

SELF-CARE AND THE INFORMAL SALE OF DRUGS IN SOUTH CAMEROON

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Abstract—Self-care, though the most common of all forms of therapeutic action, has been little studied. This paper describes the context of self-medication with western pharmaceuticals in an area of South Cameroon (in 1980). The identity and appropriateness of these pharmaceuticals are briefly discussed. The paradoxical character of self-medication is emphasised: improvement in the quality of self-medication implies both growth and loss of self reliance, increase and decrease of medicalisation. People in Cameroon, or indeed anywhere in the Third World, find themselves in a 'double-bind'.

Key words—self-care, self-medication, pharmaceuticals, informal sector, Cameroon

One of the most important publications for medical anthropologists in the last few years is a book which was not really written for them, but rather for the people about whom anthropologists usually write: the rural poor in developing countries. David Werner's *Where There is no Doctor* [1] first appeared in English in 1977. The contents are not as strictly medical as the title suggests, however Werner (p. w-1) wrote the book for "... anyone who wants to know and do more for his own, his family's and his people's well-being... It is for *all the people*." This is a handbook for village health workers, broadly defined:

Almost everyone can and should be a health worker:

- Mothers and fathers can show their children how to keep clean;
- Farm people can work together to help their land produce more food;
- Teachers can teach school children how to prevent and treat many common sicknesses and injuries;
- School children can share what they learn with their parents;
- Shopkeepers can find out about the correct use of medicines they sell and give sensible advice and warning to buyers;
- Midwives can counsel parents about the importance of eating well during pregnancy, breast feeding, and family planning [1, p. 2-1].

Werner's handbook deals with "topias" as well as "utopias" in health. Its 'topian' character lies in the fact that it starts from the existing situation, likely to include the absence of certain medical facilities, poverty, the presence of drug vendors, the concomitant free sale of prescription drugs and a vigorous self-care tradition. Its 'utopian' character lies in Werner's belief that a scarcity of means need not prevent people achieving considerable improvement in their health status, and that people can learn to depend on their own simple resources rather than on fancy external ones.

In this paper I describe one type of medical self-help widely practiced in the southern part of Cameroon: self-medication with modern pharmaceuticals. It should be noted that a precise definition of self-care

is difficult to give [2, p. 156], because of how readily 'self-care' shades into 'neighbour help' and treatment by 'lay-specialists'. Here I adopt Levin's [3] working definition of 'self-care': "A process whereby a lay person can function effectively on his or her own behalf in health promotion and decision-making, in disease prevention, detection and treatment...". In addition I want to stress that such functioning takes place within a person's own household, i.e. self-care includes not only oneself, but also the members of one's household.

This paper contains a brief account of relevant research in the field, a description of the social context of self-medication and a discussion of the medical products involved. First, however, I want to enumerate a number of factors which illuminate both the importance of medical self-help, and the urgency of solid research into this topic. In my conclusion, I shall return to this point in order to express my personal ambivalence about the particular kind of self-care discussed in this paper: self-medication in developing countries with western pharmaceuticals.

THE IMPORTANCE OF SELF-CARE

The most obvious reason why self-medication should be taken seriously is quantitative. It has been estimated that in two countries as different as the U.S.A. and Taiwan self-treatment occurs in roughly 80% of all illness episodes [4, p. 50]. There is no reason to assume it occurs less often in other countries. Social scientists across the world have reported markedly divergent rates of medical 'self-care', from 93% in Australia [5] to 4% in Tanzania [6]. These findings, however, can seldom be accepted as reliable. Schulpen and Swinkels [7] have shown, for example, that 60% under-reporting of self-medication occurs when a recall period of two weeks is used instead of a period of one day. Thus it is not surprising if different researchers produce widely divergent frequencies of self-care. In the absence of a standard model for self-care research [2], I adhere to the supposition that

self-care is an individual's first and most common reaction to the experience of feeling unwell.

The medical situation in Third World countries is a second reason why self-care is of crucial importance. Whereas in industrialised countries people resort to self-care for minor ailments, because it is an easy, convenient alternative to medical consultation, in poor countries people often have no other choice than to treat themselves [8]. The maldistribution of medical services, doctors and other personnel in the Third World—as indeed elsewhere—is well-known [9–11]. A deplorable development is the medical braindrain from developing to rich countries [12]. The shortage of medical personnel and material in the Third World forces people there to resort to self-treatment even when specialist help is required. To fill the gap in formal medical services an extensive informal drug market has grown up in most developing countries.

A third factor underscoring the significance of 'self-care' presents itself in WHO policy on Primary Health Care (PHC). The cornerstone of PHC is self-reliance [13–15]. Viewed in the general thrust of development, PHC is an attempt to halt the growing medical dependency of Third World countries on the west by promoting people's awareness of their own resources. PHC has become one of the most widely discussed subjects in international health planning. Nearly every country in the world has pledged commitment to its realisation [9]. No doubt many of these pledges are little more than rhetorical, and PHC has proven easily coopted by oppressive regimes, yet with self-reliance very much in the air, every form of self-help deserves our close scrutiny [16].

PHC philosophy is not an isolated phenomenon. From many different sides, it has been argued that 'world development' involves the ever-increasing structural dependence of peripheral countries on the industrial and commercial centres of the world, ultimately leading to 'underdevelopment' of the former rather than to any progress. This dependency is not merely economic, but extends as well to the realms of politics and military dominance, communication and culture [17]. The cultural dimension of growing dependency is a most pervasive one. It implies that people renounce, or are lead to renounce, their own resources, both material and ideational, and to replace them with alien ones. Galtung, an outspoken critic of the process of peripherisation, has denounced this development repeatedly, pleading for self-reliance "as a way of fighting centre-periphery formation" [18, 19].

The need for 'self-reliance', applied to fields as diverse as ecology, education, politics, technology, agriculture, and even cosmology, is of particular immediacy in relation to health care. Nowhere have people been more dependent on the expertise of others than in the field of medicine. Such 'medicalisation' has occurred even more intensively in industrialised societies than in the Third World. It is therefore not surprising that the call for a regeneration of autonomy has resounded the loudest in health care. Illich [20], who brought issues to public attention which for some time lay submerged in academic publications, has been a vociferous advocate of self-reliance in health care. For him 'health'

is virtually synonymous with personal autonomy, while outside medical interference is described as an "expropriation of health".

