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BURUNDI
HEALTH SECTOR ASSESSMENT

by

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Last, yet foremost, our thanks to all the health care providers throughout the country of Burundi who are working diligently toward **Health for All by the Year 2000** and recognize that Burundi is one of the few countries in Africa where that dream may still become a reality.

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EXECUTIVE SUMMARY

The purpose of the Burundi Health Sector Assessment conducted for USAID is to provide the Burundi Ministry of Health with recommendations for the improvement of health care delivery systems, provide USAID with information to prepare a Country Program Strategy Plan (CPSP) and provide USAID with recommended interventions that might be considered for possible funding.

The assessment was conducted by a six member team of consultants from John Snow, Inc. (JSI) plus two CDC epidemiologists on assignment to USAID/Burundi. The field work in Burundi took place during January 1992. Annex 1 indicates the names of the team members, their areas of the health sector assessment and days spent on this work in Burundi.

Conducting a health sector assessment in a country where decentralization is being considered by health sector can become confusing. To avoid this confusion this paper uses the term "health sector" when referring to the domain of health and the term "health secteur" to refer to the geographical unit being considered by the MOH for decentralization of the health system.

The assessment concludes that the current situation in Burundi is quite favorable for investments in promoting decentralized management of primary health care services supported in part by cost recovery. The concept of developing 25 geographically defined health secteurs each with a reference hospital, health centers and an administrative office corresponds well with WHO's recommendation of decentralization to health districts. Current efforts in decentralization of the vaccination program have been particularly successful.

However, it is disturbing to observe that while the concept of health secteur was proposed and planned almost ten years ago, the MOH has arrived only at the stage of decentralizing supervision and not of the management of resources. Health secteur chiefs are in effect nurse supervisors who will require significant technical support to organize a health secteur with financial autonomy. While the decentralization process does permit the local communes which manage health centers to receive and keep health center receipts, these funds are not being re-invested in the health center. The situation is additionally complicated by the existence of a national insurance scheme which the MOH would like to remain universal, i.e. apply the same fee and benefit structure across all health secteurs. There exist, therefore, a combination of constraints that have prevented the MOH from actively pursuing a true decentralization to health secteurs.

At the same time, partner agencies are frustrated by what they perceive as a lack of a strategic plan for the organization of health care delivery. This has resulted in some donors concentrating assistance at the national level, in creating vertical projects that operate independently of a strategic plan, or in donors simply forestalling investments in the health sector.

There is a need to clearly define the health secteur as the operational unit for decentralization, provide the health secteur with management and financial autonomy, and use the health secteur as an instrument for coordination of donor assistance. The is the primary policy and strategic planning issue which must be addressed by the MOH.

Burundi is the second most densely populated country in Africa. While family planning has received considerable attention as a national priority, second only to

C

"unity", and one does find contraceptives in nearly all health centers, this has only resulted in a contraceptive prevalence rate estimated at 1-3%. Family planning must become an activity that is given priority both by health center workers and through channels outside the health sector in order to slow population growth. Child mortality must be decreased so that parents will not feel the need to have as many children in order to assure the survival of the family.

The problem of AIDS in Burundi can only be expressed in epidemic proportions. While there does exist a good coordination of efforts at the national level these need to be reinforced and decentralized. The national office responsible for AIDS (PNLS) needs additional, full-time long term technical support in HIV/AIDS epidemiology. There is also a need to study relevant cultural facts via an in-depth social science investigation of sexual mores.

Health Education efforts are being well coordinated at the national level and many materials are in production. However, these materials and others that are readily available on the international market, must get into the hands of each health worker to be effective. At this time they are rarely found at the intermediate and peripheral levels.

Severe protein-calorie malnutrition exists in Burundi, but in isolated pockets. The Annual Report of the MOH (1990) lists kwashiorkor and severe protein-calorie malnutrition as responsible for 10% of deaths of hospitalized children and 8% of deaths declared by health centers. The general level of acute malnutrition of 3-6% is what one might expect to find in a developing country like Burundi. Given the increasing population and decreasing soil fertility, however, it will be important to monitor nutritional levels in selected health secteurs and respond with appropriate health education and interventions at the health center level. The approximately 50% of children who suffer from moderate chronic malnutrition will also benefit from improved nutritional practices. Goiter exists in moderate to severe levels, and is already the focus of an iodine supplementation program and a proposed project for iodizing salt.

Burundi is fortunate to have a national pharmaceutical company (ONAPHA) which has the capacity to produce nearly all the essential medicines required by health centers. The factory is working below capacity, however, because of the limited budget of the MOH for purchase of pharmaceuticals. The government intends to privatize ONAPHA in hopes of making it more competitive. Privatization by a not-for-profit NGO is recommended in order to maintain the emphasis on essential medicines which do not have a high profit margin.

Health care financing in Burundi becomes especially complicated when on the one hand the MOH would like to encourage cost recovery programs yet on the other hand wants to maintain a national insurance scheme that is now functioning as a "voluntary tax." There is a need for health care financing studies in order to assist health secteurs in developing and experimenting with innovative health care financing systems.

All in all, the MOH appears to possess most of the elements that it requires for the construction of an efficient decentralized primary health care system supported in part by cost-recovery. The MOH must, however, clearly define the specifications for the decentralized systems (health secteurs) which need to be "built" and coordinate donor assistance toward this effort. Burundi is one of the few countries in Africa where there is still a reasonable hope to attain Health for All by the year 2000, if a strategic plan can be implemented in 1992.

MAJOR RECOMMENDATIONS

IN HEALTH MANAGEMENT:

1. Adopt and actively promote the health secteur as the unit for decentralization, financial autonomy and partner agency coordination.

2. Coordinate partner agencies (including NGOs) and clarify lines of authority within the MOH by coordinating interventions by health secteur and/or by a specific activity that renders service across all health secteurs.

3. Decentralize financial and management autonomy to the health secteur and health center level in collaboration with financial technical management assistance from bilateral projects, NGOs and the commune. Reinforce the health secteur office with a MOH funded operations budget.

IN FAMILY PLANNING:

1. Redouble efforts to increase the use of modern contraceptives by making contraceptives and contraceptive services more widely known and accessible.

2. Assure clinical supervision of family planning services at the health center/hospital level. Each health secteur should have a full-time family planning coordinator. Reinforce the activities of those clinical centers designated as training sites for family planning supervisors and health center personnel.

3. Reinforce IEC activities targeted to rural people to inform them when and where contraceptive services are provided. Expand family planning services to remote areas such as once-a-week rural markets.

4. Provide training, supplies/equipment and funds for family planning services outside the MOH where there is opportunity for providing large numbers of people with contraceptives. Promote nationwide social marketing of condoms, vaginal spermicides, and oral combined pills.

5. Provide technical assistance (and visits to other African countries) to help the Ministry of Plan and Ministry of Health formulate the national population policy.

6. Reinforce child survival-related activities to assure receptivity to contraception.

7. Reexamine the current structure of the family planning delivery system to ensure an effective role for the CPPF to improve service delivery.

IN HIV/AIDS:

1. Intensify cost-effective routine sentinel surveillance activities: continue anonymous surveys with national scope and monitor special groups. Identify specific risks for HIV/STD infections.

2. Support training of PNLS staff in management, decentralized surveillance and health education. Obtain more long term technical support in HIV/AIDS epidemiology for PNLS.

3. Study relevant cultural facts via an in-depth investigation of sexual mores and use this information to expand cross-culturally appropriate interventions.

4. Evaluate the effectiveness of condom promotion activities in order to improve integrate with educational and community based efforts.

IN HEALTH EDUCATION:
1. Buy and distribute available IEC materials to all health centers. Distribute small IEC/PHC libraries to health centers, health secteurs, hospitals, nursing schools, and the MOH.

2. Use recent qualitative and quantitative research to develop new messages specific to Burundi.

3. Respond creatively to ideas and strategies generated by NGOs or by IEC coordinating groups/programs in AIDS, goiter and protein-energy malnutrition . Draw upon USAID centrally funded resources when appropriate.

IN NUTRITION:
1. Encourage donor agencies working in health secteurs to conduct nutrition surveillance and operations research in nutrition.

2. Reinforce health center nutrition activities through strengthening of health secteurs.

3. Encourage bilateral donor agencies to fund private sector investments to establish in-country capacity for iodizing salt.

IN COMBATTING CHILDHOOD COMMUNICABLE DISEASES:
1. Identify ongoing sources of funding, internal and/or external, to continue EPI activities.

2. Consider integrating other preventive services such as family planning and AIDS prevention activities with EPI.

3. The high polio vaccine coverage and low polio incidence in Burundi may allow EPI to focus its efforts on the goal of polio elimination.

4. Reinforce diarrhea prevention by maintaining measles vaccine coverage, and by health education to encourage exclusive breast feeding, increased hand washing, and domestic hygiene. Increase the number of health workers trained in ORT and health centers with ORT corners.

5. The MOH should reconsider and strengthen its current malaria treatment and prevention strategies and develop a unified national malaria control unit.

IN PHARMACEUTICALS AND LOGISTICS:
1. Privatize ONAPHA and place under the direction of a not-for-profit NGO. Stimulate local industries to manufacture containers for drugs and the produce intravenous solutions.

2. Renovate the facilities and improve the management practices of secteur level drug depots. This includes training health-care providers in the use of generic drugs and training a cadre of pharmacy technicians to manage secteur-level pharmacy depots.

3. Discourage the importation of brand name drugs rather than generic essential drugs.

4. Create a "Direction de la Pharmacie" to manage all MOH pharmacy activities/projects. Implement existing drug policies and examine the consequences of creating the centralized drug purchasing agency.

IN HEALTH CARE FINANCING:

1. Conduct a comprehensive health care financing study to formulate an economic model of the health secteur to evaluate cost recovery mechanisms.

2. Formulate a strategy which provides a framework for the design of a coherent system of cost recovery mechanisms including the continued privatization of public facilities.

3. Develop institutional capacity at the health center, health secteur and MOH in financial management and health care financing.

IN HEALTH POLICY:

1. Get the health secteur map and data base into circulation. Establish a small working group to specify the investment and operational costs of an average health secteur.

2. Obtain agreement and action from the Ministry of Territory to direct administrative communes that all receipts from the sale of CAM cards and direct fees be available to support health center costs and purchase of medicines.

3. Provide technical assistance and visits to other African countries to help the Ministry of Plan to formulate its national population policy.

IN CROSS-CUTTING ISSUES:

1. Apply the lessons learned from the successful PEV program and compare/contrast their application to other program interventions in primary health care.

2. Condition the degree of decentralization of autonomy and material/financial investment at the health secteur level on meeting specified program objectives in areas such as family planning and IEC.

3. Encourage partner agencies to support selected activities such as family planning and PEV in all health secteurs and/or to provide broad spectrum assistance to develop selected health secteurs.

4. Encourage partner agencies to maintain in-country technical assistance to assist the MOH in the strategic planning for health secteur coordination.

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1. OVERVIEW OF THE HEALTH SECTOR

1.1 THE SOCIAL SETTING

Burundi is a small, landlocked African country with three principal geographic zones: (a) the coastal plain along the eastern shore of Lake Tanganyika and the Central Rusizi River Valley north of the Lake, where the climate is tropical; (b) the high, cool central plateau region containing the Zaire-Nile divide, where the majority of the population lives; and (c) the eastern lowlands sloping down from the central plateau to Tanzania. The country's land mass is about 25,000km^2.

With a population density of 180/km^2, Burundi is Africa's second most densely populated country, after Rwanda. About 94% of the populations lives in rural areas scattered across "collines" (hills) in "rugos" (family compounds) with small subsistence farms averaging .85 hectares in size. Bujumbura, the capital, is the only relatively large city, with a population of about 225,000 inhabitants. Administratively the country is divided into 15 provinces, 114 communes and approximately 2500 "collines". Kirundi is the national language.{64}

1.2 HEALTH STATUS

The basic health indicators and population age distribution are as follows:

Basic Health Indicators		Population Age Distribution	
Under five mortality rate	173/1000	0-4 years	19%
Infant mortality rate	110/1000	5-14 years	27%
Total Fertility Rate	6.8	15-59 years	50%
Crude Birth Rate	46.8	60+ years	4%
Crude Death Rate	16.3		

The principle causes of morbidity and mortality from health centers and hospitals (1990 Annual Report of the Ministry of Health (MOH) are shown in Table 1.1.{77} While 25% of reported illnesses are in children 0-4 years, 46% of reported deaths come from that same age group.

Table 1.1
PRINCIPLE CAUSES OF MORBIDITY AND DEATH (1990)

ILLNESS	MORBIDITY			MORTALITY		
	ALL	0-4YRS	%0-4	ALL	0-4YRS	%0-4
Respiratory	625,165	207,494	33%	213	89	42%
Malaria	576,448	125,227	22%	783	296	38%
Intes. Worms	334,824	76,700	23%	0	0	0%
Diarrhea/Dysentary	203,107	85,713	42%	677	312	46%
Preg/Perinat/Congenital	68,030	1,104	1%	140	99	71%
Nutritional/Anemias	50,185	21,718	42%	327	252	77%
Measles	13,843	8,670	63%	152	126	83%
Other	804,184	151,613	19%	1,045	277	33%
TOTALS	2,675,786	678,239	25%	3,337	1,451	46%

Figure 1.1 shows the percentage distribution of illnesses within the 0-4 years age group, while Figure 1.2 indicates the distribution of deaths. Additional information regarding the current health status and trends over time for selected illnesses are found in Chapter 7.

