Resistances to Behavioural Change to Reduce HIV/AIDS Infection, 1999, 91-100

Chapter 8

Long-distance truck drivers' sexual cultures and attempts to reduce HIV risk behaviour amongst them: a review of the African and Asian literature

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Abstract

Although long-distance truck drivers have long been implicated in the early geographical spread of HIV in the African and Asian epidemics, driver sexual cultures are poorly described. The literature on African and Asian truck drivers is reviewed, revealing only three ethnographically-oriented studies of driver sexual cultures: Nigeria, Zimbabwe and India. Aspects of driver sexual cultures are gleaned from other sources for Kenya and Thailand and a picture of rather monolithic sexual cultures exists for Nigeria, where drivers have multiple regular partners at any one time, and India, where most drivers have multiple commercial partners at short intervals. Sexual cultures of Zimbabwean, Kenyan and Thai drivers may be more heterogeneous: larger numbers claim to be abstinent on the road; some have regular extramarital girlfriends; some occasionally, and some regularly, avail themselves of sex workers. As with other men in high-HIV areas, three main risk-reduction interventions have been attempted with drivers: increasing sexual health-seeking behaviour, increasing condom use and reducing partner numbers. Only four such programs are well reported in the literature, in Tanzania, Zimbabwe, Kenya and India, and only the last three have reported on evaluation components. While drivers increase their sexual health-seeking behaviour if clinics become convenient to them on the road, and increase condom use, it is not clear that many of them are reducing partner numbers. In Nigeria, where drivers have mutually beneficial economic relationships with their many girlfriends, and India, where drivers may only be home once a year, partner reduction may be difficult to achieve. In Zimbabwe and Kenya some drivers continue in high-risk behaviour and their resistance to change may be due to fatalism, beliefs that it is unmanly to reduce partner numbers, and the insidious effects of being away from home and constantly solicited by sex workers. In India, free roadside tea parlours with STD clinics have been established; these have increased sexual health-seeking behaviour and condom use, and insulate drivers from sex workers. The American truck stop may be a similar social space to the Indian Free Tea Parlour and a possible model for making such places economically self-sustaining.

Driver sexual cultures and how they have been surveyed

Long-distance truck drivers in Africa, India and Thailand have been found to participate in vigorous sexual cultures at roadside settlements and border crossings whose transient residents include poor, often young, women from rural hinterlands. Through sex for payment in cash or kind, many of these drivers and women have multiple partners and such drivers have spread HIV widely through the rural byways of the African AIDS Belt, Thailand and

India early in their epidemics. While long-distance truck drivers have long been implicated in the spread of HIV in Africa[1], Thailand[2] and India[3], there are not many published reports on long-distance truck driver sexual cultures. Here I review studies which have shed light on drivers' sexual cultures in Nigeria (Orubuloye, Caldwell and Caldwell 1993), Zimbabwe (Wilson *et al.* 1994), Kenya (Jackson *et al.* 1997; Rakwar *et al.* 1999), India (Rao *et al.* 1994; Rao, Pilli *et al.* 1999) and Thailand (Podhisita *et al.* 1996).

Because of differences in the patterns of work and sexual cultures encountered, patterns of risk behaviour were reported around different central themes. The most basic difference in patterns of work was between Nigeria, Zimbabwe and Kenya, where drivers reported being home every week or two, and India, where some drivers reported getting home just once a year.[4] Typical periods between visits home were not given in the Thai study but are here assumed to be days or weeks rather than months owing to the small size of the country.