Illich is critical of specialised technical medicine. Ideas related to his are intrinsic to recent movements for holistic medicine, which, among other things, emphasise people's capacity for self-healing [21–23]. Current resistance to the alienating dominance of allopathic medicine constitutes yet a fifth reason for special interest in medical self-help in countries where modern medicine has not yet had the chance to entrench itself fully.

Given the importance of medical self-care, it is curious that medical anthropologists have shown so little interest in the topic. Well-known studies of indigenous medical systems have usually failed to include self-care [24–26]. Handbooks in medical anthropology [27, 28] do not mention it. Only quite recently have anthropologists recognised the issue [4, 29]. One of them [29, p. 6] explains previous neglect by pointing to preference among anthropologists for the exotic and dramatic:

... Anthropologists looking at therapeutic choice in pluralistic settings have often tended to concentrate on the unusual and the spectacular at the expense of the more mundane, but much more frequent—and in the long term more significant—kinds of illnesses people deal with in daily life.

Trotter [30] refers to a similar bias in anthropological studies of illness and therapy. Ohnuki-Tierney, who in her study of the Ainu does pay attention to less serious ailments, quotes Ackerknecht who says denigratingly that these "are not important enough to theorize about" [31, p. 136].

RESEARCH IN SOUTH CAMEROON

The research on which this paper is based, carried out in 1980 in Cameroon, primarily concerned the informal sale and use of medicines. The whole structure of drug distribution was studied, since neither the formal nor informal sectors of supply and utilisation of drugs can be adequately understood in isolation.

The research location was the Department du Ntem in the extreme south of the country, with Ebolowa (population 20,000) as its capital. Ntem, with a total population of about 140,000 (1976 census) and an area of 16,000 km², is located in the rain forest zone. Cocoa is the most important cash-crop. Subsistence crops include cassava, cocoayam, plantain and maize. The largest group of indigenous inhabitants are the Bulu (Boulou); other groups belonging to the same linguistic family (Béti) are the Ntounou, Mvae, Fong, Bane and Ewondo. In the population centres of Ntem one also finds immigrants from other parts of Cameroon: the Bamiléké, Basa, Bamoun and Hausa. Most of these immigrants are traders or have an administrative function. The indigenous inhabitants are mainly peasants, employed in family labour.

The research area was chosen largely because valuable anthropological studies about the region where available as a starting-point for further study: studies of a general anthropological character [32–34]; studies of traditional medicine [35–37]; and

an excellent medical sociological case study of one particular village [38].

Health statistics in Cameroon include only cases reported to modern medical institutions and exclude cases treated by self-care and traditional medical experts. These statistics suggest that malaria and intestinal worms are the most frequent diseases in Ntem, each constituting about 20% of all cases reported. Other common ailments are skin diseases (10%), throat-inflammation/cold/influenza (9%), rheumatism (8%), bronchitis (4%) and gonorrhea (4%) [39]. The same statistics designate measles as the most frequent cause of death among infants and children, but in reality these deaths are caused by complications such as pneumonia, malaria and encephalitis. The reported child mortality rate is 86; the infant mortality rate 150.

The greatest health hazards, particularly in villages, include bad drinking water, the absence or non-use of latrines, the presence of domestic animals which move about freely, the neglect of proper waste disposal and poor housing [38]. An additional risk for children lies in traditional eating habits, because the best food is often reserved for (male) adults. A national nutrition survey [40] has shown that in the forest zone 20% of the children below five years are chronically undernourished and 50% have anaemia. These data make clear that effective self-care should in the first place be preventive; this paper on curative self-care must in no way distract attention from this fundamental truth.

The research consisted of a kaleidoscopic array of methods and techniques. Because the purpose was to describe and understand problems of drug distribution in their widest possible context, research dealt with such diverse topics as kinship, politics, public financing, religious beliefs, medical cognition and traditional medicine. Research was carried out in ministerial offices, hospitals, health centres, pharmacies, markets, shops and in people's homes. Techniques included open and structured interviews, the collection of case histories, particularly of illness episodes, and the scrutinising of reports, files and financial accounts. The approach can perhaps best be characterised as 'investigative research' [41]. Obviously, concealment occurs when direct answers would be threatening to informants. This certainly held true for unlawful practices in the field of drug distribution. In such interviews I was particularly attentive to contradictory statements and other subtle indications that information was being withheld.

Preliminary results have been published elsewhere [42-44]. They show coalitions between formal and informal, public and private drug distribution. Another important early conclusion was that the absence of any profit incentive in the public health sector, however laudable, paralyses the health services [45]. An adequate drug supply is lacking, which prevents health workers from carrying out their tasks. A more elaborate description of these conditions follows below.

One question is the extent to which my Ntem data can be generalised to apply to the whole of Cameroon, or, even to other developing countries in Africa and elsewhere. I have no 'hard' proof that similar conditions exist elsewhere. The research was

undertaken, however, after I had formed the *impression* that shortages of essential drugs was a common phenomenon in many developing countries, and that the free sale of prescription-only drugs was equally common. This impression derived from familiarity with numerous publications [46], both academic and popular, and from conversation with health workers and others in several countries.

What was learned in Ntem therefore should be regarded primarily as a case study, one likely to be of relevance to other countries as well which can be consulted in connection with research elsewhere. The findings cannot be generalised to other countries, however, at least not without further study. With regard to Cameroon, it should be noted that a number of factors leading up to the problems in Ntem apply to the whole country, for example the structure of drug distribution in the public sector, the salary scale of rural health workers, the prices of drugs in the private commercial sector and the presence of unlicensed drug vendors. A nationwide survey [47] further suggests that the Ntem findings roughly applied to the whole of Cameroon, but regional details are bound to differ. Additional research in other areas is needed to arrive at more precise conclusions.

THE CONTEXT OF SELF-MEDICATION

It is sometimes hard to explain the obvious. Occasionally explanation becomes possible after it has been discovered that what is obvious in one place is not obvious in another. Activities common to all societies however, defy explanation and—in a way—do not really need it. Self-medication is one such activity. People hardly decide to practise self-medication any more than that they decide to eat or sleep. Self-medication is a self-evident first reaction to the experience of feeling unwell; it is a non-decision.

We should note, however, that in countries where health facilities are difficult to reach, self-medication *can* be an explicit decision following deliberation about the costs and benefits of taking such a step. This refers to self-treatment as a second step, self-treatment of an illness which people suspect may lie beyond their competence, but which they nevertheless venture to treat because better alternatives, for example, consultation with a medical expert, are lacking. Cameroon is a country where such conditions obtain.

