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**Networks of Nomads:
Negotiating Access to Healthcare among Pastoralist
Women in Chad**

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Networks of Nomads: Negotiating Access to Healthcare among Pastoralist Women in Chad

Abstract

Health resources among pastoralist groups are strongly gendered. While certain types of health resources fall within the female domain (home-based treatment, caring and supportive roles, and knowledge surrounding particular reproductive conditions), access to most outside health practitioners, treatments and knowledge is controlled largely by men. For pastoralist women, this means that actions taken during illness episodes depend largely on the nature and quality of social support systems available, and on their ability to mobilise them effectively. These support systems include: husband and other affines, male kin, and networks of female kin and friends. Factors such as position within domestic and wider social units, as well as life cycle, affect women's ability to access and mobilise these different support systems for their health needs.

However, seasonal mobility interacts with gender and social support systems in complex ways that influence profoundly women's access to health resources. Most literature on nomadic peoples and health focuses on the physical barriers posed by spatial mobility to accessing health resources. However, it is suggested here that, for pastoralist women in Chad, the spatial fluidity of social networks might be a more important consideration. At certain times of year women enjoy relatively easy access to a large range of extended kin and other social contacts, while at other times, when people are very dispersed, options become much more limited, often resulting in illness treatment being delayed. Mobility should not, though, be seen purely as a constraint. It can also be an opportunity, increasing the potential geographical and social resource base with regard to health for women.

Keywords

nomads, health, gender, social networks, Chad, pastoralists

Introduction

Nomadic and semi-nomadic pastoralists form a small but significant minority of the populations of countries throughout the Sahelian belt of Sub-Saharan Africa, from Senegal, through Mali, Burkina Faso, Niger and Chad, to the Horn of Africa. The total pastoral population is estimated to be 30-40 million, of which a half are in Sub-Saharan Africa (Sandford 1983, cited by Swift *et al* 1990). It is clear that Sub-Saharan Africa as a whole suffers from under-provision of health services, with typically more than 10,000 people for every doctor, compared with fewer than 500 throughout Western Europe (UNDP 1997). However, several studies suggest that, within Sub-Saharan Africa, nomadic pastoralists face particular barriers of access to health services (Sandford 1978, Meir 1987, Foggin *et al* 1997, Loutan 1989, Swift *et al* 1990, Zinsstag *et al* 1998). Pastoralists tend to live in sparsely populated, geographically marginal areas, while health services are typically concentrated in more densely populated areas of permanent settlement. Mobility in itself may restrict access, particularly where extended courses of treatment are indicated. Other barriers include political marginalisation, cultural, ethnic and linguistic differences with service providers, and very low levels of literacy.

However, within the category of nomadic populations in general, dimensions such as gender, age and social status differentially ascribe vulnerability in terms of health status (Swift *et al* 1990:17). Because very little work has been done on these issues with relation to nomadic contexts specifically, it is instructive to consider the wider literature on gender dimensions of differential access to health resources.

Considerable attention has been paid in recent years to the structural barriers women face in accessing health resources particularly in South Asia, but increasingly in sub-Saharan Africa too. These result in part from unequal distribution of power and resources within domestic arenas (Chen 1981; Piaras and Caldwell 1997; Unnithan-Kummar 1999), often compounded by institutional, cultural and educational barriers to services (Ojanuga and Gilbert 1992; Puentes-Makides 1992; Vlassoff and Bonilla 1994; Tanner and Vlassoff 1998).

It is being increasingly recognised that there are also important differences *between women* in the access to health services that they (and their children) can command. Das Gupta (1995) points to life cycle differences in women's autonomy and health outcomes. The stages in the life course associated with high or low status vary between societies, but "in many societies, women spend part of their life cycle in double powerlessness, subordinated not only to men but to other women at higher status stages of their own life cycles" (ibid: 481), which Das Gupta links to poorer access to health resources and negative health outcomes. Success in bearing and rearing children can confer relative status and bargaining power to a woman within the domestic arena (eg. Last 1992: 807). Household structure (monogamous / polygamous, nuclear / extended etc.) and a woman's position within it have also been found to have a strong impact on the health resources she can command for herself and her children (Castle 1993; Oni 1996; Oruboloye *et al* 1991; Unnithan-Kummar 1999). Finally, extra household kin support systems have been shown to play a very important role in determining women's access to health provision, particularly when domestic support systems fail (Rahman 1999; Unnithan-Kummar 1999; McClain 1987; Oni 1996; Oruboloye *et al* 1991).

Considering these issues within a nomadic context adds an extra dimension of complexity because of the seasonal fluidity of domestic units and wider social support networks.

“Households” themselves are notoriously difficult to define and identify, even in a sedentary context (Guyer 1981, Roberts 1991). Household boundaries are often highly equivocal (Desai 1992) and convergence of interests between individuals who find themselves, perhaps temporarily, sharing a hearth or a hut, cannot be assumed (Whitehead 1981; Roberts 1991; Sen 1985, 1987; Oruboloye *et al* 1991, Caldwell & Caldwell 1987). Where divorce and re-marriage are common, women may move between several households over the course of a lifetime. However, in nomadic populations, domestic units and larger social groups may shift both spatially and socially over the year, dividing and re-grouping, as people move with their herds on seasonal migrations (Hampshire 1998). If a woman’s access to health resources depends partly on her position in the domestic sphere, which itself shifts seasonally, then one might expect that access to be subject to seasonal variation too. Likewise, the type and quality of kin and social support networks to which a woman has access in times of illness may change, not only over the course of a lifetime, but also on a seasonal basis.

