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Utilisation rates and expenditure for public and private, curative-care services in semi-urban Guatemala

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In November 1994, a retrospective survey was conducted for two purposes: to investigate patterns of health-care uptake for childhood and maternal illness in semi-urban Guatemala; and to gain an insight into the expenditure incurred by the subjects when they consulted the various health-care providers.

The subjects, who all belonged to a semi-urban *ladina* community, had easy geographical access to the health-care providers, of all types, operating in Sacatepequez, in the central highlands of Guatemala. The community was divided into clusters of roughly equal population size and 20 of these were selected. Within each selected cluster, eight households that had at least one young child (< 5 years of age) were investigated. Mothers belonging to each household were asked whether, how frequently, and where they had sought outside help for any health problem that had possibly affected them or their children during the past year. Subsequently, they were also invited to recall the expenditure incurred on the last visit, if any, to each type of health-care provider established in the area.

The crude utilisation rates, for all providers combined, were 1.0/women.year and 0.8/child.year. Overall, 61% of women had no uptake of curative care for themselves and 12% of families no such uptake for their children. Lay curers and clinics run by non-governmental organizations were hardly utilised. Drug vendors accounted for 38% of contacts by women and 26% by children, private physicians for 34% and 38%, and public services for 22% and 33%, respectively. The utilisation rate of the official sector attained roughly 0.3/person.year in both women and children. Dissatisfaction with the treatment received and the lack of drugs were often given as reasons for not attending public services. The median total expenditure incurred per curative, health-care contact ranged from 0 quetzales in the official health centres to 63 quetzales with private physicians (a U.S.$ being equivalent to 5.5 quetzales at the time of the study). Although, for each type of provider (except the health centres), expenditure was nearly equal for a woman or for a child contact, it consisted of a different mix of cost elements (consultation fee, drugs and transport) for each of the various categories of provider.

The willingness to pay for private, curative care, demonstrated by > 75% of the studied households, opens perspectives for a more prominent role of the public sector. It would seem that there is, in the socio-economic environment of semi-urban Sacatepequez, room for experimenting with alternative modes of health-care financing to increase the quality and attractiveness of public services and their utilisation.

Following the Alma Ata conference on primary health care (WHO, 1978), most governments in developing countries made considerable efforts to provide more equitable access to primary health care, by building health centres in rural and semi-urban areas.

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These facilities are, however, often underutilised, even more so in Latin America than in Asia or Africa (Frerichs *et al.*, 1980; Fassin *et al.*, 1988; Sauerborn *et al.*, 1989; Csete, 1993). Some anthropologists have attributed this low utilisation to a rejection of Western medicine and its providers (Batia, 1975; Crandon, 1983; Pedersen and Coloma, 1983; Finerman, 1984), but others have shown that pharmaceuticals, at least, are now widely accepted in traditional, rural societies (Price, 1989; Lopez and Kroeger, 1990; Kanji and Hardon, 1992). In such societies, however, the drugs are often not prescribed by official health-care providers, but are purchased directly from a drug or grocery store (Krishnaswamy *et al.*, 1985; Greengalgh, 1987; Hardon, 1987). A study conducted in the late 1970s in a traditional Mayan Indian community observed this pattern of health care in Guatemala (Woods, 1977). In the last few decades, the availability of all kinds of non-official providers has drastically increased throughout Guatemala, and now even private, medical clinics can often be found in rural areas (which is not unrelated to the lack of employment opportunities for medical doctors in the official health system). Despite this apparent improvement in health-care, the formal health sector is still little used for the more common diseases of childhood (Delgado *et al.*, 1994) and less than half of local mothers seek medical attention for a child with fatal illness (Van der Stuyft *et al.*, 1996).

To investigate patterns of health service utilisation for a wider array of childhood and maternal diseases and to gain an insight into the expenditure incurred when consulting different types of providers, a retrospective survey was conducted in a semi-urban community in central Guatemala.