To draw a sharp distinction between self-treatment as a non-decision and as a second step, however, may distort more than it clarifies. In reality the borderline between the two is often blurred.

A decision to seek outside medical help, moreover, may be postponed or rejected in favour of self-care because of obstacles which are anticipated (lack of transport, financial problems, the time factor, social distance). What follows is a description of the health care conditions in Ntem which make it likely that people restrict themselves to self-treatment even when they might prefer to seek the help of a competent outsider.

Modern medical services in Ntem are provided by three hospitals (450 beds in all) and 44 health centres. The two larger hospitals (400 beds) are both in

Ebolowa the capital, one is a government hospital, the other is managed by a Christian church. As a consequence of this concentration of hospitals some inhabitants live as far as 100 km from a hospital; and transport is often difficult to obtain. On paper the distribution of health centres seems satisfactory until it is remembered that not all the 32 public health centres function satisfactorily. Some, although they still appear in statistical accounts, have even ceased to exist. Those that are open struggle with shortages of drugs and other materials and with the prolonged truancy of staff. Elsewhere [42, 43] I have attempted to explain how the lack of any form of profit incentive leads to bureaucratisation and poor management; resulting in material shortages which in turn may account for the frequent absences of health workers. This conclusion was reached by comparing public and private health institutions. The services of the latter are reasonably effective, and shortages of drugs are exceptional. It is in the interest of private institutions to maintain a high level of efficiency, because their survival and the survival of their personnel depend on their clients' perceived benefits. This applies to private commercial medical services such as the only pharmacy in Ntem, but also to the so-called non-profit services offered by Christian churches. Church health facilities are forced to make considerable 'profits' in order to remain viable; they receive practically no financial support from government. For workers in public health services, on the other hand, the quality of their job performance, its profitability, in no way affects their economic survival. Paradoxically, services with 100% government support suffer from shortages, whereas services with virtually no support from the state are able to prevent shortages and function quite efficiently. It should be noted that this conclusion is a fact well known in Cameroon, both by Ministry of Health officials and by the general public.

An additional factor probably leading to drug shortages in public health centres is that the government spends only 12% of its health budget on medicines (1980), a low figure compared to other developing countries. Different statistical analyses of public drug spending in the Third World are often contradictory, but WHO reports cite spending levels for medicine which run between 40 and 60% of national health budgets [60, p. 297; 72, 75].

Deficiencies in the public sector greatly disable Cameroon's overall medical infrastructure, and the operation of health facilities in Ntem in particular. During periods of drug shortages in Ntem's public health centres, people may resort to one of the area's 12 private centres run by church organisations. Here, however, medicines and medical interventions have to be paid for, a reason for some people to postpone a visit and try first another way: self-treatment with drugs bought in the informal sector. The distance which has to be travelled to reach a private centre may also encourage self-treatment.

It could be argued that the informal medicine market owes its existence to the malfunctioning of the formal supply system. This would suggest that the informal market fills a vacuum, where formal services fail. In fact, relations between formal and informal markets are more intricate. As has been argued

elsewhere [42, 45], the informal sale of medicines has many of its roots in formal medical institutions. A description of the informal sector makes this clearer.

Five, possibly six, categories of informal drug vendors can be distinguished. The first are shopkeepers who sell general provisions. In their 'boutiques', one can buy almost everything needed for daily living. In villages the choice may be more restricted, limited to comestibles such as sugar, rice, sardines and bread, to cigarettes and to commodities such as matches, soap, and ballpoint pens. In commercial centres, however, 'boutiques' sell other things such as hardware, clothes, and footwear. Predictably, shopkeepers also sell popular medicines which many consider among the necessities of life. In Ebolowa we counted about 75 'boutiques' where one could buy at least one or two drugs, usually analgesics and antibiotics.

The second category of drug vendor consists of market traders who sell drugs along with other merchandise. Some, who appear in the daily market, have much in common with the shopkeepers mentioned above. Others only come to the main market once a week. Most of their merchandise consists of agricultural products.

A third category of drug vendors are the pedlars who trek from village to village in the period of the year after villagers have sold their cocoa and have cash at their disposal. Some pedlars travel on foot, carrying bolts of cotton on their heads, with bags containing a wide variety of commodities slung over their shoulders: toiletries, ornaments, sandals and medicines. Others travel by bicycle. Their merchandise is very expensive. They take advantage of the fact that transport from the villages is difficult. Some of these pedlars give medical advice and administer injections. Outside the cocoa-season, during the long stretch of months, appropriately called 'la saison morte' because there is no money in the villages, pedlars are extremely rare.

Merchants who specialise in the sale of medicines are a fourth category of drug vendors. They have a much larger assortment than any other category, ranging from 20 to 50 drugs. In Ntem such merchants are small in number and can be found only in the capital. We identified three, each of whom sold at a fixed place, and one who was mobile and sold at different locations.

The fifth category of drug vendor consists of personnel from medical institutions. They sell medicines belonging to their institutions intended for the treatment of the institutions patients. It was become common practice for personnel in health centres and hospitals, and not only those with a medical training, to treat people in their homes with medicines intended for use in health care institutions. Their clients pay for these medicines, unless they are relatives or close acquaintances.

The final category of drug vendor is borderline, not wholly different from the preceding group. These are the qualified pharmacists. No doubt, the pharmacist belongs to the formal network of drug distribution but one can argue that he enters the informal sector as soon as he begins selling prescription-only drugs without asking for a doctor's prescription. It should be pointed out that such abuse is common not only

in Ebolowa, but elsewhere in the country. All drugs are treated as 'over-the-counter drugs' [48].

What about the wholesale trade? It is possible to distinguish three categories of wholesalers: traders who supply drug vendors with drugs which arrive from Nigeria, pharmacists, and personnel from medical institutions.

The smuggling of drugs from Nigeria has developed into an enormous business, although it is impossible to estimate its exact size. Nigerian products, found all over the country, also pass through Cameroon to neighbouring countries such as Gabon and the Central African Republic. Why Nigeria 'exports' so many drugs to Cameroon is not entirely clear, but one factor may be that the import and sale of pharmaceutical products in Nigeria is much freer than in Cameroon.

