the Tungaru (Gilbert) chain. Butaritari has a subsistence fishing-horticultural economy and a predominantly Catholic population, numbering approximately 3,800.⁷ Fertility on the island is designated 'high', with a mean of 4.65 births calculated for ever-married women over age 15 (N=791) and completed fertility of 8.5 for living, ever-married, post-menopausal women (N=231).⁸ Biomedical contraceptive options, including male condoms, are available in the local clinics but acceptance rates are low (Brewis 1991). For both males and females marriage is nearly universal; in 1990, 96 per cent of all women over 25 years of age were currently or had previously been married. Average age at first marriage for women is 19.7 years, and for men is about three years higher.

The data were collected from archival materials, clinic records and vital registrations, and through demographic survey, structured and semi-structured interviews and participant observation. Interviews on reproductive behaviour were collected from 201 women, 34 of whom also participated in more detailed follow-up semi-structured interviews which covered more personal aspects of reproductive and sexual behaviour.⁹

Historical STD trends

It appears that such sexually-transmitted diseases as gonorrhoea and syphilis were not present on Butaritari before initial contact with Europeans in the 1830s. Lambert, a physician, surveyed for syphilis on the basis of penile chancres and found no sign of the disease in 1924 (Lambert 1924, 1928). Butaritari lies within the 'yaws zone' (Pirie 1972) with sufficient rainfall to provide a suitable environment for the maintenance of the disease, and yaws-linked immunity may explain the lack of appreciable historical impact of syphilis.

The history of gonorrhoea on Butaritari is not as clear, but some isolated cases have occurred on the atoll this century (Lambert 1928). Infertility levels in post-menopausal women provide an indirect indicator of the historical health impact of gonorrhoea, whereby significant prevalence of the disease increases the risk of pelvic inflammatory disease and ectopic pregnancy, and with this the risk of female reproductive failure. The female population of Butaritari displays an exceptionally low primary sterility rate. Of post-menopausal ever-married women alive on Butaritari at the end of 1990 (N=231), only 1.3 per cent had failed to produce at least one live birth.¹⁰ Historical reconstructions of Butaritari fertility, based on field census and interview data, also indicate that the current pattern of high fertility and concurrent natural increase in population size has been maintained since at least the beginning of the

⁷ Population counts are based on a fieldwork island census conducted in November 1990.

⁸ Fertility estimations are based on census surveys undertaken in November 1990 with all women over 15 years of age currently resident on the atoll.

⁹ See Brewis (1992) for a description of the participant-selection protocol and interview schedules. The 34 women in the repeat interview subsample were non-randomly selected to provide as broad as possible a cross-section of ages and reproductive/sexual histories. All interviews were conducted in the vernacular.

¹⁰ Primary sterility levels calculated in studies by other researchers for Pacific Island populations are typically at least three times this figure, and can range as high as almost 40 per cent of all ever-married post-menopausal women (Brewis 1992:Table 6).

twentieth century. Table 1 presents primary infertility (expressed as percentage of ever-married women nulliparous at menopause) and mean number of live births for Butaritari by birth cohorts for women still alive in 1990. A similar historical fertility pattern has been demonstrated by Lambert (1975:Table 6.12) for nearby Makin atoll on the basis of field-census data collected in 1971. These reconstructions indicate a very low or non-existent demographic impact of sexually-transmitted diseases on female fertility in the twentieth century, and show that in the previous generation fertility-inhibiting STDs can be presumed to have existed at a very low level.

Table 1
Fertility measures for all ever-married women alive on Butaritari in 1990 by women's birth cohort

Women's birth cohort	N	Percentage nulliparous	Mean number of births
1900–1909	11	0.0	5.09
1910–1919	15	0.0	8.53
1920–1929	50	2.0	8.26
1930–1939	99	0.0	7.35

It is difficult to explain precisely why the impact of STDs was historically lower on Butaritari than other islands in Micronesia, although several factors are clearly implicated. The relative isolation of the group and a shortage of exploitable resources limited contact with outsiders (Bedford, Macdonald and Munro 1980), and this would have limited the opportunities for repeat introduction of such diseases as gonorrhoea. Also, the system of landowner and chiefly-class polygyny that was common until early this century (Lambert 1963), along with social control of extramarital and premarital female sexual activity, may have limited the spread of such diseases through the community.

Recent STD trends

In the last several years diagnosis of gonorrhoea cases within the country has become more common. Most identified cases have been on more urbanized South Tarawa, most particularly on the densely populated urban islet of Betio. The implied incidence rate has increased dramatically during the 1980s, from 0.23 per thousand total estimated population in 1978 (Willcox 1980b) to 23 per thousand in 1990 (Tungaru Central Hospital Medical Statistics Unit). No cases were reported from Butaritari in 1989 and 1990, although two cases were reported in 1988 (one male, one female). There was no other record of the disease on Butaritari in the previous decade, for which clinic records were available.