Sexual cultures were diverse: drivers reported large numbers of non-regular, usually commercial, partners in India (Rao *et al.* 1994; Rao, Pilli *et al.* 1999), where drivers may not get home for months on end, but relatively few such partners in Zimbabwe, Kenya and Thailand where visits home were, or are assumed to have been, more frequent. The Nigerian drivers (Orubuloye *et al*. 1993) got home as regularly as the Zimbabwean, Kenyan and Thai drivers but had a distinct pattern. The survey was conducted on the main north-south highway and most of the drivers were Muslims from the north. Drivers from the south also tended to be Muslim and the central finding was of a quasi-polygamous pattern where the typical driver contributed to the support of numerous regular sexual partners: an average of 6.3, about one for every night of an average trip. They did not report large numbers of partners for their lifetime (the average was 25) but this was not consistent with their reports of partners in the last year (an average of 12). Some of the drivers had second or third wives. They and the others had additional regular partners in the main places where they regularly stopped; and their non-spousal partners had other regular partners on other nights of the week. The rather monolithic Nigerian and Indian driver sexual cultures contrast in the large number of regular partners in Nigeria (6.3) compared to the large number of commercial partners in India where a middle sort of response indicated 12-24 non-regular, mainly commercial partners in the last month.

Drivers in Zimbabwe (Wilson *et al.* 1994), Kenya (Rakwar *et al.* 1999) and Thailand (Podhisita *et al.* 1996) resembled each other in their self-reporting. Driver sexual behaviour was more heterogeneous than in the Indian and Nigerian studies and large numbers claimed to be abstemious when on the road and away from their wife or girlfriend. Those with multiple partners reported fewer than the Nigerian and Indian drivers: an average of 1.2 non-regular partners in the last three months for Zimbabwe; 58 per cent reported more than one sex partner in the last six months in Kenya; and 35 per cent reported more than one sex partner in the last six months in the Thai study. The Zimbabwean situation had an additional dimension of regular extramarital girlfriends. In Zimbabwe, 95 per cent of all drivers were married (8% polygamously) and 60 per cent of the drivers had regular girlfriends. So at least 55 per cent of

[1] Alderman (1988); Carswell, Lloyd and Howells (1989); Kilimwiko (1991); Ntozi and Lubega (1992); Conover (1993); Orubuloye *et al.* (1993); Moses and Plummer (1994); Lankoande *et al.* (1998).

[2] Handley (1992); Morris *et al.* (1996); Podhisita *et al.* (1996).

[3] Tanne (1991); Bansal (1992); McDonald (1992); Singh *et al.* (1993); Rao *et al.* (1994); Singh and Malviya (1994); Bansal and Nia (1998).

[4] But K.S. Rao (personal communication) reports that this is an extreme sort of experience and that Indian drivers he has worked with are more commonly home every couple of weeks.

married Zimbabwean drivers seem to have had regular girlfriends on their routes. One might wonder if something similar is true in Kenya and Thailand but the studies there were less ethnographically oriented and the questions asked did not discover such a pattern. Also, as Mupemba (this volume Chapter 12) calculates, Zimbabwean drivers appear to be reporting only about ten per cent of their commercial partners in the interviews concerned, which were conducted on company premises.

The Indian drivers typically claimed to have had three, usually commercial, sex partners in the last week and large numbers of non-regular partners in the last year: most claimed 50-100. Revisiting the same sex worker was reported by some Indian drivers but others reported quite the opposite, never visiting the same sex worker twice.

On the whole, the Thai drivers reported the most restrained sexual activity and their HIV status supported this to some extent, 2.3 per cent being HIV-positive in 1992 at a time when about 3.5 per cent of Thai military recruits were HIV-positive (Mason *et al.* 1995). These Thais were a particular group of drivers, all hauling cement from two factories, but their HIV status helps illustrate the point that long-distance truck drivers have nowhere been shown to have been highly infected groups at the time they contributed most to the geographical spread of HIV. Even with two per cent or less infected, they spread HIV to sex workers and other categories of women in their region's furthest rural places and those women, especially the sex workers and in some cases wives, pass it on to the larger community. This does not bode well for other continents where HIV is now established among long-distance truck drivers; compare Lacerda *et al.* (1997) on the situation in Brazil.

