



HAL
open science

The circulation of antiretrovirals in Senegal

Marc Egrot, Bernard Taverne, Mounerou Ciss, Ibra Ndoye

► **To cite this version:**

Marc Egrot, Bernard Taverne, Mounerou Ciss, Ibra Ndoye. The circulation of antiretrovirals in Senegal. Alice Desclaux, Isabelle Lanièce, Ibra Ndoye, Bernard Taverne. The Senegalese Antiretroviral Drug Access Initiative, ANRS; UNAIDS; WHO, pp.197-210, 2004, 2-910143-23-6. ird-02069834

HAL Id: ird-02069834

<https://ird.hal.science/ird-02069834>

Submitted on 15 Mar 2019

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

The Senegalese Antiretroviral Drug Access Initiative

An Economic
Social Behavioural
and Biomedical
Analysis

anRS

Agence nationale
de recherches sur le sida



Joint United Nations Programme on HIV/AIDS
UNAIDS
UNICEF • WFP • UNDP • UNFPA • UNODC
ILO • UNESCO • WHO • WORLD BANK



World Health Organization

Alice Desclaux
Isabelle Lanière
Ibra Ndoye
Bernard Taverner
(Editors)

The Senegalese Antiretroviral Drug Access Initiative

An Economic, Social, Behavioural and Biomedical Analysis

Translated from the French by
Sharon Calandra
Alan Furness
Amy Karafin

April 2004

This publication should be cited as follows:

DESCLAUX Alice, LANIECE Isabelle, NDOYE Ibra, TAVERNE Bernard (Eds.), The Senegalese Antiretroviral Drug Access Initiative. An Economic, Social, Behavioural and Biomedical Analysis, Paris: ANRS, UNAIDS, WHO; 2004, 230 p. [L'Initiative sénégalaise d'accès aux médicaments antirétroviraux. Analyses économiques, sociales, comportementales et médicales, Paris: ANRS, 2002]

© ANRS, UNAIDS, WHO - Paris, 2004

ISBN 2-910143-23-6

Layout and Printing: Vassel - Palisse.com - Bron / France

Cover photograph by Christine Féraïlle

The authors assume responsibility for the contents of their article.

Citation de la référence :

Egrot M, Taverne B, Ciss M, Ndoye I, 2004, The Circulation of Antiretrovirals in Senegal, in Desclaux A, Lanièce I, Ndoye I et Taverne B, The Senegalese Antiretroviral Drug Access Initiative, ANRS, UNAIDS, WHO, Paris : 197-207.

This publication has been funded by the European Commission,
contract n° B7-6211/99/005.

The content of this report has not been approved by the European Commission and does not bind the European Commission in any way.

Chapter IV.3

The Circulation of Antiretrovirals in Senegal

M. EGROT, B. TAVERNE, M. CISS, I. NDOYE

When the effectiveness of antiretroviral (ARV) multi-drug therapy was announced in 1996, those infected with HIV in most African countries tried to obtain these medicines for themselves, before the public-health system had made any decisions or launched any programmes to this end. Various personal strategies were devised to overcome their very high cost and their lack of availability: buying them abroad (in Europe or North America), buying them through private pharmacies or from drug importers, visiting or even migrating to Northern countries, or arranging networks of donations (within families, or through personal networks or association connections). Some of these networks now feed the informal drug market, but they all sprang up before, and quite independently of, public-health directives — indeed, at a time when AIDS health policies specifically excluded the use of such medications in Africa. During this same period, a large number of “traditional” or “neo-traditional” medicinal remedies emerged. They filled the market for anti-AIDS therapies, so much so that in some countries they ended up competing with highly active antiretroviral therapy (HAART).

The national HAART access programmes, such as ISAARV, have now become the main channel for obtaining these drugs, but they have still not eliminated other distribution networks. The distribution of ARVs is therefore far from a linear path from the drug manufacturers, through the prescribers, to the users, which is why “circulation” is a particularly appropriate term to describe the complicated routes sometimes followed by these medicines.

This chapter will explore the circulation of ARVs outside the ISAARV programme.¹ How were the different ARV supply routes in Senegal affected by the establishment of the ISAARV programme? How did ISAARV influence the development of these distribution channels? Were they fuelled or slowed down? How and why do some means of circulation seem to avoid any system of control? These questions are considered in the context of the three main operators in the field of distribution: the drug wholesalers and private pharmacies; drug donations; and the informal drug market. Although for the sake of clarity, a distinction is drawn between these different channels, they are often closely interlinked, as we shall see.

