

MANAGEMENT SCIENCES FOR HEALTH
A NONPROFIT INSTITUTION

AGAPCO

AGAPCO

This case was prepared by J. A. Bates. The purpose of the case is to serve as a basis for group discussion rather than to illustrate either effective or ineffective handling of projects.

Copyright © 1984, J. A. Bates, Management Sciences for Health.

PART ONE

The Decision to Sell Drugs

In August 1980, Haiti's Ministry of Health and the United States Agency for International Development launched a major new project designed to strengthen the Ministry's management systems and greatly expand the health services provided in rural areas. Called the Rural Health Delivery System's Project or RHDS, the overall objective of this bilateral effort was ambitious: at the end of 5 years there would be functioning "a community based health care service system that would provide preventive health care services to about 3,000,000 rural Haitians."

One component of the Project that had provoked considerable and often heated discussion among the Ministry's senior decision makers was management of drug supply. Over the 5 year life of the Project the seemingly enormous sum of \$3,174,000 would be made available to purchase drugs. To many of the Division Chiefs this seemed like a windfall solution to the chronic problem of inadequate drug supplies, and they greeted with approval the Project's plan to dispense the drugs without cost through the Ministry's network of health care facilities. Others, most notably Dr. Claud DeFay, Chief of the Division of Public Assistance, were somewhat skeptical.

"Oh sure. Everything will be fine as long as the Project lasts," he told a group of his colleagues at the Director General's monthly planning meeting. "It will provide us with about \$635,000 for drugs each year. That added to the \$240,000 that we are already spending will give us an annual drug budget of \$875,000. But what are we going to do when the Project runs out? Where will the drugs come from then?"

No one had a definite answer to these questions. But those who knew Dr. DeFay understood that he had posed them rhetorically. "Now I have here a proposal", he intoned solemnly, "that would make the Ministry self sufficient in drugs..."

Several times over the past year and a half, Dr. DeFay had attempted to interest the Ministry in a plan to institute a National Drug Sales Program, called AGAPCO, that would procure pharmaceutical products through a central agency and distribute them for sale through a network of community owned pharmacies. Slowly but surely he was making headway and it appeared that his colleagues were ready to take the plan seriously.

If adopted, the proposal to sell drugs would mark a dramatic departure from the Ministry's traditional policy of giving them away. For

this reason, the Director General asked his senior decision makers to carefully consider the feasibility of selling drugs for the Ministry's Health Care system. He, himself, had several questions to pose: Why, exactly, would the Ministry have to sell drugs? How would this improve health care? What about competition from commercial pharmacies? How did the RHDS Project figure into the proposal? How would the drug sales program work?

Dr. DeFay realized that he would need to provide concrete answers to these questions if his proposal was to become a reality.

Principal Health Problems

In 1978, the most recent year for which data were available, Haiti had a population of 4,500,000 of which 77% or 3,700,000 persons lived in rural areas. The table below presents some of the basic demographic statistics:

Total Population	4,500,000
Population Density/Arable Land	410 persons/km ²
Crude Birth Rate	36.8/000
Mortality rate for 1 to 4 years	45/000
Average Life Expectancy at Birth	52.2 years
Population Growth Rate	2.0%

In a report submitted to the National Palace that year, a former Minister of Health * made the following general assessment:

The most pressing general health problems are protein and calorie malnutrition, tetanus and gastro-intestinal diseases. It is estimated that 80% of the Haitian population under 5 years of age suffers from mild to severe malnutrition. Tetanus, especially among babies of 1 year's age or less, takes a heavy toll. Umbilical tetanus accounts for a large part of the 149 per 1000 live birth rate of infant mortality. Lack of sewage disposal and clean water contribute heavily to health problems in both urban and rural areas.

Among the communicable diseases most frequently reported are the following: Influenza 22%, worms 21%, malaria 18%, diarrhea 14%, respiratory diseases 8% and tuberculosis 7%.

*For reasons of administrative convenience Haiti's President for Life changes his Ministers of Health every 11 months, on average.

Communicable diseases cause approximately 26% of all deaths from known causes. Of these, 63% are children under 5 years of age. This high figure reflects the mutual reinforcement of nutritional deficiency and communicable disease.

Overview of the Pharmaceutical Sector

When serious discussion about the AGAPCO drug sales program began in April 1981, the information available on Haiti's pharmaceutical sector was neither complete nor consistent. A review of facts and figures covering the preceding 4 years provided a composite description of activities.

The CIF* value of pharmaceutical products imported into Haiti during the fiscal year October, 1977 through September, 1978 was estimated at \$5,938,000. Of this figure, finished products represented 90% or \$5,349,500. The remaining 10% or \$588,500 worth was imported as raw materials and compounded into finished form by local manufacturers.

Of all the drugs available, an estimated 86% or \$4,886,000 worth reached the public through commercial distribution channels. There were 41 wholesale distributors in Haiti (including 5 concerns that could be also classified as manufacturers). They distributed most of their products through a network of 143 commercial retail pharmacies. Of this number, 114 pharmacies were located in and around Port-au-Prince and 29 were located in Haiti's other cities including 9 in Cap Haitien, 5 in Gonaives, 5 in Jacmel, 4 in Cayes, 3 in Jérémie, 2 in Hinche and 1 in Fort Liberté. (See Annex One.) With this geographic distribution, about 25% of the population had ready access to commercial pharmacies.

Some of these drugs--the exact proportion was not known--reached the public through the non profit segment of the private sector. This consisted of religious and philanthropical organizations that provided primary curative health services through 159 clinics, most of them located in small towns and serving rural populations. These organizations also imported some drugs directly, and though the quantity was difficult to estimate, it was not thought to be great.

The public sector, primarily the Ministry of Health, distributed the remaining \$1,052,000 worth of drugs. The principal channels of distribution were the Ministry's network of 178 clinical facilities and the National University Hospital. The Ministry's share was \$740,000 of which \$240,000 was purchased locally from its own operating budget and 500,000 was provided by assistance agencies such as AID, UNICEF, UNFPA, and PAHO. The National University Hospital directly purchased \$312,000.

Import duties were fixed at 15% for finished products and 30% for raw materials. Inadequate information on prices made it difficult to determine average wholesale and retail mark ups. Several distributors placed wholesale prices at about 30% over wholesale costs and retail prices at about 10% over

*Cost, insurance, and freight.

wholesale prices. Applying these percentages to the value of drugs imported in 1977-78 produced the approximations shown in Annex Two.

The 41 wholesale distributors represented approximately 300 laboratories located in 40 different countries. No system for drug registration existed in Haiti and so it was not possible to determine how many different products were being imported. By one loose estimate, the figure was in the range of 4,500 to 9,000 products.

Public advertising was not permitted for ethical products, except of course in medical journals. Accordingly, promotion of these products was handled primarily by "démarcheurs" or detail men who worked for the wholesale distributors. They visited physicians, pharmacies and clinical facilities at a rhythm of approximately once a month depending on demand. The clinical facilities, both public and private were a low priority because they received most of their drugs from the Ministry of Health or private donors. The detail men spent most of their time on physicians, because, as one of them stated, "there are so many products on the market that we have to keep giving out samples to keep the name in their minds when writing out prescriptions."

The results of these marketing efforts are given in Annex Three which shows Haiti's fifteen top selling pharmaceutical products for 1979.

The Ministry of Health

Administration and Finance

The Ministry of Health is responsible for supervision and control of all public health activities in Haiti. Employing approximately 6,000 persons in 1981, the Ministry was structured in three levels as shown in Annex Four. The principal organizational features were:

- * The Central Ministry, containing the administrative or management support divisions and the technical divisions, which provided normative guidance for the delivery of health services.
- * The health districts, which constituted an intermediate level of administration through which policy, determined at the central ministry, was transmitted to health care providers working in clinical facilities at the local level. There were eleven districts, each managed from a bureau located within the district.
- * Three of the districts had been organized into two health regions--the North and the South. Eventually, all of the districts were to be organized into five such regions, but the process by which this would occur was not defined and the Ministry had no clear plan for achieving this goal.

A major portion of the health services in Haiti were provided through the non-profit private sector. Charitable and philanthropic organizations staffed and supplied 131 clinical facilities.

Between those purely public and those purely private, there was an intermediate category of health service facilities. There were 28 of these "mixed" facilities, which generally were managed and supplied by private organizations but staffed by Ministry of Health personnel.

Types and numbers of facilities in each of the three categories are shown in Annex Five. Average numbers of patient contacts for these facilities are shown in Annex Six. Finally, the types and numbers of personnel working in the Ministry's own facilities are shown in Annex Seven.

Overall, the Ministry could be described as a system designed to produce health services by using three inputs: physical facilities and equipment, personnel, and expendable supplies. The recurring costs of these inputs were financed by the Operating Budget, for which Annex Eight presents the figures for fiscal year 1980-81. Annex Nine shows the monies allocated for the Ministry's operating budgets for the five years from FY 1976-77 through FY 1980-81.

Foreign assistance programs, both international and bilateral, financed virtually all of the development costs of the Ministry's health system. This financing included building construction, procurement of vehicles and other equipment, and specialized staff training. The principal donors were USAID, the World Bank, UNICEF and UNFPA. An analysis of the Ministry's seven principal development activities estimated that they would add \$10,100,000 to annual operating costs over the next five years.

Approach to Drug Supply

For private and mixed facilities, drugs were supplied by their sponsoring organizations. For the Ministry's hospitals, health centers and dispensaries, this responsibility was undertaken by the Section of Supply and Procurement. Each month, the Section purchased approximately \$20,000 worth of drugs from local suppliers. Although there was no official list, by custom the Section procured the same products each month varying only the quantities of certain products depending on the exact amount of money available for spending. The fifteen largest purchases for a typical month are shown in Annex Ten. In addition to this there was another \$500,000 worth of drugs made available by assistance agencies on an annual basis.*

Storage conditions at the Central, Regional, District, and facility levels were, more often than not, inadequate. The central warehouse, for example, flooded each fall during the rainy season. There were no system wide stock control or other supply management procedures. In general, it was the responsibility of recipients to collect their stocks from the central warehouse once each month. The manner in which these supplies were divided up was not uniform. In some cases (North and South), entire regions received one

*There is some divergence between list of drugs provided by assistance agencies and the list purchased by the Ministry from its own budget.

shipment. This was broken down for redistribution to individual facilities at the regional level. The same was true for some districts (Port-au-Prince and Gonaives), For other districts (Port-au-Prince and St. Marc), each facility sent a representative to pick up its allotment. In all cases, once the drugs reached the clinical facilities they were dispensed free of charge on a "first come-first served" basis.