Given the HIV infection rate for the Indian drivers, 5.6 per cent, relative to their large numbers of non-regular commercial partners, that rate was probably well on the rise at the time of testing in 1993. Indeed, Misra *et al.* (1996) reported rates of seven per cent for the following year at the same highway checkpoint[5], while only one per cent of drivers tested near Delhi in 1990 were infected (Singh *et al.* 1993; Singh and Malviya 1994).

Rates of infection for drivers in Zimbabwe are unknown but assumed here to have been as high as for men in other forms of wage labour: 19 per cent, for instance, among certain Zimbabwe factory workers in 1993-1995 (Bassett *et al.* 1996). The Kenyan study found 17.8 per cent of male employees of a trucking company to be HIV-positive in 1993, so the drivers amongst them were certainly infected at a higher rate (cf. Bwayo, Mutere *et al.* 1991; Bwayo, Omari *et al.* 1991; Bwayo *et al.* 1994; Mbugua *et al.* 1995; Jackson *et al.* 1997).

The main studies considered here were conducted in the drivers' own environment: at roadside settlements in Nigeria and Zimbabwe, government checkpoints in India or staging areas where drivers were waiting to load their trucks in Thailand. The Kenyan study is the exception and was carried out on trucking company premises in a city. Women did the interviews in the Nigerian and Indian surveys and the Nigerian researchers specifically mention that little progress was made until good-looking undergraduate women were brought in to do the interviews. I.O. Orubuloye (personal communication) emphasizes that those young women mainly approached the drivers without pen and paper in hand; the short questionnaire and answers from drivers were committed to memory and answers were written down elsewhere after drivers had been questioned in a conversational manner. The Thai questionnaires were administered by men. The sex of interviewers was not mentioned in the Zimbabwean or Kenyan reports. These aspects of the questionnaires' administration are important as drivers often decline interviews (Orubuloye *et al.* 1993:45; Singh and Malviya

[5] Uluberia, about 20 km west of central Calcutta.

1994:137; Sibanda, Murombedzi and Tawanda 1997:6) and may give compliant answers about risk behaviour when interviewed at their place of work (Mukodzani, Mupemba and Marck 1999:135) as do other categories of labourers (Pool *et al.* 1996:209, 210). But the study by Rakwar *et al.* (1999) is an example of interviews held in the context of a company-based intervention, and on company premises, where self-reported risk behaviour was consistent with patterns of seroconversion in that prospective study of individuals.

Interventions targeting truck drivers and their evaluation

The longest-running HIV intervention targeting truck drivers and the sex workers they patronize seems to be the community-based intervention in Tanzania operating since at least 1990 (Mwizarubi, Cole *et al.* 1991; Mwizarubi, Mwaijonga *et al.* 1994; Laukamm *et al.* 1995; Mwizarubi, Nyamuryekung'e *et al.* 1995; Mwizarubi, Hamelmann and Nyamuryekung'e 1997). The second oldest seems to be an industry-wide company-based program which began in Zimbabwe in 1992 that added a community-based component in 1995 (Mukodzani *et al.* 1999; Mupemba this volume Chapter 12) and has many similarities to the approach and experiences of the Tanzanian program. Rakwar *et al.* (1999) began their company-based intervention in Mombasa, Kenya in 1993. More recently, Rao, Jyothi and Gurulakshmi (1999) have established STD/HIV clinics at three 'Free Tea Parlours' on the Calcutta-Chennai National Highway at 40-kilometre intervals north of Visakhaptnam.

The community-based interventions of Tanzania and Zimbabwe have profound similarities and have confronted the commercial sex situation by working directly with the sex workers in the communities where they operate, often small roadside settlements with little infrastructure or government presence, where truck drivers spend the night. There these programs have drawn as widely as possible from the communities and their commercial and social leadership to introduce and sustain the use of condoms. Nothing has been published about the driver sexual culture or the effect of the intervention in the Tanzanian instance. The Zimbabwean program had an initial-needs assessment study conducted in 1992 when the company-based program began (Wilson *et al.* 1994). Baseline (1995) and follow-up (1997) studies associated with the community-based segment of the program were conducted on company premises but never published (Maradzika, Rusakaniko and Siziya 1995; Sibanda, Murombedzi and Tawanda 1997).