At present, there is no reported history in Kiribati of other STDs which are prevalent in other developing and developed regions: such as genital chlamydial infection, genital herpes, genital warts, chancroid or granuloma inguinale (Moore 1992). In contrast, hepatitis B, which can be also transmitted through sexual contact, is a substantial health problem in Kiribati. No statistics on hepatitis B prevalence are available, but medical personnel estimate that 50 to 70 per cent of the country's population may be hepatitis B antigen positive. Medical staff report that the spread of the disease may be primarily through infected blood products, casual contact between children and through vertical transmission, rather than through sexual contact. A pattern of infection with HBV occurring predominantly in childhood in the family setting has been identified for several other Pacific Island countries (Gust, Lehman and Dimitrakakis 1979). This may indicate that hepatitis B exposure has already occurred by the ages at which sexual avenues for infection become possible. Thus, using HBV infection as an analogue for patterns of transmission of other STDs is likely to be misleading.

At the time the fieldwork on which this report is based concluded in July 1991 there were no clinically identified cases of HIV seropositivity or AIDS in Kiribati. However, several cases have been identified since as either HIV seropositivity in donated blood or clinically as AIDS.

An ethnographic perspective on sexual networks and risky behaviour for STD acquisition on Butaritari

The potential for the spread of HIV infection in a community is influenced by the level of 'sexual networking', the number and identities of partners with whom an individual comes into sexual contact (following Caldwell, Caldwell and Quiggin 1989). The form of sexual practices as they occur within sexual networks influences not only the number of partners placed at risk of STD acquisition but also the speed of the spread of disease (De Bruyn 1992). One way of studying sexual networks is to combine structured surveys with quasi-anthropological semi-structured interviews conducted by trained interviewers in order to establish partner identity and nature of sexual contacts for individuals within communities (see Orubuloye, Caldwell and Caldwell 1991). In the village setting of Butaritari, where the individual personalities are well known to one another and village 'gossip' runs rife, the idea of employing trained interviewers or formal approaches to investigate sexuality was not welcomed by female informants. Women did, however, feel comfortable offering such information about themselves and others in the village in informal settings once an intimate, casual rapport had developed with me.¹¹ For this reason, the forms of sexual activities and networks are described in qualitative (i.e., ethnographic) terms. The description is based on opportunistic, informal ethnographic questioning, as well as 'case histories' which were shared by women during the course of formal and informal interactions; these stories emerged and unfolded over time through repeated informal contact, having named participants with specified relationships to the informants. It should be noted that the discussion which follows clearly focuses on women's descriptions and interpretations of sexual activity within their community. This was more accessible to me as a woman, and contact with the men's community was not sought, particularly in researching aspects of sexual behaviour, as it was judged that this would have reduced the women's trust in and openness toward me in the area of sexuality.

An ethnographic description of the forms and nature of sexual contact on Butaritari

Sexual relations take several different forms on Butaritari, but the vast majority of sexual activity in the community takes place in marital relationships. This section outlines the different types of sexual relationships, and provides the background for drawing some conclusions about sexual networks and risky behaviour for the acquisition of STDs on Butaritari.¹²

¹¹ For example, many of the more productive discussions in this area involved the women and myself trading personal stories: the development of an atmosphere of **mutual** curiosity and sharing significantly enhanced the intimacy and honesty of many such discussions. That is, I had to be personally open and involved as well in discussing personal issues of sexuality and not expect the flow of information to move only in one direction. Although many of the interview topics were very personal and potentially private to the women involved there was little hesitancy by women to discuss topics in the area of sexuality. One reason that women generally felt unthreatened by these discussions is related to their own feelings that, as male partners control the timing and style of sexual contact, they were not discussing their own behaviour (and predilections) but those of their partners.

¹² It should be noted that the descriptions provided in this paper are taken from a more detailed ethnography of sexual behaviour on Butaritari (see Brewis 1992).

Married and unmarried women in Butaritari society

Full adult female status in Butaritari society is achieved through marriage and motherhood. Marriage is considered a desirable state; the alternatives for women are not considered very attractive. Married women are socially distinguished quite clearly from unmarried, sexually active women.