The second illicit group of wholesalers is made up of pharmacists. Although the law which regulates the practice of pharmacists from selling drugs freely to the public, even in large quantities. Consequently, they are not only important in the informal retailing of drugs but also in informal wholesaling. Some drug vendors simply buy their stock direct from the pharmacist. They pay the retail price, so that to make a profit they have to resell in the villages at a higher price. It should be noted that the law stipulates that pharmacists sell drugs only in standardised quantities (in packages). They are not allowed to open packages and sell smaller quantities. Pharmacists strictly adhere to this rule which works to their advantage. Informal vendors, however, sell drugs in any quantity desired by their clients; sometimes they even sell drugs per dose. For poor people, this may be an incentive to buy from a drug vendor. Clearly this connection between formal and informal sectors works to the advantage of the pharmacist: drug vendors undertake the unprofitable retail trade for them.

The third group of wholesalers consists of various health service personnel. I estimate that about 30% of the drugs supplied to health centres do not reach their patients, but are diverted for distribution among relatives and acquaintances, used in their own private practice at home, or sold to drug vendors [42, pp. 61–98]. It is this last option which makes the personnel wholesalers. Although little could be found about sales to drug vendors, in term of volume the practice is probably not important.

The *raison d'être* for the informal sale of medicines to the poor is clear. One drug vendor described his work as '*dépanner les petits problèmes*'. The population of South Cameroon has a long tradition of self-care. In the past, people relied entirely on plants and other indigenous resources, but modern pharmaceutical products keep gaining importance in self-medication. This development is made possible by drug vendors who bring products even to the most remote villages.

There are four reasons why these drug vendors respond better to the needs of the poor than such formal institutions as hospitals, health centres and pharmacies. All are related to availability and attainability. First, drugs from vendors are more affordable. Clients can purchase just as little or as much as suits their self-treatment need at that mo-

ment. Second, drug vendors are more accessible than other sources geographically. There will always be a vendor within a radius of a few kilometres, but a pharmacy or health centre with drugs may be 50 km or more away. Third, vendors are available day and night. Their little shops only close when everybody goes to sleep, and even after 'closing' it is generally possible to buy medicines if needed. This flexibility contrasts sharply with the strict schedule of the formal services. The fourth reason behind drug vendor popularity is that the social distance between them and their clients is much narrower than in the formal sector. In a shop it is possible to look around quietly, to examine various products and ask questions about how they should be used. Such behaviour is not possible in a pharmacy or hospital. Similar advantages bolstering the informal sale of drugs have been reported for Kenya [50, 51], Ethiopia [52], and Ghana [53].

There are, however, disadvantages in buying from a drug vendor. Clients know, for example, that the products they buy are often inferior in quality. The choice of medicines is limited and vendors have little medical knowledge. The preference for a drug vendor has to be viewed within the total range of therapeutic choices. People with a medical problem will first try treatment which costs them little. Only when this fails will other, more costly, more inconvenient, steps be taken (cf. [29]).

THE DRUGS

In the informal sector of Ntem I registered 70 different medicines: drugs for relieving pain (13), antibiotics (12), drugs for respiratory problems (11), laxatives (8), vitamins (6), anthelmintics (5), anti-anemia drugs (5) and anti-malaria drugs (3) (for the complete list see Appendices 1, 2 and 3). In addition, two teams of researchers visited 12 homes in a village 30 km from Ebolowa and registered the drugs which those visited had in stock at that moment. The results are discussed briefly in Appendix 4.

For most drugs on the market I managed to copy down the information on the package or on the insert and/or to interview the vendor on the product's appropriate use (cf. Appendix 1). It lies beyond the scope of this paper to discuss in detail the pharmaceutical aspects of these drugs, but a few general remarks are relevant.

Among Western-trained physicians and pharmacists in the Cameroon, opinions with regard to the 70 drugs, were extremely diverse. Pharmacists who observed Western standards of prescription and conservation condemned the presence of almost all 70 on the informal market. Physicians with Third World experience, however, who knew local conditions, were considerably less negative. They realise that in outlying areas drug vendors may be the only 'representatives' of Western health care within reach. For them, provided that knowledge of drug use existed, self-medication with drugs from the informal sector was an acceptable alternative to official treatment. Indeed, conclusions about the suitability of drugs on the informal market, can only be meaningful if the

social and medical context is taken into account. Therefore I presented the list of 70 drugs to a physician working in the area, a man with reasonable insight into local conditions of health and health care. He considered 41 of the drugs to be useful or harmless on the free market and thought that 24 others should be withdrawn because of their risk. He declined to pass judgement on five drugs because of lack of information.

The 41 drugs which 'passed' this screening can be divided into two groups. Some help against common diseases: their correct use which entails little risk is generally known, they are pain-relieving drugs, anti-malaria drugs, anthelmintics and drugs for respiratory problems. The remaining drugs of the approved group (e.g. vitamins, anti-anaemics, laxatives) are of a more dubious nature. Ineffective, in both positive and negative senses, they are essentially superfluous. In the context of Cameroon, however, this ineffectiveness makes them harmful to the extent that to purchase them people divert scarce resources, which could otherwise be spent on food or effective medicines.

Among the 24 drugs which, according to the physician should be withdrawn were 12 antibiotics. Opinions about the advisability of uncontrolled distribution of antibiotics differ sharply, opponents point out how misuse of antibiotics leads to dangerous side-effects and wide-spread resistance. To them self-medication with antibiotics only aggravates existing problems. Advocates counterargue that people have no choice. The fact that doctors and nurses are difficult to reach makes the free distribution of antibiotics necessary. For those in remote areas antibiotic self-medication is of great importance. Moreover, it is argued, most people are reasonably well-informed about their correct use, a contention which needs to be urgently checked. Werner [1, pp. 55-58, 331-338] approves including specified antibiotics in home and village medicine kits, but only under certain conditions. He strongly discourages the use of antibiotics by people who do not know exactly how they should be used. He also warns against injections if oral use is likely to work. Werner's advice would suggest that instead of the withdrawal of antibiotics from the informal sector, campaigns to teach people about their proper use are called for. This topic will probably remain controversial for some time to come. Other of the drugs which, according to my physician guide, should be banned from the market, included strong laxatives which might lead to dehydration, particularly in children, and drugs which might cause problems because they only suppressed certain symptoms, influencing the patient to postpone an urgent needed consultation with a medical specialist.

There are other factors which make the free sale of medicines problematic. Consider, for example, means of administration. Injections which enjoy rampant popularity [54], can be very dangerous. Another problem concerns the conservation and expiry date drugs. The conditions under which the drugs are preserved in the informal sector leave much to be desired (heat, light, moisture and atmospheric pressure) so that there is ample reason to fear deterioration.