¹ The results presented in this chapter have been obtained by qualitative methods. Between 2000 and 2002, surveys were carried out via conversations with PLWA, association members, health professionals, pharmacists, market traders, and professional drug distributors. In many cases, direct observation was conducted by anthropologists from the programme (private pharmacies, Fann pharmacy, or in associations) or by surveyors (markets).

Wholesalers and Private Pharmacies

The role of wholesalers and private pharmacies is closely linked to the history of the arrival of ARVs in the country.

The Wholesalers

From 1996, several doctors and pharmacists in hospitals felt the need to have a stock of the principal ARVs in use in Northern countries. They were used mainly to avoid any interruption in the treatment of people passing through Senegal who prolonged their stay in the country, either because they were hospitalised or, less commonly, because they were living in Senegal and ran out of their medication. Stocks of small quantities of the medicines were established from gifts made by doctors or associations in the North (see below).

In 1997, following an agreement with the National AIDS Control Programme (PNLS) — and with the approval of the National Pharmacy Agency (Direction Nationale de la Pharmacie; DNP) to import ARVs, which were not at that time authorised for public sale — three wholesalers (Cophase, Laborex, and Sodipharm)² agreed to carry stocks of some of these patent medicine. Clinical practitioners could then send patients who had the resources to pay for these drugs, in particular those with medical insurance. The wholesalers issued the medicines directly to patients, which was outside their normal field of activity, and agreed to take no profits from the medicines, which were then still extremely expensive, in order to keep costs down for patients. From 1997 onwards, the wholesalers assured regular provision for patients, and ARV distribution went from an occasional relief measure to one of regular supply. There was no other supply source in the health-care system at that time.

The launch of the ISAARV programme in August 1998 did not fundamentally change this situation. Those few people who bought their drugs from the wholesalers on a regular basis could not be — or less often, did not want to be — enrolled. In order to control ARV distribution, ISAARV programme managers and wholesalers agreed that the latter would only issue ARVs per the prescription of a doctor whom the PNLS had deemed competent in AIDS treatment. It was further agreed that the medications would be issued directly to the patient, and that their supply to private pharmacies would be banned. This was an oral, not written, agreement.

At first, the Fann Hospital pharmacy did not issue ARVs to people not enrolled in the ISAARV programme, but this restriction was lifted in March 1999. The drugs were thenceforth sold at the same price at all outlets. This opening up to “off-programme” patients followed an agreement whose main purpose was to prevent the medicines from expiring and the outlets from running out of stock. This agreement shows how close cooperation was between the wholesalers and ISAARV programme managers. Thus, up until the end of 2000, wholesalers sometimes loaned boxes of ARVs to Fann pharmacy in case of delayed shipments.

² The firms are referred to in alphabetical order.

This system carried on until the October 2000 reduction of ARV prices. This reduction applied only to the public sector, however; wholesalers maintained the old prices,³ which on average were four times as high as the new ones. The PNLs, concerned that “all Senegalese people” benefit from the reduced prices and aware that the ISAARV programme could not be the country’s sole source of ARVs, proposed that wholesalers obtain their stocks from Fann pharmacy. It then undertook to compensate them for the difference in price of their existing stocks by giving them a quantity of drugs valued at the amount of the difference. In March 2000, a first estimate of wholesaler-dispensed ARVs showed that between 20 and 30 people were supplied. By April 2002, only one wholesaler still had a patient who came each month to buy his drugs, the second wholesaler only made occasional deliveries, and the third had made none at all for several months.

At Fann pharmacy, a survey of prescriptions issued to “off-programme” patients over a period of three years from April 1999 to March 2002 shows a total of 225 issues. Only 38 of them were made during the first two years, an average of between one and two a month. Fifty were issued in the following six months (April to September 2001), an average of eight patients a month (minimum two; maximum 19). In the final six months (October 2001 to March 2002), 134 issues were made — an average of 22 patients a month (15–28). The opening of Fann pharmacy to “off-programme” patients resulted in a progressive and almost complete shift in ARV supply from the wholesalers to the hospital sector. The possibility of a rush of patients from neighbouring countries, which was raised when the ARV price reduction was announced, seems so far not to have been realised. During recent months, the number of new patients being treated “off programme” has been offset by the number in the ISAARV programme. In addition, the fact that the ISAARV programme is able to treat an increasing number of people (up from 80 in April 2000 to 450 in April 2002) has rendered marginal the number of patients treated “off programme” in the biomedical sector (from 35 to less than 7%).