Nikiranroro women are those who operate socially and sexually outside the bounds of married or virgin states.¹³ The term has dual meanings in Kiribati. First, it can refer to women who remain never-married social virgins when their fellow age-cohort members have obtained husbands, usually by the late twenties or early thirties. In a second sense, *nikiranroro* are unmarried women who signal some form of sexual receptivity or activity, whether or not they actually engage in sexual acts. *Nikiranroro* have been defined in this way as 'landless quasi-prostitutes' (Lewis 1981), 'dishonoured girls' (Sabatier 1977:276), and as 'unmarried or divorced ... [and] fairly free, but not promiscuous, with their favours' (Pitchford 1972). Onorio (1979:49) calls *nikiranroro* 'single women who were not virgins and married women who were not living with their husbands.' This second category of *nikiranroro* can be most simply, and accurately, defined as 'unmarried non-virgins', whether currently sexually active or not. It is the *nikiranroro* defined in this sense which are the focus of the following discussion.

Nikiranroro often live with their natal family or with relatives and have a subservient role in household affairs, often expected, like other unmarried women, to carry the heaviest burden of daily housework. *Nikiranroro* on the outer islands have less independence than those in Tarawa, where more cash employment for single women is available.

Some I-Kiribati women interpret *nikiranroro* status as one actively chosen, which frees them from some of the social and sexual constraints on women they see in 'Kiribati custom'; this is most particularly true of *nikiranroro* themselves. Others, especially married women, perceive *nikiranroro* status as sad, pitiable, and very distasteful. In this sense, becoming a *nikiranroro* is the result of foolish action or unfortunate circumstances.

It is said there are several ways in which a woman may become a *nikiranroro*. First, a girl can be raised by parents who 'don't care' enough about how she 'runs around,' and thus she will have ample opportunity to become sexually active. Being so 'free' with her behaviour in a manner which can be observed by other people is sufficient to have her labelled as sexually active, or at least available, and generally the parents are blamed for this. Secondly, women who are 'proven' non-virgins fall into this category. A woman accused of being a non-virgin on her wedding night, and thus returned to her family, could easily slip into a *nikiranroro* role. The same is true of raped women who, although it may be appreciated that the whole blame for the incident does not rest with them, still have no legitimate excuse for their non-virginity. Divorced, separated and widowed women are also candidates for 'sexually active' *nikiranroro* status. The separated are the most at risk, especially if it is known in the village that the divorce was precipitated by some failing on the part of the woman rather than the man; such as a perceived unkindness towards her in-laws. Some women may actively choose the *nikiranroro* role as an alternative to being married to a 'bad man'; especially one who drinks or is violent toward them or their children. In some instances women have been enjoined to become *nikiranroro* by their family if they believe the husband to be a particularly 'bad man'.

¹³ The local derisive term *kameaka* refers to women (and also sometimes men) who are considered within the local moral framework to be indiscriminately promiscuous, that is, to behave 'like a dog'. *Kameaka* behaviour involves 'indiscriminate' casual sex with a number of men, usually while the woman is drunk, and may involve monetary transaction. *Kameaka* behaviour in women is exceptionally rare on Butaritari, with only one named case being mentioned in the course of interviews. It is reported that this practice is more common in the urban administrative centre of South Tarawa atoll.

Although widowed women are often left single in unambiguously faultless circumstances they can still be forced into a sexually receptive *nikiranroro* role unless they are careful to prevent the possibility of men coming to them at night to take sexual favours. Previous fertility performance has little direct effect on assumptions regarding sexual availability. I spoke with one woman in her thirties who had eight children; she felt very threatened by the possibility of forced sex resulting from the assumption of availability following widowhood. She slept with all her young children under her mosquito net as a precaution.

Nikiranroro women are often socially segregated from their categorically-chaste counterparts. Parents will attempt to prevent their virgin daughters from mixing with *nikiranroro*, and housewives can ignore or treat *nikiranroro* with disdain when they come into contact with them. This reinforces the ideal of the 'housewife' role, and demonstrates the low value placed on alternative roles for marriage-aged women.

It is possible for a *nikiranroro* to pass to the status of married woman by taking a husband and assuming the behaviour of wife; by settling down and staying in the home and assuming the humility of the 'housewife'. However, it is generally accepted that *nikiranroro* are less ideal choices as wives. A marriage to a *nikiranroro* may reflect negatively on the husband and his family. *Nikiranroro* who become wives are considered to be potentially selfish and badly behaved family members, accustomed to seeing to their own needs before others' and having little justifiable pride in their behaviour. They are also thought to be much more likely to seek extramarital lovers. This perception of the *nikiranroro* personality makes it more difficult for *nikiranroro* to legitimately procure a husband; they are said to be more likely to use love magic or special sexual skill to get a partner. When a man chooses a *nikiranroro* wife there is often widespread speculation about the influence of magic on his decision. In many ways this exonerates the man from his decision, since he is considered to be impelled by forces beyond his control.