Aims of the Study

It is precisely this complexity and fluidity which must be explored in the context of the access that nomadic women have to health resources. The aim of this study are:

1. to elucidate gender dimensions in the control and distribution of health resources (information, treatment, care) as perceived by nomadic pastoralist women in Chad;
2. to examine the role of social support systems, within and beyond the domestic arena, in securing access to health resources for those women;
3. to explore how seasonal fluidity in social and domestic organisation impinges on women’s ability to mobilise networks to access health resources.

The approach taken is largely a qualitative, emic one, using local categories and belief systems, and giving voice to nomadic women's own understandings of their situation.

Pastoralists of Central Chad

Chad forms part of the Sahelian belt of countries stretching across Africa just south of the Sahara. Since independence from France in 1960, it has been embroiled in thirty years of civil war, and remains politically unstable. Chad ranks low on most indices of economic development and welfare, with a GNP of \$190 (UNDP 1994, cited in DHS 1998). The most recent census, in 1993, put the total population of Chad at around 6,300,000 people, with nomads constituting 5.7% of the total (350,000) (BCR 1995, cited in DHS 1998).

The health situation in Chad overall remains poor, with high mortality rates and poor access to health services (table 1), even by comparison with other parts of Sub-Saharan Africa. No separate data are available for the nomadic groups, but indices of health are generally poorer in rural areas than in towns and cities.

This study was based in the Northern part of the Chari-Baguirmi Region of Central Chad (figure 1). It is a semi-arid area with annual rainfall of 300-500mm, almost all falling in the rainy season late June to early September (Le Rouvreur [1959] 1989). The main economic activities in the region are extensive pastoralism and rainfed agriculture. Most agricultural activities are concentrated into the short rainy season, although greater water availability around Lake Chad makes year round cultivation possible in some areas. A variety of animals are herded by nomadic and semi-nomadic pastoralists: cattle, camels, sheep and goats, as well as donkeys for transport.

Many groups of nomadic and semi-nomadic pastoralists live in central Chad, alongside sedentary cultivators. Most of the pastoralists fall into three broad ethnic categories: Arab, Goran and Fulani (Le Rouvreur [1959] 1989). In all three groups, transhumance movements mean considerable geographical displacement (often hundreds of kilometres) over the course of a year, as well as mobility in the organisation of social and domestic units. There is considerable variation between camps in the patterns of movement and the distances travelled, according to: needs of the herd, extent of involvement with agriculture, ethnic identity, rights over land and relationships with other groups.

All the nomadic / semi-nomadic pastoralist groups in Central Chad are Muslim, although typically incorporating many aspects of traditional belief systems. They are strongly patrilineal, with property inheritance operating through patrilineal descent groups. While, under Islamic Law, women are entitled to a share of inheritance, most women have very little control over these resources. Both inheritance and bridewealth animals are theoretically the property of women but are controlled by men: fathers, brothers, sons or husbands. The only significant independent source of income for women is through selling milk, once domestic consumption needs have been met. However, the economic power this confers is limited: the amounts of money involved are small, milk selling is a highly seasonal activity, and not all women have surplus milk to sell.

All three groups also operate a largely patrilocal system, although this is often quite flexible. Women often stay for some time following marriage in their own households, particularly when marriage is early. Continued or intermittent matrilocality is particularly likely with close kin marriages, where natal and marital homes are likely to be close, both geographically and socially. As well as moving between natal and marital homes, many women have more

than one marital home in a lifetime, since divorce is common. Childless women are particularly vulnerable to divorce, and thus have a very unstable and insecure social position.

Methods

Two months of intensive fieldwork were carried out in June - August 1999 (the early rainy season). (Two years of fieldwork had been undertaken previously by the author on health and demographic issues among similar groups of semi-nomadic pastoralists in Sahelian Burkina Faso). Three fieldwork sites were used for this study. These are shown, together with major migration routes for each, in figure 1.

1. A highly nomadic camp of Arab (Ouled-Rachid) camel herders, near Dourbali at the time of fieldwork.
2. Several small, closely grouped, nomadic camps of Goran cattle-herders passing near Birbaka, some of whom supplemented pastoralism by growing millet.
3. A recently semi-sedentarised Fulani village, Kassamre, just north of Dougia.

A few Fulani had begun settling in Kassamre two years before the fieldwork. In most cases, the Fulani herding units (*gure*, sing. *wuro*) were divided for much of the year, with some people remaining in Kassamre to cultivate, while others moved with the main herd north-east in the rainy season and south-west for much of the dry season. Other Fulani *gure* in Kassamre were still fully nomadic, just passing through at the time of fieldwork. The choice of Kassamre as a field site enabled some comparison between nomadic and recently settled Fulani.