ARV access for “off-programme” patients responds to several different demands. Some people come from neighbouring countries (Guinea, Mauritania, Mali, etc.)⁴ and have sufficient financial resources to pay for their journey and to buy their drugs every month. Among people living in Senegal are some who refuse to join the ISAARV programme because of the risk of exposure that accompanies so well-known a programme. For the same reason, some others continue to obtain their drugs abroad. Finally, a high proportion of “off-programme” patients (between four and ten people in the past two years) are salaried employees of Dakar-based firms. Some of them actually live in Dakar, others in neighbouring countries, and three come from more distant countries (Chad, Central African Republic). They have medical insurance, which covers between 80% and 100% of the cost of treatment. A few patients are not enrolled in ISAARV because of wrong ideas about it or from a lack of information. In addition, a considerable number of provisions to “off-programme” patients are made irregularly. They are made to people travelling or to those who

³ The Accelerating Access Initiative contract, signed by pharmaceutical companies and the government, stipulated that the undersigned drug manufacturers would no longer fill orders from private wholesalers in Senegal.

⁴ Not being a resident in Senegal is one of the exclusion criteria for ISAARV.

receive only intermittent treatment. They are sometimes made on a preventive basis, in the case of accidental exposure from sexual relations, and are paid for by certain Dakar-based organisations (in particular the health services of the Senegalese and French armed forces), or if there is a risk of mother-to-child transmission.

Most of these “off-programme” patients are treated by ISAARV doctors, sometimes in association with another doctor, particularly a company doctor. Some doctors from outside the programme, who work in hospitals or in private practice, provide repeat prescriptions for visiting patients or to prevent transmission. Only three doctors issued regular prescriptions for ARV triple therapy after having initiated treatment for the patient.

Private Pharmacies

People wanting to obtain ARVs soon turned to private pharmacies. The district of Dakar has more than 200 such pharmacies.⁵ Three surveys have been carried out in the past two years: the first by telephone, covering about 40 pharmacies (October 2001), a second by partly structured conversations with six pharmacists (2000–2001), and finally, a third survey of the ethnography of one pharmacy (August 2001).

Of the 44 pharmacies surveyed, ten had stocked ARVs in recent years; three have had them in stock but have never sold any (one of them through a donation from France, two others by orders placed with a wholesaler); seven others have supplied ARVs, sometimes several times to a patient. One of them had supplied ARVs for three years to two patients from The Gambia, the last provision being made in January 2002. In another one, more than ten prescriptions had been issued in two years, mainly to prevent transmission during sexual relations.

One pharmacy had obtained ARVs by express courier from a supplier in France for an occasional delivery of a first prescription for HAART, presented by a foreign resident who was about to leave Senegal. All the other pharmacists said they had ordered them directly from wholesalers in Dakar. The way the medicines were supplied was always the same: the wholesalers, who had been approached by telephone, asked the pharmacist to ensure that the patient was present, or failing that, to keep the prescription, and the drugs were delivered within hours of the order being placed by telephone.

Even if they do not receive many clients, the fact that ARVs have been supplied through pharmacies shows that patients in search of treatment do look to the private pharmaceutical sector. Some pharmacists, who have not supplied ARVs, say that prescriptions for these medicines are sometimes presented to them. Various sources say that these enquiries mainly come from people from other countries or from visitors who are not fully aware or informed of the situation. The survey also showed that the level of knowledge among pharmacists about the ISAARV programme and about ARVs was very mixed. This lack of knowledge often gave rise to unsuitable practices or advice (HIV testing without patient knowledge), lack of respect for confidentiality, bad advice to patients about the health-care system, sporadic provision of ARVs).

⁵ 173 pharmacists in the Health Professionals Guide, provided by the National Council of Doctors; 233 in the list of pharmacists registered by the DNP in 2000.