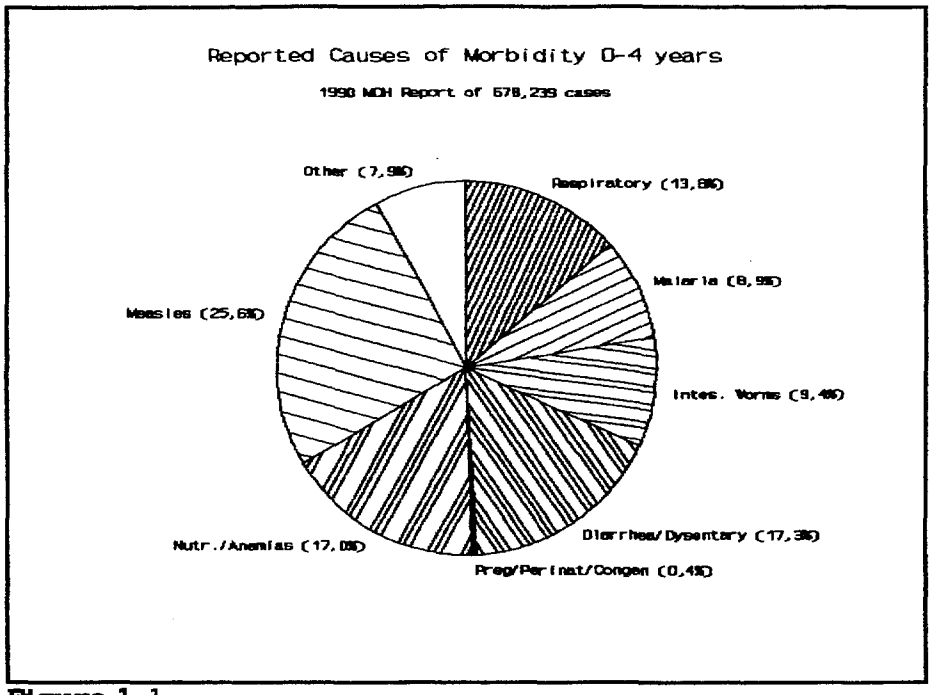


Figure 1.1

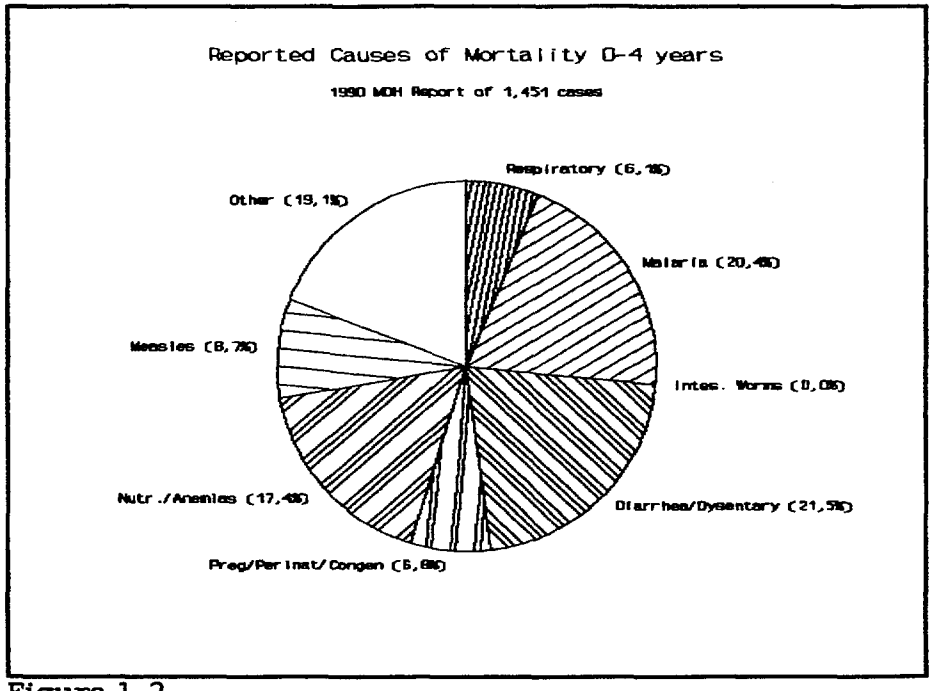


Figure 1.2

1.3 ECONOMIC PROFILE

With an annual per capita income of about $250 per year, Burundi ranks among the poorest countries in the world. The economy of Burundi is predominantly agrarian with more than 90% of the population engaged in subsistence farming. The economy took a downturn in the early 1980s due to deteriorating terms of trade, an expansionary monetary and fiscal policy and adverse climatic conditions. The increase in real GDP of 4% has been nearly offset by the high population growth rate. No significant change in these trends is foreseen in the near future.{52} Structural constraints underlying the economic stagnation experienced in recent years may be summarized as follows:

- Over-dependence on the export of coffee
- Low savings and investment
- High debt service (about 50% of exports)
- Rapid population growth
- Low and decreasing availability of arable land
- Limited size of the domestic market
- Geographic isolation due to being "landlocked"

The country is committed to structural adjustment with an overall objective to achieve real per capita GNP growth while holding current account deficits at a "manageable" level. Although the overall economic outlook is not very promising, Burundi is attempting to strengthen macroeconomic management, reform public enterprise, provide private sector incentives, adopt an active population policy, implement targeted measures to alleviate poverty and improve human resources through education and health services.

"Getting and Spending", a preliminary report of a household survey recently completed by the Institute for Development Anthropology, provides valuable insights into the nature of the economy in both the rural and urban sectors (see Annex 2).

1.4 USAID'S HEALTH PORTFOLIO

USAID-funded current activities include the following projects:

- Burundi Population Project
- Africa Child Survival Initiative/Combatting Childhood Communicable Diseases (CCCD)
- HIV/AIDS Prevention in Africa (HAPA) with initiatives by: AIDSTECH, AIDSCOM, AIDSCAP, Condom Social Marketing (PSI)

Most of the these projects will soon end. USAID must soon decide about future projects given current and projected funding and staff. These options include one or more of the following:

- proceed with the proposed Health Systems Support Project.
- continue CCCD with bilateral funding.
- extend the life of the Burundi Population project
- begin a new family planning project.
- establish a mechanism to provide occasional material and technical assistance when requested by the MOH.
- include new health initiatives under the private sector strategy.

2. HEALTH CARE MANAGEMENT

2.1 BACKGROUND

In 1988 the Ministry of Health conducted an analysis of the health situation in Burundi {101} which identified the need for improvement in practically all management systems. Among the problems identified were:

- o lack of a clearly defined and integrated health policy;
- o the absence of a public health program;
- o vertical programs hindering program integration, such as Vaccination, MCH and Family Planning;
- o failure of Health Education to follow a clearly-defined policy;
- o an emphasis on urban population representing only 6% of the population;
- o a favoring of hospitals over health centers; and,
- o failure to implement decentralization proposed in 1977.

2.2 MOH STRUCTURE - CENTRAL LEVEL

The organizational chart of the MOH is shown as Figure 2.1. The fact that the MOH has gotten these relationships on paper is commendable. The fact that it is the focus of much discussion within the MOH and among partner agencies is healthy. However, several partners have projects which have been initiated, implemented and supervised at a level above the department under which their intervention would normally fall. These has led to situations where a project director (as in the case of the Health and Population Project) reports to two different levels within the MOH, or where a program intervention, such as family planning, is to be implemented by a coordinating office (CPPF) rather than a program office. At the same time it is noteworthy that other projects (PNLS, EPS and PEV/CCD) have respected the organizational chart and appear to work well under the department of hygiene and prevention.

What really matters, of course, isn't rectangles and lines, but how projects are planned and managed. The MOH organizational chart currently reflects a sponsor-driven Ministry with some projects reporting to the Cabinet of the Minister instead of the appropriate departments. While negotiation with partner agencies is appropriate at that level, project design should be done with the technical department(s) and sub-direction(s) concerned with the interventions. Implementation of signed projects should be the responsibility of the subdivision or department with the Cabinet of the Minister functioning in the role of inspection and control.

It must also be noted that the proliferation of projects and programs attached directly to the cabinet may be caused by partner agencies who prefer to maintain a contact point perceived as closer to the Minister of Health. Only when the partners agree to "play by the same rules" **and** when the MOH has a clear master plan into which partner agencies can conceptually fit their projects at the departmental level will this problem be resolved.

2.3 MOH STRUCTURE - PERIPHERAL LEVEL

The original decentralization plan in 1977 created four health regions headed by medical directors to supervise a system of decentralized hospitals, but was not successful when it became evident that some provinces were favored.

The 1985 reorganization of the Ministry of Health established 15 health provinces each headed by a Provincial Director. Each province was subdivided into health

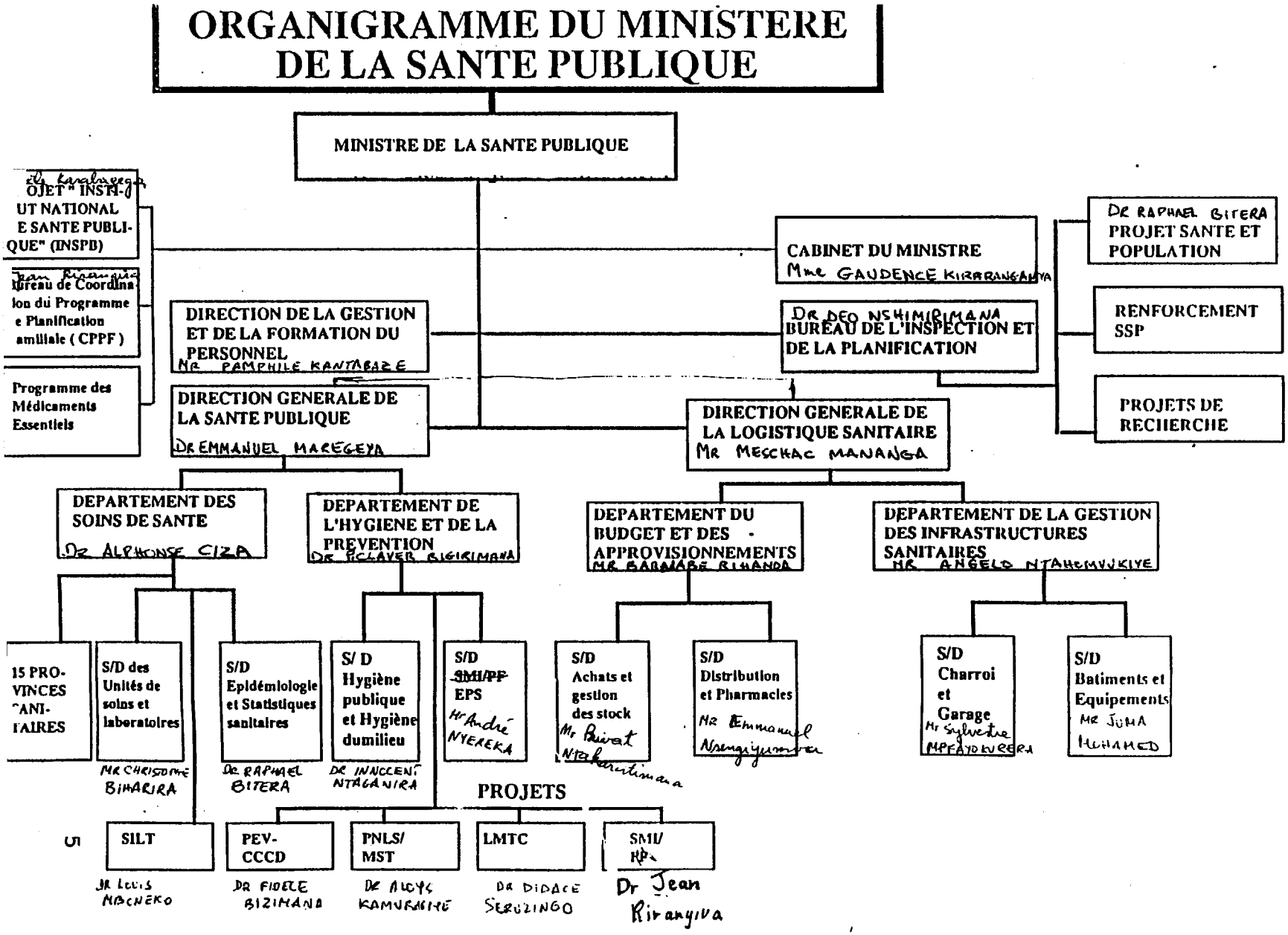


Figure 2.1
ORGANIZATIONAL CHART OF THE MINISTRY OF HEALTH
REPUBLIC OF BURUNDI

secteurs with a reference hospital, and health zones, each with a health center (see Figure 2.2). Of the 269 health centers in Burundi, 175 are run by the State, 61 are agrées (supported primarily by a religious community) and 33 are attached to hospitals (state or agrées).

The head of the health province is the medical director who is responsible for all health care services in the health secteur(s) attached to the health province. The health secteur chief reports directly to the medical director, keeping that office informed of activities taking place at the health center level. The health secteur chief supervises health centers about once a month (when/if a vehicle and fuel are available) usually spending a whole day discussing problems or providing needed assistance. Supervision is often used for the delivery of medicines and vaccines.

The health center is administered by a medical technician (nurse) assisted by one or more auxiliary nurses. A representative of the administrative commune is present at some centers to receive consultation fees and health insurance payments. Receipts are turned over to the commune on a daily basis.

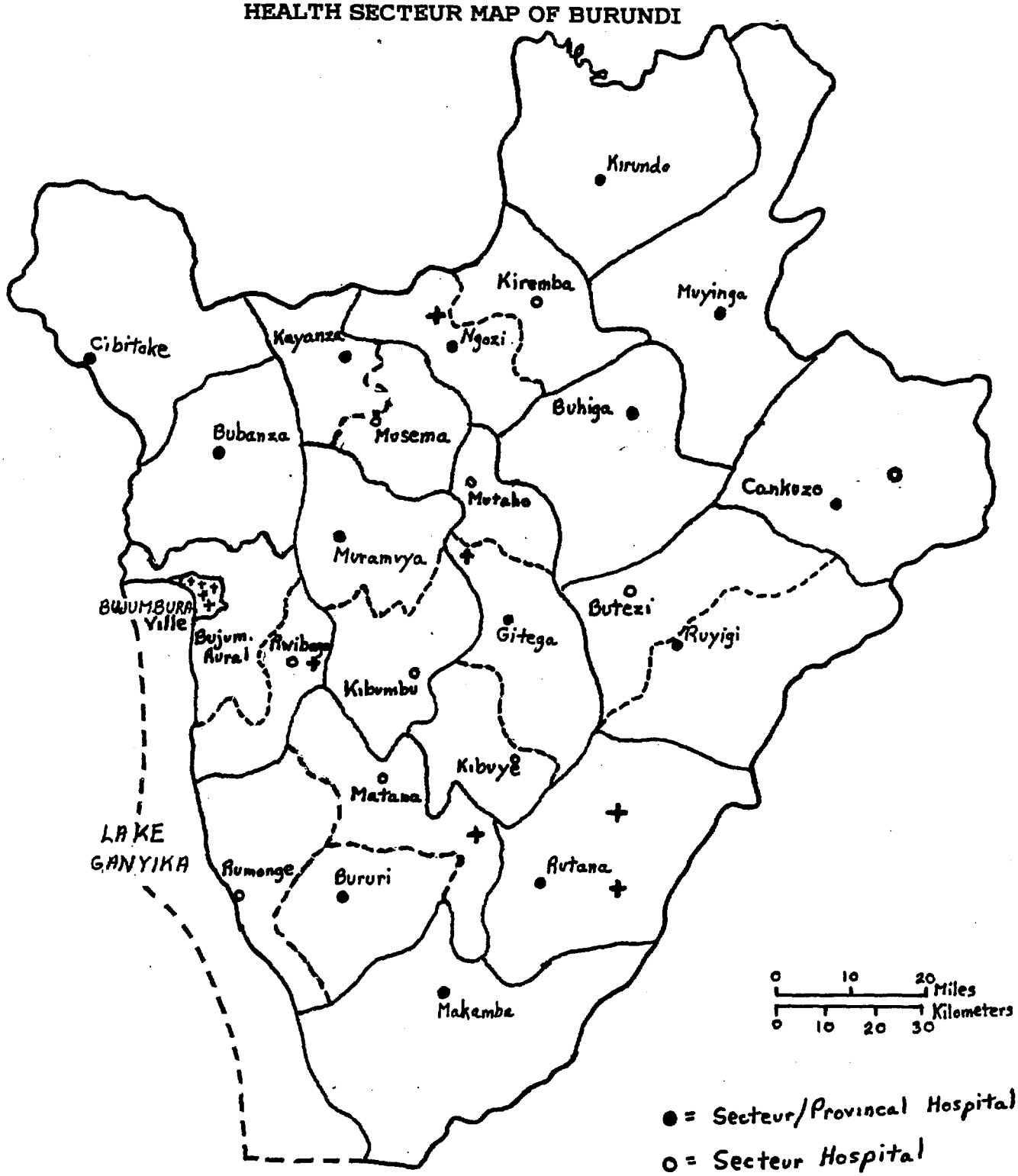
Visits to health centers revealed that those attached to hospitals are better staffed, better supplied, and benefit from more training activities. A lack sufficient of medicines at most health centers was no real surprise, but poorly-maintained pharmacies with unused stock cards or logs was disturbing, especially when the nurses in charge failed to see any problems. At the same time it must be said with admiration, that certain preventive activities such as vaccinations are being accomplished at a remarkable level. One must wonder, however, how much better would be staff morale and community utilization of services if health centers had adequate medicines and were able to re-invest their income into the purchase of more medicines.