In each fieldsite, individual interviews were conducted by the author with women to elicit detailed qualitative information on recent illness episodes, occurring within the two years preceding fieldwork. Illness episodes were defined as periods of ill-health severe enough to prevent the woman from being able to carry out at least one of her normal duties (pounding millet, fetching water, cooking, childcare etc.) for several days. In order to establish routes of access to health resources, and the role of social support systems, questions were asked specifically about: symptoms and the process of diagnosis; processes of decision-making about courses of action; details of who provided information, advice, financial or other material resources, and care; and outcome. Interviews were often long and wide-ranging. Where appropriate, questions on pregnancy, childbirth and reproductive health were included. Illness free-listing techniques were also employed to clarify local perceptions and classifications of illness, the results of which are not reported in detail here. In the Arab and Goran camps, all adult women (defined as ever-married) were interviewed. In the Fulani camp, a random sample of approximately half of the households was taken. Altogether, individual interviews were conducted with 82 women: 23 Arab, 30 Goran and 29 Fulani. Between them, these women reported on 134 illness episodes in the two years preceding the interview.

In addition, informal, free-ranging discussion sessions were held with several groups of women, covering a number of topics relating to health, illness, and the social and economic position of women. In each fieldsite, interviews were also conducted with the chief and a group of male elders about health, migration and livelihoods. Finally, it was possible to observe directly what happened in illness episodes occurring during the period of fieldwork.

The official languages of Chad are French and Arabic, although Goran and Fulfulde are spoken in preference by Goran and Fulani groups respectively. The author speaks French and Fulfulde. All interviews were conducted in the preferred language of the informants, via French-speaking female interpreters where necessary.

The methods adopted were subject to the following limitations:

1. The use of retrospective reporting on illness episodes inevitably poses the risk of recall bias. Recent illness episodes are likely to be recalled in more detail and with greater accuracy than those occurring longer ago. Moreover, because the fieldwork took place during the early rainy season, it is likely that people thought disproportionately about illnesses associated with the rainy season.
2. Although the interpreters used were trained and competent, some subtleties of meaning are inevitably lost during translation.
3. Relatively few men were interviewed, so the analysis presented here of gender issues with regard to the distribution and control of health resources is largely from the women's perspective.

Gender Dimensions of Health Resources: Information, Treatment and Care

From the perspective of Chadian women, control and distribution of health resources (information, treatment and care) are strongly gendered. This becomes clear from the women's accounts of actions taken and outcomes of recent illness episodes, and subsequent discussion.

Various treatment options were used by women during periods of illness. Of the 134 reported recent illness episodes, 101 were treated in some way (table 2). Nearly a third of

treatments were home remedies: self-treatment with products already in the home. Another form of self-medication was purchasing modern medicines from local markets without advice from a health professional (eg. paracetamol, chloroquine, and sometimes antibiotics). Health practitioners operating in the “informal” sector include: *Marabouts* (Islamic teachers with the power to treat illness, usually by reciting Qur’anic verses); other “traditional” healers who claim knowledge of plant and herbal remedies; and traditional birth attendants and “wise women”. Also in this category might be included *Dr. Choukou*, wandering practitioners with no formal medical qualifications who sell and claim to have knowledge of “modern” medicines: pills, injections and intravenous drips. Formal sector health provision consists of local health posts located in most sedentary towns and large villages, funded mostly by government and bilateral donors, with nurses trained to administer injections and other basic healthcare; plus hospitals and private clinics located in the capital, N’Djamena. In some cases (23 out of 101), multiple treatment types were used, usually sequentially, as a response to the failure of a particular treatment, although there was no predominating hierarchy of resort.

Not all treatments are equally valued. Home remedies are generally thought of as the least beneficial, and bring temporary relief rather than permanent results. However, they are the most readily accessible: they are cheap (usually effectively free), and do not involve consulting anyone else. Remedies purchased from markets or from *Dr. Choukou* are often treated with suspicion, unless the person is familiar with the illness and the treatment (eg. it is very widely known that chloroquine is needed to treat malaria). The relative values attached to *Marabouts*, traditional plant healers and nurses from local health posts vary between individuals, partly as a function of religious conviction, but most people see city hospitals and clinics as being of high status. Interestingly, the status accorded does not

necessarily correspond to the perceived outcomes of treatments, and the perceived success rate for all treatments was low. However, with *maraboutage* (and perhaps modern treatments), it is not proven efficacy, so much as potential power and ritual significance which confers their status.

Certain forms of knowledge and treatment fall within the female domain. These tend to be lower status forms, and happen largely within, or close to, the domestic sphere. Most common are remedies based on ingredients found around the home, typically butter and cow's urine drunk as a purge. Other often used ingredients are garlic and chillies. Although generally regarded as inferior treatments, they are recognised to bring temporary relief to many conditions. Information, advice and ingredients for home remedies are held by, and exchanged between, women.

Secondly, childbirth and associated difficulties are dealt with by women only. Mothers and other female kin are the most common birth attendants among the Arab and Goran groups. However, when childbirth is problematic, local traditional birth midwives are used: old women with no formal training, who are reputed for their skill as birth attendants. Three such women in the Arab camp were interviewed; each had stories to tell of saving mothers and babies in adverse circumstances through, for example, manipulating the position of the foetus. Such birth attendants are much rarer among the Fulani, who have a strong cultural preference (not always adhered to) of unassisted birth (see Hampshire, forthcoming).

Knowledge and treatment of certain other reproductive health problems also fall exclusively within the female domain. For example, the Arab disease *djagandu* (a fleshy protuberance from the vagina, usually following childbirth, which is believed to cause sterility) cannot be

treated by male practitioners. Only particular old women have the requisite knowledge and power. Other reproductive health problems are typically dealt by women in the home, at least in the first instance, not because men do not have the power to treat them, but because they are strongly associated with shame and embarrassment. An example is a condition known by Arab women as *ri* and by Goran women as *ouan* (white vaginal discharge due to “wind” entering the vagina during childbirth). While *ri* or *ouan* is amenable to treatment by certain male practitioners, it is usually treated in the home with butter oil.