The quantities of drugs that the Ministry was able to supply were considered very inadequate by the district directors and the administrators of their clinical facilities. "It's about a week's supply," said one person interviewed, "and the drugs they send aren't the ones we need." Site visits to numerous facilities indicated that most of the drugs provided by the Ministry were distributed primarily to the district hospitals and larger health centers. Remote facilities including most dispensaries received little or nothing at all.

The RHDS Project and the Ministry's Drug Supply

The Ministry of Health and AID agreed to collaborate on the RHDS Project for the purpose of creating and progressively expanding a primary health care system that would eventually serve three million persons.

At the Central, Regional, and District levels, the RHDS Project envisioned improvements in specific areas of management support services required for effectively administering a national health care system: finance, personnel, transport, supply, and building maintenance. As the Ministry's capacity to manage these support services improved, a rural health services delivery system would be put in place and progressively expanded. The system was to be based on a cadre of lower echelon health workers that would eventually include 550 dispensary-based nursing auxiliaries and 1500 community-based health agents. The Ministry's health centers and hospitals would continue to form the upper echelons of the referral system, but they would not receive attention under the RHDS Project. To assist the Ministry in carrying out all of these activities, the Project provided for a technical assistance team consisting of eight advisors. Annexes Eleven and Twelve summarize respectively the financial resources planned for the Project and the major outputs which they would produce.

RHDS provided for a substantial increase in the Ministry's drug supply. For this purpose, it budgeted \$967,000 in AID grant funds and \$2,187,000 in Government of Haiti local currency funds.* To assure the most effective use of these new resources, the Ministry decided to review its current pharmaceutical procurements and develop a standardized drug list on which to base future procurements. A working committee, composed of Dr. DeFay, the Public Health Physician, and the Supply Specialist from the Technical

*On the basis of an analysis of Haiti's principal health problems and current drug prices, Project planners estimated that drugs for primary health care services would cost an average of \$0.70 per person annually.

Assistance Team used available epidemiological information to produce a restricted list of generically named products for treatment of Haiti's priority health problems (Annex Thirteen). While other drugs might be required to treat certain conditions, the Ministry decided that it would provide through its own channels only those products on the new standard list.

By March, 1981, the Ministry had approved the list and it was time to start buying. At this point a difficulty arose concerning the specific products that could be purchased with funds from different sources. Under the terms of the Project Paper, AID was committed to spending its funds, which were in US dollars, only for those drugs that would be provided through dispensaries and health agents operating in rural areas. According to regulations US dollar funds could be spent only for drugs that meet FDA standards of quality; in practice, this meant that they had to be procured from the United States or from UNICEF. The Ministry was responsible for providing drugs for health centers and hospitals from its own funds, which were in local currency. This situation posed the following dilemma: Many of the "physician prescribed" products that the Ministry wanted for the upper echelons of the referral system were either not available in Haiti or were available only at high prices. At the same time, local manufacturers compounded many of the more basic products that AID was willing to provide and these were available at relatively low prices.

In the interest of rationalizing the procurement of all drugs on the standard list in the most economical fashion, the Ministry and AID reached an agreement based on the following strategy: AID would use some of its dollar funds to procure, from the US or UNICEF, those hospital/health center drugs that were not available in Haiti at good prices. For its part, the Ministry would assure that drugs intended for use at the dispensary/health agent levels, and which were best bought locally, would be available in adequate quantities. Annex Fourteen lists drug procurements by source.

The AGAPCO Proposal

In May 1979, Dr. DeFay had worked with a WHO consultant* to develop a proposal for a national program that would provide drugs for sale at the Ministry's clinical facilities. Revenues from the sales would be used to purchase replacement stocks so that the program would be able to resupply itself independently of the Ministry's operating budget. Because government policy required that all services at Ministry of Health facilities be provided free of charge, the Ministry itself could not sell the drugs. To overcome this obstacle, the proposal called for the drugs to be sold through a network of "community pharmacies."

Under the community pharmacy concept, an allotment of drugs would be given to the communities in which Ministry of Health facilities were located. A community council or other representative body would take charge of the drugs and be responsible for preparing a space in which to set up the pharmacy and for hiring a clerk to sell the drugs to patients on a prescription basis.

*Dr. Remauld Johnson of Togo, which has an active and well developed drug sales program.

Each pharmacy would use the revenues from sales to replace stock, cover losses, cover give-aways to indigents, and pay the clerk. To assure that funds were sufficient for all of these expenses, the pharmacies would sell their drugs at a standard mark-up of 10% over cost.

Resupply for the entire network of pharmacies would be guaranteed by setting up a central management unit that would be responsible for procuring and distributing the drugs. This unit would be an autonomously-managed parastatal organization and was tentatively called the Agence d'Approvisionnement des Pharmacies Communautaires or AGAPCO.

The concept of community pharmacies did not originate with the AGAPCO proposal. At the time that Dr. DeFay and his colleague were preparing their proposal, there were eight such pharmacies already functioning in Haiti. Individual Health District Administrators had set them up on their own initiative and all eight functioned independently of one another, each responsible for resupplying itself as best it could from the private pharmaceutical sector.

The results of these separate experiments were mixed. Some did brisk business, while others were marginal-to-failing enterprises. Some enjoyed high esteem within their communities while others were regarded as the court of last resort. One characteristic that they all had in common, however, was shelves cluttered with a wide variety of brand name products that had no apparent relation to Haiti's principal health problems. The community pharmacy located in the village of Arniquet near Cayes had over 400 items in stock; in many cases this was a matter of three capsules of one type of vitamin, a half an ounce of cough syrup, and so forth.

The novelty of the AGAPCO proposal was that in place of a few community pharmacies functioning in a completely independent manner, it proposed a network of pharmacies wherein each one would be autonomous for purposes of internal management, yet part of a unified system for purposes of resupply. In place of stomach churning collections of drugs unique to each pharmacy, it proposed that all community pharmacies should stock only drugs from a standard list approved by the Ministry of Health.

Once his proposal was completed, Dr. DeFay devoted considerable time and energy to promoting the program. He organized a "National Committee for the Promotion of Community Pharmacies" and lobbied for support in every health district in the country. The Committee's efforts familiarized numerous officials at every level of the Ministry's system with their concept of a drug sales program and won widespread sympathy for the plan. Still, the Ministry had not officially endorsed the AGAPCO proposal and had taken no account of it in planning the RHDS Project. It was only once the Project was actually underway that the possibility of diverting some of its resources into AGAPCO was considered.

By spring, 1981, about the time that the Ministry and AID were preparing to make initial procurements of drugs using Project funds, Dr. DeFay had finally convinced his colleagues to consider the AGAPCO proposal. Under the terms of the bilateral agreement, it was necessary to obtain AID's approval in order to spend Project funds on new activities that were not part of the original plan.

As Chief of the Division of Public Assistance, Dr. DeFay had been involved in the initial Project activities related to drug supply: that is, formulation of the standard drug list and development of the procurement strategy. This had made it convenient to informally circulate the proposal to officials at AID and to members of the technical assistance team. Their response had been mixed. On the positive side, all parties agreed with the idea of selling drugs to patients to pay the cost of the Ministry's drug supply. On the negative side, they had been rather critical of the proposal itself. The principal complaint was that there were no details concerning the financial and management requirements of the drug sales program.

How much start-up capital would be required? How much would each pharmacy need to sell in order to stay in business? On what basis would prices be determined? How much would it cost to staff and equip the central management unit? From where would drugs be procured and how would they be distributed? As written, the AGAPCO proposal provided no direct answers to any of these questions. As far as Dr. DeFay was concerned, these were trivial matters that would resolve themselves automatically once he got the project started up. The critics, however, were adamant. And so he consented to work with the technical assistance team to produce a financial plan that would respond to the concerns which they had expressed.

Annex Two

Value of Drugs Distributed by the Public and Private Sectors

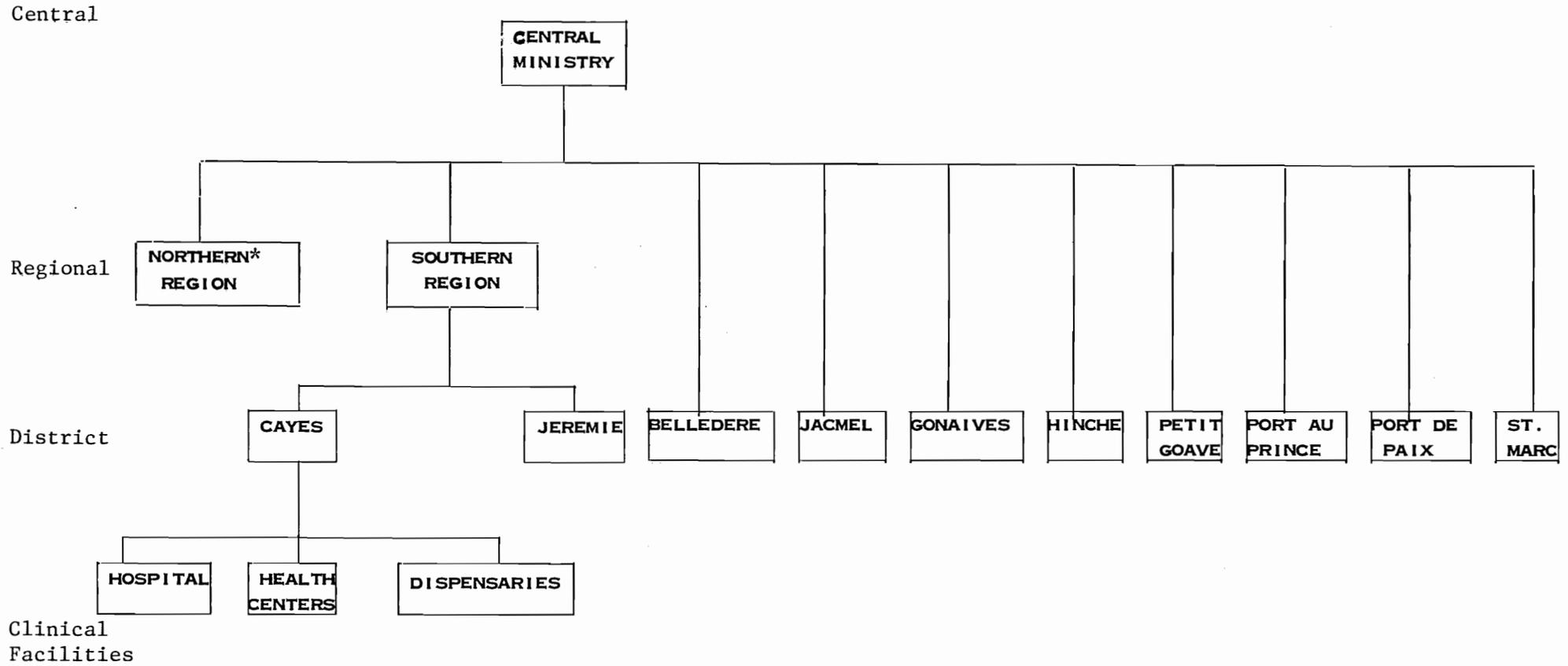
	<u>Private</u>	<u>Public</u>	
		<u>Local Purchase</u>	<u>Donated</u>
CIF Value of Imports	\$4,886,000	\$240,000	\$500,000
Cost to Distributor After Payment of Duties	5,707,200		
Wholesale Value	7,419,300		
Retail Value	8,161,300		