Health center management committees exist in selected communes to promote community participation in preventive activities and to manage the income of the health center. The committees are composed of elected representatives from the collines. In reality, community participation is at best a community representation on a committee that does not really function, and with accounting procedures less than transparent. No one is quite sure how health center income is spent by the commune, but it is estimated that communes return less than 10% of the health center income, in the form of paper, pens and kerosene. This is in contradiction with any cost recovery objective in which receipts need to be recycled for the provision of health care services or the purchase of medicines. Health secteur chiefs observed that commune administrators were not particularly interested in health care, yet noted that is necessary to obtain the permission of the administrator before discussing health concerns with the local population. This is a major constraint in promoting grass roots development initiatives.

When asked what are the priority problems that health centers and health secteurs encounter, a group discussion with health secteur chiefs elicited these responses:

- a lack of fuel prevents vaccination and health center supervision;
- unavailability of medicines impedes the successful operation of a health center;
- a lack of spare parts for the cold chain hinders the vaccination program;
- a lack of awareness by the population of health matters, e.g. family planning;
- inappropriate division of work among nurses results in long waits for patients;
- a lack of a vehicle and travel allowances to recruit the support of the commune;
- frustration and lack of motivation in not having the resources to do a job;
- not enough technical training for health secteur chief.

Figure 2.2
HEALTH SECTEUR MAP OF BURUNDI



A WORD OF CAUTION: THIS MAP IS NOT OFFICIAL

This map has been drawn simply to examine the potential of using health sectors as the basic unit for decentralization of health care management and coordination of partner agencies. The mapping is based on the 1990 MOH report, the 1990 Census, the 1989 PS&P map, the 1990 Caritas report and written/verbal reports from other NGOs.

2.3 DEFINING THE OPERATIONAL UNIT FOR PHC MANAGEMENT

The MOH must move quickly to more clearly define the operational unit of decentralization and then use this unit as a planning tool and mechanism for coordination of partners. The concept of "health districts" as proposed by WHO and "health zones" as developed in neighboring Zaire are quite appropriate models from which numerous lessons learned can be applied to the situation in Burundi. See Annex 3 for an assessment of options for decentralization.

Discussions with MOH staff as well as partner agencies indicate that nearly everyone, with the possible exception of the FED, is thinking "health secteur" rather than "health province" as the unit for decentralization. Those who are not convinced are concerned about separating health secteurs from established administrative limits.

The definition of the health secteur as the unit for decentralization must go hand in hand with financial autonomy at the health center/commune and health secteur. Ideally all receipts at the health center level should be kept in an individual account at the health secteur or commune level for the purchase of medicines and functioning costs. The health secteur pharmacy should receive an annual budget from the MOH which could be divided as a subsidy among health centers.

2.5 PARTNER AGENCY INPUTS IN HEALTH MANAGEMENT

As shown in Table 2.1 (details in Annex 4), many partners support management activities in multilateral and bilateral projects. Highlights of assistance in management are as follows:

UNICEF and USAID provide vehicles and fuel through PEV/CCCD to health secteurs for supervision of health centers

USAID through PEV/CCCD helped set up a national HIS and will provide long-term assistance to the MOH in epidemiological surveillance during 1992/93.

WHO supports a management training course at the University of Burundi taught by a Zairian who worked in the health system in Zaire.

Belgium plans to implement a management system for the hospitals and health centers of four health secteurs.

The FED plans to implement a management system for the hospitals and health centers of five provinces.

Germany is providing two MDs to the hospital at Kiremba. It also supports training and in hygiene in conjunction with water systems.

France has 12 MD specialists at the University and provides medical training in France. They also plan to construct a rural teaching hospital in Kinyinya.

UNFPA plans to support Family Planning coordinators in each province to work with the medical director and health centers.

CECI, the Center for Canadian Studies and International Cooperation (CECI), provides technical assistance in pedagogy of AIDS at the three Burundian nursing schools.

CARITAS assists about 50 health centers and 4 hospitals.

The Protestant churches (Methodist, Adventist, Baptist and Anglican) operate 20 health centers and 6 hospitals.

TABLE 2.1
INSTITUTIONAL STRENGTHENING ACTIVITIES 1990-1994 (millions FBu)

PARTNER ACTIVITIES	IMPROVE MGMNT	TRAINING	TECH ASST	DEVLP INFRA	IEC	HIS	TOTAL
1. MULTILATERAL----------							
IDA	147	128	83	2769	89	10	3226
FAD	34	111	171	1664			1980
FED		37	249	507			793
UNICEF	360	37	157	308	205	49	1116
OMS	93	60	668	50	10	4	885
UNFPA	63	107		116			286
UNDP			76				76
2. BILATERAL----------							
GERMANY			227	45			272
BELGIUM	300	44	950	1607			2901
CANADA	49	31	154	35			269
CHINA		5	394				399
CUBA			509				509
EGYPT			66				66
FRANCE		49	407	290			746
HOLLAND			66	101			167
USSR		103	525				628
USA		177	147				424
3. NGO(underestimated)----------							
		7	401				408
4. GOVERNMENT----------							
IDA	96			45	44	11	196
FAD	6	3		214			223
OTHERS	386						3860
==========							
GRAND TOTAL	5008	999	5253	7750	349	74	19433
%	26%	5%	27%	40%	2%	04%	100%

source: project documents, budget regs. and PDP 1991-1993 {57}

Numerous partner agencies are involved in some degree of management training support at the national level (PEV/CCCD, World Bank, WHO), the intermediate level (FNUAP), hospital based (French, Caritas, protestant), health secteur (Belgium, FED, CCCD), nursing schools (CECI), health center (UNICEF, world bank, catholic, protestant) or community (KFW/Germany). It would be nice to say that these efforts are coordinated and complementary, but the reality appears to be that each agency is working without understanding how their effort fits into the master plan of decentralization (see Chapter 11).

2.4 MANAGEMENT OF HUMAN RESOURCES

The MOH employs some 3500 individuals throughout Burundi of which 400 are project personnel connected with bilateral health activities. 62% of all medical personnel are located in Bujumbura. This means that only 38% of the total medical personnel are

serving some 94% of the total population. Equally disturbing is the fact that only 5% of Burundian medical specialists are located in the interior.
The medical school graduates about 20 MDs annually, but needs are estimated at 30-35. As of August 1991, the country had 337 MDs, of which 247 were nationals. Of the total, 160 were generalists, 17 were MDs with Public Health specialty and 63 were specialists in other fields. Burundi does not have sufficient human resources either in general medicine or specialized medicine. The MOH will continue to resort to technical assistance in hospitas and projects.

The Bujumbura National Public Health Institute, a project financed by the African Development Bank is designed to strengthen the MOH thorough training, research, laboratory testing and consultancy services. The total project cost is at least $10 million. Although designed to become completely self-financing in four years, this project is anticipated to consume 7% of the MOH's 1993 operational budget. In a situation where budget allocations for medicines are woefully inadequate and budgets for operational costs of health secteurs are virtually non-existent, this type of investment should be reevaluated.

2.5 **RECOMMENDATIONS**

1. Adopt the health secteur as the unit for decentralization, financial autonomy and partner coordination. Get the health secteur map and a data base into wide circulation and regular use.

2. Coordinate partner agencies through regular meetings with the planning and technical offices. The MOH and other partners should target assistance and coordinate interventions by health secteur and/or by a specific activity that renders service across all health secteurs.

3. Clarify organizational lines of authority and responsibilities at all levels of the MOH. The MOH and partner agencies should avoid creating costly "parallel pyramids of power" that short circuit normal lines of authority and ultimately work against effective partner coordination.

4. Decentralize management autonomy to the health secteur in collaboration with technical management assistance from bilateral projects, NGOs and the commune. Provide the health secteur office with a MOH funded operations budget and more management training for health secteur chiefs, pharmacy technicians (see Chap. 8) and family planning coordinators (see Chap. 3).

5. Turn over management of fee income to the health center level with management controls by the commune and health secteur. The Ministry of Territory should direct administrative communes to use 100% of receipts from CAM cards and direct fees for provision of health care services, including the purchase of medicines.

8. Conduct health cost financing studies aimed at the health center and health secteur level to assist developing secteurs in establishing financial management systems at the health center/communal level (see Chap. 9).

9. Strengthen existing teaching institutions (rather than creating new ones) to better train and train more health providers. The MOH should make special efforts to provide extra benefits to personnel in rural health secteurs.

10. Explore ways to encourage NGOs to actively participate in the management of health secteurs using their existing infrastructure of hospitals and health centers.

3. FAMILY PLANNING

The population of Burundi will double before the year 2020. This country, which desires so much to enter the developed world, will never develop so long as the relentless increase in population nullifies virtually all material progress it makes. Technical assistance projects in Burundi will be of little benefit to the people unless population growth rates are reduced. Burundi hardly has enough resources to maintain the present standard of living of its people. In the coming years, these resources must be further subdivided among an expanding population which can only contribute to decreased health and increased social tensions.

3.1 PARTNER AND MOH INTERVENTIONS: CONSTRAINTS AND SUPPORTS

In 1991, the government created an office for coordinating all activities relating to demographic control, the Office of Coordination of the National Family Planning Program (CPPF) to:

- choose methods of family planning to be introduced throughout the country
- coordinate all activities of IEC used by family planning services
- assure quality control for family planning services {ref decree}

The CPPF was moved, on the organigram, to a position of prominence, directly under the Minister of Health. In this position the CPPF, theoretically, should coordinate all family planning interventions of the various partners/projects: Current projects include:

1) USAID/Pathfinder Family Planning Project (training of health workers, IEC, and service delivery)

2) UNFPA (training of health workers, IEC, provision of contraceptives, and support of the population policy planning unit and women's extension project)

3) The World Bank Population and Health Project (creating and reinforcing MCH/FP unit in the MOH, provision of contraceptives, construction of health centers, and provision of motorcycles for supervision.

4) The German Government (plans to fund contraceptives and supplies).

Actually, the CPPF task of coordinating interventions is difficult because some interventions already had a momentum of their own before the creation of CPPF, and are located in different offices of the government. In these cases, the CPPF informally trades information to and from the various offices. Despite the lack of formal coordination among projects, the following interventions are underway:

o IEC. (see Chapter 5, Health Education.)

o Contraceptive user statistics. According to CPPF they are supposed to receive monthly reports of all health centers which are compiled by the health secteur chiefs. These reports, if filled out properly and sent in in a timely fashion, would give valuable information on contraceptive usage throughout the country. This data is a copy of that received in the EPISTAT office of the MOH, a project of the World Bank. Unfortunately, lack of transportation and training often hinders this process.

o Contraceptive supplies. Contraceptives are stored for the whole country in the central warehouse of the CPPF. From there, secteur chiefs come monthly or quarterly to replenish their stocks for their secteur health

centers. A system has recently been implemented which provides CPPF with a running account of which contraceptives are going where in the country.

o Training. All family planning training for health workers is coordinated by the CPPF. In fact, currently there is just one in-service training program underway, that of the Pathfinder project. The sessions are held on the provincial level for health center nurses and polyvalent supervisors. Seven provinces have been covered, and the other eight are programmed for sessions during 1992. Training in family planning also takes place in the three nursing schools of the country. While a family planning curriculum is being developed for the medical school, additional funding will be required to purchase the materials needed for its implementation.

o Service delivery. The CPPF does not implement service delivery directly, but rather through the projects which it coordinates. The CPPF is mandated, however, to establish quality control and supervision norms for projects and service delivery points. However, the CPPF lacks the human and material resources to assure quality control of family planning service delivery. Site visits are infrequent because a good supervision protocol, trained motivated staff, and dependable vehicles are not always available to carry out supervision of services at the point of delivery. The overall structure of the family planning delivery system needs to be reexamined to determine what appropriate role the CPPF could or should play.

In the capital city, integration of interventions seems to happen without much conflict or duplication. The city is small enough and the actors are few. In the interior of the country, the CPPF, in following the MOH decentralization design, has left integration of family planning interventions in the hands of the provincial medical officers and health secteur chiefs. There is little direct interaction between the CPPF and the periphery.

The CPPF functions at a sub-optimal and rather passive level. It has not yet become the major advocate and actor in family planning in Burundi. Thus far, the CPPF has spent an enormous amount of time in developing an organizational chart and in writing a five year strategy to present to the MOH. CPPF intends to use this document to seek support from prospective partners for project support. However, there are already three partners giving support to family planning and at least one other eager to provide support waiting to see improved coordination and action in the family planning sector. The CPPF is constrained by inexperience and caution. Fortunately, the people there are open to new ideas and suggestions. They would profit from additional experienced technical assistance, especially in the area of supervision and service delivery. Continued exposure of CPPF personnel to other, more aggressive, family planning programs in Africa also may help this situation.

3.2 LEVEL OF SERVICE DELIVERY INTERVENTIONS

The rate of modern contraceptive use in Burundi remains quite low (1-3%). A 1985 pilot KAP study of 300 couples (mostly from rural areas) indicated that while 80% of the persons surveyed had some knowledge of modern contraception and awareness of demographic pressure in Burundi, the desired average family size was on average 6.0 {45}, while the current total fertility rate is estimated at of 6.8.

The 1987 Demographic and Health Survey {33} indicates that:

- 67% of the women interviewed were currently married
- contraception is accepted in principle by the majority of women
- 63% of women responded that they would be unhappy if they became

pregnant during the next few weeks. Of these women 49% cited "breast-feeding" and 16% "lack of information" as the principle reasons for not using contraception.

- 94% of married women who know at least one contraceptive method approve of couples who use contraception.
- 70% of women think that their husbands approve of contraception.
- 12% of married women not currently using a contraceptive method stated their intention of using contraception within the next 12 months. An additional 20% intend to use it sometime in the future.
- 67% of women intending to use contraception prefer modern methods with injectables as the first choice (38%) and pills as the second choice (22%).

The above figures indicate that a large number of women are interested in obtaining a modern method of contraception. Given the 175 health centers where modern methods of contraception are available, these potential clients should translate to 20-30 new users per month per health center. This represents, therefore, a considerable unmet demand which could potentially be tapped at least in part by a more assertive family planning effort by health center nurses, especially since most married women come to the health center to vaccinate their children or seek curative care.