Most other health knowledge and treatment lies firmly within the male domain, outside of most women’s direct experience or control. This includes all the higher status health practitioners who operate outside the home: “traditional” healers (*Marabouts* and plant healers) and “modern” health facilities, as well as *Dr. Choukou*. These practitioners are the preferred sources of treatment for most ailments, including many more serious reproductive health problems, such as extended bleeding following miscarriage, where home remedies and old “wise women” are deemed inadequate.

Part of the reason for male control of outside, higher status healers is that, in these patriarchal societies, most resources are controlled by men, and most treatments of all kinds cost considerable sums of money. Engaging the services of a marabout entails slaughtering a sheep at the minimum, and medicines purchased from Dr. Choukou or health posts often cost more than 15.000 FCFA (US\$ 22). Cultural and institutional factors operate too. Modern health posts can be alien and frightening to many pastoralist women, especially to those Goran and Fulani women who feel insecure communicating in Arabic, which adds to their feelings of insecurity in clinical settings. Almost all nurses in health posts are men.

“Traditional” treatments lie also almost exclusively within the male domain. A woman

cannot usually approach a marabout directly (unless he happens to be a close relative): the relationship has to be mediated through a man. Knowledge of plants and other traditional treatments is also held only by men from certain lineages, and is usually inherited from father to son. Women interviewed, even the wife and daughters of a plant healer, claimed ignorance of all but one or two very basic remedies.

It is, therefore, expected that men will take responsibility and control for the healthcare needs of their womenfolk where outside practitioners are required (ie. for any condition for which home remedies are deemed inadequate). For married women, the husband is supposed to be primarily responsible; and for women who are single, widowed or divorced, this might involve fathers, brothers or sons. This is borne out by analysis of illness episodes. Of 74 illness episodes reported by women where treatment entailed some financial outlay (paying practitioners and/or purchasing medicines), 67 were paid for (at least in part) by men. As well as contributing financially, it is also usually the men who initiate such treatments, since they are held to control the knowledge about, and access to, the practitioners.

Although most knowledge and access to health practitioners outside the home are under the control of men, the *caring* and *supporting* roles for women during periods of illness are provided largely by other women. These take a number of forms. The many daily tasks women have to perform are long and arduous: fetching water, pounding millet and preparing food, preparing and selling butter or soured milk, childcare, weaving grass mats, setting up and dismantling tents etc. In many cases women reported their mothers and sisters coming to look after them and relieve them of these daily tasks during periods of ill-health. Without such help, it can be difficult for women to take the time off necessary to seek and pursue certain forms of treatment, as well as to rest. Many women agreed that the outcome of an

illness episode might depend as much upon the support a woman received to allow her to rest, as on access to health practitioners.

This is well illustrated by the case of Mariam¹, a married Goran woman of about forty years old, chronically ill with *amfoula* (bad cough and chest pains). It was difficult to find time to talk to Mariam, because she was always very busy: getting up before dawn to fetch water and pound millet before setting off to the fields to work. She would return at sunset to cook the millet she had prepared in the morning for her family at night. She said that no matter how ill she was, she could not rest because there was no one else to do her work for her. Her only daughter was still a young child, her mother was dead and she had no living brothers or sisters. Although she lived in a wealthy extended household with her mother-in-law and sisters-in-law, none of them ever offered to help. She was convinced that the reason she was not getting better was that she had no opportunity to rest.

Moral support and encouragement is also provided by women. This includes encouraging, and even cajoling women into asking their menfolk for help; and sometimes mediating with appropriate men to mobilise support where the woman does not feel able to approach the men herself, perhaps due to shame or fear of reprisals (discussed below).

In summary, pastoralist women in Chad see health resources: information, treatment and care, as being strongly gendered. Most information and access to health treatments outside the home, which are generally of high status, are controlled almost exclusively by men. Home remedies, treatment of certain reproductive health conditions, and caring / supporting roles fall within the female domain. This has important implications in terms of the access

that pastoralist women command to different kinds of health resources (i) in different domestic or social circumstances and (ii) at different times of year.

The Role of Social Support Systems in Women's Access to Health Resources

Because much health information and provision lies within the male domain, the access that women have to those health resources depends greatly on their access to men who are able and willing to provide them. Access to other kinds of health resources, home remedies, care and support, depends more on the availability of networks of female kin and friends.

Differences in the extent and nature of social support systems women are able to mobilise can thus have a very large impact on the outcomes of illness episodes. This is well illustrated by the following case study, of two women living, at the time of fieldwork, in adjacent tents within the same domestic unit.

Halima, a married Arab woman with several young children, had suffered from *ouaram* (a disease complex associated with heat and swelling) following her last pregnancy. It was her mother-in-law, Fatima, who diagnosed the condition. Halima's husband and her own parents took her to a health post, where she was given some pills and injections, paid for by her husband and her brother. The medicines failed to make her better, so her mother then took her to a male relative, a *Marabout*, who gave her an infusion to drink. (At the time, her husband was away on transhumance). During her illness, her mother also came to nurse her and to help out with childcare.