Some sexually active unmarried women are not openly classified as *nikiranroro* in that they are socially considered chaste, or close enough to it. These are women who may be engaging in sexual activity with one specific man as a prelude to marriage. Such liaisons are maintained at a very discreet level, usually with the assistance of sympathetic kin, and are often only discovered when pregnancy ensues. In such cases, where a carefully watched young woman has become pregnant to a single beau, the family and the woman will expect marriage to ensue precipitately. When the young man evades his responsibilities the family can become extremely angry.

On Butaritari two to three per cent of women are socially and self-classified as *nikiranroro*. Currently and recently sexually active *nikiranroro* had typically conducted sexual affairs with three or four men at most in their lifetimes. *Nikiranroro* only very rarely have intercourse with foreigners, and most often are engaged in short-term affairs with local married men and typically have a long time, up to several years, between affairs. Contact between *nikiranroro* women in the village and Westerners is very limited, mainly because very few outsiders ever reside in the village and come into contact with local women (see Brewis 1992).

Marital sexual activity

There are several different styles of 'marriage' in Butaritari society.¹⁴ Although earlier this century polygynous marriage was practised within the chiefly classes, now marriage patterns are strictly

¹⁴ Approximately half of all marriages in Butaritari village are legal in the sense that they have been confirmed by the church or government. Pitchford (1977) argues that non-legal marriages in Kiribati are very unstable arrangements, but I found in many cases that these relationships had endured successfully. However, where *nikiranroro* took husbands, these were less stable relationships than those formed with 'virgins'.

monogamous. The most common style is socially-formalized marriages which are arranged either by the family, including marriage against the woman's consent, or by the couple with the help of their families. Other couples will elope, and this often ends up as a union blessed by both families. The loosest and most temporary marriage arrangement, that of 'lovers', is a union which may be formed by an already married man who is working on another island away from his wife.

According to the women, when a couple live together domestically and have a sexual relationship they are considered to be spouses (*bu*), and thus to fulfil all the local conditions of being considered married. In describing the sexual nature of the marital relationship any case where the partners refer to each other as *buu* (my spouse) is considered to be a 'marriage', as distinct from cases where unions are considered by the women to be transitory and not to involve any co-resident day-to-day domestic co-operation.

Sexual access is a primary part of the marital relationship, and the timing and style of sexual behaviour is set by male partners (see Brewis 1992 for a more detailed description). Women reiterated that allowing a husband constant sexual access is vital in marriage, and it is both foolish and selfish to ever refuse an amorous husband. To deny a husband intercourse is said to be against the woman's best interests because it may press him to seek out other women who are more sexually amenable, and it is also selfish because sexual access is a primary role of the housewife and one of her chief responsibilities is to her husband. On the other hand, women should never initiate sex with their partners.¹⁵ All overtures need to come from the husband; therefore, he controls sexual timing and frequency to the greatest degree. For a woman to be perceived as sexually assertive within a marriage delivers a very negative and threatening message to the husband, that is, that the woman may be behaving in a similar manner with other men. Married women, thus, take a reasonably passive role in the sexual activity which occurs in a marriage. They do, however, have some authority at specific times: during menstruation, in advanced pregnancy, after birth, and during notable sickness, to discourage their husbands from having intercourse with them. Their arguments are stated in selfless terms, for example, it would damage the foetus at advanced stages of pregnancy, the husband will become ill if they have intercourse during menstruation or the child will become sick while breastfeeding. It is almost inconceivable that a Butaritari wife would refuse her husband simply on the basis that she did not want to engage in intercourse. So, at certain life stages women have no control over sexual activity; at others they do have some measure of indirect control, but this needs to be very carefully expressed, negotiated and timed.

In fact, no women with whom I spoke expressed a desire to limit the sexual activity they had with their husbands. Beside the enjoyment that many women derived from sexual acts, women were uniformly clear that to refuse a man would jeopardize his sexual loyalty. Married women can go to some lengths to keep their husbands sexually pleased and attracted, ranging from constant availability to specific medical treatments to keep them 'feeling good' to their husbands and the rare and risky practice of vaginal cauterization designed to inhibit vaginal mucous production and female sexual secretion (see below). Women enjoy sex within their marriages, and say their husbands make efforts to ensure this. A satisfied wife is considered symptomatic of a loving marriage, and cunnilingus or female-dominant positions during intercourse are taken to symbolize a very loving male partner.

¹⁵ Some of the younger, better-educated women living in the village said they felt they could initiate sex with their husbands because they had more 'modern' marriages. All of these were 'love-matches' which had occurred within the last ten years. Thus, the notion of appropriate sexual behaviour between couples seems to be undergoing a transition in certain sections of the society. Some of these women even stated they would complain if they thought their husbands were not paying them sufficient sexual attention. As one said '... I am angry and I tell my husband if he comes home late and doesn't think of my needs'.