At the same time one can not neglect the ultimate importance of attitudes which determine current and future usage of contraception. One can not help but wonder why the 66,000 women mentioned above are not more actively seeking contraception as the health center. Is it the long lines at the health center, or the lack of assertiveness with which contraceptive services are offered, or are women not truly ready to accept contraception because of high child mortality and the importance of traditional values? This is a fertile area for operations research to study which family planning service system is most effective in stimulating increased contraceptive usage. One should continue to examine the various components of the family planning program and of Burundian attitudes in order to determine why contraceptive use is so infrequent. This information should be used to develop family planning messages specific to the Burundian situation which make known the availability of contraceptives at the health center and encourage attitude changes in acceptance of contraceptive usage.

With regards to current family planning service delivery, the following observations are made:

3.2.1 Contraceptives.
In virtually all health centers, contraceptives are in ample supply and are actually on the desks of the nurses designated to handle family planning. All centers have the major contraceptives: standard combined pills, injectables, and condoms. Some centers do not have mini pills, and IUDs. Vaginal spermicide tablets have not yet been introduced in the periphery.

3.2.2 Personnel
All centers have on hand at least one nurse or technician who is who can offer pills, injections, and condoms, but only selected centers have staff trained in IUD insertion. The MOH does not plan, at this time, to make IUD contraception available at all health centers.

3.2.3 IEC---Health Education
In all centers, health lessons are given each day. The lessons usually follow a prescribed sequence and a lesson on family planning is said to be given at least once

a week. These lessons are given by various members of the health team. The audience is made up mostly of mothers who have brought children to the well-baby program of the center for weighing and immunizations. Sometimes posters or flip charts are used in family planning lessons. Show and feel of actual contraceptives does not take place as a part of teaching. While some centers have family planning posters on the walls, they all lack a sign or logo indicating that family planning services are available. Signs with family planning logos are scheduled to be placed at every service delivery point by August 1992.

3.2.4 Supervision

In theory, the chief of the health secteur visits each health center approximately once a month. In fact, lack of a vehicle or fuel often profhibits regular visits. Because of the obligation to supervise all aspects of the health center, it is impossible to devote adequate time and attention to family planning services. Consequently the service delivery of family planning does not receive the supervision it requires. The supervisor is more diligent in receiving and tabulating family planning statistics as well as other important service statistics of the health center.

3.2.5 Orientation of services

Health centers are not oriented to give priority to persons seeking contraceptives. Most centers receive sick patients and contraceptive seekers on an equal basis. Each must wait his or her turn, sometimes for hours. In some centers, contraceptive seekers and prenatal patients are intermixed. Only in large centers (eg. Prince Regent Charles Hospital) is there a special time for family planning. Rarely is there a special place exclusively for administering family planning services.

The offering of services is passive. The client must ask for contraception. No nurse or other health worker offers it to her/him or suggests that she/he would benefit from using a modern contraceptive. Health workers do not seem aware that contraception is appropriate for all mothers of young children. Even in the health centers which have an adjacent maternity ward, almost never does a family planning person actually go to the maternity and suggest that a new mother begin contraception and give her information on how to do it or approach the father about using condoms.

In summary, although it appears that most of the components of a successful family planning program are in place, however, there seems to be a tendency on the part of health center personnel to treat people needing contraception as ordinary patients coming for diagnosis and treatment, rather than as clients seeking a specialized service.

For modern contraception to take hold in Burundi, there must be a reorientation of services as will as attitudes; the client must be the object of special consideration and focus. The enthusiasm for family planning seen in the highest levels of the government must be translated to the nurses who serve people in the remotest health center. Special prizes and recognition may stimulate health centers to recruit more family planning acceptors.

3.3. THE FAMILY PLANNING POLICY ENVIRONMENT

Currently, the family planning policy environment is quite positive yet frustrating. For over a decade, family planning has been the subject of public debate, which was fueled by such initiatives as a RAPID presentation by the FUTURES Group. It should be noted, however, that these occurred before many of the current Ministry of Health staff was in place, so it would be advantageous to reinforce this approach

with additional presentations. Burundi decision makers have watched as national leaders in surrounding countries have endorsed the reduction of population growth rates. There have been minimal protests from pro-natalist groups. The public support of family planning is a common occurrence. In fact, a number of Party and government dignitaries are charter members of the local IPPF (International Planned Parenthood Foundation) chapter, ABBEF (Association Burundaise pour le Bien-Etre Familial).

In this environment, UNFPA (United Nations Fund for Population Activities) supported the creation of a Population Planning Unit (UPP) in the Ministry of Plan. Among other tasks, the UPP was charged with organizing the preparatory phase of developing a national population policy. The UNFPA grant, which provides technical assistance from the International Labor Organization, was initiated in 1990 and has a two-year mandate for the preparatory phase. The most significant achievement, thus far, has been the National Seminar on Population and Development held in November 1991. A series of mini-seminars is planned to address the population issue vis-a-vis each sector of the country. In November 1992 a second National Seminar on Population and Development will be held which, supposedly, will deal with the various sector reports. After this second seminar, the UPP will begin to draft the population policy.

Although some progress in the formulation of a population policy appears to have been made, partner agencies are disappointed with the slow pace of the undertaking. There does not appear to be any deliberate resistance in the Ministry of Plan to formulating a population policy, but rather there is some hesitation on the part of the staff of the UPP to move with dispatch. The fact that the population policy requires an inter-ministerial agreement also complicates the development of any kind of national policy. The desire to err on the side of caution is also a certainly a factor. The UPP staff is open to suggestions and welcomed the idea of technical assistance in policy formulation from experienced staff of the FUTURES Group. Sending key players for an exchange of experience in other African countries which have such a policy might also be useful in accelerating policy development.

Fortunately, progress in the delivery of contraceptive services in Burundi may proceed at the same time as the formal elaboration of a national population policy. However, mid-level technical personnel of the MOH should increase their interaction with the communities where family planning service delivery must increase. There is a need to enhance the initiatives already underway, but which are not getting to the level of the service providers. The MOH should use every channel possible, from the health center to the marketplace, to accelerate the use of contraceptives, as only a significant acceleration will curb the rampant rate of population growth. Any partner agency interested in advancing the well-being of the people of Burundi will endorse this move. In fact, some partners may seek to condition further economic and technical assistance in various sectors upon the acceptance of a strategy to accelerate family planning activities.

The MOH may find it difficult to accept the social marketing of oral combined pills, but a thorough documentation of their efficacy and safety in successful family planning programs elsewhere should allay MOH apprehensions of this mode of contraceptive distribution. The support of family planning service providers

outside the MOH may disturb some authorities, who would like to keep such services under medical control. They must be convinced that non-MOH systems often work as effectively or better and are more creative than government systems. Moreover,

outside the MOH may disturb some authorities, who would like to keep such services under medical control. They must be convinced that non-MOH systems often work as effectively or better and are more creative than government systems. Moreover, any and every competent organization should not only be tolerated, but actually recruited to join in the struggle to bring the population growth rate under control.

3.4 RECOMMENDATIONS

The MOH in collaboration with a partner funded project should redouble its efforts to fund and increase the use of modern contraceptives. This should include:

1. Reinforce social marketing of condoms; introduce marketing of vaginal spermicides and oral combined pills.

2. Assure clinical supervision of family planning services at the health center/hospital level. Each health secteur should have a full-time, itinerant coordinator exclusively for family planning.

3. Equip and ensure proper supervision of selected clinical centers which have been designated as training sites for family planning supervisors and health center personnel.

4. Reinforce IEC activities targeted to rural people to inform them when and where contraceptive services are provided. The IEC activity should collaborate with the IEC unit of the MOH, yet it should have a distinct focus on family planning services.

5. Expand family planning services to remote areas such as once-a-week rural markets. Each family planning supervisor could be assigned to supervise at least one area at a distance from any health center.

6. Provide short term technical courses and site visits to successful African family planning programs for the top technical people in the MOH family planning coordination office.

7. Provide training, supplies/equipment and funds for family planning services outside the MOH where there is opportunity for providing large numbers of people with contraceptives. These will include religious groups, private industries, women's programs, and government programs other than those of the MOH.

8. Provide ample stocks of contraceptives (including NORPLANT), supplies, instruction manuals, equipment, and surgical instruments.

9. Initiate incentives to recruit family planning acceptors and incentives to parents to have fewer children. For example, any health center staff or commune which has a 50% increase in acceptors over the previous year should receive special recognition and a prize.

10. Increase technical assistance to help the Ministry of Plan formulate its national population policy and update the current RAPID presentation (Futures Group).

11. Reinforce child survival-related activities to assure parents that it is not necessary to have more children than desired.

12. Reexamine the structure of the family planning delivery system with a specific focus on redefining the role of the CPPF with respect to improving service delivery.

4. HIV/AIDS

4.1 BACKGROUND

The magnitude of the HIV/AIDS epidemic in Burundi has only emerged recently. New data suggest that one out of every five Bujumbura residents aged 20-35 may be infected with HIV. This proportion may be increasing, but more detailed information about specific patterns of spread is needed. To combat AIDS and other sexually transmitted diseases (STD's), in 1988 the Ministry of Health created the National AIDS Program (PNLS: Programme National de Lutte contre le SIDA-MST (PNLS). Its eight member staff plus support personnel are responsible for routine AIDS case and HIV sentinel surveillance activities, prospective cohort studies, blood product safety, mass media and school education, as well as intervention projects among high risk populations. Population Services International (PSI) began a private sector effort to promote condom use in 1990. The PNLS has undertaken an ambitious program designed to attack the epidemic on all fronts, but limited resources, uncoordinated partner involvement and insufficient knowledge about AIDS in Burundi make follow-through in all areas difficult. (see annex 5 for partner list).

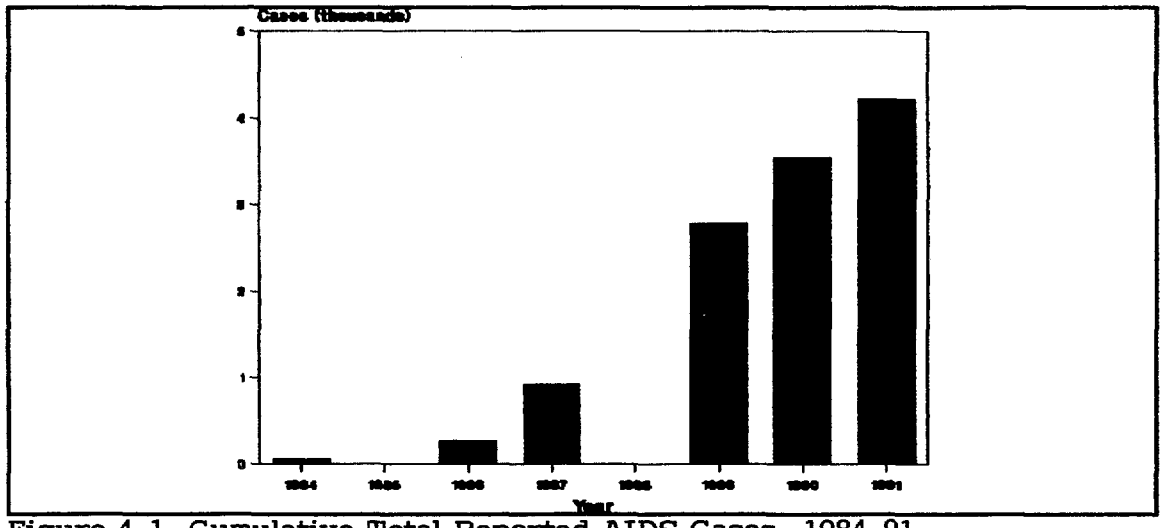


Figure 4.1 Cumulative Total Reported AIDS Cases, 1984-91.

4.2 SCOPE OF THE AIDS AND HIV

HIV appears to be increasing in scope and magnitude. Before 1984 there was little overt evidence of the virus, but today AIDS patients are overwhelming an already fragile health care system. The rapid rise in case reports for the nation to more than 4000 by the end of 1991, corresponds to increased awareness of AIDS as the end stage of HIV infection (see Figure 4.1). Because of the long incubation period which precedes the manifestation of AIDS, the most recent case reports describe infection which occurred years ago. Prevalence studies and limited sentinel site surveillance data suggest that the cases seen now are only the tip of the iceberg.

Meanwhile with regards to socio-economic and health impact of AIDS, hospitals in Bujumbura are crowded with AIDS patients. Clinical resources, including medicines, hospital bed space, and physician time are exhausted by the care of terminally ill people. It is estimated that in Burundi's urban hospitals, people with AIDS occupy 80% of internal medicine beds for long.

Alarmingly high seroprevalence figures imply a massive "submerged" presence of HIV infection in the urban and semi-urban population, with no signs of illness. Monitoring the evolution AIDS should be comprehensive to include both sentinel site

surveillance in rural as well as urban areas and cohort studies to monitor acceleration of the epidemic. WHO/GPA recommended routine surveillance of HIV in well-defined "sentinel" population groups is meeting the first objective. The measurement of new HIV infection is the focus of USAID/AIDSTECH funded cohort study. The PNLS staff appear to be overwhelmed by these studies, especially the more labor-intensive but perhaps less important cohort study. These efforts must be well coordinated and receive the necessary support to achieve their objectives.

Historic information on the national prevalence of HIV is limited (see Table 4.1). A 1989 national survey {8} estimated that about 15% of urban residents of reproductive age were infected, compared to only 0.7% of persons living in rural areas.

Table 1: HIV Seroprevalence Studies
Burundi, 1985-91

	Bujumbura	Province Towns	Rural
1985			
STD Clinics	6.4%	-	1.8%
1986			
Prenatal Clinics	16.0%	-	-
1989			
National Survey	15.2%	14.7%	0.7%
1991			
Prenatal Clinics	19.9%	12.2%	0%

Sentinel surveillance in Burundi began in 1991, when anonymous testing in prenatal clinics became available. Among the groups for which HIV seroprevalence data is available (see Annex 6) pregnant women are thought to be more representative of the general population. Although limited by inadequate sample size, recent data from sentinel site surveillance of pregnant women, indicate unprecedented high HIV prevalence in the urban and semi-urban population (see Table 4.2). These data also suggest that one out of every five Bujumbura residents of reproductive age maybe affected by HIV. More data is required to monitor future trends.

Table 2: HIV in Prenatal Clinics
Burundi, 1991

Site	Sample Size	HIV Seroprevalence
urban:		
Bujumbura	n = 336	19.9%
semi-urban:		
Rumonge	n = 81	6 %
Ngozi	n = 184	9.2%
rural:		
Mutoye	n = 142	0%
Total	n = 952	13.1%

4.3 INTERVENTIONS TO CONTROL HIV/AIDS

Since 1987 PNLS has introduced continuous testing of donated blood to assure safety of products in five of the largest transfusion centers in Burundi. As a result, it is reasonable to assurme that most transmission now occurs through heterosexual and perinatal routes. Controlling further spread will require continual monitoring of the patterns of transmission as well as effective methods of education that take into account cultural beliefs regarding intercourse and reproduction, the and the social acceptability of known modes of HIV prevention such as limiting numbers of sexual partners and condom use. In addition, increasing awareness among policy makers in various branches of the public and private sectors about the impact of HIV and AIDS will help make the implementation of these strategies possible.