Meanwhile, Fatima (Halima's mother-in-law), a very old widow, was suffering with eye problems (*ouadja :aayn*). Several years previously, a twig had poked her in the eye. She asked her two sons (one of whom is Halima's husband) to take her to the health post or to a

marabout, but they refused. Instead she took the advice of a friend of hers (another elderly widow), and used various home / market remedies. She applied the urine of a young child over a period of two days. This was unsuccessful, so next she tried putting battery acid in the sore eye, combined with the powder out of a capsule that her friend had given her. Her eye became worse as a result, and since then she had asked her sons many times for help, but each time they refuse, and get annoyed when she asks.

Fatima and Halima described several other recent illness episodes. Each time, Halima had received a variety of treatments provided by her husband and her own (usually male) kin, and had had support during the illness from her mother; while Fatima had had largely to cope alone, sometimes with the (dubious) advice of her friend. In the last rainy season, for example, both Halima and Fatima had suffered from *ouirde* (rainy season fever). Halima's brother bought her chloroquine pills from the market, and her mother had come to nurse her through the illness. Meanwhile, Fatima had done nothing: no one, she said, was prepared to buy her medicines.

Why do some women have better access to supportive kin / social networks than others? A woman's networks may be divided into (i) husband and affines; (ii) her own kin. These will be considered separately.

Husbands and Affines

A husband is supposed to take full charge of his wife's health needs. Yet in only 41 out of 121 illness episodes occurring to currently married women did the husband (or his kin) help seek or finance treatment. Why do husbands help out in some cases but not in others?

Firstly, not all illnesses are appropriate for male intervention. Minor ailments, particularly those associated with reproductive health, are believed to be best dealt with in the home, or by female friends and neighbours. Other illnesses may require outside treatment, but the woman might not feel in a position to mention the problem to her husband or to ask him for help. Certain conditions are associated with shame and embarrassment. In a discussion with a group of young Arab women, three illnesses were said to be too shameful to discuss with husbands and affines: *sabib* (diarrhoea), *abasur* (pains in the rectum, accompanied by *sabib*), and *djagandu* (fleshy protuberance from the vagina).

For Fulani women, a much greater range of conditions may be unacceptable to mention to a husband. An important part of *pulaaku*, the sense of Fulani identity, involves the ability to master and control one's physical body, and not to express any sign of physical weakness (eg. Hopen 1958; Riesman 1977). This is particularly important in front of one's husband or affines, with whom there is a relationship of distance and respect. The fear of shame may be compounded by fear of reprisals from affines and, in particular, co-wives. This point is well illustrated by the case of Rabiadou, a young Fulani wife, who had been suffering with *naora redu* (bad stomach pains) and *jonte* (fever) for several months. She had done nothing to try to remedy the condition, and had continued with her daily tasks despite feeling very ill. She was too ashamed to tell her husband or anyone else in her marital household about it, and she had neither the money nor the resources to do anything herself. She was particularly fearful that her older co-wife would exploit the shame she would feel from disclosing her illness to her husband's family.

However, even when a woman has an illness known to her husband, which requires health resources from within the male domain, there still appears to be considerable variation in

whether or not those resources are forthcoming. Women suggested that this variation was at least partly a function of the personality of the husband, and of the relationship between husband and wife. Haoua, an Arab woman, said her husband had always been attentive to her health needs. Last year, during an episode of *ouirde* (rainy season fever), her husband purchased chloroquine for her, without her even having to ask. The contrast with her neighbour, Amne, is striking. Amne had been ill for two years, suffering at night with backache, preventing her sleeping properly. Despite frequent pleas, her husband refused to seek treatment for her and was generally unsympathetic. In the ensuing discussion it was acknowledged that, to some extent, having a helpful husband or not was just a matter of luck.

But women also suggested that there are other, more structural, reasons why some married women have better access to their husbands' attention than others. Divorce is common, and a woman's position in her marital household is extremely vulnerable until she has borne children (preferably sons). Until a woman has shown that she is likely to be a permanent addition to her husband's household and lineage, the husband (and his kin) may be reluctant to invest resources in her health treatment. Having borne children with her present husband strongly improves a woman's chances of receiving financial support from her husband during an illness episode. If the sons she has borne are old enough to have brought their own wives into the household, her position is firmly established. These perceptions are supported by table 3, which shows husbands were more likely to provide resources for health treatment when their wife had borne children, and particularly if the children were old enough to be married.

Younger wives (as well as permanently sub-fecund women) are less likely to receive support from husbands than older women, who have proven their fertility. It may also be that

younger wives feel less able to disclose their health problems in a marital home within which they have not secured their position fully. These points closely reflect the findings of Last (1992) and Das Gupta (1995), that the power (and therefore command over health resources) accorded to a woman varies as a function of her success in bearing and rearing children, and her life cycle position respectively. However, when a woman becomes widowed (like Fatima), her status and value can plummet.

Apart from proven fertility and age, the structure of the marital household, and the woman's position within it also appear to influence the likelihood of receiving treatment help from husband or other affines (cf. Castle 1993). In particular, young married women feel they are more likely to receive help from husbands when there are not many other young women about, competing for attention and resources. Thus, monogamously married women were thought to be in a better position than those in polygynous unions. In particular, senior wives complain that they are neglected when their husbands take younger, more attractive new wives. And young wives in nuclear households at the time of illness were thought to fare better than their counterparts in laterally extended households, in terms of mobilising health resources from their husbands. Women are constantly aware of their social vulnerability within marital homes, which can create some tension and competition between co-wives or sisters-in-law.