The most disastrous aspect of the informal sale of

medicines is the lack of information about proper use. Clearly, the essential specific information contained in a doctor's prescription is lacking in the selfcare situation of the informal market. One might argue, however, that all drugs are provided with inserts explaining their use. Pharmaceutical producers belonging to the International Federation of Pharmaceutical Manufacturers' Associations (IFPMA) have undertaken "to provide scientific information with objectivity and good taste, with scrupulous regard for truth, and with clear statements with respect to indications, contra-indications, tolerance and toxicity" [55]. There are, however, a number of snags, and the reality of current practice is quite different from that claimed by industries. In the first place, it has been pointed out that the information provided by the pharmaceutical industries is not always consonant with "unscrupulous regard for truth". For example, it was found, that instruction labels for some drugs in a number of Third World countries were biased, citing more indications and fewer contra-indications than labels for the same products in the West. Instead of providing 'objective' information, labels served as promotional material [56-59]. Melrose [60, pp. 63-90] provides a wealth of information on this issue. Herxheimer [61] even suggests that drug companies should not be allowed to provide the information on their own drugs because "a conflict between their own interests prevents them from assuming that responsibility". This task, he maintains, should be entrusted to a government body.

A second problem with drug information is that many producers of medicine from the informal market in the Third World are rather dubious (see Appendix 3) and not allied in any way to the IFPMA. It seems unlikely, therefore, that the IFPMA marketing code, a code which does not even appear to be effective for its own members, will affect the conduct of non-member pharmaceutical producers. Some pharmaceuticals in fact bear extremely promotive and misleading inscriptions. The picture of a boxer or a lion on a package, for example, gives no indication of what the drug can be used for, but refers instead to the fact that this is 'a very strong medicine'!

A third problem is that in the informal sector most information provided by the manufacturer has been lost by the time a customer buys the product. Drugs are repacked in convenient tins and jars. Even the identity of the original product may disappear! Where inserts accompany quantities of from 20 to 1000 pills, someone who buys only a few at a time never receives one. Under these circumstances even if producers did provide adequate information about their drugs, it would have little effect on self-care in the informal sector. Finally, Nigerian products circulating widely in Cameroon have English inscriptions and inserts which most clients in the informal sector are unable to read.

It is evident that the situation with regard to information about (self)-use of drugs is on the whole deplorable [62]. Pharmaceutical manufacturers present too positive a picture of the efforts and concern [63]. Any solution related to self-medication through pharmaceuticals must involve informing and educating consumers about the correct use of drugs.

But how realistic is such an enterprise? Peters [64] mentions a problem much more likely to arise in developing countries than in the industrialised world:

Education of the public in the drug field would presumably be much easier if it were a problem of educating people in matters on which they have no idea whatever. Unfortunately, in practice, education of the public on drugs implies eradication of widely held erroneous beliefs in favour of some basic knowledge (p. 119).

It seems necessary to eradicate not only erroneous beliefs but also 'erroneous drugs'. Useless, dangerous, and other inappropriate drugs should be banned. Available drugs should be reduced to a relatively small number of essential items, according to WHO guidelines [65], other organisations [66, 67] and experts [1, 60, 68]. Once the supply of available drugs has become clearer and more manageable, both in terms of quantity and quality, informing consumers about the proper use and fair prices of drugs may become feasible [42, pp. 172-897]!

DOUBTS AND CONCLUSION

Considerable doubts about self-medication as practised currently in Cameroon using modern pharmaceutical products have been expressed. The potential advantages of self-medication prove to be associated with serious disadvantages. One may well ask whether or not the health hazards of self-medication outweigh its benefits. Up to this point, however, doubts expressed have been limited to considerations within the field of health care. More fundamental reservations arise when self-medication is viewed within the context of a general 'philosophy' which advocates self-reliance. Galtung [18], defined self-reliance "as a way of fighting centre-periphery formation" (p. 2) which means dependency ("what happens in the periphery is a consequence of causes located in the Centre"). "The Third World does not become self reliant by imitating the first and second worlds" (p. 3). "Self-reliance should ideally be seen as something originating in the antipode to the metropolises in the Centre... Concretely it takes the form of using local factors—local creativity, raw materials, land and capital" (p. 5). "Thus, self-reliance is incompatible with the transnational corporations, as we know them to day" (p. 12).

It is evident that the type of self-medication described in this paper cannot stand up to Galtung's acid test of self-reliant behaviour. Self-medication with Western pharmaceuticals is the opposite of relying on indigenous resources. It is a step away from local creativity and local materials. If and when the problems of such self-medication can be solved by providing the public with adequate information and education on drugs use, this will in effect be yet another, more significant step away from self-reliance: Western ideas will have more efficiently penetrated to new areas to promote the use of Western materials. Dependency of Western metropolises will increase while the use of indigenous medicinal herbs and other medical resources, both material and immaterial, will decrease.

In the first section of this paper self-medication was presented as a development contrary to medicalisation, a movement away from professionalism and

dominance by outsiders, a trend toward personal autonomy; but is it? One might regard this sort of self-medication as another, perhaps more subtle, form of medicalisation through which people make themselves dependent, not on the medical profession, but on the pharmaceutical industry.

Proposals for more rational use of drugs imply a drastic curtailing of the marketing freedom now enjoyed by the pharmaceutical industry. Transnationals must stop producing and exporting expensive, superfluous, harmful, unsuitable products. In the long term, such industries will probably succeed in entrenching themselves more firmly in the Third World by proving more responsive to the needs of the people. If this comes to pass, one consequence would be an increase in the power of drug corporations at the expense of local development. Indeed, cautious proposals by the industry to the WHO to supply essential drugs to the Third World might be the first sign of such a development. In a briefing paper prepared for the 35th World Health Assembly [69], Health Action International pointed out that the industry's offer:

will inhibit the development of local pharmaceutical industry. This risks lasting dependence for the countries concerned. It could conflict with one of the fundamental aims of the WHO's Action Programme on Essential Drugs, which calls for "development of local or regional production of the most commonly-used essential drugs on a step-by-step basis" (p. 7).

Signs of this kind of development have even begun to appear where not expected. During a congress on drug supply to developing countries in Amsterdam [70], prominent critics of the pharmaceutical industry rejected local production of essential drugs as unrealistic, preferring to nurture high expectations from the involvement of external big industry in an essential drugs scheme.