SUBJECTS AND METHODS

Study Population

The study was performed in the central highlands of Guatemala, in the department of Sacatepequez, which has a mixed population of '*ladinos*' and '*indígenas*'. These terms have a specific meaning in Guatemala, where the concept of *mestizo* is not used. The distinction between the groups is complex and based on ethnicity rather than race. Although *ladinos* may be of European origin, many are in fact of mixed European and Indian descent. They speak only Spanish and dress in Western attire. *Indígenas* may also be of mixed descent, but the women sometimes speak only one of the local languages, whereas most of the men also speak Spanish. Many of the women who are *indígenas* wear a traditional dress, consisting of a long skirt and a colourful, handwoven blouse, but most of the men now wear Western clothes.

The subjects of the present study belonged to a semi-urban, *indígena* community with a population of 13 000 at the time of the study (November 1994). Although $>80\%$ of its members were *indígenas* of the kaqchiquel-language group, virtually all of the women speak Spanish as well as kaqchiquel. The population had easy, geographical access to all the categories of health-care provider that exist in Guatemala, including a community health centre (staffed by two doctors, a dentist, a graduate nurse, several auxiliary nurses and a health technician) and various, private, health-care providers. The latter, comprising for-profit and NGO (non-governmental-organization) medical clinics, pharmacies, drug vendors, lay curers and traditional healers, were either established within the community or close to it, along the road to the departmental capital of Antigua. In Antigua itself, a 20-min bus journey from the study community, there are not only further first-level services but also providers of second-level care (a regional hospital and some smaller, private institutions).

Sampling

A self-weighting, two-stage cluster survey was performed in November 1994. The study community was divided into clusters of roughly equal population size and then 20 of these were selected. From within each of the selected clusters, eight households which each had at least one child aged <5 years were

chosen randomly, yielding a total of 160 study units.

Interviews

Each of the mothers in the selected households was interviewed by one interviewer who had considerable experience in health-care research and excellent knowledge of the study area and population (E.D.). The first part of each interview was based on a closed questionnaire. After recording personal and household characteristics, each mother was asked whether, how frequently, and where she had sought outside help for any health problem that had possibly affected her or any of her young children (i.e. those aged <10 years) during the past year.

Families were considered to be of high socio-economic status if they lived in houses built from concrete blocks, with electricity and drinking water on the premises and a flush toilet installed. The health-care providers consulted were classified into six categories: (1) public health centre (HC); (2) out-patient department of the regional hospital (OPD); (3) private physician; (4) NGO clinic; (5) drug vendor (i.e. someone who runs a drug store and 'prescribes' and dispenses treatments, including injections); or (6) lay curer (i.e. a '*curanderos*': a healer who uses modern drugs, often combined with herbal treatment).

In the second part of each interview, the mother was asked to recall the expenditure incurred on the last visit in the previous year, if any, to each of six categories of health-care provider. Probing questions on the separate amounts paid for transport, honoraria and drugs helped to ascertain and cross-check the total expenditure. These components of each consultation were not analysed separately, for reasons that will become clear from the results section.

RESULTS

The main characteristics of the households surveyed are presented in Table 1. Although the mothers interviewed were predominantly (84%) indigenous by self-assessment, only 25% of them wore traditional dress and only 3% spoke the native language exclusively. Some (29%) earned an income from employment outside of the home. Most of the women's husbands (60%) were farmers or employed in agriculture as day labourers. Although the mean number of children per mother was about three, this value cannot be extrapolated to the community as a whole because of the sampling frame and inclusion criteria used. Overall, 22% of the study households were classified as having a high living standard.

The uptake of curative health care for woman and child illness during the previous year is shown in Table 2. Although the crude utilisation rates were quite high (1.0/women.year and 0.8/child.year), most (61%) of the women interviewed had sought no curative care for themselves and 12% of families had no such uptake for their children. NGO clinics and lay curers were hardly utilised, but drug vendors accounted for 38% and 26% of contacts for women and children, respectively. Private-physician contacts slightly outnumbered contacts with official-sector care (i.e. HC and OPD), for which the utilisation rates were roughly 0.3/person.year in both women and children. Whereas the crude utilisation rates were similar for households of high and low socio-economic status, the type of provider chosen did vary. Conditional on uptake of care, households with a high living standard were 1.7- and 2.4-fold more likely to consult a private physician for care of a mother and of a child, respectively, than those with a low standard. During the interviews, the mothers often spontaneously discussed their dissatisfaction with the reception and the treatment received—particularly the lack of drugs—as reasons for not attending the HC.