Own Kin Networks

Although husbands are theoretically charged with meeting the healthcare needs of their wives, in many cases women have to turn elsewhere. Access to suitable networks of one's own male kin may become essential if the woman is currently unmarried, or if husband/affine support is either not suitable or not forthcoming, for some combination of the factors

addressed above. In 23 of the reported recent illness episodes, women turned to their own male kin (fathers, brothers, sons or uncles) for help in accessing particular health practitioners or paying for treatment.

Female kin are usually considered to be much more reliable and far preferable in terms of providing caring and supportive roles during illness than members of the marital household: in-laws and co-wives (illustrated by the case of Mariam, the Goran woman in the large extended household). In particular, during pregnancy, when care and support are needed, there may be fears of witchcraft surrounding jealous co-wives and sisters-in-law, which makes them undesirable carers.

The access that women have to their own kin varies considerably. Older women often rely on grown up sons, and Rahman (1999), working in rural Bangladesh, also found that having sons significantly improved the health prospects of elderly women. However, it is not always certain that sons will be prepared to help out. Once a woman becomes widowed, her status drops considerably and without a husband to take her part, she might find herself neglected by her sons (as in the case of Fatima above). Rahman (1999) also found that having brothers decreased elderly women's mortality risk, and there were several cases in this study where elderly widowed women had moved in with their younger brothers, who took care of their health needs, although to varying degrees.

For young married women, a lot depends on proximity to the natal household. All first marriages are arranged by the families, and there is a strong preference for marriage between close kin, often first cousins. Close kin marriage has the advantage for women that natal and marital homes are likely to be close together for much of the year, permitting easy access to

own kin. Young women married to close kin frequently come and go between their marital and natal homes, and maintain close links for many years. In a much more vulnerable position are women who marry a long way (geographically or in terms of kinship) from their own families, as the following case study illustrates. However, one disadvantage of close kin marriage, pointed out by several women, is that a close kin husband might shirk his responsibility towards his wife, knowing that she has other relatives to depend upon.

Kaltouma and Sadia were both young, married, Arab women of about 14 or 15 years old. Kaltouma had married her father's brother's son. The two brothers had separate herds but stuck closely together, and Kaltouma came and went between them. At the time of interview, she was staying in her natal household, while her husband was away on transhumance. Recently she had an illness called *najbi* (painful lumps in her eyes). Her husband was away at the time, and her father immediately sought a *Marabout*, who gave her a *gris-gris* (charm) and holy ink with which to wash her face. Although the treatment was not entirely successful, she had male kin networks who were prepared to invest considerable resources in her health.

Sadia was a daughter-in-law in the same domestic unit, polygamously married to the eldest son of the household head. At the time of interview, she was quite ill, with a high fever, lying down. She said she had been suffering on and off from *ouadjar ras* (headache accompanied by fever) for the last three years. Before she was married, her father had taken her to a *Marabout*, who gave her a *gris-gris*, which had relieved the problems considerably. However, when she came to live in her husband's household, she lost the *gris-gris*, and the *ouadjar ras* returned, accompanied by *ouadjar souloup* (lower back pain). Her husband has not done anything to help, and she could not ask him. Her own father was now dead, and her

mother and father's brother were in Sudan, too far away to be able to help. With an inattentive husband, no kin close by, and no income of her own, she had no recourse to help.

In summary, because of the ways in which health resources are strongly gendered, such that different resources are mobilised through different kin and social networks, it is clear that what happens to a woman during a period of ill-health is dependent to a substantial degree on the networks available to her and on her ability to mobilise them effectively. Women without good access to husband/affine networks (unmarried women, childless women, junior wives in extended households), or good access to male kin networks (married women living far from natal homes), or good access to female support networks of friends and kin, are in a very vulnerable position. Similarly vulnerable are women who have networks in theory, but who are not able to mobilise those networks to address their health problems for reasons of shame, or because those networks are not appropriate for the health resources required. I now begin to address the major issue among nomadic populations of seasonal mobility, and how this impacts on networks and women's ability to access them.

Mobility, Seasonality and Networks

Problems that highly mobile populations face in terms of accessing healthcare services are often expressed in terms of their spatial mobility and geographical dispersion, which pose physical problems of access at certain times of year in particular. This is certainly true for nomadic women in Chad. When people are very distant from sedentary towns and villages, it becomes difficult to access certain forms of health treatment. One Goran woman said that, last cold season, she had suffered from bad *ouarama* (equivalent to the Arab term *ouaram*, an illness complex associated with heat and swelling), but she had not been able to treat it

because she was too far away from any markets or villages. Other women reported this to be a problem at different times of year, according to the seasonality of migration.

Movement itself can also be a problem. Another Goran woman reported that her treatment in N'Djamena hospital following a very serious miscarriage was curtailed because her family were about to move north for the rainy season, and she did not want to be left behind. Her neighbour reported that she had been suffering from *amfoula* (bad cough and painful chest) last cold season. She went to a local health post, where the nurse told her that she needed a particular medicine that was not available immediately: she would have to wait two weeks for the order to come through. However, in those two weeks her family had moved a considerable distance, and it was too far to go back to collect the medicine.

The problem can be compounded by seasonal peaks in various illnesses coinciding with people being distant from health services. The rainy season, for example, is associated throughout the Sahel with a peak in many diseases associated with water, particularly malaria. However, it is during the rainy season that many groups are moving very rapidly and travel far north, where there are very few settlements and health posts or markets.