Women said they believe their husbands share their views on the need to keep a partner sexually satisfied. They say husbands are concerned about their wives' needs because if the women were unhappy they might think of being with another man who would do 'better things' for them.

Sexual satisfaction is essential to both partners in order for the integrity of the marriage to be maintained; this was a clear theme in interviews. This principle, coupled with the respect and fear accorded to emotional states of conjugal sexual jealousy, has an essential effect on cultural notions of appropriate levels of married sexual activity. Regular intercourse is expected and provided, by both sexes, through the reproductive years, which are also the years of expression of conjugal-sexual jealousy. Sexual activity seems to subside by the time the wife attains menopause and both partners are assuming the status of 'elderly' in the community and the household.

Couples reportedly employ a variety of sexual positions and techniques, including ventral-ventral with either partner superior, ventral-dorsal intercourse, and cunnilingus. Fellatio is very uncommon, and reportedly never practised by older couples. This is said to be because women find it unpleasant because the penis 'smells bad' and because they claim to be *kabi* (not holding specific technical knowledge) about the practice in Butaritari. There is an appreciation that, although it may be enjoyable for men, men do not want unwilling partners to practise fellatio. The appropriateness of female sexual passivity does not prevent men from being concerned about women enjoying sex; but apparently both men and women believe that in the act of fellatio the woman is taking too much initiative, and could therefore do the same with a man other than her husband. Cunnilingus is a different matter. Men want women, particularly their wives, to enjoy sex both because it is an intimate and pleasant thing in marriage and also because it will 'stop her thinking of other men.'¹⁶ To be able to do the act effectively is considered a reflection of the special 'skill' of the man. Unlike women, men are said to experience no 'shame', and to feel great pride in some cases, in bringing sexual expertise and experience to the marital mat. However, women believe men practise cunnilingus only for their own pleasure, rather than for the 'benefit' of the woman. Cunnilingus practised with *nikiranroro* is not common, mainly because it indicates that the man has 'fallen under the spell' of the woman and is no longer acting of his own free will.

Non-marital sexual behaviour

The vast majority of I-Kiribati women are married as virgins. Virginity is considered one of the most important qualities of a new bride, at least from the point of view of the groom's family. Many young women restated this to me in clear terms of their own ability to secure a suitable husband. It is important for a woman to move to a new household with a 'good reputation' as this will help maintain her status with the new family, and will ensure much better treatment by in-laws. If a woman is discovered to be a non-virgin on her wedding night there is a risk the marriage will be considered annulled, and the bride will be returned to her family in disgrace.

Although some couples may engage in premarital sexual activity, including oral-genital contact, this will often not include either manual or penile vaginal penetration. In most cases, premarital sexual behaviour cannot be considered an area of particularly risky behaviour for HIV transmission and acquisition. One problem in this area is the young women's lack of knowledge of sexual activity; such information is fairly widely circulated between married women but is not considered suitable for discussion with unmarried women.

¹⁶ Although Butaritari women generally seemed very satisfied with the sexual component of the marital relationship it is important to note that if intercourse is painful women very rarely complain. As during labour, women are expected to take pride in the brave suffering of such pain without complaint.

The situation is very different for men. Families will tolerate and even implicitly encourage young men seeking sexual experience with *nikiranroro* before they marry. However, *nikiranroro* characteristically prefer to 'play' with married, experienced men, rather than unmarried, younger ones: so single men may not in fact gain the experience they seek. Traditionally, men married for the first time several years later than they do today, and in this interim it was not expected that a man would save his virginity for the marriage mat. During fieldwork I had little opportunity to speak with men explicitly about their premarital experiences, but stories of men's attempts at sexual conquest abound in the women's community. Certainly, there is considerable peer pressure among young men to seek out the favours of women, and this has a strong element of demonstrating daring, skill, and charm to their friends. However, several younger men who had married in recent years were known to be virgins at marriage, and in these cases the families were more proud than embarrassed by this disclosure.¹⁷

Despite the value placed on premarital female virginity some women do have intercourse before marriage.¹⁸ This is seen as irresponsible and self-indulgent by the broader community. Of the women I spoke with in some depth who had premarital affairs, most felt they were 'tricked' into sex by their own innocence or had been coerced in their first encounter. Once virginity is lost, however, there is little point in maintaining celibacy, as the time for care has now passed.¹⁹

One category of women who seem to have nonmarital sex with relative social impunity is widowed women. Several widowed women interviewed, who were under 50 years of age, had quietly and discreetly taken lovers without the knowledge of their families, although their friends might have known. Each of the women stated they were only having sexual relations for their 'own needs,' and not as any prelude to a formalized union. Their partners are generally widowed also.