Annex Three

Haiti's Fifteen Top Selling Pharmaceutical Products for 1979

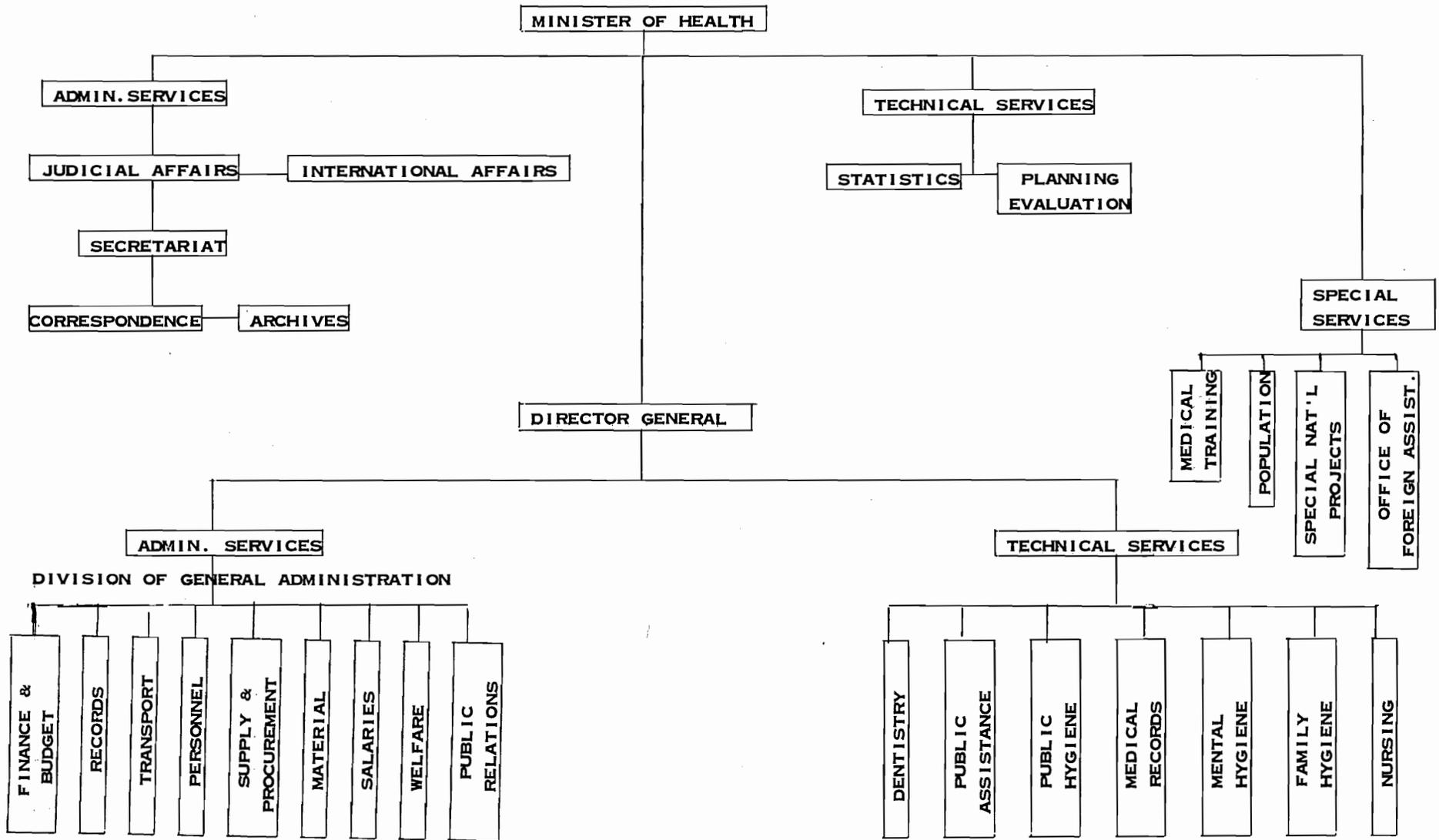
<u>Rank</u>	<u>Brand Name</u>	<u>Generic Name</u>	<u>Description</u>
1.	Saridone	Propyphenazone	Analgesic
2.	Cafenol	Aspirin, Caffeine, Phenacetin	Analgesic
3.	ALS/Sel Andrews	Tartaric acid, sodium bicarbonate, magnesium sulfate, saccharin	Antacid
4.	Mulival Forte	Multivitamin preparation	Vitamins and Antihistamine for Appetite Stimulation
5.	Vicks Vapor Rub	Menthol, camphor, misc. in white paraffin	Mentholated Salve
6.	Mamex	Milk powder	Milk Powder
7.	Milk of Magnesia	Magnesium hydroxide	Antacid
8.	Padrox		Antihelmetic
9.	Valium	Diazepam	Tranquilizer
10.	Tres Orix		Vitamins for Appetite Stimulation
11.	Bufferin	Aspirin (buffered)	Analgesic
12.	Emulsion Scott	Cod liver oil, calcium hypophosphate, sodium hyophosphate	Tonic
13.	Coricidin	Aspirin, chlorpheninamine	Antihistamine plus Aspirin for Colds
14.	Anorexol		Antihistamine used for Appetite
15.	Redoxin	Ascorbic Acid	Vitamin C used for Vitamin Supplement

Structure of the Ministry of Health



*Not Administratively divided into districts

Organigram of the Ministry of Health



Types and Numbers of Clinical Facilities

<u>District</u>	<u>Population</u>	<u>Dispensary</u> (serves of to 10,000 people)			<u>Health Center</u> (serves up to 40,000 people)			<u>Hospital</u> (serves up to 250,000 people)			<u>Total</u>
		<u>Public</u>	<u>Private</u>	<u>Mixed</u>	<u>Public</u>	<u>Private</u>	<u>Mixed</u>	<u>Public</u>	<u>Private</u>	<u>Mixed</u>	
Belledeire	135,404	3	2	0	1	0	0	1	0	0	8
Cap Haitien	606,768	32	27	0	1	5	8	1	0	0	74
Cayes	878,920	15	1	2	1	0	0	1	0	0	20
Jérémie		11	15	3	2	0	0	2	0	0	33
Jacmel	248,524	10	10	0	0	0	0	1	0	0	21
Gonaives	256,230	7	3	1	0	2	0	1	1	0	15
Hinche	113,845	6	6	0	0	0	0	1	0	0	13
Petit Goave	234,620	8	6	3	4	1	0	1	1	0	24
Port-au-Prince	1,577,525	24	20	5	18	5	1	5	8	0	86
Port-au-Paix	186,024	10	9	2	0	5	2	1	0	0	29
St. Marc	287,832	6	4	0	3	0	0	1	0	0	14
Total	4,525,692	132	103	16	30	18	12	16	10	0	337
		251			60			26			

157

Annex Six

Estimated Numbers of Patient Contacts at Public, Private and Mixed Clinical Facilities
for 1979

<u>Type of Facility</u>	<u>Number of Facilities</u>	<u>Annual Estimated Number of Contacts</u>	<u>Daily Estimated Number of Contacts</u>
Hospitals			
Public*	16	468,480	122
Private	10	372,000	155
Mixed	0		
Health Centers			
Public*	30	352,800	49
Private	18	207,360	48
Mixed	12	198,720	69
Dispensaries			
Public	132	601,920	19
Private	103	840,480	34
Mixed	16	115,200	30

*Bed occupancy rates for public sector hospitals and health centers is estimated to average \geq 33%.

Annex Seven

Personnel working in Ministry of Health Clinical Facilities

<u>Position</u>	<u>Dispensary</u>	<u>Health Center</u>	<u>Hospital</u>	<u>Total</u>
Doctor	58	115	321	494
Dentist	12	29	22	63
Pharmacist	5	7	5	17
Nurse	49	59	303	411
Auxiliary Nurse	150	176	484	810
Laboratory Technician	0	41	49	90
X-ray Technician	0	0	13	13
Anesthesia Technician	0	0	21	21
Sanitation Officer	35	111	49	195
Custodian/Maintenance	304	344	933	1724
Total	613	1025	2200	3838

Annex Eight

Summary of Ministry of Health Operating Budget

<u>Rubric</u>	<u>Line Item</u>	<u>\$\$</u>
10 Personnel		
	11. Salaries	6,709,800
	12. Per Diems	1,355,000
	13. Representational Expenses	<u>12,000</u>
	Sub Total	8,076,800
20 Operating Expenses		
	21. Expendable Supplies*	2,109,800
	22. Travel and Transport	25,200
	23. Rental Fees	5,600
	24. Printing and Reproduction	600
	25. Contractual Services	3,800
	26. Gasoline, Lubricants and Spare Parts	268,200
	27. Communications and Water	8,400
	28. Electricity	8,000
	29. Petty Cash	<u>9,600</u>
	Sub Total	2,439,200
40. Special Expenses		
	43. Subsidies to Non Profit Organizations	1,196,800
	46. Exceptional Expenses	<u>48,000</u>
	Sub Total	1,244,800
	Total	11,760,800

*The \$240,000 spent annually on drugs is taken from this line item.