Up to now, the circulation of ARVs in the biomedical arena, outside the ISAARV programme, is mainly carried out by wholesalers and Fann pharmacy. The PNLs controls this circulation. In 2002, about 20 patients were concerned (nearly five percent of the total number under HAART in Senegal). This treatment is almost always prescribed within the health-care system by doctors experienced in the use of the drugs in conformity with prescription recommendations. The circulation of ARVs from private pharmacies still seems very limited. It concerns only a small number of people, usually for the occasional supply of visitors or foreign residents.

Donations

Medicine donations from Northern countries to those of the South is an old tradition, one of the principal expressions of contemporary medical humanitarianism towards “poor countries.” A great many social activists are involved in collecting and sending medicines — individuals acting of their own accord, charitable and professional organisations, health organisations, governments, international organisations, manufacturers, etc. Donations can equally be made by people in the South and can be made between PLWA, sometimes as a way of sharing treatment. A very wide range of different situations of donations and donors has been identified in Senegal.

The sharing of treatment between spouses, family members, or friends can be regarded as the first kind of donation. Donations between individuals made on their own account can be hard to identify, but several health professionals and patients have cited examples. These gifts are often made among members of the same family, as shown in the following account:

In May 2000, a woman came for a consultation with the nurse at the medical centre in the town of Kidira, a small town near the borders of Mali and Mauritania, some 400 kilometres from Dakar. She brought with her two boxes of Retrovir® 250,⁶ saying that they had been sent to her by her husband living in France, with a message that she should go to the nurse to have an explanation of how the medicine should be taken, but without any word about the illness it was supposed to cure. The nurse then heard that the man had been “very ill for two years, and had gone to France for treatment.”

The extension of the number of intermediaries involved in sending personal donations sometimes leads to unfortunate results over where the drugs end up. In April 2000, a French hospital doctor asked one of his colleagues coming on a mission to Senegal to take with him a one-month ARV treatment. It was intended for a young woman living in Senegal, whom the doctor had been treating for a long time in France. Passed on to a third doctor working in Dakar, these drugs never reached the person they were intended for, because of a mistake in the woman's address. Several months later, they were handed in to the Fann pharmacy before they reached their expiry date. The same thing happened with two packets of Videx®, sent from a hospital in France to a doctor working with ISAARV, after having followed a complicated trail — through a woman working

⁶ The two packets were unopened, but there was no label. Both packets had the same batch number and the addressee of this batch from the pharmaceutical firm that had produced them, which assured that this batch of medicine had been distributed only in France.

in France, her mother living in Dakar, the owner of a pharmacy who kept them for several months, one of his employees, and then a social worker. Donations are not necessarily sent to someone in need of them. They are often given to health professionals, but can sometimes also help to stock the informal drug market (see below).

A large number of charitable organisations in the North collect and send medicines to health centres or associations in the South. Two associations have been identified as having received ARV medications. One has received Retrovir® from time to time; the other has received ARVs regularly, at least up to the beginning of 2000. After that date, no further entry of ARVs are recorded in the association's medication log, although some doctors reported that this place was an occasional supply source and that a portion of their ARV stocks came from here. In 2002, most of the doctors involved in treating PLWA had set up small stocks of ARVs — usually not more than four or five packets of the drugs most commonly used — from donations sent by their colleagues in the North or from donations found with local associations. These medicines are used in emergencies, most often to prevent any interruption in treating patients who are “off programme.” These doctors manage these stocks themselves, along with all the other small lots they come by, notably those they receive as samples from laboratories.

Through the relationships that they have established in countries of the North, ISAARV doctors have been able to obtain more substantial donations from institutions. Thus in 2002, a lot of 50 packets containing eight different molecules was provided by the Bordeaux Town-Hospital Network (Réseau Ville-Hôpital de Bordeaux). This gift followed contacts set up during a professional meeting between doctors from ISAARV and those from this network. This lot of medicines was incorporated into the Fann pharmacy stock.

ARV donations are very seldom made directly to the Health Ministry or to the PNLs. Contributions to the development of ISAARV through bilateral cooperation almost always come in the form of money.⁷ Some drug manufacturers, who refuse to reduce the price of their products, make an “offer” of one or two packets for each packet that is bought. This kind of donation is really a form of commercial negotiation. In April 2002, for the first time, a substantial in-kind donation was made to the Health Ministry by a Senegalese association Africa Helps Africa (Afrique Aide l'Afrique), which offered 1424 packets of ARVs.⁸ Donations to the Ministry of Health or to the PNLs are put into the usual distribution circuit for ARVs (Fann pharmacy).