The statistical precision of the present estimates of expenditure may have been affected by inaccurate recall, leading to random error. Appreciation of the face value of transportation costs and cross-checking of the reported specific cost-items with the reported total expenditure incurred did not, however, reveal any biases such as systematic over- or underestimation or selective provider effects. The

TABLE 1
Socio-economic characteristics of the 160 study families, Sacatepequez, Guatemala, 1994

Parameter	*Value*
THE WOMEN	
Median age (and interquartile range) (years)	28 (23–33)
Aged <25 years (%)	31
Formal education <4 years (%)	81
Literate (%)	54
Employed outside home (%)	29
Indigenous ethnicity (%)	84
Wears traditional dress (% of *indigenas* women)	25
Speaks Indian language only (% of *indigenas* women)	3
THEIR HUSBANDS	
Median age (and interquartile range) (years)	30 (25–36)
Age <25 years (%)	22
Formal education <4 years (%)	64
Day labourer or farmer (%)	60
THE FAMILY	
Median number of children (and interquartile range)	3 (2–4)
Spouse living with family (%)	96
Mother-in-law living with family (%)	66
High living standard (%)	22

median total expenditure per curative-health-care contact (Table 3) ranged from 0 (HC) to 63 (private physician) quetzales (a U.S.$ being equivalent to 5.5 quetzales at the time of the study and 30 quetzales being the modal daily salary for a skilled labourer). It was, for the same type of provider (except the HC), nearly equal for a woman or child contact. It consisted, however, of a different mix of cost elements (consultation fee, drugs and transport) for the various categories of provider. In contrast to private physicians and NGO clinics, the official sector (HC and OPD) did not charge consultation fees. When the prescribed drugs were not available, which was generally the case in the HC, they were sometimes (more frequently for illness in a child than in a mother) bought from for-profit pharmacies. The 'honoraria' of drug vendors, who not only run stores but also 'prescribe' treatments, were confounded with the price of the drugs they sell. Transportation costs were generally only incurred for visits to the hospital or to some private physicians, the other providers being established in the community.

DISCUSSION

The present study was not a comprehensive study of health behaviour in semi-urban Guatemala; the focus was the uptake of curative care, given the locally available array of providers, not local health beliefs that may form the basis for a particular behaviour, nor self-treatment or home treatment {the only responses to at least half the episodes of illness in Guatemala (Woods, 1977; Sheldon, 1981; Delgado *et al.*, 1994; Van der Stuyft *et al.*, 1996)}. The study community was selected because there were few geographical barriers present to the utilisation of any category of health service, although the cultural accessibility of each provider was not assessed. The community also seemed interesting because it is was in socio-cultural transition, the majority of women no longer wearing traditional dress

TABLE 2

Uptake of curative health care by 160 women and their 529 young children (aged < 10 years) during the year prior to the study

	Women			
Type of provider	*No. and (%) consulting*	*No. and (%) of contacts*	*Mean no. of contacts/consulting individual*	*Utilisation (contacts/woman.year)*
Health centre	11 (7)	27 (17)	2.5	0.2
Hospital outpatients'	7 (4)	8 (5)	1.1	0.1
Private physician	22 (14)	54 (34)	2.5	0.3
Drug vendor	23 (14)	60 (38)	2.6	0.4
NGO clinic	3 (2)	5 (3)	1.7	0.0
Lay curer	2 (1)	4 (3)	2.0	0.0
Any health service*	62 (39)	158 (100)	2.3	1.0

	Children				
Type of provider	*No. and (%) of families consulting*	*No. and (%) of contacts*	*Mean no. of contacts/consulting family*	*Contact rate (contacts/family.year)*	*Utilisation (contacts/child.year)*
Health centre	42 (26)	113 (26)	2.7	0.7	0.2
Hospital outpatients'	15 (9)	31 (7)	2.1	0.2	0.1
Private physician	67 (42)	166 (38)	2.5	1.0	0.3
Drug vendor	42 (26)	114 (26)	2.7	0.7	0.2
NGO clinic	3 (2)	14 (3)	4.7	0.1	0.0
Lay curer	0 (0)	0 (0)	0	0.0	0.0
Any health service*	140 (88)	438 (100)	3.5	2.7	0.8

* Six women had contact with two providers and 29 families had contact with at least two providers.
NGO, Non-governmental organization.