It is not difficult to see how 'improvements' in self-medication in the Third World can work to the advantage of the pharmaceutical industry, turning developing countries into an even more attractive market. Self-reliance, in Galtung's sense of the term, would be sacrificed for short-term relief:

Self-reliance is not the same as producing for the satisfaction of basic needs of those most in need. Those are excellent priorities, but they are also compatible with managerialism and clientelization. Self-reliance implies another subject-object relation, that the masses are more the masters of their own need-satisfaction, not developing the "psychology of depending on the government for relief" [18, p. 8].

Even when certain products cannot be produced locally, dependence on transnationals should be avoided as long as possible. Instead, cooperation should be sought with partners in the peripheral zone:

The point is not to cut out trade but to *redirect* it and *recompose* it by giving preference to cooperation with those in the same position preferring the neighbour to the more distant possibility (p. 7).

Suggestions for improvement of self-medication through a better supply of information and through a drastic reduction of available pharmaceuticals may sound utopian, but in the light of Galtung's views on self-reliance they seem downright tame and conservative. We should work towards the paradox of

self-reliance-within-dependency: self-care with the help of products which although externally manufactured are internally controlled. Only such a *mixed type of self-reliance* is feasible. My pessimism reflects a recognition of the unfortunate position of the Third World poor, who find themselves in what Bateson [71] has called a "double bind"—"a situation in which no matter what a person does, he can't win".

Effective self-medication and de-medicalisation move together; improvement of the drug supply and of self-medication in developing countries are attainable and desirable goals for the near future. This type of self-care does create dependency, an unavoidable temporary side-effect. One should not reject herbal medicines, nor other indigenous means for the maintenance and restoration of health. Their use and efficacy should be vigorously studied. One does however, reject the romantic idea of a total return to self-reliance—a notion which borders on a *cri coeur* for self-sufficiency. Galtung [18, p. 9] may protest loudly but the presence of foreign pharmaceutical in the Third World are not only irreversible, but under certain conditions are a potential and real benefit.

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APPENDIX I

Drugs sold in the informal sector at Ebolowa and their advised use (June 1980). Many other drugs were found during a follow-up research in November 1983.

Name of drug	Ingredients	Advised use*	
		A. By inscription	B. By vendor
1. Aspro	Aspirin	A. Against pains	
2. Aspirin	Aspirin	B. Against pains, fever, malaria	
3. Ampicillin caps	Ampicillin BP 250 mg	see 1	
4. Avion Garlic Pills	Hawthorn Powder 5 mg, Mistletoe 10 mg, Hop powder 3 mg, Garlic extract 50 mg, Rutin 2.5 mg	A. Against "run-down feeling, nervousness, easy tiring, lack of sleep, stomach troubles, liver pains"	
5. Ayrtons Pills		For energy	
6. Ayrtons Toothache Sol.	Camphor 10%, Menthol 1.25%, Ether 7.5%, Cajupot oil 2.5%, Clove oil 3.12%, Balsem Tolu 1%	A/B. Quick painkiller	
7. Arocin Caps		A/B. Quick painkiller	
8. Aureomycin Caps	Chlortetracyclin Hydrochloride	B. Strength	
9. Backache Pills	Juniper oil 0.008 ml, Dried extr. Buchering 10 mg, Methylene Blue BP 4 mg, Pot. Nitr. 60 mg	B. Against pain in back, joints and muscles	
10. Backache Tablets Rosmax Juniper	Extr. Buchering 10 mg, Pot. Nitr. BP 50 mg, Methylene Blue 10 mg, Extr. Uvae Ursi 20 mg, Extr. Casc. Sag. 15 mg, Oil of Juniper BPC 2 mg	A. Against pain in joints and back	
11. Bipenicilline injectable		A. See 8	
12. Calcium Glucanate injectable	Vitamin B ₁₂		
13. Cascara Sagrada BP	Cascara Sagr. 125 mg		
14. Chest and Lung Wonder Mixture		B. Purgative	
15. Didromycin Tablets	Dihydro streptomycin and Pantophenic Acid	A. Against cold/coughing	
16. Dramamine Tablets	Dimenhydrinate	B. Against gonorrhoea	
17. Drastin	Acetyl Sal. Acid 420 mg, Caffeine 35 mg	A. "Relief of colds, fever, catarrh, headaches and rheumatism"	
18. Dystenta Tablets	Calc. Carb. 150 mg, Cinnamon 60 mg, Nutmeg. BP 50 mg, Clove BPC 25 mg, Cardamon BP 15 mg, Sucrose BP 159 mg, Kaolin BP 150 mg	A. "For relief of diarrhoea, dysentery and stomach pains"	
19. Female Pills	Ferri Sulph. Exsicc. 120 mg, Aloes 12 mg, Manganese Dioxide 8 mg, Copper Sulphate 0.35 mg, Extr. Gentian 15 mg, Sod. Carb. Exsicc. 120 mg.	B. Ibidem	
20. Ferraspartyl	Ferr. Aspartate	A. No indication given	
21. Flavoquine	Amodiaquine Hydrochloride	B. Strengthens the blood of a woman who wants to become pregnant	
22. 'Folkolo' Caps (local name)	Tetracyclin	A/B. Against malaria	
23. 'Folkolo blanc' (local name)	Chloramphenicol but also Sulphathiazole (!)	B. Against fever, diarrhoea, gonorrhoea, measles, coughing	
24. Freedom Balm	Menthol BP 7.5%, Camphor 2.5%, Oil Euc. BP 3%, Terpeneol 2.5%, Methyl. Sal. BP 5%	B. See 22, but stronger	
25. Gold Medal	Medicated oil	A. Against pains in muscles, rheumatism, dizziness, insect bites, irritated skin	
26. Gonocure (solution)	1 kp. kpa, Mgb osq Udr. Sam OKpr. Ak, Og, Sqr, pint. (??)	A. Against influenza, cold, headache, rheumatism, stomachache, itching	
27. Hommels Haematogen	Haemoglobine 15 g, Blood Albumin plus, Blood Globulin 12 g, Glycerol BP 28 g	A. "The reliable urinary disease mixture"	
28. Hovotest	Ca. lactic BP 0.10, Testes 0.17, Pituitary anterior lobe 0.12, Lecithin 0.10, Muira puama extr. 0.45, Zinc Phosphor 0.05	B. Against gonorrhoea	
29. Huile Gomenotée	Gomenol	B. For energy and sexual potency	
30. Iron Tonic Tablets	Ferr. Sulph. BPC	A. Against cold and sore throat	
31. Liquifruta syrup	Various herbs	A. "Original blood is power"	
32. Lockharts Backache Pills	Pot. Nitr. 67 mg, Podoph Resin 0.1 mg, Capsicum Powder 1 mg, Uvae Ursi Pdr. 12.5 mg, Extr. Buchering 5 mg, Oil of Juniper 4 mg, Methylene Blue 4 mg	B. For energy	
33. Mintzenol	Thiabendazole	A. "For chest complaints, bronchitis, also for children's coughs"	
34. Dr Monroe's Worm Elixer	Piperazine Citrate	A. Against pain in back, muscles, joints	
35. Mucinum		A. "Kills 5 different kinds of common worms"	
36. Nivaquin	Chloroquin	A. Against roundworms and threadworms	
37. Oxyferriscorbonne	Fe 2 + Fe 3, Gluconate with Fe 3, Alloxane Acid	B. Against diarrhoea	
38. Penicillin G. vial.	Penicillin G	A/B. Against malaria	
39. Penicillin Ointment	10.000 IU	B. Against hypertension	
40. Penicillin Tablets	Pen. V 500.000 IU, Potass. B.P.		
41. Phensic	Aspirin 82.6%, Caffeine 5.75%	B. Against general pains, stomach ache	
		A. Against cold, fever, pains	
		B. Also against malaria	