However, I suggest that potentially far more important than physical or geographical barriers are the *social* barriers that nomadic women experience in terms of healthcare access. The lack of direct access to health information and resources combined with inadequate social networks may be more of a barrier to healthcare for women than being nomadic in itself. This point is clearly illustrated by looking at recently settled Fulani women. For a few, access to health services had improved. One such woman, who had been ill during her second pregnancy, had been taken to the nearby health post by her husband for treatment.

She compared the experience favourably with her first pregnancy, when she had also been very ill, but had been unable to visit a health post because she and her family were moving on transhumance. Similarly, during my stay in the Fulani village, a woman who was having trouble with delivering twins was rushed to hospital in N'Djamena, using a vehicle flagged down on the nearby road. This would have been difficult, if not impossible, in a nomadic setting, far from roads.

But most settled Fulani women made little use of the health post 3-4 km away. Although they were no longer mobile, they still faced the same social and economic barriers as before, in terms of their ability to access new health resources. Indeed, the economic situation of most Fulani women had *worsened* with sedentarisation, because with most of the cattle herds away, there was no surplus milk to sell, so even purchasing a few chloroquine tablets from a market became something for which they had to depend on others. And women faced the same problems of alienation with respect to formal health services. Few felt comfortable with staff from the local health post, who were all men from a sedentary ethnic group.

Overall, then, being settled, at least in the early years, does not confer any obvious advantage to women in terms of health treatment (table 4, although ethnicity may be a confounding factor). This reflects closely the experience among Bedouin groups in Israel, who saw little or no improvement in access to health services on sedentarisation, since social and cultural barriers to access had not been removed (Meir 1987).

Indeed it has been suggested (Wiese 1999, pers. comm.) that nomads sometimes have an advantage because of their mobility, since they are not stuck with the health centre nearest to them, but are equipped to travel elsewhere. One Goran woman reported that, during a very severe dose of *ghighi* (rainy season fever), she was transported, unconscious and strapped to

a camel, to the health centre in Dourbali, a large town, where she received more effective treatment than she probably would have done at a smaller health post.

However, mobility and dispersion have important implications for health in other ways. I have already shown that kin and social networks of various kinds are of crucial importance to nomadic women in accessing health information and resources. In these nomadic populations, social and domestic units are highly fluid and shift seasonally, and the proximity of extra-household networks also shifts geographically, with important implications for the way women are able to manage illness episodes.

At certain times of year, when large numbers of people are closely grouped together, women may have reasonably good access to large networks of extra-household kin. At other times of year, when people are widely dispersed, access to these networks is limited, with important implications for illness management. The example of Rabiadou, the young Fulani woman suffering from *naora redu* and *jonte* is pertinent here. Unable to disclose her illness and seek help from her husband, the only person to whom she felt able to turn was her mother. Rabiadou's mother was part of a nomadic herding unit, and at the time of the study, she was far away to the east on transhumance. Only in the harvest season, two months away, would their paths cross. Rabiadou was waiting for this opportunity to seek help through her mother. Likewise, a very young Arab woman suffering from *ouaram* was too shy to bring her condition to the attention of her husband or mother-in-law. Her own kin were far away near Massaguèt at the time of interview, and she was waiting until later in the rainy season, when they would all be grouped together further north.

At certain times of year, as well as general dispersion, herding and domestic units may divide, to allow different herding (and agricultural) strategies to be pursued simultaneously. In particular, young men sometimes go off separately with some of the herds. At such times, the access that women have to members of their immediate domestic units (husbands for younger women, sons for older women) becomes limited. In cases where a young woman's husband is away on transhumance, her husband's father and brothers are charged with the responsibility for her health needs. Several young women, though, claimed that their other in-laws did not have the same interest in them as their husbands did. One Goran woman was suffering with *ouarama* at the time of the interview, but her husband was away with the cattle, so she said she would have to rely on cow oil and cow's urine until his return. A similar case was reported by a junior co-wife in a large extended household. During the hot dry season her husband had been away herding cattle, and she had not felt able to mention her *ouarama* to her other affines.

Another consequence of mobility and fluidity of domestic units is that co-wives may live, for large parts of the year, in separate units, with the husband spending several weeks at a time with each in turn, thus leaving each wife temporarily husbandless in the meantime. Another Goran woman reported a case of *rourou lintré* (literally "placenta undressed", referring to a very serious condition thought to be caused by part of the placenta failing to come out at childbirth). The condition became very painful a year after the birth of a child, while her husband was staying with his other wife, some distance away. A wandering *Dr. Choukou* offered to treat her condition but, in her husband's absence, she did not have the financial means necessary. Although she was staying with her husband's brothers' sons, she did not feel able to approach them for money, particularly due to the embarrassing nature of her condition.

So spatial mobility and dispersion can be problematic for nomadic women during times of ill-health, not only (or even mainly) because of the well-documented, physical problems of access, but because of the implications for accessing social and kin networks at different times of year. For women with multiple networks, the situation is less critical. When Halima's husband was away on transhumance, she still had her mother, father and brother around to take care of her. But for women whose networks are already limited, seasonal dispersion of networks might exacerbate an already vulnerable position.