Annex Nine

Growth of the Ministry of Health's Operating Budget

<u>Fiscal Year</u>	<u>Current Dollars (000)</u>	<u>Price Index</u>	<u>1980 Dollars (000)</u>	<u>% of Real Change</u>
1976/77	6,860	287.5	8,880	
1977/78	8,360	279.5	11,120	+25.2
1978/79	9,260	315.9	10,900	-2.0
1979/80	12,380	372.1	12,380	+13.6
1980/81	11,760	423.7	10,320	-16.4

Annex Ten

Fifteen Largest Monthly Drug Expenditures by the Ministry of Health

<u>Rank</u>	<u>Generic Name</u>	<u>Purchase Unit</u>	<u>Purchased Monthly</u>	<u>Expenditure</u>	<u>% of Budget</u>	
1	Penicillin V Injectable in Water	Vial 4,000,000U	5,000	\$ 3,250	16.25	
2	Anti Tetanus Serum	Vial 10cc	500	1,250	6.25	
3	Dextrose 5% in Water	IV Bottle 1000 cc	500	1,250	6.25	
4	Vitamin B Complex Syrup	Bottle 1 Gal	79	948	4.74	
5	Tetracycline	Bottle 1000 Tab	30	780	3.90	
6	Pentafen	Box 10 Amp	250	750	3.75	
7	Chloroquine	Bottle 500 Tab	101	606	3.03	
8	Ether for Anesthesia	Bottle 4 oz	300	570	2.85	
9	Chloramphenical	Bottle 1000 Cap	20	548	2.74	
10	Penicillin V Injectable in Oil	Vial 3,000,000U	1,000	510	2.55	
11	Dihexyverine Chlorohydrate	Box 6 Amps	200	480	2.40	
12	Acetylsalicylic Acid	Bottle 500 Tab	300	450	2.25	
13	Phenobarbital	Bottle 100 Tab	200	440	2.20	
14	Vitamins A,C and D Suspension	Bottle 20cc	200	440	2.20	
15	Clauden	Box 100 Amp	3	408	2.04	
				Total	\$12,680	63.4%

The remaining 36.6% of the monthly budget was spent on 26 additional products.

Annex Eleven

Summary of Planned Financial Resources for RHDS*

(US \$ 000)

	<u>AID</u>	<u>GOH</u>	<u>TOTAL</u>
Construction/Renovation	5,257	-	5,257
Drugs	967	2,187	3,154
Equipment/Supplies	1,413	307	1,720
Vehicles	1,203	-	1,203
Maintenance	-	1,493	1,493
Personnel	1,630	11,478	13,108
Training	1,855	1,296	3,151
Technical Assistance	2,422	-	2,422
Evaluation	100	-	100
Contingency	<u>1,153</u>	<u>559</u>	<u>1,712</u>
Total	16,000	17,320	33,320
	48.1%	51.9%	100.0%

*Source: AID Project Paper

Annex Twelve

Proposed RHDS Project Outputs*

The basic outputs of the project are: (1) 275 dispensaries staffed with 550 trained auxiliary nurses who support 1,500 trained health agents throughout rural Haiti; (2) a supply and logistics operation capable of supporting national, regional, and local health delivery systems; and (3) trained upper echelon professionals to administer the RHDS at the national, regional, and district levels.

The following table summarizes the major outputs on an annual basis:

<u>Output</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Trained Health Agents	509	213	182	646	
Trained Auxiliary Nurses	136	84	114	226	
Trained Environmental Sanitation Officers	96	48	48	28	
Dispensaries Constructed/ Reconstructed		74	39	51	73
Regional Warehouses Constructed/Renovated	2	1	1	1	1
District Warehouse Construction/Renovation		4	1	2	4
Central Garage Constructed			1		
Central Warehouse Constructed			1		
Regional Administrative Organizations Established		2	1	1	2

*Source: AID Project Paper

Annex Thirteen

Ministry of Health Standard Drug List

- A. Anesthetics
1. Ether
2. Pentothal Sodium
3. Lidocaine
- B. Analgesics
4. Aspirin
5. Codeine
- C. Gastro-Intestinal Preparations
6. Tincture of Belladonna
7. Magnesium Trisilicate
8. Mineral Oil
- D. Anti-Allergy Preparations
9. Diphenhydramine
10. Dimenhydrinate
- E. Sedatives
11. Diazepam
12. Phenobarbital
- F. Anti-Parsiticals
13. Metronidazole
14. Mebendazole
15. Piperazine Tablets
16. Piperazine Syrup
- G. Anti-Tuberculosis
17. INH Adult
18. INH Pediatric
19. INH/Thiacetazone lAdult
20. INH/Thiacetazone Pediatric
21. Ethambutal
22. Streptomycin 5 gr..
23. Streptomycin 1 gr.
- H. Anti-Malaria
24. Chloroquine Tablets
25. Chloroquine Injectable
- I. Antibiotics
26. Penicillin V Tablets
27. Penicillin V Suspension
28. Procaine Penicillin Injectable
29. Penicillin in Oil Injectable
30. Benzathine Penicillin Injectable
31. Sulfamethoxazol
32. Chloramphenicol Capsules
33. Chloramphenicol Suspension
34. Tetracycline
- J. Vitamins and Minerals
35. Multi Vitamin Tablets
36. Multi Vitamin Syrup
37. Vitamin B Complex Syrup
38. Vitamin A
39. Iron Sulfate
- K. Respiratory System Preparations
40. Phenylephrine
41. Epinephrine
42. Aminophylline Injectable
43. Cough Syrup
44. Expectorant
- L. Ophthalmic Preparations
45. Silver Nitrate
46. Antibiotic Eye Ointment
- M. Dermatological Preparations
47. Gentian Violet
48. Benzyl Benzoate
49. Calamine Lotion
- N. Circulatory System Preparations
50. Digitoxin
51. Digoxin Injectable
52. Clauden
- O. Anti Hypertensives
54. Reserpine Tablets
55. Reserpine Injectable
56. Chlorothiazide
- P. Hormones
57. Insulin
58. Cortisone
- Q. Oxlotoxics
59. Ergometrine Tablets
60. Ergometrine Injectable
- R. Blood Substitutes
61. Dextran 70
- S. Electrolites
62. Oral Rehydration Salts
63. Dextrose 5% in Water
64. Ringer's Lactate
65. Normal Saline
66. Dextrose 10% in Water

Annex Fourteen

Initial RHDS Drug Procurements by Source

Local Procurement
(MOH Local Currency Funds)

Aspirin
Magnesium Trisilicate
Mineral Oil
Diphenhydramine
Phenobarbital
Piperazine Syrup
INH Adult
INH Pediatric
INH Thiacetazone Adult
INH Thiacetazone Pediatric
Ethambutal
Streptomycin 1 gr.
Streptomycin 5 gr.
Procaine Penicillin Injectable
Penicillin in Oil Injectable
Sulfamethoxazol
Chloramphenical Suspension
Multi Vitamin Syrup
Vitamin B Complex Syrup
Cough Syrup
Expectorant
Oral Rehydration Salts
Chloroquine Tablets

US Procurement
(AID Dollar Funds)

Ether
Pentothal Sodium
Lidocaine
Codeine
Tincture of Belladonna
Dimenhydrimate Injectable
Diazepam
Penicillin V Tablets
Penicillin V Suspension
Tetracycline
Phenylephrine
Epinephrine
Aminophylline Injectable
Silver Nitrate
Gentian Violet
Calamine Lotion
Digoxin Injectable
Vitamin K Injectable
Reserpine Tablets
Reserpine Injectable
Chlorothiazide
Insulin
Cortisone

UNICEF Procurement
(AID Dollar Funds)

Metronidazole
Mebendazole
Piperazine Tablets
Chloroquine Injectable
Multi Vitamin Tablets
Iron Sulfate Tablets
Vitamin A Capsules
Antibiotic Ophthalmic
Ointment
Benzyl Benzoate
Ergometrine Tablets
Ergometrine Injectable
Dextran 70
Dextrose 5% in Water
Ringers Lactate
Normal Saline
Dextrose 10% in Water

PART TWO

Designing a Drug Sales Program

Developing a Plan

In early April 1981, Dr. DeFay, the other two members of the National Committee for the Promotion of Community Pharmacies, and two members of the RHDS Project's Technical Assistance Team began work on a plan for the AGAPCO drug sales program. It took nearly two months of discussion, writing, and rewriting to produce a document that was acceptable to all parties. By June, the working group was able to present the Director General with a plan (Annex Fifteen) that contained the following elements:

- *Organizational structure for AGAPCO
- *Model of the pipeline for procurement and distribution of drugs
- *Scheme for course of treatment packaging
- *Staffing Plan
- *Financial Plan

The Director General was pleased with the results of the group's work, and he quickly submitted the plan to the Minister of Health. In August, the Minister of Health gave his approval and sent a letter to that effect to AID. The stage was now set for the implementation of a national drug sales program.

Setting Up Shop

Shortly after he approved the plan, the Minister appointed AGAPCO's first three staff members: the Director, Accountant, and Inventory Manager. In the meantime, the drugs that the Ministry had ordered through the RHDS Project back in March* had begun to arrive. With these developments, it appeared that the program was off to a good start. There was, however, a problem: AGAPCO had as yet no place to put either its people or its products. The RHDS Project had funds for constructing a large new warehouse for the Ministry, but the ground for this building had not even been broken. After a flurry of meetings, the Director General, AID's Project Officer, and members of the Technical Assistance Team reached a decision to quickly renovate the Ministry's existing central depot. At a cost of about \$35,000 a new roof was put on, barriers were erected against flooding, and office space was constructed. By October 1981, the depot was ready and the AGAPCO staff had set up shop.

For the next several months, the primary focus of activity was on development of the inventory control and accounting systems. Within the Ministry of Health, AGAPCO was a new kind of operation. In the past, the Ministry had budgeted money for drugs on an annual basis, purchased them on a monthly basis, and then passed them out for free to patients. Under the AGAPCO plan, donated stock would be sold through regional wholesale stores to community pharmacies and the pharmacies in turn would sell this stock at retail prices to patients.**

*See Part 1, page 7.

**Wholesale and retail prices would be determined by AGAPCO which would be responsible for periodic revisions of the price list.

To complement the flow of stock down through this system, there would be a flow of money back up: the pharmacies would collect money from their customers and use it to buy replacement stocks from the regional stores. The stores would periodically transfer their receipts to AGAPCO's central account, and from this account the agency would draw money to purchase new stock for the whole system (Annex Sixteen). The Accountant, Inventory Manager, and members of the Technical Assistance Team worked together to assure the means of financial accounting and stock control at each level of this new system. By April 1982, they had developed the basic forms and bound them all together in a procedures manual.

In the meantime, the Inventory Manager had set up one room in the renovated depot for packaging medicines into individual courses of treatment. Using this concept, the exact number of tablets or capsules required for the treatment of one episode of an illness would be placed in a sealed plastic bag together with a label bearing the product's name, instructions for use, and the price (Annex Seventeen). In other words, each time a patient bought medicine, he or she would be automatically obliged to buy the entire dose.

In order for this approach to work, it would be necessary to have a course of treatment specified for each product on the Ministry's essential drug list. Although the Ministry had accepted the concept of course of treatment packaging as part of the AGAPCO financial plan, this was as far as the matter had gone. No one had actually undertaken the task of establishing specific norms of use for each product. So, before the Inventory Manager could have labels printed up and put the new packaging room to use, it was necessary to contact Dr. DeFay and request instructions concerning the numbers of tablets and capsules to be packed into courses of treatment for each product.