APPENDIX 1 (continued)

Name of drug	Ingredients	Advised use*	
		A. By inscription	B. By vendor
42. Pile Tablets	Ferr. Sulph. 100 mg, Aloin BPC 15 mg, Hyoscyamus 15 mg, Phenolphthalein 80 mg	A. Against constipation and worms B. Against tiredness/gives energy	
43. '33' Pile Mixture		A. "Best remedy for treatment of pile, dysentery, diarrhoea and other belly troubles"	
44. Power Plus	Multivitamin 23 ingredients	A. "Supermultivitamin"	
45. Profénid	Ketoprofen	B. For strong blood A. Analgesic. Anti-inflammatory, Antipyretic B. For strong blood	
46. Quinacrin Caps	Mepacrin 100 mg	A/B. Against malaria	
47. Rayglo Laxative Tablets	Phenolphthalein 125 mg	B. For slimming	
48. Rayglo S. & V.	Methylene Blue	B. For energy	
49. Rayglo B. K. B.	Oil of Juniper, Methylene Blue, Extr. Buchering, Pot. Nitrate	B. For energy	
50. Rango		B. Against backache and pain joints	
51. Rheumatic Tablets		B. Against rheumatism	
52. Anti-Rheumatic Mixture		A. Against "rheumatism, nervous pains, excessive uric acid"	
53. Romycine		B. Gives energy	
54. Starmycin	Oxytetracyclin HCL, BP 250 mg	B. Against all pains	
55. Stomach Tablets	Bism. Salt 3.9 mg, Bicarbonate 15.6 mg, Kaolin 62.5 mg, Mg Carb. 220 mg, Ca Carb. 220 mg, Peppermint flavour 3.9 mg	A. Against stomach aches, flatulence, digestive troubles, stomach acid B. Against stomach ache	
56. Tabasan	Ephedrin BP 15 mg, Theobromin BPC 30 mg, Salicylamide USNF 60	A. Against asthma, hay-fever	
57. Terneurine H. 5000 injectable			
58. Tetracyclin Diamant	Tetracyclin	B. Against constipation, tiredness, gonorrhoea, wounds, coughing, scabies, pains in general	
59. Thiazamide	Sulphathiazole	B. Against all pains and malaria	
60. Thiodérazine injectable	Vitamin B ₁		
61. Top Tabbs	Aspirin 350 mg, Caffeine 30 mg	B. Against headache, toothache, fever, liver complaints	
62. Viscéralgine	Tiemonium	B. For women: stomach ache, pain of urinary tract	
63. Vitagland	Cerebrin dried 8.5 mg, Prostate dried 10 mg, Orthitic dried 8.5 mg, Supra renal gland dried 12.5 mg, Thyroid BP 12.5 mg	A. "For tired brains and jaded nerves; Renews youthful vigour" B. To increase sexual potency, to give energy B. Against headache and eye pains	
64. Vitasedine col.			
65. Vitamin B ₆ Capsules	Vitamin B ₆		
66. Vitamin B complex Tablets			
67. Vomitex	Creta Aromat 300 mg	B. Against vomiting	
68. Woodward's Celebrated Gripe water	Dill. water conc. 3.6%, Na Bicarb. 14%, Ginger Tinct. 3.67%, Syrup 15%	A. For children: "gripes, acidity, flatulence, and the distressing complaints incidental to infants at the period of cutting their teeth"	
69. Wonder Extra Strong	Paracetamol 400 mg, Caffeine 30 mg, Noscapine 7.5 mg, Phenylephrine 5 mg	B. Against difficult breathing	
70. Zubes Cough Mixture	Clove oil BPC 0.02%, Peppermint oil BP 0.02%, Aniseed Oil BP 0.07%, Ginger Oleoresin BPC 1968 0.01%, Capsicum Tincture BPC 0.50%, Chloroform BP 0.66%	A. "For quick relief of coughs, colds, sore throat"	

*No notation under A means: no inscription or insert available; no notation under B: vendor was not asked about use.

APPENDIX 2

Drugs sold in June 1980 in the informal sector at Ebolowa (South Cameroon), by pharmacological action (based on inscription or main constituent), derived from Visser [73].

<i>Analgesics, antipyretics, anti-inflammatory drugs</i>		Anti-rheumatic mixture
Aspro	Ayrtons tablets	Profénid
Asprin	Rayglo BKB	Phensic
Aspirol	Rango	Gold Metal
Top Tabbs	Rheumatic tablets	Drastin
<i>Anthelmintics</i>		
Mintezol	Dr Monroe's Worm Elixer	Notezine
33 Pile Mixture	Worm Elixer	
<i>Antibacterial drugs</i>		
Tetracyclin	Ampicillin	Extencillin
Tetracyclin diamant	Starmycin	Pidromycin
Chloramphenicol	Gonocure	Romycin
Penicillin G	Backache Tablets	Bipenicillin
<i>Antimalaria drugs</i>		
Quinacrin	Nivaquin	Flavoquin
<i>Anti-anaemia drugs</i>		
Iron Tonic (four kinds)	Ferrasparyl	Avion Garlic pills
Hommels Haematogen	Pilule Fortificant	(Calcium Gluconate, see vitamins)