In order to reduce improper use of these drugs, the PNLs soon recommended that all donations pass through Fann pharmacy. This was aimed at preventing these drugs from circulating without any control and to make the best use of them through ISAARV. This policy of centralisation allows for use of the largest donations, in particular the donations from institutions, which have sometimes been encouraged by ISAARV professionals. This centralisation only works in

⁷ This is the case with the most recent French initiative: the ESTHER programme provides for a fund of 600,000 euros, to be managed by the PNLs, to provide for the treatment of 450 patients over three years. The ARV medicines are provided from the usual ISAARV circuit.

⁸ This donation was made up of three molecules in the form of four patented medicines (Retrovir® 100 mg; Epivir® 150 mg; Trizivir®; and of Combivir®), for a value of 70,868,000 CFAF.

part. It is clear that most individuals in the country are unaware of this provision. Nevertheless, some associations supporting PLWA have submitted the few packets that they may have been able to obtain. On the other hand, some doctors who prescribe ARVs keep for their own patients the small number of packets of these drugs they receive.

The value of some donations is limited by the variety of molecules that are sent in small quantities and cannot be used, because they do not fit into the anti-retroviral regimens used in Senegal. Between August 1999 and July 2000, 100 packets of ARVs from various donations were registered at Fann pharmacy. The sample comprised seven molecules (3TC, AZT, d4T, ddI, ddC, nelfinavir, saquinavir) in the form of eight patent medicines (Combivir®, Epivir®, Hivid®, Retrovir®, Videx®, Viracept®, Zerit®, Fortovase®). One was in two forms and the other in five (thus in 13 different forms). Among these patented medicines, three have not yet been used by ISAARV (Hivid®, Fortovase®, Viracept®).

In addition, some of the drugs are at, if not beyond, their expiry date. They therefore need to be destroyed, which means extra work and extra expense. Forty-seven of the 81 packets in stock in July 2000 were already expired. At the beginning of 2000, two cartons of ARV medications, sent by an association in France, had to be burnt, since they reached Dakar after their expiry date. This lack of care is not peculiar to associations alone. At the end of July 2000, the local representative of the firm Bristol-Myers Squibb donated 30 packets of Videx® 100 mg, due to expire at the end of the following month.

When medicines are received by the Fann pharmacy, their future use is straightforward and guaranteed to conform to the recommendations, as they are simply added to the existing stocks. They are given to ISAARV patients or to “off-programme” patients, or else they are destroyed if expired. The use of drugs controlled by ISAARV doctors creates no special problems.

Some donations, for various reasons, fall outside the centralised system of the Fann pharmacy and circulate within the care system, with the PNLs unable to control their distribution. Some of these donations can be recovered by ISAARV doctors, which means that their proper use can then be assured, usually for “off-programme” patients. These are usually donations inside families or between persons, made on compassionate or humanitarian grounds, and are connected with the non-availability of treatment, either genuine or supposed through lack of information. These donations are not made very often, are small in quantity, and can easily be reduced, as more and more patients are included within the ISAARV programme and as better information is spread about treatment availability and accessibility in Senegal. Some of these donations end up with people or associations uninvolved in the fight against AIDS, untrained professionals, or health services that have little to do with AIDS. In all these situations in which the donations are badly targeted, the risk of loss and of drugs being sold off is particularly high, with some of them reaching the informal drug market.

The Informal Drug Market

The sale of medicines in markets or on the streets is a well-developed commercial activity in Senegal, as it is in the rest of Africa [3, 6, 7]. The low prices usually charged, the chance to buy individual tablets, the less restrictive nature of exchanges about the illness and the medicine [5], are all factors that contribute to its flourishing. The most recent molecules are sold there very quickly, and one would expect to find ARVs there as well.