There is a distinct gender difference in the expectation and treatment of adulterous behaviour. Female adultery is not well tolerated, and this has been the case for some time. Wilkes (1845:91) noted in 1841:

After marriage a woman must be extremely guarded in her conduct, as the punishment for [adultery] is very severe, even amounting to death in some cases; but is usually limited to expulsion from her husband's house.

It appears that the recourse for female adultery was determined by both the status of the participants, and the manner in which the affair came to the attention of the husband. Stevenson (1905:318-319) wrote that on Butaritari only 'stealthy' adultery was punishable with death, and open elopement was compensated for with a land fine. Lambert (1963:227) differentiates between lovers caught in the act (when a husband would be justified in killing) and acts discovered later, when compensation with a land fine would suffice to appease the man and his natal-kin group, which could support him and act on his behalf. Gelett (1861) noted that the penalty for men having sexual relations

¹⁷ 'Virginity testing' of women at marriage is still common, despite opposition to the practice by the Church. It appears that the retention of premarital-female virginity was also important in the past. Although Wilkes (1845:91) tells us that on Butaritari, '... chastity [was] not considered a virtue, nor considered as any recommendation in the selection,' he was probably referring to the *nikiranroro* alone. Grimble (1921:33), in commenting on Wilkes's remarks, concluded that this actually indicated a high value placed on virginity for most women, and this conclusion seems warranted. Grimble (1921:41) wrote that earlier this century '... the violation of maidenhood was everywhere looked upon as one of the most awful offenses and was punished with great severity.'

¹⁸ A small proportion (3.9%) of the women in the reproductive-history collection had first-order birth dates which were less than eight and a half months from their date of marriage.

¹⁹ Sexual coercion of women is not rare in Butaritari, although it does not constitute a common sexual outlet (see Brewis 1992 for a more detailed treatment).

with the wife or betrothed of another man was that they could expect to be killed if they were of low rank, and to pay a high land fine if of high rank. Captain Davis (1896) observed a woman being flogged for adultery during a short visit in 1892.

Lambert (1963:80) makes the point that ‘...adultery was so widely defined by the Gilbertese that it must have occurred very frequently.’ Various categories of adulterous acts, apart from intercourse with a married or betrothed woman, included seeing the genitalia of any married woman, even accidentally; passing a married woman on the road and not standing to the side; and speaking with married women in the village (Stevenson 1905; Kraemer 1906; Lambert 1963; Townsend n.d.).

Today, married women, under the watchful eyes of husbands and families, have almost no opportunity for marital infidelity. Further, the social sanctions against straying are so severe that there is strong disincentive for women to let even the slightest hint of impropriety develop. A woman suspected of infidelity could expect, at least, a severe beating, possibly to be shamefully divorced and, in extreme cases, to be killed by her angry husband. The ‘traditional’ practice of a husband biting off a (broadly defined) adulterous wife’s nose in a fit of sexual jealousy still occurs occasionally (Brewis 1992, cf. Lewis 1990). Extramarital sexual opportunities are also limited for women. If a husband leaves the village or island his family is charged with watching his wife in his absence, and the activities of married women are generally carefully monitored.

For all these reasons, female adultery is said by Butaritari women to hardly ever occur. In all cases the man accused of committing adultery with a married woman is considered to be acting out of hate or revenge for her husband, not to be simply acting for sexual pleasure. It seems that, for men, adultery is a brave and dangerous act, and I suspect it rarely goes undiscovered when it happens: that is, details of a brave and daring act are very likely to be recounted. On the other hand, I got no impression from the women I spoke with that they thought the possibility of adultery was sexually exciting, or the act of adultery was revenge against their husbands. Although women were reluctant to divulge their activities in this area, I retain the impression that they did not generally seek or wish to accept any sexual partners other than their husbands, and for this reason they are probably having very little extramarital intercourse.²⁰

Male adultery is quite another matter, however. As expressed at the public level, there is no sanction against male infidelity with *nikiranoro*. Approximately half of all interviewed women married for more than five years reported at least one extramarital sexual event for their husbands. Men have a finite village-based pool of sexually available women, the *nikiranoro*, and no complementary pool of extramarital partners exists for women. The actual frequency of male adulterous sex seems specific to each arrangement. Some men would sleep with *nikiranoro* women only once or twice in the course of a marriage, others would consistently seek out other women, leaving the marital mat for a week or two at a time. Often these men would visit the house of the *nikiranoro* in the evening, and talk her into retreating into the dark or to the bush for the purpose of sexual intercourse, which on these occasions, according to *nikiranoro* women, would take place several times in the course of an evening.