The Zimbabwe company-based program, involving training of peer educators and other methods from 1992 to 1995, appears to have had substantial effects (Mupemba this volume Chapter 12), as AIDS knowledge and condom use grew dramatically; but this was probably part of a larger culture of AIDS knowledge and condom use growing in Zimbabwe through those years as well. Measures of change from 1995 to 1997 are less certain for methodological reasons (Sibanda *et al.* 1997:5; Mukodzani *et al.* 1999:137; Mupemba this volume Chapter 12). But the increase in drivers perceiving themselves at risk from 42.6 to 61.1 per cent (calculated from Sibanda *et al.* 1997:31) is consistent with an increase in self-reported condom use with last non-regular partner: 72 per cent in 1995 and 82 per cent in 1997 (Sibanda *et al.* 1997:29), and both those figures are supported in a general way by the independent reports by sex workers of having used a condom during their most recent sexual encounter: 82.2 per cent of the time in 1995 and 88.6 per cent of the time in 1997 (Sibanda *et al.* 1997:41). Neither Maradzika *et al.* (1995) nor Sibanda *et al.* (1997) dealt extensively with the questions of extramarital girlfriends, of whom about 55 per cent of the married drivers had at least one in 1992, but those investigators were under contractual obligation to administer

standard KAP[6] surveys for FHI/AIDSCAP; and KAP surveys do not focus well on such relationships.

The underlying sexual culture and effect of the community-based Tanzanian program are unreported and occur in the context of a general East African culture more resistant to condom use (cf. Rakwar *et al.* 1999:610) than in Zimbabwe. The Kenyan intervention (Jackson *et al.* 1997; Rakwar *et al.* 1999) was both clinical and company-based, the Indian intervention was both clinical and community-based, and both were self-assessed.

In the Kenyan instance, teams visited six trucking companies once a week for three years. At the onset, HIV tests were given to 1500 employees; 17.8 per cent were found to be HIV-positive, and counselled about their situation. The 999 HIV-negative employees who returned for their test results were invited to enrol in the prospective study which provided sexual health services and counselling about HIV risk behaviour. At enrolment, individual risk behaviour of the past was covered, medical examinations were given and health educators held group discussions on risk reduction. The rate of commercial sexual encounters fell somewhat: 31 per cent reported sex with a prostitute in the year before enrolment, 25 per cent during the months or years of follow-up; but only 15 per cent of the men who had sex with prostitutes used condoms when they did so. Resistance to condom use is a general and persistent East African phenomenon. During the study an annualized seroincidence of 3.1 per cent was observed in the company as a whole and drivers seroconverted at the highest rate.

In the Indian instance (Rao, Jyothi and Gurulakshmi 1999), Free Tea Parlours were established towards the middle of the main Calcutta - Tamil Nadu highway running down the east coast of the country. They were instituted as an intervention to reduce resistance to sexual health-seeking behaviour; free tea, drinking-water, low-priced condoms and cigarettes, board games and clinical services are available. The free tea was popular from the beginning but drivers exhibited great reluctance to enter the clinics. But within a few months and especially after six months and a year the clinics had large daily clienteles. The reluctance of people in general to attend STD clinics is a familiar experience in Africa, at least, and the success of a roadside clinic that drivers actually use is an important accomplishment. The tea parlours also have a community-based aspect, employing sex workers and drivers who have aged out of their respective occupations, and contain other elements of a community-based approach.