Precise patterns of spread in Burundi will be further illuminated as research continues. Data already available from the 1989 sero-survey indicate an age and gender distribution typical of other African countries (see Figure 4.2).

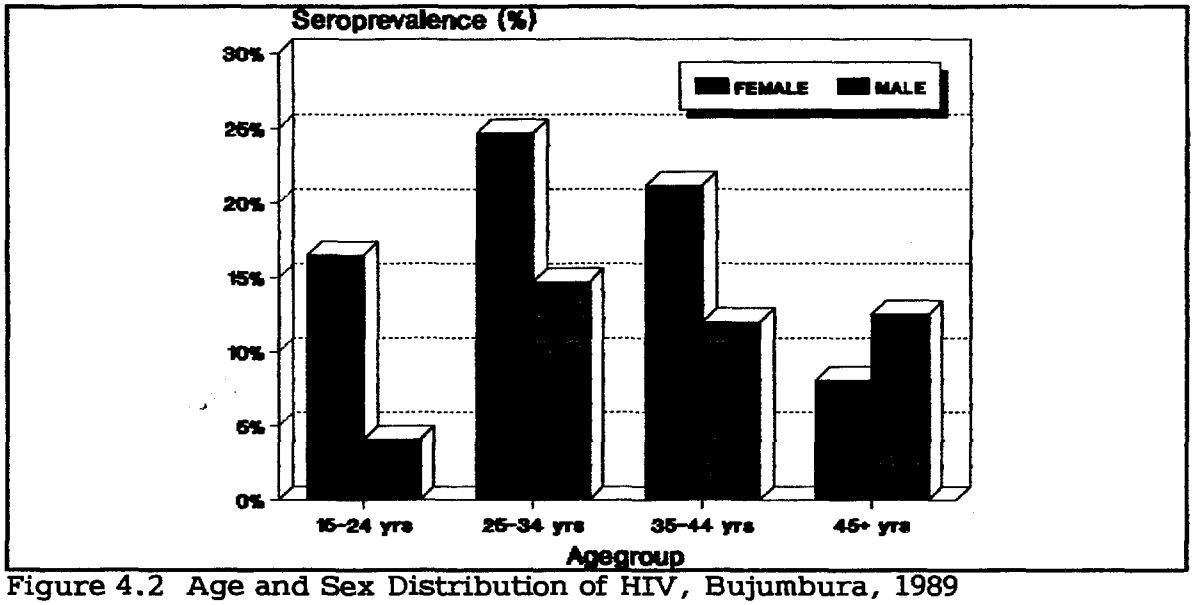


Figure 4.2 Age and Sex Distribution of HIV, Bujumbura, 1989

These data suggest that women are infected at younger ages and higher levels than men. As the studies underway progress, data describing the epidemic among male workers and both male and female university students in Bujumbura will become available. More investigations are needed to descrive HIV incidence in other sexually active groups of men and women in their reproductive years including, but not limited to, commercial sex workers and STD patients. Coordination of studies should occur at the PNLS. The PNLS would benefit from technical assistance to provide continuous expert guidance in epidemiology and management.

There is also a need for in-depth definition of sexual beliefs and cultural behavior predisposing Burundians to the risk of HIV infection. Anecdotally, it is said that Burundians are "reserved" in general, and require a great deal of privacy. The existence of commercial sex workers in the society is still not readily acknowledged, and condoms are closely associated with disreputable sexual promiscuity. Two KAP surveys have shown a high level of awareness about AIDS (see summary in Annex

7), but an anthropologic study is needed for effective intervention. Such work should be done in collaboration with social scientists from the University of Burundi.

Culturally appropriate pathways for education must be identified. The Ministry's "Information, Education, Communication" (IEC) program provides some AIDS education services, mostly with radio spots, school programs, and brochures. A non-Kirundi speaking observer can only note that outside of some health centers and schools, these efforts are inapparent. Because HIV infection is known to "strike the underbelly of society," persons of low socioeconomic status are the often first to become infected. Reaching these persons at high risk requires community and peer education. Knowledge of risk factors and culturally acceptable behavior learned from anthropological studies should guide development of appropriate local messages. Programs in other countries have been most successful when peer leaders, popular musicians, or professional story tellers became educators.

Finally, changing behaviors that lead to infection will have to be culturally adapted to the Burundi context. Up until now most active HIV education efforts have been imported "carte blanche" from Zaire, i.e. social marketing of "Prudence" condoms. In Burundi, the primary obstacle to this intervention is less ignorance of AIDS than social unacceptability of condoms. Further research is required to clarify what is appropriate for Burundi. An additional intervention the Musaga project supported by AIDSTECH, has not proceeded far beyond planning stages. Political unrest interrupted theearly stages of the project and AIDSTECH's absence except for short-term consultancies, hindered the project from restarting in a timely manner.

USAID involvement with HIV has been limited. The majority of funds ($890,000 for 2 years) have been directed to PSI marketing of condoms. All other money has gone to AIDSTECH projects with PNLS in Burundi, with the largest sum ($230,000) devoted to prospective cohort studies of HIV-1 in workers and students.

4.4 RECOMMENDATIONS

1. Obtain more long term technical support in HIV/AIDS epidemiology for PNLS.

2. Intensify cost-effective routine sentinel surveillance activities: continue anonymous surveys with national scope and monitor special groups.

3. Identify specific risks for HIV/STD infections including geographic distribution and spread, marginal social groups, predisposing health risks for women versus men and social risk factors.

4. Reinforce an information management system to monitor HIV surveillance and AIDS case reporting.

5. Study relevant cultural facts via an in-depth investigation of sexual mores and use this information to expand cross-culturally appropriate interventions.

6. Expand educational HIV/AIDS cross-culturally appropriate interventions emphasizing local initiative, target messages for women and peer leadership.

7. Evaluate the effectiveness of condom promotion activities to integrate with other education efforts and expand to community organizations.

8. Support training of PNLS staff in management, decentralized surveillance and education for more effective implementation, efficient use of resources.

5. HEALTH EDUCATION

5.1 STATUS AND IMPACT OF HEALTH EDUCATION PROGRAMMING

Health education in Burundi is generally called EPS (Education Pour la Sante) or IEC (information, education, communication). A number of people have been trained and are now experienced in modern IEC methods. Health IEC is carried out not just by agencies of the MOH, but also by other ministries and by NGOs. This is particularly true in AIDS and family planning IEC, where many Burundi organizations and partners are active. Table 5.1 show the target groups, message themes and media of organizations active in health IEC. Nearly all these activities have begun since 1988, and almost no impact studies have been done. Projet Population (USAID/Pathfinder) has begun studies with the MOH IEC Unit.

Table 5.1
CURRENT IEC HEALTH ACTIVITIES IN BURUNDI (1992)

TARGET GROUP	THEMES AND MESSAGES	MEDIA AND CHANNELS	PROJECTS, ORGANIZATIONS, DATES
1 Secondary students	Population Family life Sex education	Student manuals Teacher manuals Teacher training	Proj. EVF/EMP (Educ. pour Vie Familiale/Educ. en Matiere de Population) Min.Enseignement Primaire et Secondaire (Bureau d'Etudes et de Prog. d'Ens. Scolaire--BEPES) UNFPA,UNESCO 1988-92 (extend to 2000?)
2 Secondary students	AIDS prevention Nutrition Health topics	Poster series Video cassettes Comic book Booklets Peer education	Projet pour les Jeunes des Ecoles Secondaires Min. Ens. Prim. et Sec. (BEPES) UNICEF, CECI, WFP 1988-92(extend to 1997?)
3 Primary students, 5th & 6th grades	AIDS prevention Health topics	Brochures Teacher training Radio T-shirts	Proj. Sante Scolaire et Animation Min. Ens. Prim. et Sec. (BEPES et Bur. d'Educ. Rural -- BER) UNICEF 1991-96

TARGET GROUP	THEMES AND MESSAGES	MEDIA AND CHANNELS	PROJECTS, ORGANIZATIONS, DATES
4 Out-of-school youth	AIDS prevention	Video cassettes Booklet for animateurs Booklet for youth Posters	Proj. IEC-SIDA pour Jeunes Non-scolarises Min. de l'Artisanat, Enseignement de Metiers et Jeunesse UNICEF 1991-96
5 Women ages 25-35 Men ages 25-40 Health workers	Family planning Population	Family planning logo Posters Brochures Flipcharts Train community workers Radio soap opera series	Projet Population MOH (Bureau du Programme de Planification Familiale -- CPPF) USAID/Pathfinder 1988-93
6 Women in Bubanza and Cankuzo provinces	AIDS Family planning Nutrition Income generation	Special animatrice in each commune Future: possible contraceptive distribution	Proj. de Renforcement du Min. de la Promotion Feminine et de la Protection Sociale UNFPA, UNIFEM, ILO 1991-93 (then extend to other provinces?)
7 Mothers of young children Pregnant women	Family planning AIDS prevention Nutrition Malaria, hygiene, other health topics	Health center personnel give health talks every morning before well-baby and pre-natal clinics Individual counseling on family planning & nutrition	MOH (Maternal and Child Health & Family Planning Programs) Teaching material provided by various projects Ongoing activity for several years
8 Women with multiple partners, Bujumbura	AIDS/STD Condom use	Peer educators Brochures	MOH (Prog. Nat. pour la Lutte contre le SIDA et Maladies Sexuellement Transmissibles -- PNLS/MST) USAID/AIDSTECH 1991 - 92

TARGET GROUP	THEMES AND MESSAGES	MEDIA AND CHANNELS	PROJECTS, ORGANIZATIONS, DATES9
			Students, general pop'n, Kibuye Health Secteur AIDS prevention AIDS testing Condom use Interpersonal Kibuye Hospital (United Methodist) USAID/AIDSTECH 1991 --
10 Married couples Young people	Family life Sex education Natural family planning AIDS prevention	Family counselors in parishes and Catholic health centers	Action Familiale Eglise Catholique 1988-92 (extend to 1997?)
11 General population	Prudence AIDS prevention	Radio spots Posters	Projet Marketing Social MOH (PNLS/MST) USAID/PCS 1990 --
12 General population	AIDS prevention	Radio Posters Newspapers articles Comic books, brochures Cassettes	MOH (PNLS/MST) WHO & cooperating agencies 1988 --
13 General population	Population Family planning	Past: marionnettes, popular theater Present: radio, video series, train existing community workers in all provinces	Projet IEC Min. Communication, Culture, & Sports UNFPA, FAO 1988-92 (extend to 1997 ?)
14 Decision makers Community leaders	Population Family planning	Past: National seminar on population and development (Nov 91) Future: Provincial seminars Communal colloquia	Min. of Plan (Population Planning Unit) Projet IEC Projet Population

TARGET GROUP	THEMES AND MESSAGES	MEDIA AND CHANNELS	PROJECTS, ORGANIZATIONS, DATES
15 Various target groups	Various health topics	Radio Graphics Audio-visuals	MOH Sous-Direction Education Pour la Sante (EPS) World Bank, UNICEF 1987 -- ongoing
16 Various target groups	Various health topics	Flipcharts with cassettes and users' guide Videos	Centre pour Media de Groupe, Gitega Catholic church MISEREOR (German NGO) 1974 -- ongoing

5.2 CONSTRAINTS AND SUPPORTS TO EFFECTIVE IEC PROGRAMMING

In 1987, the MOH Department of Hygiene and Prevention set up a Sub-Direction of Health Education (EPS: Education Pour la Sante). Funding for equipment came from the World Bank and UNICEF; some activities are financed by projects that include IEC on specific topics, e.g. AIDS, population, family planning, malaria.

After study by the MOH and partner agencies, Education Pour la Sante (EPS) was recently restructured. It now has 17 staff members who are specialized in four areas: research and evaluation, production (of audio-visuals, graphic materials, and radio), training and supervision, and school health. In addition, several health programs (leprosy-tuberculosis, PEV/CCCD, AIDS/STD, contagious and nutritional diseases, maternal and child health, family planning, hygiene) each have one or more "IEC antennas"; these are staff members of the programs who work full time on IEC, in collaboration with the EPS.

A consultant for the World Bank evaluated the EPS during 1991. The consultant's "Note de Reflexion" described satisfactory improvement in both structure and functioning. Particularly notable was the recent collaboration among the various projects having IEC activities for population and family planning. The informal coordinating committee had tested and adopted a single FP logo, developed a common IEC strategy, were jointly training existing community workers in the provinces, and were using each others' IEC materials.

The EPS staff is experienced in radio programming and produces several hours of health programs each week. They seem less experienced and less efficient in producing audio-visuals and graphics, and they are studying with the major partners whether they should increase or decrease their production activities in the future. The EPS plays an important role in conceiving and pretesting IEC activities; the staff is now gaining some experience in impact evaluation.

5.3 RECOMMENDATIONS

1. The current Population Project (USAID/Pathfinder) staff should move quickly to buy available flipcharts and simple clinic manuals and to produce and distribute brochures, posters, and clinic signs. (Specific suggestions have been offered to Project and USAID staff.)

2. The Population Project staff should use recent qualitative and quantitative research to develop new messages specific to the urgent situation in which Burundi citizens live in 1992 and 1993. (Suggestions have been provided separately.) The Project should encourage the IEC coordinating committee and health centers to use the same themes in radio programs, songs, health center talks, etc., and to measure the impact of the various messages and media.

3. The current Population Project and any future project with and IEC component should have the flexibility to respond creatively to ideas generated by NGOs or by IEC coordinating groups. For example, for some target groups, family planning and AIDS education should probably be combined.

4. The MOH should continue coordinating committees for IEC in AIDS and USAID should offer resources available through centrally funded projects (AIDSCOM, AIDSTECH, HAPA, etc.).

5. The MOH should maintain contact with various programs in goiter and protein-energy malnutrition and draw upon resources available through centrally funded projects of USAID for development of IEC messages and comparison of nutrition strategies in other countries.

6. NUTRITION

Three nutritional problems have been identified in Burundi: iodine deficiency, iron-deficiency anemia, and protein-energy malnutrition.

6.1 EXTENT OF MALNUTRITION

6.1.1 Iodine deficiency

Goiter is prevalent throughout Burundi. A 1990 nationwide survey of schoolchildren found that goiter (WHO categories 1-3) reached a prevalence of 27-43% in provinces, and 60-63% in four provinces {109}. Burundi is thus classified as a country with moderate to severe endemic goiter.

6.1.2 Iron-deficiency anemia

Although no nationwide statistics are available, Burundi is believed to have a moderate prevalence of iron-deficiency anemia. A few local surveys have been done. For example, a 1985 survey of the Bututsi region showed that 8% of children ages 0-5 had hemoglobin levels of less than 8.5g/100ml; one quarter of pregnant women had hemoglobin levels of less than 10.5g/100ml {107}.