Since the *nikiranoro* are finite in number, and far fewer than the number of married men in each village seeking extramarital sex, these affairs are often brief, with the *nikiranoro* moving onto a new

²⁰ Upon rereading Lambert’s (1963) notes on female adultery in Makin and Butaritari after leaving the field I was surprised by the impression he gives that married women were frequently adulterous. This may be accountable in terms of the gender differences of researchers. Men speak frequently of their (purported) extramarital affairs and women do not. However, later Lambert (1981:162) commented that ‘... adultery may in fact be quite rare.’ Given that female adultery is not socially tolerated and puts women at substantial risk of violent ill-treatment, social chastisement, ridicule, and divorce, I suspect that men’s reports of widespread extramarital sexual ‘conquest’ with married women are exaggerated.

partner when someone more interested or interesting comes along. Men are most likely to seek the favours of *nikiranroro* when they drink, and the heaviest drinkers in the village tended to be those who most often seek, although do not necessarily obtain, the favours of *nikiranroro*. At most, married men probably manage to get the attentions of about five different *nikiranroro* in the course of their lives.

Homosexual episodes are very rare in this population. Male to male sexual expression is not tolerated, and social male homosexual roles are not socially accepted. There are very rare cases of male social trans-sexuality, referred to locally as *binabinaine*, but these reportedly rarely, if ever, include homosexual activity. It is reported that among heterosexual couples anal intercourse is not practised. Although such behaviour self-reports are difficult to verify, there is reason to believe that anal intercourse is not considered a preferred or sought-after practice in heterosexual coitus.

Men who leave Kiribati for temporary off-island employment, especially the 2,000 or so I-Kiribati who serve as seamen on foreign vessels, constitute an already identified (Moore 1992) group for repeated introduction of HIV infection to the Kiribati population. These seamen tend to be absent for several months at a time, returning home by air during leave and the conclusion of contracts. Both married and single men may serve on foreign ships, the main lure being the cash income which can be sent home as remittances to wives and family. It is very difficult to ascertain the level of risky sexual contact in which these men engage while they visit foreign ports, although there are several reports, by wives, of husbands' premarital experience with foreign prostitutes. One woman, the wife of a retired seaman, related that her husband's sexual ability and imagination stemmed from his contact with foreign prostitutes. Medical care for workers on these foreign vessels, mostly German lines, is said to be of a high standard (Moore 1992). Unfortunately, no information regarding off-island STD infection is recorded by the Kiribati hospital service.

Risky behaviour and sexual acts

The dynamics of sexual acts can affect the risk of acquisition of STDs. This section describes some ethnographically-identified behaviours which are potentially 'risky'. Focus is placed on instances in which women are engaging in marital coitus at times where the integrity of the vagina has been threatened and risk of HIV acquisition is potentially greater.

The practice of using vaginal inserts to promote dry and sweet-smelling genitalia, considered by women to be sexually pleasing to men, is a potentially risky behaviour. This is done most often by sexually-active unmarried women. There has been some evidence to indicate that the use of intravaginal irritants by women in Zaire, also designed to dry and tighten the vagina as a means of heightening male sexual pleasure, can cause vaginal inflammation, erode vaginal mucosa and place women at increased risk for contraction of HIV infection (Dallabetta et al. 1990; Brown and Brown 1992, both cited by De Bruyn 1992; see also Hrdy 1987:1110).

All married women on Butaritari manually evacuate the vagina of all mucus daily, and also habitually after intercourse. At times this may prove irritating to the vaginal entrance and walls, thereby increasing the risk of HIV acquisition.

Other practices by which women engage in sexual intercourse when the vagina is lacerated or otherwise susceptible include the risky, but rare, practice of vaginal and cervical cauterization called *te kotokoto*, designed to dry the genitalia and vagina to enhance male sexual pleasure during intercourse. This is mainly practised in the Southern islands of the Tungaru (Gilbert) chain and is becoming less popular because it is associated with both female infertility and death; however, it still takes place occasionally.

During the immediate postpartum period I-Kiribati have cultural prescriptions regarding an appropriate period of abstinence. The prescription stems in part from the local belief that maternal contact with seminal fluid will taint breastmilk and make a breastfeeding child ill. Some couples

negotiate this perceived health risk by engaging in coitus as soon as possible after a birth, even within three days; the rationale being that the child will be protected from the effects of the semen-affected milk if it is accustomed to it from the first breastfeeding episodes.²¹ Therefore, in attempting to negotiate the traditional notion of health risk associated with non-adherence to a postpartum period of abstinence, women may have sexual activity at times when genital damage is very likely to exist. I-Kiribati of both sexes strongly resist having intercourse during the peak days of menstruation.