TABLE 3
*Health-care expenditure in quetzales for a curative contact with various types of health-care provider**

Type of provider†	Median expenditure (and interquartile range)	
	Women	*Children*
Health centre	0 (0–15)	15 (0–25)
Hospital	3 (0–75)	3 (2–35)
Private physician	63 (50–99)	60 (50–90)
Drug vendor	23 (15–60)	25 (15–39)

* At the time of the study, a U.S.$ was equivalent to 5.5 quetzales.
† The numbers of visits to lay curers and clinics run by non-governmental organizations were too small to calculate meaningful median expenditures.

(Western cloths being far less expensive for those who do not weave themselves) nor speaking the native language only, but still defining themselves as belonging to the *indígena* ethnicity. Although the results are simply based on interviews with mothers in the community, the responses of Guatemalan highland dwellers to questions about previous or hypothetical illnesses have been shown to correlate well with their actual health-seeking behaviour (Sheldon, 1981).

It appears that lay curers and NGO clinics were rarely consulted in the sub-urban environment of the study community. Although under-reporting of the use of traditional healers is common in questionnaire-based surveys (Kroeger, 1983), the present interviewer's acquaintance with the study population, her well known affiliation with an independent research centre and her systematic probing for the uptake of care from the whole array of possible service providers should have minimized such under-reporting. Lay curers or *curanderos*, who use herbal medicine but also modern drugs when deemed appropriate (Woods, 1977) and who run a 'clinic' and sometimes make home visits, must not be confused with traditional, spiritual healers. That few local inhabitants consult lay curers is probably the result of the decrease in the numbers of such curers in the study area, the curers succumbing to increasing competition from drug vendors and private physicians, who have become much more common in the last decade. NGO clinics are generally overtly linked to externally funded, development or Christianization projects and are frequently run by expatriate, professional staff. In geographical terms they are as accessible as HC, and they provide care of similar technical quality, but their services are often offered on a non-permanent basis. The population clearly distinguishes between HC and these clinics, which seem to appeal mainly to those who sympathise with the NGO's ideologies. Lay healers and NGO clinics are, nevertheless, likely to be used proportionally more often in rural or remote areas, where other types of providers may be scarce (Sheldon, 1981), or for particular illness episodes (Van der Stuyft *et al.*, 1996).

The low utilization rate of the public sector is a less striking finding (Sheldon, 1981; Kroeger, 1983; Delgado *et al.*, 1994; Van der Stuyft *et al.*, 1996) and the reasons that were spontaneously forwarded by the interviewed mothers sound familiar. Discontent with the attitude of the personnel has already been widely reported to deter individuals from using public health services (Lasker, 1981; Bruce, 1990; Scrimshaw and Hurtado, 1990). There is, furthermore, ample evidence that Western drugs are the most sought after treatment in developing countries (Krishnaswamy *et al.*, 1985; Greengalgh, 1987; Hardon, 1987; Price, 1989; Lopez and Kroeger, 1990) and

their availability has been found to have a prominent influence on the utilisation of official services (Unger and Diao, 1990; Zwart and Voorhoeve, 1990). It is thus tempting to establish a link between the provider preferences observed in the studied community and the quality of the care offered and drug availability. This, besides mere inability to pay (Yoder, 1989; Creese, 1991), could explain why the total expenditure incurred does not unequivocally determine the choice of a source of curative care.

The modern political history of Guatemala has impeded the development of comprehensive and attractive, public, health-care services, and the utilisation pattern observed in the present study is more the result of supply-driven, free-market mechanisms than of a planned, health-sector reform. However, the willingness of $>75\%$ of the households in the present sample to pay for private curative care must be considered if the public sector is to have a more prominent role. Admittedly, the existing evidence on changes in the utilisation of official health services after introducing community-participation or cost-recovery schemes (Haddad and Fournier, 1995) is contradictory. The choice between these conceptually and ideologically different approaches has, furthermore, far-reaching implications (Criel *et al.*, 1996), and the introduction of either scheme should be carefully prepared in order to achieve community understanding and consensus (Kegels, 1994). The results of the present study indicate that there is, in the socio-economic environment of semi-urban Sacatepequez, room for experimenting with alternative modes of health-care financing, to increase the quality and attractiveness of public services and so boost their utilisation.

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