Opening Pharmacies

By April 1982, AGAPCO was ready to come off paper and into reality. The staff had increased to twelve persons including the Director, Secretary, Accountant, Inventory Manager, Storekeeper, five Packaging Room Workers, and two Garçons. Drugs from both local and foreign suppliers were beginning to fill the central depot, the packaging room was operating, and it was time to start opening pharmacies. The plan had set a target of two hundred pharmacies over a three-year period. The problem was where to start.

It was widely assumed that the Southern Health Region was relatively well managed and so AGAPCO's Director, Schubert Marron, and a member of the Technical Assistance team went down to Cayes to visit Dr. Josette Bijou, the Regional Director. Their idea would be to open ten pharmacies in the Southern Region. This batch would serve as a pilot group for development of community organization and training techniques. Dr. Bijou, however, did not share their enthusiasm. "Your AGAPCO program does not fit into our plans at all," she told her two visitors through gritted teeth. "Community pharmacies are not a bad idea, in fact I have already set up three myself. But a centrally managed program will never work. If you want to do something useful, just give us the money and we'll set up the pharmacies." Mr. Marron explained that the idea was for his staff to collaborate closely with regional personnel in all activities including site selection, community organization, training of pharmacy clerks, and even setting up the regional wholesale store. Dr. Bijou was unmoved, however, and her only reply was a polite smile as she showed her guests to the door.

The following week, Marron met with Marc Angrand, the Director of the Northern Health Region. Dr. Angrand was attentive as Marron explained the plans for community organization and for training the pharmacy clerks.

Every pharmacy that AGAPCO opened would be linked to a clinical facility, either a hospital, health center, or dispensary. The communities in which these facilities were located would assume most of the responsibility and cost for setting the pharmacies up. Once the sites were selected, a member of the AGAPCO staff would function as community organizer. This person would make three visits to each community. During the first visit, he would explain the purpose of the AGAPCO program to the community council, and he would explain the responsibilities of the community in setting up the pharmacy. In particular, the community would be responsible for providing and equipping a secure and well ventilated room and for selecting a candidate to be trained as the pharmacy's clerk. The candidate had to meet simple selection criteria such as having completed elementary school and being of good character. During the second visit, the community organizer would check on the progress that the community had made on these activities. If all had gone well, the organizer would invite the community's candidate to attend a pharmacy clerk's training course along with candidates from other communities. Once the training was completed, the organizer would make the third visit to actually set up and open the pharmacy.

To facilitate all of these activities and make sure that the process of organizing the communities and setting up the pharmacies was carried out smoothly and efficiently, the AGAPCO staff had prepared various materials. There were, for example, "community check lists" to help monitor progress in community organization (Annex Eighteen). And there was a "contract" between AGAPCO and the community that defined the responsibilities of each party (Annex Nineteen). There was also a "pharmacy start up kit"; that is, a carton containing all the forms, books, and office supplies needed to set up a pharmacy (Annex Twenty).

Dr. Angrand seemed satisfied with AGAPCO's plans for working in the Northern Region, and he encouraged the Director to get started as soon as possible. The following week, Marron met with members of Dr. Angrand's staff, and they were able to quickly select eight sites in which to start up the first batch of community pharmacies. The Technical Assistance Team provided a Community Organization Specialist to work with AGAPCO and regional personnel. The organization process took place throughout February and March, and by the beginning April, 1982, eight candidates were ready for training as community pharmacy clerks.

28

In the meantime, the AGAPCO staff and members of the Technical Assistance Team had worked together to develop a three-day course that would provide the candidates with training in the various skills necessary for managing community pharmacies. The program began with an orientation on the overall functioning of AGAPCO plus the specific role to be played by the individual pharmacies (Annex Twenty-One). The training course took place during the first week of April, and by the end of the month all eight pharmacies were operating. These were quickly followed by fifteen more pharmacies in the districts of Saint Marc and Gonaives, so that by September 1982, twenty-three community pharmacies were up and running.

Legal Establishment

Although the Minister of Health had given his approval for starting up AGAPCO, Haitian law required that agencies that bought and sold goods on behalf of the government be legally established as parastatal enterprises. Accordingly, the Ministry engaged an attorney to advise on the appropriate steps to take. At first, there was some debate about whether AGAPCO should be established at all. In the past, the Magasin de l'Etat, or State Procurement Service, had procured many of the Ministry's drugs and some had raised questions about the advisability of setting up another agency to duplicate the Magasin's work. The Minister took the question to the President's Cabinet and argued that AGAPCO would provide an essential and highly specialized service and that in order to function effectively the agency would have to be able to manage both the procurement and sale of drugs. The Minister pointed out that AGAPCO was essentially a commercial operation that figured financial self sufficiency as one of its principal objectives. In order to realize this objective, it would have to be independent for purposes of financial management.

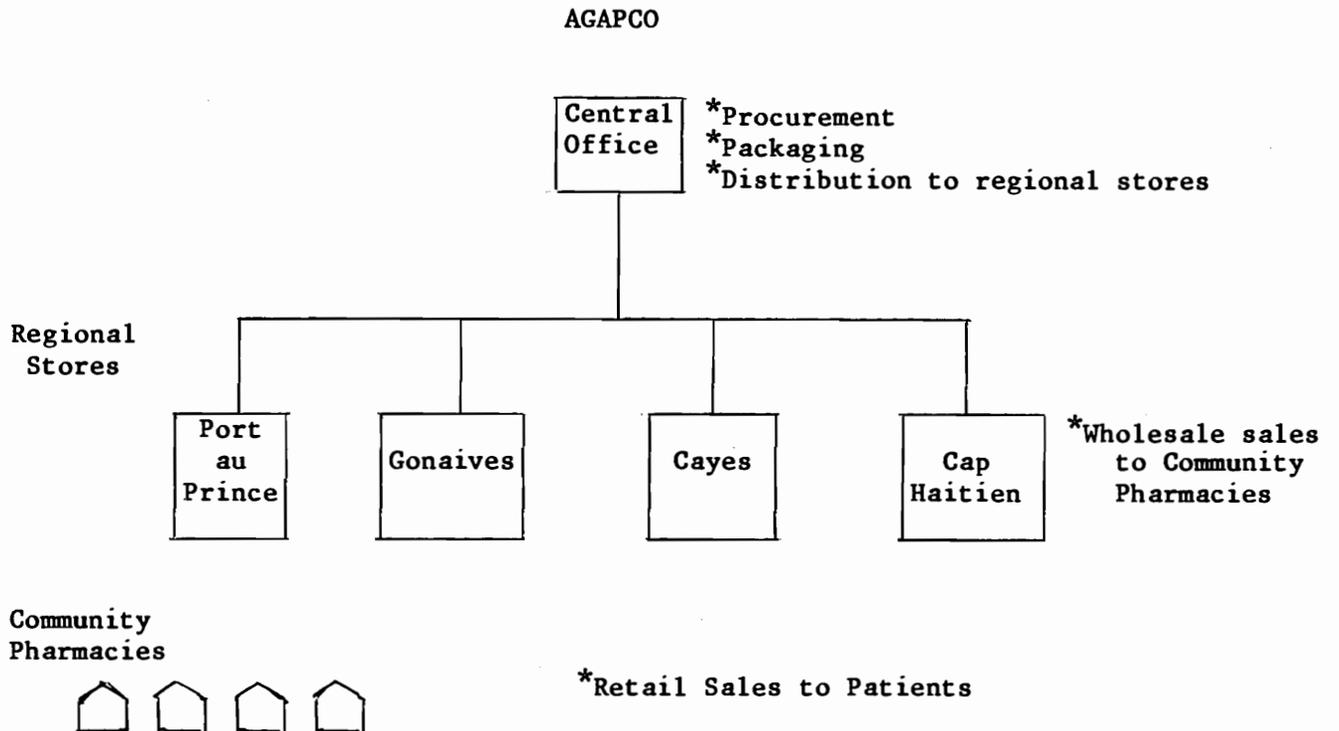
The Cabinet gave some credence to these arguments and asked the Minister to propose his own draft of a law that would define AGAPCO's role as a commercial enterprise operating in support of the Ministry of Health. To carry out this task, the Minister turned to the people who had been involved in planning and launching the program. Dr. DeFay, representing AGAPCO, Mr. Marron, representing AGAPCO, and members of the Technical Assistance Team worked together in May 1982 to produce the draft. The Minister added his own refinements and clarifications and submitted the document to the Cabinet. There were more rounds of drafting and revising, but the idea of the AGAPCO drug sales program had gained acceptance within the Cabinet. To make a long story short, the Minister was finally able to submit the proposed law to the Chamber of Deputies in September, 1982, and in October the President for Life signed AGAPCO into legal existence (Annex Twenty-Two).

Annex Fifteen

EXCERPTS FROM THE AGAPCO PLAN

Table 1

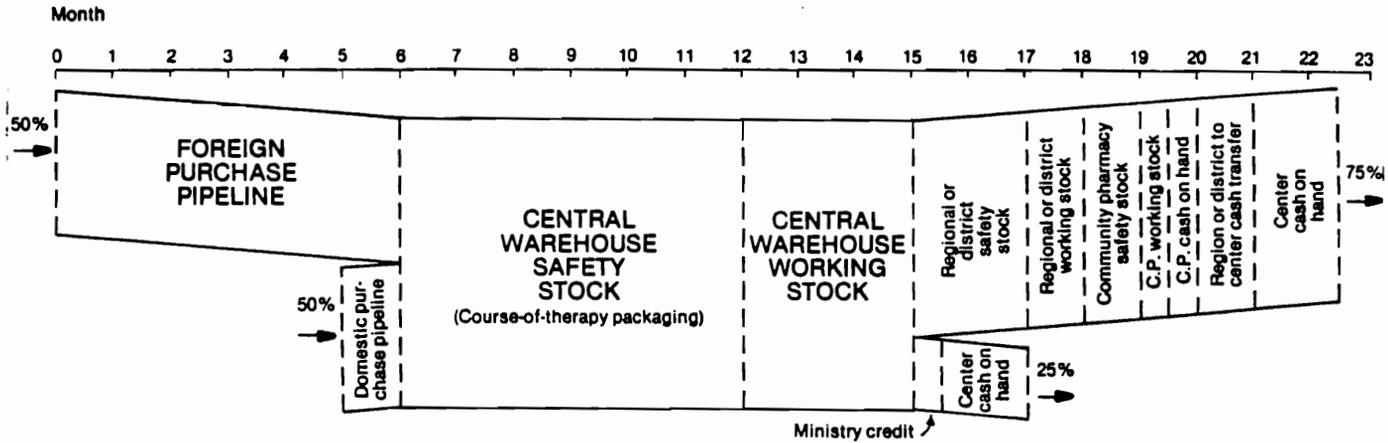
Organizational Structure and Distribution Plan



AGAPCO will be responsible for procuring the drugs and then repackaging and distributing them to the regional stores where they will be sold at wholesale prices to the pharmacies.