The sale of these drugs in African markets has been observed in Cameroon and in Togo since 1998.⁹ The hypothesis that ARVs would be circulating in the markets in Dakar was thus made at the start of the programme. In Senegal, medicines are on sale in practically every market and everywhere that people go (crossroads, bus stations, ports, etc.). In February–March 2001, a preliminary survey conducted in Dakar covered 29 such places, where 135 sellers were identified. Each seller dealt in 20 to 60 different patented medicines, depending on the extent of his activities. None of these sellers we met during this initial survey had any ARVs, and none of those who agreed to speak to us knew about these medicines.

But the informal trafficking of medicines in Senegal is not confined to these widely dispersed locations, which form only the base of a highly organised and structured commercial edifice, largely controlled by members of the Muslim Mouride Brotherhood. Two places are particularly known for their sale of pharmaceutical products: Touba, the holy city of Mouridism, some 190 km east of Dakar (founded by Cheikh Amadou Bamba, the Brotherhood's founder [2]), and the Keur Serigne Bi Market in Dakar, which, as its name suggests, is the "House of the Marabout" of Touba. The scale of commercial activity in these medicines in these two places is quite high because the wholesalers that supply all the country's vendors are based there, and the volume of products sold is substantial. A wide range of pharmaceutical products is available, and one can even find the most recent medicinal products there, sometimes before their arrival on the official distribution circuit.¹⁰ The ARVs identified on the informal drug market have all been found in these two places. Injectable Retrovir[®] was the first product identified at the beginning of 2000. Later the same year, Retrovir[®] in capsules was also seen, as were Videx[®] and Zerit[®] 40. Altogether at the beginning of 2002, eight molecules were identified in the form of ten patent medicines, three of them in different dosages: Epivir[®] 50, Combivir[®], Crixivan[®] 400, Efavirenz, Retrovir[®] 100 and 250, Trizivir[®], Videx[®] 100 and 200, Viracept[®], Zerit[®] 30 and 40, and most recently, Avocomb[®].

The prices of these medicines followed the reduction of prices agreed to by the pharmaceutical industry: injectable Retrovir[®] was being sold at Touba at the beginning of 2000 for 125,000 CFAF per packet; in June 2001, three packets of Crixivan[®] 400, Retrovir[®] 100, and Videx[®] 200 were being sold at 40,000 CFAF. In the same way, Zerit[®] 40 was sold for 120,000 CFAF per packet in July 2000, and at 12,000 CFAF the packet in January 2002. In September 2001, two boxes of Epivir[®] 150 and of Videx[®] 200 were on sale for 30,000 CFAF for the two boxes.

⁹ They had not appeared in Burkina Faso at the time of the first survey on this topic in 1998 (cf. [1]).

¹⁰ This was particularly the case with Viagra[®], which appeared almost immediately after it was put on the market in the United States.

The batch numbers showed that most of these products came from countries in the North. No counterfeit products have yet been identified. What is happening is the resale of donations, or of products that have leaked from the health facilities, or through more elaborate plans of collecting medicines in the North for sale in Senegal. Only 13 packets had batch numbers identical to those in the official distribution system (ISAARV and wholesalers), which suggests a very marginal outflow from one of the official centres of distribution, or the return of medicines after a change in therapeutic regimen, or alternatively, which is more likely, the resale of drugs by a small number of patients.

Various indicators suggest the emergence since the end of 2001 of strategies to expand this commercial activity: several sellers are aware of different ARV medications, and can clearly identify them as “AIDS medicines.” Some others test the possibility for sale by offering “samples,” which they do not want to sell immediately, reserving the possibility of a supply adjusted to demand. One of them in January 2002 held a lot of 20 packets of Zerit® 40,¹¹ which implied a considerable investment and suggested that he already had a guaranteed sale. And some sellers put ARVs on the market and themselves proposed inadequate prescriptions: Weekly or monthly injections of Retrovir® cited in 2000 seem to have been given up. Instead, the sellers advise, dual therapies (AZT + ddI), or a mono-therapy with Zerit® 40, would be more effective than a triple therapy.

These surveys confirmed the presence of ARVs on the market, but showed the limited nature of their presence. The rigorous control of distribution within ISAARV makes it very difficult to attempt any diversion of drugs. The attention and the follow-up given to patients also restricts the possibility of medicine resale.

Conclusion

We have deliberately excluded from this chapter the vast subject of “traditional” or “neo-traditional” medicines, although a great number of healers propose such remedies for AIDS and some even propose “new treatments derived from ancestral wisdom and confirmed by experiment.”