6.1.3 Protein-energy malnutrition of young children

The nationwide Demographic and Health Survey of 1987 {33} used three anthropometric measurements of protein-energy malnutrition in small children 3-36 months. By height-for-age and weight-for-age indexes, approximately 40-50% of the children were chronically malnourished (more than 2 standard deviations (S.D.) below the median); that is to say these children were stunted for their age. However, they seemed to have adapted to this condition with an appropriate weight-for-height; only 6% of the children were acutely malnourished (more than -2 S.D.). The figure was only 3% for the children in the first and third years of life. Those in the second year of life (ages 12-23 months) did show a higher proportion (10%) of acute malnutrition. There appear to be pockets of kwashiorkor and marasmus in some parts of Burundi and at certain times of the year, but current figures do not reveal these data systematically. The 1990 Annual Report of the MOH does, however, list kwashiorkor and severe protein-calorie malnutrition as causes for 10% of deaths of hospitalized children and 8% of deaths declared by health centers.

6.2 CAUSES OF MALNUTRITION

6.2.1 Iodine deficiency

Since Burundi is far from the ocean, the diet includes little seafood and the soil and crops are low in iodine. The problem is exacerbated in some regions by the frequent use of goitrigens, such as manioc and cabbage, in the diet.

6.2.2 Iron-deficiency anemia

The anemia in Burundi is caused principally by lack of iron in the diet. Most dietary iron is of plant origin and thus is difficult for the body to absorb. Repeated childbearing is also a risk factor for anemia.

6.2.3 Protein-energy malnutrition of young children

The acute malnutrition in Burundi children aged 12-23 months is often due to weaning practices: some mothers start supplementary feeding too late, they give insufficient quantities or inappropriate foods, and some stop breast milk early because of a new pregnancy. Many cases of malnutrition are due to family and social problems, especially alcoholism, absence of a parent, and extreme poverty.

6.3 CURRENT PROGRAMS

6.3.1 Iodine deficiency

The Burundi MOH, with WHO and Belgian assistance, has set as a long-term goal the distribution of iodized salt throughout the country. Most of the salt is now imported from Tansania, Kenya and India. While the salt from India is iodized, its content is only 20 parts per million (ppm) rather than the recommended 30-50 ppm. A project to encourage/require importers to iodize salt has been proposed but is not yet operational or fully funded. As an intermediate measure, iodine tablets are being distributed to school children and pregnant women.

6.3.2 Iron-deficiency anemia

The MOH does not consider anemia a high-priority problem, so no special program is planned. Health centers give iron to pregnant women with low hemoglobin, when the tablets are available.

6.3.3 Protein-energy malnutrition of young children

Four interventions are aimed at preventing and treating acute malnutrition.

1) health centers focus their nutrition action on children brought for vaccines during the first two years of life; the mothers hear health and nutrition lessons; health workers weigh every child and counsel the mothers of slow-growth children about proper feeding with local foods.

2) some health centers in areas of high malnutrition have special feeding programs for acutely malnourished children, and intensified teaching for their mothers.

3) a weaning food (Musalac) is made and packaged with low-technology methods at several sites and is distributed throughout the country through regular commercial channels. At 140 FBu/kg, this food is expensive for many rural families. Moreover, women, who have the greatest influence on child nutrition, have only limited control in designating how household income will be spent on improving child nutrition.

4) a MOH pilot project is training nutrition women for the collines of three health secteurs (Kibumbu, Kayanza, Musema). This approach might be in integrated with health center activities.

6.4 RECOMMENDATIONS

The strategies adopted by the MOH for addressing goiter and protein-energy malnutrition are appropriate. Levels of attention and interventions by the MOH and partners seems adequate.

1. Encourage partner agencies working in health secteurs with suspected pockets of malnutrition to monitor levels of malnutrition and conduct operations research to improve local interventions. Centralization of reports and studies will permit the MOH to monitor developing trends. USAID should remain in touch with these programs and offer help through centrally-funded projects.

2. Reinforce health center nutrition activities by strengthening health secteurs.

3. Encourage private sector investments to establish a capacity for iodizing salt.

7. COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD)

7.1 BACKGROUND

The goal of the Africa Child Survival Initiative-Combatting Childhood Communicable Diseases (ACSI-CCCD) Project in Burundi (1985-1993) is to reduce child (0-5 years of age) mortality via a multi-partner agency program. Project activities include the Expanded Program on Immunization (EPI), Control of Diarrheal Diseases (CDD), malaria related activities, and development of a national health information system (HIS). Support strategies have included short-term technical assistance to enhance MOH capacity to train health care workers and to improve health education activities.

Since 1985 two Technical Officers from the Centers of Disease Control (CDC) have been assigned to CCCD, located within the Department of Prevention and Hygiene. The Technical Officer position has been vacant since October 1990. A replacement will arrive in March 1992.

7.2 EXPANDED PROGRAM ON IMMUNIZATION

The objective of EPI is to reduce childhood morbidity and mortality due to vaccine-preventable diseases including: tuberculosis, measles, poliomyelitis, tetanus, diphtheria, and pertussis. Prevention is by vaccinating children during the first two years of life. EPI activities have been in close collaboration with UNICEF who has provided vaccines, injecting equipment, and refrigerators. CCCD has provided refrigerators, vehicles, and fuel. CCCD strategy includes the development of a technically sound national vaccination policy, development of a vaccination delivery and service infrastructure, training of health care workers, and health education.

EPI in Burundi is one of the strongest programs in Africa. Increases in vaccine coverage have reduced the incidence of all of the targeted vaccine-preventable diseases. Trends in vaccine coverage and disease incidence for measles and polio are summarized in Figures 7.1 and 7.2.

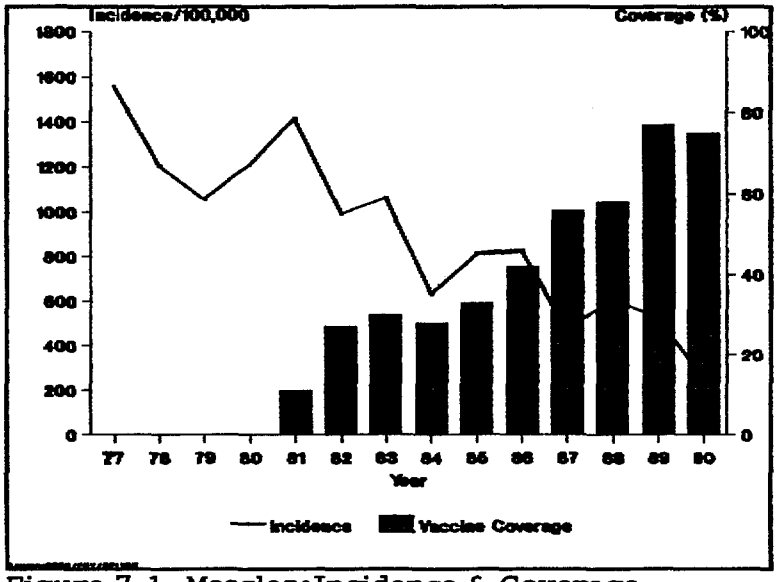


Figure 7.1 Measles:Incidence & Coverage

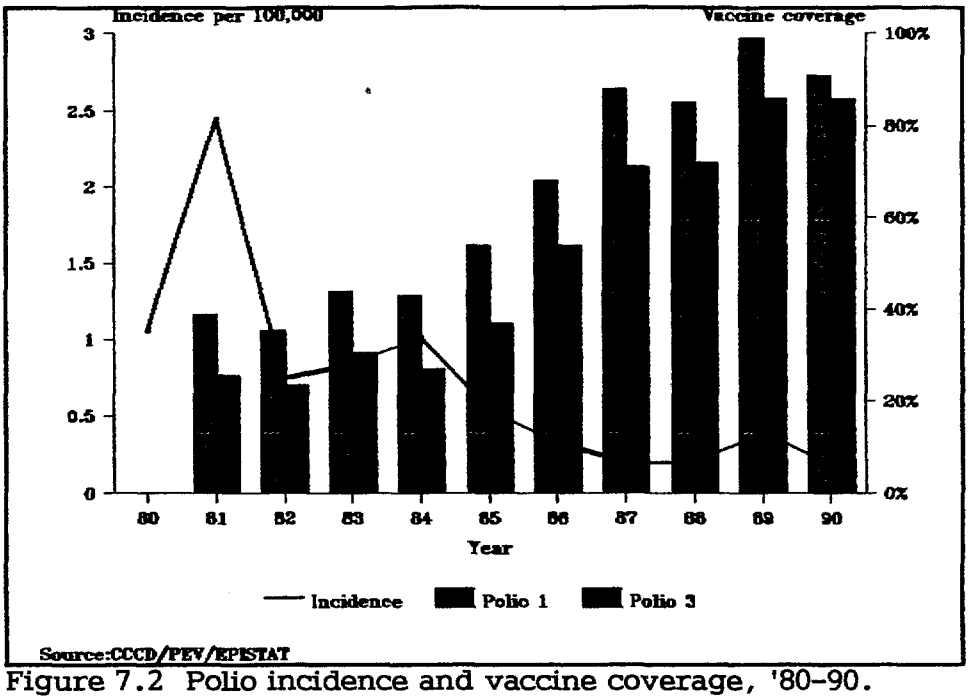


Figure 7.2 Polio incidence and vaccine coverage, '80-90.

A major challenge for EPI will be to define strategies to sustain the gains in vaccine coverage and disease reduction. There is always the danger of both health care worker and partner agency fatigue. Furthermore, the major reductions in the incidence of vaccine-preventable diseases, especially polio and measles, may induce a false sense of security among the Burundi population which could decrease the demand for immunizations due to complacency.

Another challenge is the changing epidemiology, especially measles and polio. The high vaccine coverage achieved among infants has shifted the burden of measles to susceptible school-age children who were born too early to have been offered measles vaccination, but born too late to have been exposed to wild measles virus. The accumulation of large numbers of susceptible children may result in a sizeable measles outbreak (the so called "post-honeymoon period").

Finally, the high polio vaccine coverage and low polio incidence in Burundi may allow EPI to focus efforts on polio elimination in line with the WHO's polio eradication endeavors.

7.3 CONTROL OF DIARRHEAL DISEASES (CDD)

Diarrheal diseases are a leading cause of morbidity and mortality in African children. Prevention of mortality from diarrheal diseases through appropriate use of Oral Rehydration Therapy (ORT) has been the primary objective of the CDD component of CCCD.

CDD focuses on training of health care workers to evaluate and treat children presenting to health centers with diarrhea. Furthermore, technical assistance has been provided to health secteurs to encourage the development of ORT corners within health centers. Oral Rehydration Training Units (ORTU'S) have been created in cities where paramedical training schools are located (Gitega, Bururi, Ngozi and Bujumbura). Approximately 30% of health workers have been trained in the proper use of ORT and 70 health centers have established ORT corners.

CDD has also attempted to define the epidemiology of dysentery in Burundi. In recent years, bloody diarrhea or "dysentery" has been identified as a major cause of morbidity and mortality. It has generally occurred seasonally with peak incidence during the rainy season (Figure 7.3).

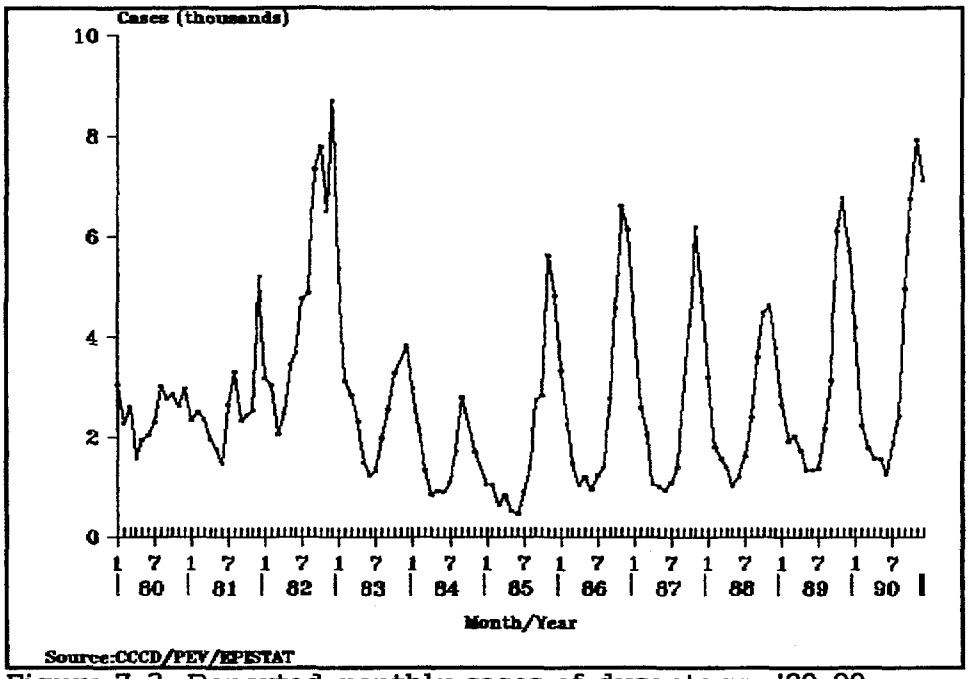


Figure 7.3 Reported monthly cases of dysentery, '80-90.

An outbreak investigation conducted in 1990 in the central plateau region surrounding Gitega found that the majority of bloody diarrhea cases were caused by Shigella dysenteriae type 1. Most Shigella isolates were found to be resistant to the generally available in-country antibiotics.
CDD needs to increase the number of health workers trained in ORT and the number of health centers with ORT corners. Regular supervisory visits with remedial training, as needed, will be a priority activity of CDD. Health education at the community level to encourage appropriate treatment of diarrhea in the home may be an effective strategy to reduce childhood mortality.

In addition to encouraging proper case-management of diarrhea, increased efforts are needed to prevent diarrhea through the maintenance of high levels of measles vaccine coverage, and targeted health education activities to encourage exclusive breast feeding for the first 4-6 months of life, increased hand washing, and improved domestic hygiene. Finally, efforts to better define the epidemiology of dysentery, improved treatment of dysentery, and prevention must continue.

7.4 MALARIA ACTIVITIES

Malaria is a growing public health problem in Burundi (Figure 7.4). It is the leading cause of morbidity and mortality in the country. Malaria affects children in three ways: (1) acute illness in young children; (2) chronic/recurrent infections leading to anemia, immune suppression, and nutritional compromise in young children and pregnant women; and (3) infections during pregnancy which lead to intra-uterine fetal growth retardation and low birth weight with the attendant increased risk of

neonatal and infant mortality.

The goal of CCCD malaria activities is to reduce morbidity and mortality from malaria through the provision of proper case-management of malaria in health centers and prevention of disease.