Discussion

Long-distance truck drivers have robust but diverse sexual cultures which need to be approached individually with some preliminary understanding of the specific ethnographic context. Such knowledge might emerge over time from working with them but the studies by Orubuloye *et al.* (1993) for Nigeria, Wilson *et al.* (1994) for Zimbabwe and Rao *et al.* (1994) for India are examples of how competent ethnographic work provides a sharper focus from the beginning.

Like other categories of workers, drivers may resist behavioural change in three important areas: sexual health-seeking behaviour, condom use, and numbers of partners.

Drivers resist sexual health-seeking mainly because of the stigma associated with attending an STD clinic. Unlike many other workers, they have particular difficulties even getting to an STD or other clinic. The Indian Free Tea Parlours are an example of how to overcome the stigma and inconvenience. These places could come to be a component of a different social space created for drivers as part of partner reduction interventions.

[6] Knowledge, Attitude and Practice.

Condom use seems to be resisted mostly as part of the larger cultures in which drivers work rather than sexual cultures specific to driver sub-populations. Rate of condom use is high or growing among drivers in Thailand, Zimbabwe, India and Nigeria but Kenyan drivers have persistently resisted increasing condom use, which is true of Kenyan society in general; and Kenya is in the most advanced stage of the epidemic of the countries considered in any detail above. Presumably, Kenyan drivers resist condom use for the same reasons as in Kenyan society in general, and this resistance will abate as part of a national or East African shift in the interpersonal and cultural imagery surrounding condoms. Resistance to condom use may be lowest in Thailand, as it is in the culture in general; it has been overcome to an increasing degree in Zimbabwe in this decade, at least amongst drivers; and it is declining more recently among some drivers in Nigeria (Orubuloye and Oguntimehin 1999) and India (Rao, Jyothi and Gurulakshmi 1999) in the context of growing epidemics, increased AIDS knowledge and heightened perception of personal risk. But Zimbabwe, at least, provides an example where a core fraction of drivers continue to engage in unprotected sex with highly infected prostitutes, while other drivers may have ceased; it is not clear why this is the case. There is perhaps a heterogeneous driver sexual culture and all drivers do not behave in the same way or within some narrow range. Much of such behaviour occurs when drivers are drunk, but often they are not, and continue such behaviour in spite of their awareness that it is very risky. The reason may lie to some extent in fatalism as in Ghana (Awusabo-Asare *et al.* this volume Chapter 11) and Nigeria (Orubuloye and Oguntimehin this volume Chapter 9). Fatalism has not been well studied amongst drivers in Zimbabwe or anywhere else. Wilson *et al*. (1994:105-106) mention the opinion of some drivers in 1992 that AIDS mortality was actually due to witchcraft, but that has been a common and passing opinion around Africa in the years that AIDS mortality has first become high, and there is no recent ethnographic information on how drivers rationalize high-risk behaviour in Zimbabwe. Some whom I interviewed in 1997-1998 were of the opinion that a cure would be found soon enough, and did not care that they were HIV-positive, or that they were spreading HIV to others.

Resistance to reducing partner numbers seems everywhere more profound than resistance to condom use and will probably forever be a problem in India and in Nigeria. In India we can hardly expect that drivers will remain abstinent during up to ten continuous months of the year that some of them do not see their wives. In Nigeria we might expect that the pattern of numerous regular partners forms a convenient and economically necessary part of life. The drivers take their meals and have their lodging with their various regular partners to whom they contribute support. Sustenance and accommodation are relatively expensive and less home-like at restaurants and hotels, if these are available. Given the likelihood that there is little condom use in these relationships and the fact that these women have multiple partners as well, rates of infection could soon become much higher; they have gradually risen to about 10 per cent among those drivers in recent years as HIV-1 has become more prevalent in the country in general and among sex workers in particular.