The results of our research show that very few patients receive HAART prescribed by doctors outside the ISAARV programme (about 20 people in 2002). A third of these people have medical insurance from their employers based in Dakar. Most of these patients are not enrolled in ISAARV because they work or live outside Senegal. The rest are well-off people who live in neighbouring countries or who prefer to be treated in the private medical sector or abroad, or those treated by doctors in the margins of ISAARV, who sometimes prescribe non-conventional HAART. At the end of the first half of 2002, almost all these patients obtained their ARVs from Fann pharmacy; one obtained them from a wholesaler.

¹¹ The batch numbers of all the ARVs found in these markets were noted. The pharmaceutical firms producing these patented medicines were asked at the end of 2001 and the beginning of 2002 to identify the institutions to which these different batches had been sold (depending on the medicine, a batch contains between 1500 and 9000 boxes). Two firms, which had agreed to provide this information, had not responded by the time this article went to press, which is why we cannot state for certain the origin of this lot of 20 packets.

Aside from those places officially authorised to distribute ARVs to people not enrolled in the ISAARV programme, the other medicines that circulate in Senegal outside the programme mainly come from donations from Northern countries and, very infrequently, from sales by private pharmacies. Some ARVs that have been sent as donations have been found on the informal market or, in small quantities, in private pharmacies, with doctors, or in associations.

Some writers have expressed fears that the creation of HAART access programmes in Africa would lead to the uncontrolled trafficking of these drugs [4], particularly through indirect supply to the informal market. The situation in Senegal shows that most of the channels of circulation had been set up before ISAARV was launched, by a group of operators who sought to improve accessibility to these drugs and sometimes to profit in so doing, and that most of the drugs in circulation, apart from those controlled by the PNLS, did not come from the programme itself.

Senegal combines a low rate of HIV prevalence, a government initiative for treatment access, and strict control of ARV distribution. From the agreements made with wholesalers, the opening of the Fann pharmacy to “off-programme” patients, and the centralisation of donations, the PNLS has succeeded in restricting a significant portion of the circulation network that existed prior to ISAARV.

Despite this very favourable situation, there is some circulation of ARVs outside the distribution networks officially authorised by the PNLS (ISAARV and wholesalers), though it is at a very low level. This will probably persist for some time, largely for reasons outside the control of ISAARV. Most public-health programmes (the fight against tuberculosis and leprosy, the promotion of contraception, etc.) — including but not limited to those that provide free treatment access — do not bring an end to the informal-sector circulation of the drugs they distribute. The issue is understanding this circulation: to control it and to keep it at as low a level as possible calls for an analysis of the networks and of the reasons for the circulation, as well as a system of surveillance that is capable of quickly detecting any possible expansion. It also means facilitating access to high-quality biomedical treatment in the health-care system. The expansion of the programme, its decentralisation, access to ARVs at a reduced price — or free—and good information for the population and health professionals (doctors, pharmacists, associations, etc.) about the programme and how to access it will probably eliminate many channels of circulation, particularly interpersonal donations and some donations from associations in the North.

References

1. Bronsard G. *Les polythérapies antirétrovirales au Burkina Faso en 1998*. Working Document, IRD Ouagadougou. Aix-en-Provence: Laboratoire d'Écologie Humaine et d'Anthropologie, 1999: 52 pp.
2. Copans J. *Les marabouts de l'arachide*. Paris: L'Harmattan, 1988: 280 pp.
3. Fassin D. *Pouvoir et maladie en Afrique*. Les Champs de la Santé. Paris: PUF, 1992: 360 pp.
4. Harries AD, Nyangulu DS, Hargreaves NJ, Kalawa O, Salaniponi FM. Preventing Antiretroviral Anarchy in Sub-Saharan Africa. *Lancet* 2001; 358: 410–4.
5. Jaffre Y. Pharmacies des villes, pharmacies "par terre". *Bulletin de l'APAD* 1999; no 17: 63–70.
6. Van der Geest S, Reynolds Whyte S. *The Context of Medicines in Developing Countries. Studies in Pharmaceutical Anthropology*. Dordrecht, Boston, London: Kluwer Academic Publishers, 1988: 394 pp.
7. Werner JF. Marges, Sexe et drogues à Dakar. Enquête ethnographique. Paris: Karthala-Orstom, 1993: 292 pp.