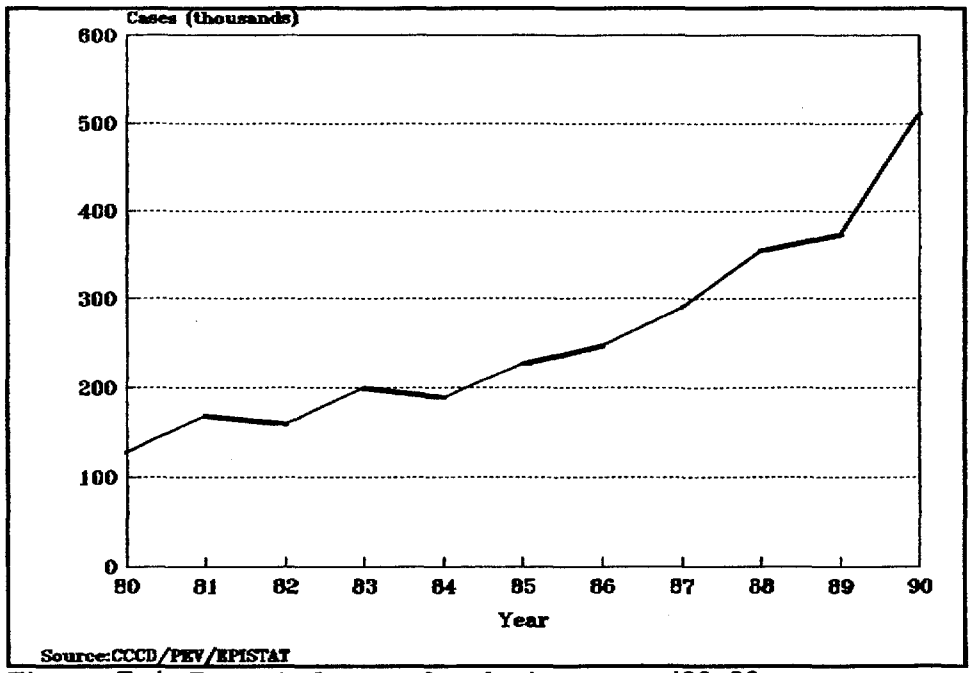


Figure 7.4 Reported annual malaria cases, '80-90.

The CCCD malaria unit has worked in loose collaboration with the Belgian Lutte contre les Maladies Transmissables et Carentielles (LMTC) project. CCCD has focused primarily on enabling health care workers to correctly assess and treat persons with malaria through training and providing microscopes to health centers. LMTC has focused on malaria prevention through water drainage, insecticide spraying, and the use of personal protection such as bed nets.

At the central level CCCD has been concerned primarily with developing effective diagnostic and treatment protocols. At the peripheral level, in collaboration with the paramedical training schools, provincial chief physicians, and secteur chiefs, CCCD has helped train health care workers in the 15 secteurs which have traditionally had the highest malaria incidence. Diagnostic equipment (i.e., microscopes, slides, stains etc.) has been provided to over 150 health centers.

The impact of the CCCD malaria intervention on childhood morbidity and mortality has been less impressive than that of EPI. A major factor limiting the effectiveness of the CCCD malaria activities has been the changing epidemiology of malaria. There has been increasing prevalence of chloroquine-resistant Plasmodium falciparum in Burundi and high rates of malaria incidence are now observed in several mountainous secteurs where malaria has been absent for many years.

The MOH must reconsider its current malaria treatment and prevention strategies and develop a unified national malaria control unit. Within the separate CCCD and LMTC projects there is considerable expertise, but there appears to be little

communication and coordination between the projects. The MOH should consider combining these projects and creating a single national malaria control unit with technical assistance provided jointly by the CCCD and LMTC projects.

7.3 HEALTH INFORMATION SYSTEM

Senior MOH officials and program managers require reliable information to manage programs, to allocate resources, and to improve policy development. In Burundi, CCCD in collaboration with UNICEF has assisted the MOH in developing a national health information system (HIS).

Initially, the HIS received monthly reports from health centers on 28 select diagnoses and number of vaccine doses administered. No age or sex data were provided. Hospitals submitted an annual report summarizing number of cases diagnosed and deaths. These data were used at the central level by program managers of the EPI, CDD, and malaria control. CCCD also developed a monthly epidemiologic bulletin summarizing data received from all health secteurs.

In 1991, the MOH, in collaboration with CCCD, UNICEF, and the World Bank, attempted to further strengthen the national HIS. Health center reporting forms were revised. For morbidity, there are now approximately 110 diagnoses on the reporting form with breakdown by age and sex. Furthermore, additional reporting forms were created for family planning, prenatal visits, maternity visits, nutritional postnatal visits, and EPI visits.

Monthly report forms are completed at the health center level and submitted to the health secteur chief, where data are collated and a secteur report is then sent to the Office of Epidemiology and Statistics ("EPISTAT") within the Department of Health Care of the MOH. Data are entered into a computer at EPISTAT and are then jointly analyzed with the individual projects such as EPI, CDD, malaria, family planning, and maternal and child health.

7.4 LESSONS LEARNED FROM CCCD

In its six years of existence CCCD has helped improve the health status of Burundi's children. The increases in vaccination coverage and reduction of vaccine-preventable disease incidence through EPI is CCCD's most obvious accomplishment. Diarrheal disease and malaria activities, and the development of a national HIS, although not as spectacular as EPI, have also contributed to the cause of child survival and the development of a public health infrastructure.

The relative success of EPI can be attributed to several factors. First, there was the availability of a very effective intervention. Second, there has been excellent coordination and collaboration between USAID and UNICEF in developing and supporting EPI. Third, there has been strong central leadership and appropriate resources allocated to the project. Fourth, as a result of the training, supervision, and health education activities, the interventions have been integrated and effectively implemented in the health secteurs. Finally, the HIS has allowed ongoing monitoring and evaluation of the intervention centrally and positive reinforcement through continuous feedback of information to the secteurs and health centers.

A consequence of EPI's relative success in developing an effective vaccine delivery and supervisory system has been the increasing reliance of other preventive and curative programs on EPI. For example, CCCD trucks have been used to deliver contraceptives, medicines, and other supplies from Bujumbura to health secteurs. Furthermore, the EPI supervisors may have contributed indirectly to the general supervision of other interventions. Thus, EPI has become much more than a

vaccinating activity.

However, the sustainability of EPI and the other CCCD interventions remains an open question. USAID and UNICEF have provided important technical and financial assistance to EPI, but it is unclear whether the gains in vaccine coverage can be sustained without ongoing partner agency assistance. For example, in the summer of 1991, due to an administrative problem, there was a temporary interruption in CCCD's gasoline supply. During this period vaccination services came to a halt in several health secteurs. Other MOH programs suffered as well.

USAID funding for EPI is scheduled to terminate in October 1993. The MOH must identify ongoing sources of funding, internal and/or external, so that EPI activities can continue.

Burundi faces many pressing health problems, notably HIV/AIDS and rapid population growth, which in the near future will provide major challenges to Burundi's health managers and planners. The EPI experience of providing decentralized, integrated, preventive health services through strong central leadership and aggressive implementation and supervision may provide an effective model for other preventive health interventions.

EPI has demonstrated its ability to reach a large proportion of the population and can therefore be used as a "hook" or "drawing card" for the provision of other preventive health services. The MOH should consider integrating other preventive services such as family planning, health education, including AIDS prevention activities, and growth monitoring with EPI.

7.5 **RECOMMENDATIONS**

1. The MOH must identify ongoing sources of funding, internal and/or external, so that EPI activities can continue.

2. The MOH should consider integrating other preventive services such as family planning and AIDS prevention activities with EPI.

3. The high polio vaccine coverage and low polio incidence in Burundi may allow EPI to focus its efforts on the goal of polio elimination.

4. The MOH should reinforce diarrhea prevention by maintaining measles vaccine coverage, and by health education to encourage exclusive breast feeding, increased hand washing, and domestic hygiene. In addition an increase in the number of health workers trained in ORT and health centers with ORT corners is warrented.

5. The MOH should reconsider and strengthen its current malaria treatment and prevention strategies and develop a unified national malaria control unit.

8. HEALTH LOGISTICS

Of 104 developing countries, Burundi ranks in the middle group of 33 countries with 30% -60% of the population having regular access to essential drugs. {95} Since 1981 the government of Burundi, in association with OMS/UNICEF/Interpharma (Swiss philanthropic NGO), has laid the groundwork for a national pharmaceutical policy and possesses an essential drugs list by generic name for the public sector.

8.1 CONSTRAINTS AND SUPPORTS FOR PHARMACEUTICAL LOGISTICS

The constraining elements and supporting factors of Burundi's pharmaceutical system are summarized below:

Table 8.1
CONSTRAINING ELEMENT AND SUPPORTING FACTORS IN BURUNDI'S PHARMACEUTICAL LOGISTICS SYSTEM

CONSTRAINING ELEMENTS	SUPPORTING FACTORS
1. SELECTION	
-Generic prescribing not encouraged	-1990 National Essential Drug Lists
-Non-essential drug imports allowed	-Committee for selection in place
-Need National Formulary (drug index)	-Country needs well quantified
-Availability of hard currency limited	-Appel d'Offres made for MOH needs
-No National Quality Control Lab	
2. ACQUISITION (NATIONAL)	
-Land-locked, >90% imported by air	-MOH well organized for ordering
-High Customs (19%) and Taxes (15%)	-Gifts received by private sector
-Dependence on imported medicines	-ONAPHA produces medicines locally
-PEV funding to be eliminated?	-SRO factory functions well (1988)
-Long delays, bureaucratic red tape	-Import clearances relatively good
3. DISTRIBUTION (LOCAL)	
-Insufficient resources for needs	-New enlarged Central Depot
-Stock control not yet computerized	-Reinforced security and control
-Poor decentralization of pharmacies	-Vehicles provided for MOH
-Staff not motivated (salaries low)	-Relatively good infrastructure
-Lack of training for depot managers	-Standardized requisition forms
-Stock levels inadequate with outages	-Few expired medicines seen
-No locally produced IV solutions	-Fiches de Stock generally exist
4. UTILIZATION	
-Irrational prescribing still common	-Prescription manuals are available
-Insufficient training of prescribers	-UNICEF continues training seminars
-Inadequate packaging of medicines	-Plastic/glass industry exists
-Poor observance of instructions	

The national drug policy for essential drugs lacks legislation to permit implementation. Basic pharmacy texts need to be updated. A "Direction de la Pharmacie" is needed to coordinate pharmacies and the Essential Drugs Program which now exist under different "Directions".

8.2 PUBLIC/PRIVATE SECTOR SUPPLY OF PHARMACEUTICALS

There are three major components involved in the health delivery system:

1. PUBLIC SECTOR (MOH Hospitals and Health Centers): Probably the mainstay for 50-60% of the population, both urban and rural.

2. PRIVATE OR SEMI-PRIVATE SECTOR (Retail and wholesale pharmacies): 10-20% of the population, mainly in Bujumbura and the larger cities.

3. AGREE SECTOR (Hospitals and health centers supported by NGOs and churches): Accessible to 30% of the population, mainly rural.

ONAPHA (National Pharmaceutical Laboratory), begun under the MOH in 1980, but now under the Minister of Commerce and Finance, is a public institution for the manufacture of essential medicines for the country and for export to neighboring countries. It makes about 48 different products. The MOH is its biggest client (200.000.000 FBu budgeted in 1992, 67% of the MOH budget for medicines). It supplies 25% of the drugs being used in Burundi.

The government is seeking a buyer for ONAPHA. It presently operates at 60% capacity; equipment is outdated and facilities are small. The Burundi market is really too small to interest a multi-national drug company who might soon lose interest in producing low cost essential medicines. A not-for-profit NGO however might be encouraged to manage this facility. Such an arrangement was successful in Lesotho by the International Dispensary Association (I.D.A.).

It is ironic that although glass bottles, metal cans, and plastics are manufactured in Burundi, ONAPHA presently imports by air the glass bottles for its liquid products. The local glass company does not have the molds to make the sort of bottles needed by the pharmaceutical industry, and requires a minimum order equivalent to a 10-year supply of bottles to justify importing new molds. Metal cans are also imported by air, but they could be made locally if existing machinery were repaired. Blister packaging could also be done locally to produce attractive, quality generic essential medicines.

Additional savings would be possible by the decentralized local production of basic pharmaceuticals made from purified water. A successful Tanzanian experience produces 80% of the IV solutions of the country. Decentralized production facilities should be set up in each Province and linked with the training of pharmacy technicians. With simple, appropriate technology thousands of dollars could be saved annually by avoiding the importation of water, and the wasting of scarce hard currency resources could be prevented. A recent study in Zaire for German partners showed that 15 local production units could be set up for $1,000,000.

Only 10% of the population is covered by various co-pay or employer paid insurance plans for pharmacy needs. 15-20% of the population have some of their health needs covered by their Carte d'Assurance Maladie (CAM). 70% of the population pay in full for services and medicines, usually at a private pharmacy, mission hospital or health center. All of these components function independently. Unfortunately those with the greatest capacity to pay for health services pay the least, and those with the least capacity to pay end up having to pay 100%.

8.3 CURRENT MOH SUPPLY AND DISTRIBUTION

The present supply and distribution system lacks sufficient funding. The MOH budget for medicines has not been substantially increased in recent years. If the population increase and monetary devaluation are taken into account, there has been a decrease in the real budget for essential medicines. There has been a encouraging shift in the allocation of these funds, however, with hospitals receiving a smaller proportion and health centers a larger proportion (52.4%).

Recent efforts to improve the management and increase the security at the Central Depot seem to have paid off, and will be reinforced by follow-up visits planned by Interpharma, OMS and UNICEF. A computerized inventory control system is a priority, now that the new building has just been completed. A computer has already been donated, but personnel need to be trained.

In 1990 the Burundi Adapted Bamako Initiative (ABIB) began to promote an acceleration of primary health care and local management of resources (including medicines). Muyinga province was chosen for initial implementation. Despite training seminars and materials, not much improvement has been made in the correct management and cost recovery of funds and provision of essential drugs. More experience is required before attempting to extend ABIB nationwide.

Burundi has about 60 pharmacists. Half are Burundi nationals and all were trained outside the country. While the number is sufficient they tend to be concentrated in urban areas. No Pharmacy Technicians (high-school level) exist for health secteur pharmacies or rural hospitals. There is no school of pharmacy, at any level, in Burundi. There is a good four-year, A-2 level school in neighboring Zaire where students could be sent (Institut d'Enseignement Medical, Section Assistant en Pharmacie, Nyankunde, Haut-Zaire). At least one pharmacist technician is needed for each health secteur in Burundi, with additional personnel needed in Bujumbura at ONAPHA. Six new students/year could meet Burundi's needs by the year 2000.

Between 1988 and 1990, a centralized drug distribution system was used, with medicines being distributed to each Province trimestrially. In 1991 this was decentralized and changed to allocate medicines following standardized lists according to the level of health care being provided (health center, rural hospital, or reference hospital) and according to the budget for each hospital or health center. The Provincial Medical Director and Health Secteur Chief now are responsible for their budget, with trimestrial orders for essential medicines being placed at the new MOH Central Depot. Frequent "emergency" orders are also made when needed.