The pharmacies are responsible for transporting the drugs from the regional stores back to the pharmacies and selling them at retail prices to patients.

Table 2
Model of Supply Pipeline

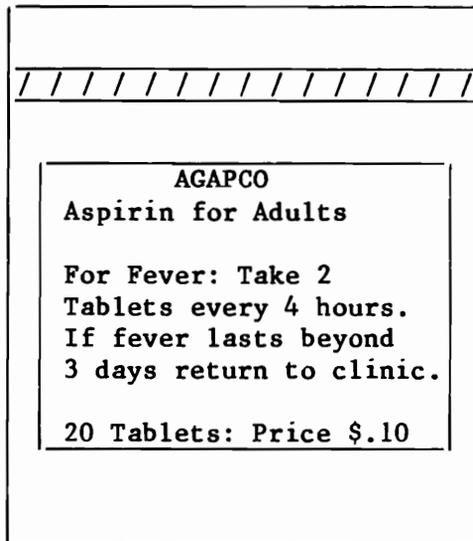


To Calculate Average Pipeline Length:

37.5% (0.5 x 0.75) are foreign-purchased drugs sold by community pharmacies: Pipeline = 22.5 months
 12.5% (0.5 x 0.25) are foreign-purchased drugs sold to Ministry of Health: Pipeline = 17.0 months
 37.5% (0.5 x 0.75) are domestic-purchased drugs sold by community pharmacies: Pipeline = 17.5 months
 12.5% (0.5 x 0.25) are domestic-purchased drugs sold to Ministry of Health: Pipeline = 12.0 months
 Weighted average = [(0.375 x 22.5 months) + (0.125 x 17.0 months) + (0.375 x 17.5 months) +
 (0.125 x 12.0 months)] = 18.625 months

Table 3

Prepackaged Courses of Therapy

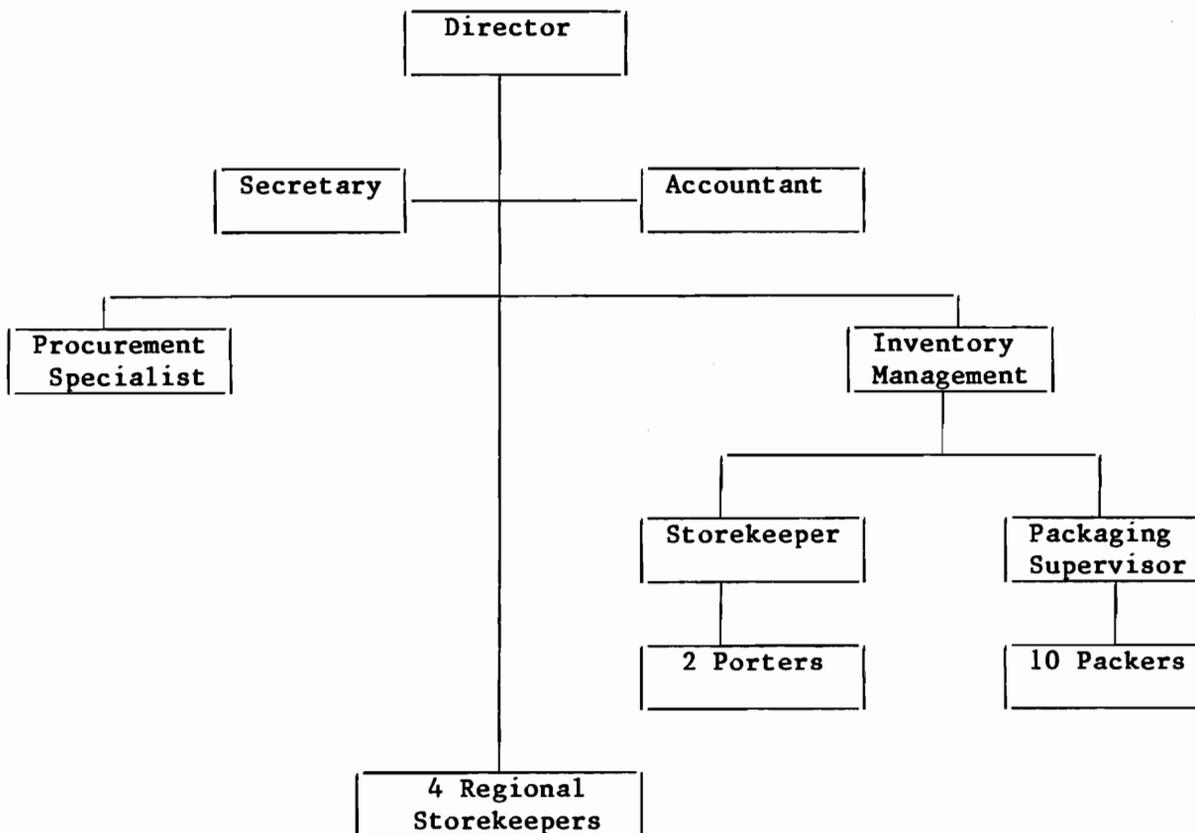


Drugs will be prepackaged in heat sealed plastic bags into individual courses of treatment. Each package will contain the number of tablets or capsules necessary for treatment of 1 episode of an illness.

Each package will bear a label showing instructions and price.

Price per course of therapy and estimated number of units to be sold form the basis for financial planning.

Table 4
Staffing Plan



AGAPCO's central management unit will employ 23 persons with a total annual payroll of \$107,400.

Table 5

Operating Budget for AGAPCO's Central Management Unit

Personnel	\$107,400
Travel and Transport (\$14,820)	
Gasoline	7,400
Vehicle Maintenance	2,500
Per Diems	3,120
Public Transport	1,800
Expendable Supplies (\$17,200)	
Plastic Bags	10,000
Spare Parts for Heat Sealers	300
Office Supplies/Central Office	1,200
Forms and Printing	2,500
Labels	2,000
Services (\$12,000)	
Telephone and Telex	2,400
Electricity and Water/Central Office	3,000
Electricity and Water/Regional Stores	6,000
Postal Expenses	600
Contingency (20% of non personnel costs)	<u>8,804</u>
	TOTAL \$159,684

It is assumed that the major development costs such as facilities, vehicles, and equipment will be borne by the Ministry of Health.

Table 6

Price Structure

Wholesale

AGAPCO to Pharmacies

Replacement Cost of Product	
Inflation	+ 20%*
Operating Costs	+ 27%
Losses	+ <u>10%</u>
Total Wholesale Markup	57%

Retail

Pharmacies to Patients

AGAPCO's Wholesale Price	
Operating Costs	+ 30%
Losses	+ <u>20%</u>
Total Retail Markup	50%

In practice, the mark ups will be average figures for all drugs sold. Depending on replacement costs and prevailing retail prices in the private commercial sector, some products will be marked up more and some less than the percentages shown here. For all products on the drug list, the average prices of a course of treatment are \$0.20 for replacement cost, \$0.32 for wholesale, and \$0.47 for retail.

*Inflation is estimated at 12% annually for the 18.63 month length of the pipeline, or 20%.

Table 7

Break Even Point for Pharmacies

Assume that each month a pharmacy purchases stock valued at \$314 in terms of AGAPCO's wholesale prices. If losses are 20%, the wholesale value of stock actually sold will be \$251. With a retail mark up of 50%, the value of the pharmacy's sales to patients would be \$376.

	<u>Monthly</u>
Retail Value of Sales	\$376
Replacement of Stock Lost & Sold	314
Clerk's Salary	50
Transport & Other Expenses	12
<hr/>	
Profit/Loss	0

On the basis of assumptions concerning the cost of different drugs and the relative quantities in which they will be sold, the average retail price of a course of therapy is estimated at \$0.47. This means that to break even a pharmacy will have to sell 800 courses of therapy per month or about 40 per day.

Table 8

Break Even Analysis and Projection of Capitalization Requirements for AGAPCO

To break even, AGAPCO would have to sell stock whose value in terms of replacement cost was \$591,442 in current dollars. With a mark up of 57%, the wholesale value of the agency's sales would be \$928,563.

	<u>For the Year</u>
Value of sales at AGAPCO's Wholesale Price	\$928,563
Stock Losses	59,144
Replacement of stock sold including inflation	709,730
Operating Costs	159,684
<hr/>	
Profit/Loss	5

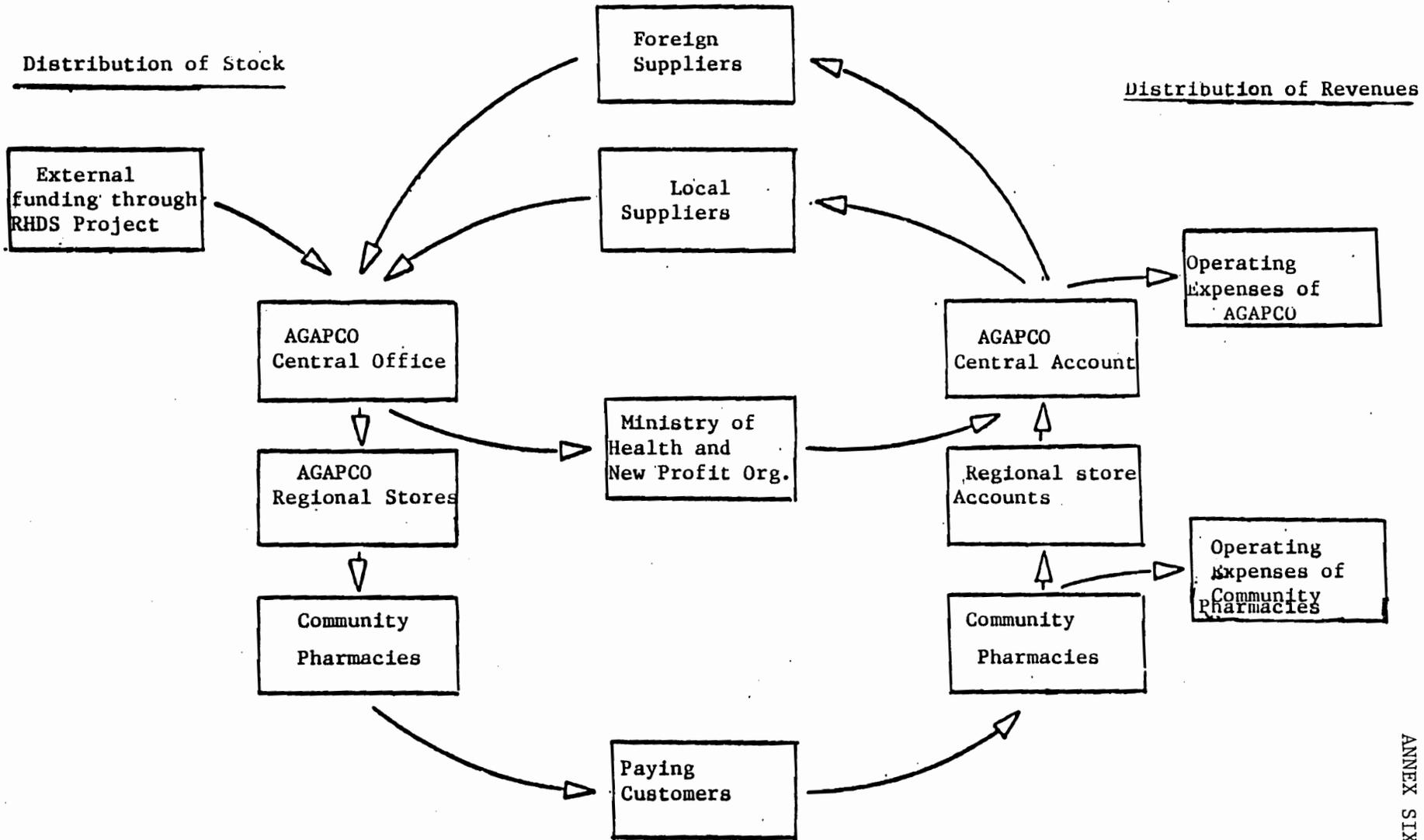
It would be unrealistic to expect to achieve this level of sales all in one year. If, however, expansion were carefully controlled and the program were properly promoted, AGAPCO could reach a steady state of operations in 4 years*.