In Zimbabwe, Kenya and Thailand most drivers report few non-regular partners. Most encounters with commercial sex partners may be by 25 per cent or less of the most promiscuous drivers. But the phenomenon of regular extramarital girlfriends is under-studied in Zimbabwe and has not been taken into account in Kenya and Thailand. Drivers, at least in sub-Saharan Africa, are probably less likely than other African males to divest themselves of their extramarital girlfriends, a ubiquitous sub-Saharan African phenomenon. There may be special resistance to condom use in these relationships. The Zimbabwean KAP studies asked some relevant questions but reported few of the answers; those that were reported suggested special resistance to condom use in the girlfriend relationships.

Also, African and Asian drivers may not be part of traditional or work societies that ascribe any particular virtue to male abstinence from extramarital liaisons; compare

Mukodzani *et al.* (1999:132) on Zimbabwe and Rao, Jyothi and Gurulakshmi (1999) on India. There are differences in degree, and drivers, like others, may enter into marriages framed in cosmopolitan notions of partnership including sexual equality and fidelity. But the long periods of travel, and general societal expectations that truck drivers are the most errant of occupational groups, do not create a supportive milieu for partner reduction. Where there may be the desire to change, there is little social space in which to do so. Sex workers are abundant at the roadside settlements where most drivers spend the night. They find drivers when they are drunk, lonely, or otherwise vulnerable and can be very persistent, the drivers sometimes having paid sex with them just so they will go away.

The only attempt to create a different social space for drivers has been the Indian Free Tea Parlours (Rao, Jyothi and Gurulakshmi 1999) which cannot be expanded without further funds. Possibly they could corporatize along the lines of American truck stops, which are vigorous and profitable enterprises, largely successful in excluding commercial sex and drug traffic from their premises. The American truck stop is like the African and Thai roadside settlement or Indian *dhaba*. There drivers fulfil their basic needs. They take their meals; shower, shave and wash their clothes; have the use of large banks of telephones (or find phones at every table in the restaurant) to stay in touch with their companies and loved ones; find coin or phone-card fax machines; use ATMs; commit paperwork to US postal or overnight delivery mail boxes; buy fuel; get their trucks washed and repaired; obtain cash from their companies through on-line services; and avail themselves of other services and amenities including large driver lounge rooms where they may converse, play video games or watch TV while waiting for a load or before going to sleep. Where the African and Indian drivers melt into dispersed settlements where these services and amenities are scattered, or non-existent, the American driver finds them focused within a single space within which commercial sex and drug dealing are absent or very limited and covert; a space circumscribed by a fence or an abrupt break to a different landscape such as forest or agricultural fields.

American truck stops[7] can be vast, some cover most of a square kilometre, but they are commonly designed to exclude access to parked trucks by persons other than their drivers. The truck stops also have a clientele among the general motoring public but access to the property is normally different for cars and trucks, as is pedestrian entry to the main building for drivers. 'Fuel desks' are situated for ease of service to the truck drivers buying diesel, but also have a full view of the only pedestrian entrance to the truck parking area.

While circumscribed, multi-purpose locations may be difficult for individual interventions in Africa or Asia to build and maintain, an American truck stop model would not require a single wealthy proprietor or intervention program to put everything in place. American truck stops may be run entirely by some company or individual. But in many instances, segments of the truck stop's commercial activities are owned and managed by people who lease their space from the principal operator. The truck repair garage, restaurant, convenience store, brokerage offices and barber shops are examples; sale of diesel fuel and rental of space to other proprietors being the core business of the overall location's owner. Possibly by securing locations and expanding outward from the Indian Free Tea Parlour model, HIV interventions could fund clinical and community-based work through sale of diesel fuel and rental of space to restaurants, hotels, convenience stores, laundries, mechanics, truck cleaners and other vendors of goods and services typically sought by drivers in their working day. A secure place for trucks would be created where drivers could escape the

[7] There seems to be no literature on American truck driver HIV rates or HIV risk behaviour. Observations about American truck stops were made in 1986-1991 when I was a long-distance truck driver in the United States.

vigorous sexual cultures that now permeate their worlds and employment would be generated for the rural hinterlands around them.

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