APPENDIX 2—continued

<i>Antacids</i>		
Stomach tablets	Oxyferryscorbone-atropine	
<i>Antispasmodics</i>		
Visceralgine		
<i>Cathartics</i>		
Female Pills	Rayglo S & V	Petites Pilules Cartars
Mucinum	Dysenta	Cascara Sagradia
Laxatives	Purganol	
<i>Antitussive drugs/Antiasmatics</i>		
Ephedrine	Freedom Balm	Zubes
Chest & Lung Wonder Mixture	Big Boss	Liqufruta
Rob	Tarzan	Menthol
Vick's menthol	Tabasan	
<i>Vitamins</i>		
Vit. B complex	Vit. B ₆	Thiodérazine
Power Plus	Terneurine	Calcium Gluconate
<i>Antihistaminics (anti-allergy)</i>		
Dramamine		
<i>Ophthalmological preparations</i>		
Vitasédine		
'Pennine' eye drops		

APPENDIX 3

The Manufacturers and their products (derived from Visser [73])

1. Producers, appearing in the Martindale Directory of Manufacturers [74]

Ayrtons, Saunders & Co., 34 Hanoverstr., Liverpool	Ayrton pills (5), Ayrton Toothache (6), Tabasan (56), Rheumatic tablets (51)
Cupal LCT, King St., Blackburn; for: Ezekwenna, 33 Cameron Road, Aba Nigeria; Kanu & Sons, 119 Cameron Rd, Aba Nigeria; Obipharm, 91 Azikiwe Rd, Aba Nigera	Dysenta tablets (18), Drastin (17), Chest & Lung Wonder mixture (14), Backache pills (9), Tetracyclin KRKA (22), Iron Tonic (30), Vomitex (67), Worm Elixer (34), Tetracyclin diamant (58), Rayglo (47-47)
Liqufruta Ltd, Sanitas House, Stockwell Green, London	Liqufruta (31)
W. Woodward Ltd, Sanitas House, Stockwell Green, London	Woodwards Celebrated Gripe Water (68)
May & Baker Ltd, Dagenham, Essex	Thiazamide (59), Quinacrin (46)
Boots Ltd, Thane Rd, Nottingham	Aspirin (2)
Geigy (no further information)	Aureomicin (8)
Bayer (no further information)	Aspirin (2)
Nicholas Lab., 7420 Gajillard, France	Aspro (1)
Beecham prp., Great West Rd, Brentford, Middlesex	Phensic (41)

2. Producers, not appearing in the Martindale Directory of Manufacturers

Sharp & Dohme, Herfordshire	Mintezol (33)
Hommel Pharmaceuticals Ltd, Batley	Hommel Haematogen (27)
Lockhart & Co. Ashton, under Lyne, Lancs	Lockharts Backache pills (32)
Rosmarine Manufacturers & Co., London	Power Plus (44), Backache tablets (9), Cascara Sagradia (13)
Pliva, Zagreb, Yugoslavia	Starmycin (54)
Roberts Lab., Bolton	Pile tablets (42), Zubes (70)
John Bell-Hills & Lucas, East Grinstead	Top-Tabs (61)
Diopharm England Tortoise Brand	Female Pills (19)
Avion Pharmaceuticals, Box 229, Hamburg for: Falemi Pharmaceuticals Chem., Lagos	Avion Garlic (4)
Lakeside Lab Ltd, 9 Artillerylane, London	Vitagland (63)
E. Roepstorff, Hamburg 6	Penicillin tablets (40), Hovotest (20)
Tripharma, Hamburg 26	Penicilline tablets (40)
Odinkemere & Sons Comp., Regd. 154600, Lagos	Gonocure (26)
Onuzuke & Sons Comp., Lagos	Anti-rheumatic mixture (51)
J. Agbata, Lagos, regd. 160769	'33' pile mixture (43)
Gold Health Brand Ltd Lagos	Stomach tablets (55), Iron Tonic (30)
Leung Kai Fook for Singapore	Gold Medal (25)
Wild Cat, Omeire	Iron Tonic (30)
Theraplix	Oxyferriscobone (37)
Specia	Profénid (45)

Note: Numbers in parentheses refer to numbers in Appendix 1.

APPENDIX 4

Drugs and materials found in 12 houses in a village in Ntem, arranged according to place of origin (July 1980).

Pharmacy*	Private health centre	Public health centre	Informal sector	Friend or relative
Algotropyl	Aspro	Aspirin	Tetracyclin	Méthergine
Alcool 95%	Quinine	Nivaquin	Dr Monroe Worm elixer (2 ×)	Nivaquin (3 ×)
Resochine	Guidotti†	Huile Camphré		Algoprivé
Mercurochroom	Ferrofumeraat	Alcool 95%	Bezyl penicillin	Mercurochroom (2 ×)
Aspro	Phenergan	Mercurochroom	Vit. B ₁₂	Aspirin (2 ×)
Quinimax	Polysilanet		Bipenicillin	Hydrosol
DiénaI	Maalox†		Piperazin	Comycetine
Ozothine (2 ×)	Megazonet		Pen. Procaine	
Solaskil	Bronchodermine		Anti-Tetanus Serum	
Asprin (2 ×)	Bactrim			
Bévitine	Rovigon†			
Calcium-Corbière	Triphosadine-methyltestero†			
Tanderil	Eau de Mer			
Vit. B ₁ inj.				
Promethazine inj.				
Prevecamine				
Baume Algipan				
Piperol Forte				
Betadine				

In a village, about 30 km from Ebolowa, 12 houses were visited. The inhabitants were asked to show whatever medicines they had in stock. They were then interviewed about the origin of these drugs and their use. Most drugs on hand had been bought at a pharmacy, either in Ebolowa or in two other towns where the inhabitants had lived before. Fifteen drugs came from private (Catholic) health centres. Some of these drugs had been bought; others, including many samples, had been given to them. Many of these drugs came from Italy and carried Italian instructions which nobody could read. Eight drugs had been bought on the market, in a shop, or from a pedlar. Seven had been given by a friend or relative, often someone working in the medical sector. It should be noted that only five products came from a public health centre, and only one of these from the nearby (3 km) centre. The reason is probably that public centres distribute very few medicines. Many of the drugs were injectables, five of the nine bought in the informal sector. Some drugs could not be identified by us; others, it was clear, were wrongly identified by their owners. The most common drugs were quinin derivatives (seven houses), acetylsalicylic acid derivatives (six houses) and anthelmintics (five houses). The use of these three categories was correctly understood in all households.

*These drugs were bought in the pharmacies of Ebolowa, Mbalmayo and Bandjock.

†These drugs are free samples.