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Contributions for Sales Stock	\$229,181	\$256,684	\$287,486	\$ 321,984
Value of Sales	232,138	519,992	873,585	1,304,554
Stock Losses	14,786	33,120	55,642	83,093
Replacement of Stock Sold	177,431	397,447	667,712	997,117
<u>Operating Costs</u>	<u>159,684</u>	<u>178,846</u>	<u>200,307</u>	<u>224,344</u>
Profit/Loss	(119,763)	(89,421)	(50,076)	0

The total amount of start up capital required for this particular plan is calculated as \$1,095,335 in contributions for sales stock plus \$259,260 in subsidies for operating losses for a total of \$1,354,595. In addition to this figure, there will be costs for equipment and program implementation. These will vary according to the particular approach which the Ministry adopts, but \$300,000 for a four-year period is a reasonable ball park estimate.

*Inflation for this period is estimated at 12% annually.

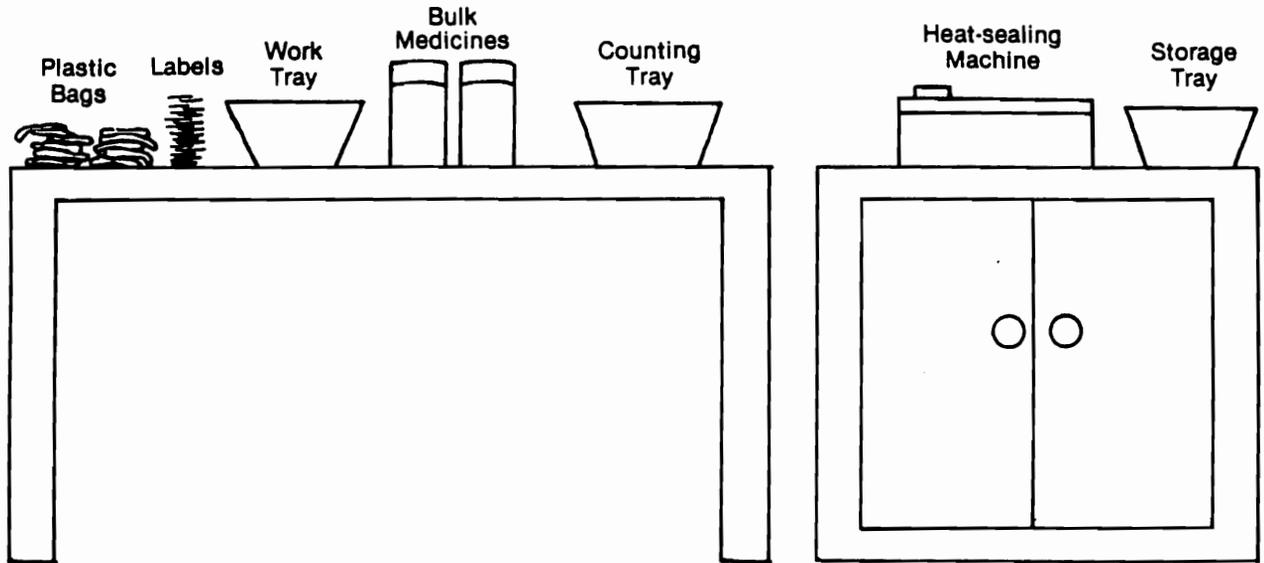
38



BEST AVAILABLE COPY

39

Drug Packaging Operation



AGAPCO Community Pharmacies Program
Community Evaluation Check List

Date _____
Region _____ District _____ Commune _____

Rural Section _____ Locality _____

A. Community Evaluation

1. Access

- a. Distance from the AGAPCO Regional Store _____
- b. Road conditions _____
- c. Transportation available _____
- d. Time required for round trip _____

2. Population _____

3. Forms of Community Organization _____

4. Members of the Pharmacy Management Committee

Name	Occupation
_____	_____
_____	_____
_____	_____
_____	_____

5. Description of Pharmacy Location

- a. Type of building _____
- b. Interior Dimensions: Length _____ Width _____ Height _____
- c. Floor _____ g. Security _____
- d. Walls _____ h. General Impression _____
- e. Ceiling _____
- f. Roof _____

6. Pharmacy Clerk Candidate

- a. Name _____ e. Arithmetic test score _____
- b. Age _____ f. General Impression _____
- c. Sex _____
- d. Education _____

B. Health Service Facility

1 Type _____

2. Staff	Doctors	Auxiliaries	Health Agents
Names	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

3. Average number of outpatient consultations daily _____
Total per Month _____

4. Current source/adequacy of medicine supply _____

11

Contract for Participation in the Community Pharmacy ProgramAnnex 19
page 2

Between: L'Agence d'Approvisionnement des Pharmacies Communautaires,
hereafter called AGAPCO,

and

The Community of: _____

Located in the Rural Section of: _____

Locality of: _____

Located in Health District or Health Region of: _____

I. Objectives of the Community Pharmacy Program

The Ministry of Health has established a program of community pharmacies which it administers through the AGAPCO drug sales program. The principal objectives of the program are to:

- A. Provide to the people of Haiti essential medicines, at low prices, in their own localities, through a national system of community pharmacies.
- B. Provide the people of Haiti with locally managed organizations through which they may participate directly in the improvement of the public health of their communities.

II. General Obligations of AGAPCO

- A. AGAPCO will assist the communities in establishing community pharmacies in conformance with an annual work plan prepared in collaboration with the Ministry of Health.
- B. AGAPCO will name a representative to work with community leaders and prepare the community for participation in the program. The representative will visit the community according to an established schedule in order to assist in the preparations and evaluate program.
- C. The AGAPCO representative will furnish written criteria for selection of a community pharmacy clerk and written specifications for construction and furnishing of the pharmacy.
- D. AGAPCO will organize a training course for the pharmacy clerk. Normally, the course will be presented formally to clerks from several communities at one time.
- E. AGAPCO will either consign or sell to the community an initial stock of medicines that is sufficient for starting up operations.
- F. Members of the AGAPCO staff will make periodic visits to the pharmacy after it has been established. They will work with the pharmacy's clerk to evaluate programs and assist in solving problems that may arise.

III. General Obligations of the Community

- A. The community will elect a management committee that will oversee the preparations for establishment of the pharmacy and, thereafter, supervise its operations. One member of the committee will be chosen as treasurer. The committee will officially represent the community in its dealings with AGAPCO.
- B. The community will choose and officially propose in a letter addressed to AGAPCO one or more candidates for the position of pharmacy clerk. The candidate must meet specified criteria. Confirmation of the nomination will be contingent upon the approval of the AGAPCO representative.
- C. The community will send the clerk and the treasurer of the management committee to the pharmacy clerks' training course organized by AGAPCO.
- D. The community will assure that a location has been prepared and furnished for the pharmacy in accordance with specified criteria. The community will also assure that this location is maintained thereafter according to the same criteria.

IV. Operation of the Community Pharmacy

The community will assure that the pharmacy clerk and the management committee work in close collaboration to observe the following norms in the operation of the pharmacy:

- A. The pharmacy will remain open and ready to sell medicines every day from Monday through Friday except for holidays. At minimum, it will remain open during the normal hours for outpatient consultations at the clinic with which it is affiliated. Otherwise, the pharmacy will sell medicines in case of emergency after hours and on holidays.
- B. The pharmacy will sell medicines in strict accordance with the official AGAPCO price list.
- C. The pharmacy will provide medicines on a "for sale" basis only. Medicines will not be provided for free. The community may wish to establish a fund for indigents, but it is understood that all medicines will be paid for at the moment of delivery.
- D. At the end of each day, the pharmacy clerk and the treasurer will carry out the following routines:
 1. The clerk will balance the accounts in accordance with the instructions contained in the community pharmacy operations manual.
 2. The treasurer will verify the accounts and take charge of all money from sales. He will keep the money on behalf of the community in accordance with procedures established by the community council or other appropriate body.

af

E. At the end of each month, the pharmacy clerk will carry out the following routines:

1. The clerk will balance the accounts in accordance with the instructions contained in the community pharmacy operations manual.
2. The treasurer will turn over to the clerk or other authorized person the amount of money necessary for purchasing replacement stocks of medicines plus transport expenses from the AGAPCO store to the pharmacy.
3. At the time he purchases replacement stock the clerk will also turn in to the AGAPCO store his Cash Accounts Form for the month along with the Monthly Stock Report and Requisition.

V. Medicines Consigned for Sale

- A. AGAPCO will not provide medicines as an outright gift to the community.
- B. To assist the community in opening its pharmacy, AGAPCO will make a consignment of medicines to be sold.
- C. The community agrees to turn over to AGAPCO, at the end of each month, the wholesale value of consigned medicines that have been sold during the month. This money may be used for purchase of new stock to replace that which has been sold.
- D. If a community pharmacy should cease to operate, the community will return to AGAPCO all of the medicines that remain in stock.