However, it is also possible to turn the argument on its head, and suggest that mobility can be advantageous in that it *brings people together* as well as separating them. In Rabiadou's case, she was expecting to have to wait for another two months before she would have access to her mother and thus possibly to help. However, a comparable (non close kin) marriage in a purely sedentary context might have meant that she was separated from her mother on a much more permanent basis. At the height of the rainy season, many hundreds of herding Arab *fariqs*, all *khashmalbet* (people of the same large family) are grouped together far north, giving people the chance to access a much wider range of kin than would probably be the case in a sedentary setting. As well as increasing the potential geographical range of the health service resource base, mobility might also, therefore, have the advantage of increasing the social resource base which can be mobilised to deal with health problems, at least at certain times of year.

Conclusions

Gender and seasonal mobility interact in complex ways which influence profoundly the access that nomadic women in Chad have to various health resources: information, treatment

and care. Health resources are strongly gendered. Home remedies, caring and supportive roles, and the treatment of certain reproductive health problems fall within the female domain. But access to most other health practitioners, treatments and knowledge, particularly those of high status, is controlled largely by men.

For a pastoralist woman, the actions taken during an illness episode, and the outcome, are dependent to a great degree on the nature and quality of her social support systems, and on her ability to mobilise them adequately, in relation to her health needs. These support systems include: husband and other affines, male kin and networks of female kin and friends. As other studies elsewhere have shown, these vary considerably between women as a function of: life cycle, success in bearing and rearing children, marital status (including whether the marriage is polygamous or monogamous, and between close kin or not) and the structure of domestic units within which women find themselves, often temporarily.

Problems faced by nomadic groups in accessing health resources are often framed primarily in terms of their spatial mobility and geographical dispersion. While these factors are doubtless significant in Chad, it is clear that these are not the only, or even the most important, barriers faced by nomadic women. The case of the Fulani suggests that settling *per se* does not necessarily improve access to health resources, at least in the short term. Far more enduring are the social, economic and cultural barriers. However, spatial mobility and dispersion are important in the ways in which they interact with and shape these other barriers. Mobility and fluidity of social and domestic organisation mean that the access that women have to kin and social networks changes substantially over the course of a year. Women who enjoy access to multiple networks are to some extent buffered against these seasonal shifts; most vulnerable are the women whose networks are already limited.

This study has important implications for other researchers and policy-makers interested in health provision for mobile populations. In terms of health policy and practice, it is clear that dealing purely with the issues of mobility (eg. setting up mobile clinics, or encouraging the settlement of nomadic populations) will not necessarily result in improved access to health services for pastoralist women. It is necessary also to understand the social context of control and distribution of health resources. In terms of other research, it is clear that analyses which present a static view of the role of social structures and networks in the distribution of health resources are likely to be inadequate and misleading where those networks are shifting. This is pertinent not only to nomadic pastoralists but to other mobile groups like seasonal labour migrants or refugees. In the case of Chad, further, longer term work is needed to elucidate more fully the ways in which women's social networks, particularly the less visible female networks, change over the course of a year and exactly how these impinge on illness management.

Notes

1. Names have been changed to protect anonymity of informants.

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Table 1: Health and Demographic Indicators for Chad

Indicator	All	Urban	Rural	Date	Source
Total fertility	6.6	6.1	6.8	1996-97	DHS 1998
Life expectancy at birth (years)	50.3	--	--	1993	BCR 1995
Infant mortality rate (per 1000 live births)	109.8	99.3	112.7	1996-97	DHS 1998
Under five mortality rate (per 1000 live births)	200.9	190.0	203.9	1996-97	DHS 1998
Maternal mortality ratio (per 100,000 live births)	853	--	--	1996-97	DHS 1998
Doctors per 100,000 people	3	--	--	1998-91	UNDP 1997

Table 2: Frequency of Use of Different Treatments for Recent Illness Episodes

Treatment Type		No. (%) Using
Self Medication	Home Remedies	43 (31.9%)
	Market Medicines	15 (11.1%)
“Informal” Sector	Marabout	23 (17.0%)
	Dr. Choukou	12 (8.9%)
	Plant Healer	6 (4.4%)
	Birth Attendant / Wise Woman	0
“Formal” Sector	Local Health Post	27 (20.0%)
	City Hospital / Clinic	9 (6.7%)
Total Treatments		135
Number of Illness Episodes		101

**Table 3: Husband's Contribution of Resources to Wife's Illness Treatment
(Currently Married Women Only)**

Characteristics of the Woman	N	Husband Contributes to Illness Treatment
All Women	121	41 (34%)
Children Borne into Husband's Household		
None	18	3 (17%)
Young children only	89	31 (35%)
Older, married children	14	7 (50%)
Age (years)		
10-19	16	3 (19%)
20-29	35	10 (29%)
30-39	44	16 (36%)
40+	26	12 (46%)
Type of Marriage		
Monogamous	85	31 (37%)
Polygynous	36	10 (28%)
Type of Household (women under 30 only)		
Nuclear	17	8 (47%)
Laterally extended	28	9 (32%)

Table 4: Illness Treatment of Women by Nomad / Sedentary Status

Treatment Type	Settled (Fulani only)	Nomadic (Arab, Goran, Fulani)	Total
None	11 (37%)	22 (21%)	33
Home Remedy Only	1 (3%)	26 (25%)	27
“Informal” Treatment	11 (37%)	30 (29%)	41
“Formal” Treatment	7 (24%)	26 (25%)	33
Total	30	104	134