Knowledge of and responses to sexually-transmitted disease

Although sexually-transmitted diseases are not common in this population, some local ethnomedical practitioners are aware of some symptomology of diseases which could be acquired through 'unclean' intercourse. In all, eight local experts were interviewed on the range of symptoms identified and treated for reproductive conditions. Only one of these healers had any extensive knowledge of different forms of sexually-transmitted diseases and described a possible cure for gonorrhoea; although she had never had occasion to use the treatment. The symptoms described as associated with 'unclean' intercourse include vaginal itching, strong and unpleasant genital odour and discoloured or heavy vaginal discharge. These symptoms are also associated with other conditions of female reproductive ill-health (see Brewis 1992).

Lay knowledge concerning sexually-transmitted diseases is very limited. Of the 34 women interviewed extensively on their knowledge and experience of women's reproductive ill-health, only three mentioned without prompting the possibility of sexually-transmitted forms of disease which could have symptoms in women, and no women reported ever experiencing any condition they interpreted as sexually transmitted. Most married women were, however, aware that such conditions might exist. Unmarried 'socially chaste' women, who are expected to have no knowledge of marital-sexual details, denied any knowledge or understanding of such diseases during interviews.

Dissemination of knowledge regarding HIV infection and AIDS was becoming apparent during the course of fieldwork, mainly through programs on the national radio station. During this time the Kiribati government launched the first national 'AIDS Week' campaign, which involved several comments during the news section about the disease, focused on a call for a 'return to Christian morality' in order to prevent the introduction and spread of infection. To my knowledge this engendered almost no local discussion, and upon being questioned women felt the issue of HIV/AIDS was of no threat or immediate interest to them. The clear perception is that it is a 'Western' disease which could only be contracted through sexual intercourse with Westerners while in a foreign country. When pushed to consider the local ramifications of the disease, married women repeatedly gave the opinion that it was likely to be a disease only of *nikiranroro* and married men, and of no consequence to sexually monogamous wives.

Transmission of STDs is unlikely to be prevented by use of male condoms unless substantial 'barriers' to their use are removed. Condom use is resisted for family-planning purposes within and outside marriage, and is even more resisted in 'casual' contacts where women are expected to assume a passive role in the negotiation of the sexual act. Women feel that any change in behaviour, including use of condoms or reduction in extramarital exposure, remains a male responsibility and it is inappropriate for women to express opinions, let alone control activity, in this area.

²¹ Ideal age for weaning is said to be about the time a child reaches the first birthday. Average age at weaning for all live births ever breastfed in the Butaritari sample is 14.57 months (s.d. = 10.8, N=684).

Conclusion

Although sexually-transmitted diseases have not previously had a marked demographic or epidemiological impact within this population it is probable on the available evidence that this situation will not last, given the changing patterns of marriage and off-island contact by locals.

It becomes clear in ethnographic investigation that the sexual networks exist to provide avenues for both the introduction to and spread of HIV infection in village communities. The dynamics of sexual activity outside marriage, centred on the finite number of *nikiranroro* in each village, makes them the focal point where sexually-transmitted disease could be passed between married men and subsequently their (faithful) wives. So, the mechanisms exist for the dispersal of sexually-transmitted disease through the village to over half of all couples; those couples in which the male partner has extramarital sexual liaisons. In terms of points through which STDs can enter the village sexual networks, married men temporarily working off-island and outside the country constitute the pool most likely to provide initial infection. The collection of qualitative data on the sexual experiences and perceptions of this group of men, presumably by a male researcher, is of particular importance to the more comprehensive prediction of HIV infection risk within the Kiribati population. In the study reported here this is one obviously vital area of investigation that was essentially closed because the investigator was a woman.

In conclusion, the Butaritari case cannot be an analogue for sexual networks and risky behaviour in other Pacific Island groups. The epidemiological-demographic history of the atoll demonstrates very low historical rates of STD infection, a pattern not observed in many other groups in the Micronesia-Polynesia culture area. As pointed out by Pirie (1972:203), this variation in epidemiological history is partly due to variations in the sexual-activity patterns between populations, as well as historical variation in marriage patterns (such as polygyny versus monogamy), extent and form of contact with foreigners and with nationals on other islands, and the form of socially appropriate and 'real' premarital and extramarital sexual activity of both sexes.

The description of sexual networks and behaviours in Pacific island communities, from both female and male perspectives, is a high-research priority in terms of anticipating the risky behaviours which could affect transmission and acquisition of HIV infection in the region. The seeming historical epidemiological-demographic and cultural distinctiveness of this case emphasizes the fact that lessons from one case cannot necessarily be applied to others in the area.

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