Director of AGAPCO

President of the
Community Council

Director of the Health
District or Health Region

Date

65

Community Pharmacy Start Up Kit

<u>Item</u>	<u>Cost</u>
Stock Record Book, including 12 dividers	\$ 6.00
Cash Account Book, including 12 dividers	6.00
Note Book	0.40
Carbon Paper, 5 sheets at \$0.10 each	0.50
Ball Point Pens, 2 at \$0.40 each	0.80
Measuring Cups, glass, 1 cup size, with ounce markings, 5 at \$2.00 each	10.00
Funnels, plastic, 5 (1 for each measuring cup) at \$0.80 each	4.00
File Box, wood	15.00
Wash Basin, plastic	<u>5.00</u>
TOTAL	\$47.70

Outline of Pharmacy Clerks' Training Course

I. General Schedule

The time required to present this material is approximately 1½ six-hour days of instruction. The forms and procedures for managing the pharmacy are interrelated. It is best to begin this part of the course with a complete day of instruction, followed by the half day.

This time should be divided into 3 three-hour sessions. Each session should have a 15-minute break in the middle.

Be flexible in presenting this material. Forms and procedures are important, but the details and mathematics involved can cause a class to become tired. Go slowly and do not move from one subject to the next until the class understands what has been taught. Pay close attention to the students' mood and give them short breaks when they become restless. Be prepared to spend more time than is suggested if it is necessary.

II. Instructional Materials

- A. Régisseur's Manual
- B. Workbook of Practice Forms
- C. Mockups of Forms
- D. Livre de Médicaments Exercise
- E. Boîte de Fiche
- F. Livre de Caisse Exercise
- G. Requisition Exercise
- H. Community Pharmacy Start Up Kit

III. Order of Presentation

1. Pass out the Régisseur's Manual and Workbook. Call attention to Section V (Guide de Procédure) of the Manual.
2. Introduce and explain the Tableau des Prix et Bénéfices. Explain each column of the tableau.
3. Introduce the Fiche de Vente de Médicaments. Put up the mockup of this form. Explain each line and fill it out according to the model in the Teacher's Manual. Have the class fill out the practice form in the workbook exactly as you fill out the mockup. Repeat 3 times.
4. Introduce the Fiche de Dépenses. Put up the mockup of this form. Explain each line and fill it out according to the model in the Teacher's Manual. Have the class fill out the practice form in the workbook exactly as you fill it out on the mockup. Repeat 3 times.
5. Introduce the Fiche de Consignation des Recettes. Put up the mockup of this form. Explain each line and fill it out according to the model in the Teacher's Manual. Have the class fill out the practice form in the workbook exactly as you fill out the mockup.
6. Introduce the Boîte de Fiches. Show the class how the Fiche de Vente de Médicaments and the Fiche de Dépenses are put into the left front section of the Boîte during the course of the day. Next show the class how to sort out the fiches at the end of the day. Tell the class to put the fiches for each medicine in a separate pile. Show how the fiches are sorted out in the same order as the medicines appear on the Tableau des Prix et Bénéfices: 1st Aspirin, 2nd Trisilicate, 3rd Huile Minérale and so on.
7. Next, introduce the Livre de Médicaments. Put up the mockup of this form. Explain each line and column, and fill it out according to the model in the Teacher's Manual. Have the class fill out the practice form in the workbook exactly as you fill out the mockup.
8. Introduce the Livre de Médicaments Exercice. Pass out one exercise for each team of participants (Régisseur and member of the Community Council for each pharmacy). Ask the students to sort out the Fiche de Vente de Médicaments and make the appropriate entries in the Livre de Médicaments. Spot check the teams as they work. Identify and correct errors as early in the exercise as possible, so that teams do not repeat them throughout the exercise. Gently but firmly insist that teams make entries into the Livre de Médicaments exactly as shown in the model in the Teacher's Manual.
9. Introduce the Livre de Caisse. Put up the mockup of this form. Explain each line and column and fill it out according to the model in the Teacher's Manual. Have the class fill out the practice form in the workbook exactly as you fill out the mockup.
10. Introduce the Livre de Caisse Exercice. Pass out one exercise for each team of participants. Note that in this exercise carbon paper is used to spot check the teams as they work. Identify and correct errors as early as possible, so that teams do not repeat them throughout the exercise. Gently but firmly insist that teams make entries in the Livre de Caisse exactly as shown in the model in the Teacher's Manual. This exercise has 10 entries. Ask the teams to total the amounts "Reçu," "Dépense," and the "Balance" after these entries explain that normally the totaling will be done at the end of the month.
11. Introduce the Réquisition et Rapport Mensuel sur les Médicaments. Put up the mockup of this form. Explain each line and fill it out according to the model in the Teacher's Manual. Have the class fill out the practice forms in the workbook exactly as you fill out the mockup.
12. Introduce the Réquisition Exercice. Pass out one exercise for each team of participants. Note that in this exercise, carbon paper is used to make two copies of the Requisition. Tell students that for "Quantité Demandée" they should order the same amount of tablet medicines that was sold during the preceding month. For liquids, they must buy by the gallon, so they must look at the preceding month's consumption to decide how much, if any, of each product to order. Identify and correct errors as early in the exercise as possible so that teams do not repeat them throughout the exercise. Gently but firmly insist that teams fill out the Requisition exactly as shown in the model in the Teacher's Guide.
13. Review the Method de Remplissage as presented in the Teacher's Manual. Call the class' attention to this section in their own Régisseur's Manual and in particular to the diagram showing the Boîte de Fiche and the Livre de Médicaments and Livre de Caisse. Use the Community Pharmacy Starter Kit for props in explaining the procedures to be followed.

Chapter Two

Section I

Organization and Operation of AGAPCO

Administrative Council

Article 5 - AGAPCO will be administered by a council composed of representatives of each of the following Ministries:

- Public Health and Population	President
- Commerce and Industry	Member
- Affaires sociales	Member
- Finance and Economic Affairs	Member

Article 6 - The Administrative Council has for its role:

- a) To establish, supervise, and formulate the general policy of AGAPCO concerning the following points:
 - The selection of products sold by AGAPCO
 - The norms and procedures for packaging, bottling, or manufacturing of these products
 - The quality control of products received by AGAPCO
 - The identification of health priorities to serve as a guide for the procurement plan for pharmaceutical products and vaccines.
- b) To approve or modify AGAPCO's annual work plan and budget.
- c) To authorize every demand for financial support of AGAPCO's operations.
- d) To approve all offers made by international, multinational, bilateral, or other organizations for the financial support of AGAPCO.
- e) To coordinate the efforts of organizations participating in the establishment and development of the program.

Article 7 - The Council will meet regularly every three months or upon being convoked by the Ministry of Public Health and Population.

Article 8 - The presence of three members will be necessary to validate the Council's decisions.

Section II

General Management

Article 9 - The management of AGAPCO will be assured by a Director General who will also function as secretary for the Administrative Council. The Director General will be named by (the President for Life) upon recommendation of (the Minister of Health).

Article 10 - The responsibilities of the Director General will be the following:

- a) To elaborate an annual work plan and budget for submission to the Administrative Council
- b) To prepare the internal regulations and fix the administrative procedures, for which the approval of the Administrative Council will be required
- c) To coordinate the work of the different divisions of AGAPCO
- d) To participate in the establishment of the community pharmacies
- e) To nominate personnel
- f) To prepare monthly, semiannual, and annual financial reports
- g) To represent AGAPCO in the role of plaintiff as well as defendant.

Article 11 - A Technical Director chosen from among the degreed pharmacists with at least five years' experience will also be named, in the same manner as the Director General. In supervising the preparation and packaging of medicines, (the Technical Director) will also monitor their composition and pharmacological properties.

Article 12 - AGAPCO will keep its own financial accounts. The receipts from AGAPCO's sales will be deposited in a special account at the Banque de la République d'Haïti (B.R.H.) and will be used for the replenishment of stock and payment of the agency's operating costs.

Article 13 - The fiscal year will begin on October 1 and come to a close on September 30.

BT

Chapter Three

Resources

Article 14 - AGAPCO will have the use of land, buildings, and any other facilities that are bestowed upon it by the Ministry of Public Health.

Article 15 - The following are designated as resources: the revenues from sales, donations, and subsidies accorded by both national and international organizations.

Article 16 - AGAPCO is excused from payment of levies and taxes from the state and from the communes.

Chapter Four

The Community Pharmacies

Article 17 - Community pharmacies are, for purposes of this law, non-profit establishments whose function is to provide authorized basic medicines at low prices for the priority medical and health needs for the disadvantaged segment of the population.

Article 18 - Community Pharmacies will be created by the Ministry of Public Health and Population at the request of:

First - community groups that will participate actively in establishing the pharmacies;

Second - legally recognized philanthropic organizations, always with the participation of a community action committee or, failing that, a management committee make up of community notables.

Article 19 - Community pharmacies will be managed by clerks working under the technical supervision of the pharmacists posted in the health regions and health districts.

Article 20 - For the establishment of each community pharmacy, a stock of pharmaceutical products will be calculated on the basis of the size of the health care establishment that the pharmacy will serve.

This initial stock will be given to the community pharmacies in consignment by AGAPCO. Revenues from sales will serve as a revolving fund for stock replenishment and for payment of the pharmacies' operating costs.

Article 21 - Community pharmacies will dispense medicines to patients on the basis of medical prescriptions and in doses calculated for one course of therapy.

These medicines will be packaged bearing an appropriate label showing instructions for use, expiration date, lot number, and retail sales price.

Chapter Five

General Dispositions

Article 22 - Sales of AGAPCO's products will take place among the following clientele:

1. Community Pharmacies that have been authorized by the Ministry of Public Health (MOH).
2. Philanthropic Organizations that are directly recognized as such by the State and that (operate within) an establishment of the Ministry of Public Health (MOH).

In no case will AGAPCO be permitted to sell to commercial pharmacies.

Article 23 - This Law abrogates all Laws or dispositions of Laws, all Decrees or dispositions of Decrees, and all Law-Decrees or dispositions of Law-Decrees that might contradict it, and it will be executed through the diligence of the Minister of Public Health.

Set down in the Legislative Chamber, at Port-au-Prince, the 4th of September, 1982, 179th Year of Independence.

The President
Jaurés LEVEQUE

The Secretaries

Jean Th. LINDOR

Saint-Arnaud NUMA

IN THE NAME OF THE REPUBLIC

The President for Life of the Republic orders that the above Law be invested with the Seal of the Republic, printed, published, and executed.

Set down at the National Palace, at Port-au-Prince, the 11th of October, 1982, 179th Year of Independence.

Jean Claude Duvalier

50