The distribution system breaks down, however, at the decentralized pharmacy level where insufficient and sometimes inappropriate stocks are managed by untrained, overworked, and undermotivated personnel. Requisitions supplied to health centers often do not correspond to what was ordered. What use is it to make a requisition based on actual needs and if you simply receive what happens to be available? This is the kind of management problem that leads to expired medicines, stock-outs and loss of credibility in the eyes of the population.

8.4 MOH BUDGET

Of the 420 million FBu (see Table 8.2) allocated for drugs and supplies for 1992, only 300 million FBu are actually available for importing essential medicines. This amounts to only 55 FBu/person, a figure which is totally inadequate to finance a socialized medicine system. Procurement is by tender from multiple sources, taking quality and price into account. When feasible, it also promotes local production. An analysis of vendors and bids reveals that the MOH did not consider some potentially cheaper

alternative suppliers that most NGO's now effectively use.

Table 8.2
MOH Budget Extracts

	1992	1991
Total MOH budget:	1,935,586,339 FBu	1,632,445,443 FBu
Drugs and supplies:	420,000,000 FBu	370,000,000 FBu
Surgical supplies:	81,000,000 FBu	43,000,000 FBu
Laboratory supplies:	33,100,000 FBu	22,000,000 FBu

8.5 PARTNER ASSISTANCE IN PHARMACEUTICAL LOGISTICS

UNICEF has promised to "prime the pump" for the Bamako Initiative, but given the fact that local management training of decentralized pharmacy personnel has not yet been completed, it would be wise to hold off on any extensive expansion.

UNICEF funded the Burundi Oral Rehydration Therapy (ORT) factory, operational since 1988. This plant functions well, and could be expanded to produce other simple pharmaceutical preparations in powder form. Because of the shift away from the free distribution of ORS (oral rehydration solution) packets by PEV, health centers must now use budgetary allocations to obtain ORS. As a consequence, the amounts requisitioned are much lower and stock outages are common, while the factory has large inventories and is functioning below capacity.

Interpharma/OMS/UNICEF have contributed heavily to the improvement of the logistical system, but their commitment expires next year. They should be encouraged to continue their excellent efforts in training personnel, producing information for prescribers and dispensers and improving the stockage of medicines.

According to CARITAS approximately 30% of the population is covered by medicines procured and distributed by NGOs, often at very low or subsidized prices. It is impossible to quantify the amount of medicines donated free of charge as well, but it is significant. The general rule of thumb is that 25% of pharmaceuticals used in Burundi enter through NGOs, 50% through private and semiprivate pharmacies and 25% through public pharmacies including ONAPHA.

In the semiprivate sector, the Mutuelle de la Fonction Publique (MFP) is playing an increasing role at the expense of the private pharmacies and wholesalers. The MFP has five pharmacies in Bujumbura, but only 2 administrator pharmacists. The pharmacies are inappropriately managed by nurses and stocked with imported specialty products. Quality generic essential medicines are not encouraged (since they make little or no profit, and their packaging is perceived as inferior).
Probably 50% of drug expenditures are spent to import specialty drugs at the insistence of doctors, other prescribers, and the patients themselves. It's the pharmacy that profits, not the patient. Much of this waste could be avoided with a good program of generic manufacturing in Burundi, with quality packaging, including informational package inserts in the Kirundi language.

8.6 URBAN VERSUS RURAL PHARMACIES

Probably 80% of the resources (personnel, medicines, etc.) are concentrated in the capital and larger cities to serve 6% of the population. 32 out of 59 private pharmacies (54%) are located in the capital. Many of these pharmacies may soon go out of business as a result of being unable to compete with MFP pharmacies.

All but one of the Provinces has at least one pharmacist. Certainly the level of

sophistication of treatment varies, being greatest in Bujumbura at the major public hospital and semi-private or private clinics, and being least at the health center level. Various public and private rural hospitals in large population centers fill a vital intermediate role. The logistics of drug distribution reflect this level of sophistication. Standardized lists of medicines available at each level have been worked out and are being followed, not withstanding budget limitations.

At the Health Secteur level, little is presently done to assure the correct management of available funds and essential drug supplies. Improved stockage of drugs in the decentralized pharmacies has been promised by Interpharma, but much remains to be done, particularly in the management training of personnel.

At the colline level, and for much of the population, traditional medicines are no doubt a valuable and cost-effective alternative to the costly pharmaceutical system presently inaccessible to them. Few studies have been done in this field, so it is not possible to quantify the use of traditional medicines, nor to describe the role of traditional healers and herbalists.

8.7 **RECOMMENDATIONS**

1. Create a "Direction de la Pharmacie" to manage all MOH pharmacy activities/projects.

2. Implement existing drug policies and previous recommendations aimed at making adequate quantities of essential drugs available equitably to all people of Burundi.

3. Implement a cost recovery system for drug purchases. Explore alternate sources of financing so as to double the monies available for the purchase of essential drugs.

4. Renovate acilities and improve the management of health secteur drug depots.

5. Privatize ONAPHA and place under the direction of a not-for-profit NGO. Authorize ONAPHA to import raw materials, manufacture generic essential drugs, institute quality control, and sell to neighboring countries. Encourage ONAPHA to package some drugs in attractive containers so as to satisfy higher class customers who otherwise buy imported drugs.

6. Stimulate existing local industries to manufacture containers for drugs. Glass bottles, metal cans and plastics currently are produced in Burundi.

7. Stimulate the production of intravenous solutions either by ONAPHA or by selected hospitals. Low-cost technology is available for this production.

8. Examine the consequences of creating the centralized drug purchasing agency. Such an agency would monopolize drug importation and possibly damage competitive, private initiatives.

9. Discourage importation of brand name drugs. Review the choice of drug vendors and sales arrangements with the MOH. Discourage importation of specialty drugs by establishing preferential tariffs for importing quality generics, and discouraging full MFP reimbursement of non-essential medicines.

10. Train health-care providers in the use of generic drugs. The training initiative by Interpharma/OMS/UNICEF should continue and encourage standardized generic treatments. Train pharmacy technicians (A-2) to manage secteur pharmacy depots.

9. HEALTH CARE FINANCING

Annex 8 describes the economic environment within which the health care delivery system of Burundi must function. Because of projected slow economic growth and continued fiscal restraint, it is unrealistic to expect significant increases in GRB health care funding in the foreseeable future. The MOH is currently attempting to increase efficiency in health services delivery and to expand available resources through cost recovery. Greater cost recovery appears feasible because a significant segment of the population can afford to pay for health services.

It is against this background that this section describes how health care is financed in Burundi, identifies major health care financing issues, and presents some options for resolving these issues.

9.1 FUNDING BY MAJOR SOURCE

Table 9.1 illustrates estimated and proposed expenditures for operating costs, capital investments and technical assistance during the 1990-1993 period, as well as the contribution to these three activities made by each funding source.

Table 9.1
ESTIMATED EXPENDITURES BY SOURCE & ACTIVITY (90-93) (000 FBu)

TYPE/SOURCE	1990	1991	1992	1993
OPERATING COSTS				
MOH OPERATING BUDGET	1,634,302	1,753,421	1,931,047	2,117,262
MOH INVESTMENT BUDGET	42,106	24,937	30,840	32,050
COMMUNITIES	20,032	21,034	22,085	23,190
FOREIGN AID	415,288	539,432	542,129	568,359
NGO'S	30,500	31,925	33,417	34,938
TO BE FOUND		36,654	87,745	261,302
SUB TOTAL	2,142,228	2,407,403	2,647,263	3,037,146
CAPITAL INVESTMENT				
MOH INVESTMENT BUDGET	238,044	212,630	310,768	279,909
COMMUNITIES	6,000	6,300	6,614	6,946
FOREIGN AID	865,606	1,513,167	1,231,826	469,518
NGO'S	46,300	46,300	7,800	8,000
SUB TOTAL	1,155,950	1,778,397	1,557,008	764,373
TECHNICAL ASSISTANCE				
MOH INVESTMENT BUDGET			2,000	10,000
FOREIGN AID	1,127,619	1,169,320	1,228,001	1,061,469
NGO'S	23,000	33,150	34,357	35,625
SUB TOTAL	1,150,619	1,202,470	1,264,358	1,107,094
GRAND TOTAL	4,448,797	5,388,270	5,468,629	4,908,613

Source: Republique du Burundi: Premier Ministere et Ministere du Plan, Dec. 1990

Total expenditures for all health activities range between 4.4 and 5.5 billion FBu, averaging about 1,000 FBu (US$5) per capita. Foreign assistance accounts for over half of this amount.

Operating costs will increase from 45% of the overall budget in 1991 to over 60% in 1993. Most MOH funds go for operations. These funds cover about 70% of total operating costs. Foreign assistance covers 20% of operating costs, including about half of the expenditures on drugs.

Capital investment. Over four-fifths of all investments in health infrastructure are financed by foreign assistance, but are to decline from 1.8 billion FBu in 1991 to 0.5 billion in 1993.

Technical assistance is financed nearly exclusively through foreign assistance. Expenditures are estimated at 1.1 billion FBu per year, 20-25% of total health expenditures in 1990-1993.

9.2 THE MOH BUDGET

The MOH operating budget (budget ordinaire) accounts for over 90% of MOH health care expenditures. Trends in operating expenditures are shown in Table 9.2.

TABLE 9.2
ESTIMATED MOH OPERATING EXPENDITURES (1980-1992)

	MOH OP.EXP. X 1000	PRICE INDEX	OP.EXP. 1980 FBU X 1000	POP. X 1000	OP.EXP./ POP
1980	540	100.0	540	4066	132
1981	516	107.5	480	4170	115
1982	555	110.5	502	4280	117
1983	578	110.5	523	4397	119
1984	725	118.7	611	4521	135
1985	937	121.6	832	4650	179
1986	1148	124.5	922	4782	193
1987	817	129.8	629	4922	128
1988	1089	142.8	763	5069	150
1989	1288	149.9	819	5222	157
1990	1471	168.0	876	5356	164
1991	1578	180.0	877	5490	160
1992	1738	193.0	901	5627	160

Sources: 1) MSP Analyse de l'Evolution du Budget et des Depenses, 1990
2) USAID: Burundi: Key Macroeconomic Indicators 3) 1990 Census

Between 1980 and 1992 estimated expenditures rose from 540 million to 1.9 billion FBu. Yet, in real terms these expenditures have increased only 20% from 132 FBu

(1980) per capita to 160 FBu per capita. There has been no increase in the funding level since 1985. This expenditure represents 5% of total government expenditures, about half of the level advocated by WHO.

The 1991 MOH budget covered 80% of the operating costs of health centers (550,166,000 FBu) and of hospitals (1,044,559 FBu), with the remaining 20% funded through foreign assistance. These two line items accounted for nearly 75% of MOH expenditures.

In recent years most increases in the MOH budget have been absorbed by rising personnel costs. As a consequence the personnel share of the budget has risen from 49.5% in 1985 to 64.5% in 1992. This trend is also seen in other countries experiencing similar budgetary constraints. This has led to a decline in real terms of resources available to meet non-personnel operating costs. The problem of an increasingly inadequate budget has been compounded by the inability of the MOH to fully utilize available funds due to ineffective management.

The MOH recognizes that hospitals, which serve a limited segment of the population, absorb a disproportionate amount of the operating budget and it has taken steps to shift resources from hospitals to health centers. According to the MOH, the decentralization of management (autonomie de gestion) at the Hopital Prince Regent Charles will play a key role in this process by establishing a partial self-financing model which can later be extended to all hospitals.

9.3 THE "SECTEUR AGREE"

The Catholic Church of Burundi operates a system of 49 health care centers and hospitals located throughout the country. During 1990, these facilities had a total of 1,373,857 medical visits and incurred costs of 96,712,426 FBu of which 44% were for salaries and 28% for drugs. These operating costs are partially subsidized by the MOH. Patients pay for services according to a fee schedule approved by the MOH. At this time CAM cardholders are not treated free of charge because the MOH has yet to modify the CAM system to reimburse private institutions.

Protestant churches operate a system of 6 hospitals and 20 health centers in Burundi. As with the Catholic, the facilities are financed through contributions, MOH subsidy and fee-for-service.

9.4 COST RECOVERY MECHANISMS

9.4.1 THE "MUTUELLE DE LA FONCTION PUBLIQUE" (MFP)

The MFP was established in 1980 to provide health insurance coverage for public employees and their families. Over the years eligibility has been expanded. It is estimated that 80,000 employees and their families, or about 320,000 people, are now covered by the plan. Service have been expanded to include medical services, diagnostic tests, hospitalization and drugs.

Financing is through payroll deduction with the employee paying 3.0% and the GRB 4.5% of the employee's salary. There is also a 20% co-payment to control utilization and generate additional revenues. Total contributions for 1989 were 895,093,262 FBu of which 60%, 537,055,950 FBu, was paid by the government. This amounts to 1,680 FBu (US $8.50) per enrollee. By contrast, the 1991 MOH operating budget for health centers and hospitals was 1,275,000,000 FBu or 235 FBu (US $1.25) per capita. Total 1989 MFP expenditures were 819,309,258 FBu, plus about 150,000,000 FBu in copayments, representing total annual expenditures of 2,800 FBu per enrollee. Because of rising costs the program is considering increasing

contributions from 7.5% to 10% of the payroll.

The plan has helped to control rising drug expenditures by establishing a ceiling on drug prices. In addition, the MFP is developing its own chain of pharmacies, theoretically, to reduce drug costs, but the approved drug list contains 900 products, many of which are expensive proprietary drugs. Drugs currently account for 75% of all expenditures. According to MFP officials, fraud is a serious problem, accounting for about one-third of drug expenditures, or 25% of all expenditures. Over-utilization and fraud could be reduced through more effective controls. The MFP should consider limiting reimbursement for drugs to the price of generics.

The MFP provides excellent coverage and is a major funding source for the private health care sector. However, the fact that 6% of the population, which can afford to pay for health services, receives a subsidy from the government in excess of 25% of the MOH operating budget raises a serious equity issue. Any future increase in contributions should be borne by the employee.

While the MFP provides comprehensive health insurance coverage for its members, it is an inefficient and extremely expensive program. There is a need to streamline claims processing since some providers complain of six month delays in receiving reimbursement for services provided to MFP beneficiaries.

The MFP may not be a financing mechanism which could be extended to the general population, but it could serve as an appropriate model for some form of private health insurance. For example, a premium of 1,200 FBu per enrollee might be feasible in a program with per capita costs for medical visits, hospitalization, diagnostic tests and administration equal to 90% of MFP costs, if drug expenditures could be reduced to 40% of the MFP level through the exclusive use of generics and more effective utilization controls. This premium plus a 25% copayment would cost a 5 member family 7,500 FBu per year. As much as 40% of the population might be able to afford this level of expenditure for health care. This example is illustrative only since the design of any health insurance program must be based on an extensive analysis of health services.

9.4.2 Private Industry

Since 1983, private sector employers have been responsible for 100% of the medical expenses incurred by their employees and their families. Because of lack of utilization and cost controls resulting in abuse, negotiations are currently underway to either include private sector employees in the MFP or to create a second health insurance program specifically for the private sector.

9.4.3 The "Carte d'Assurance Maladie" (CAM)

The Ministry of Health established the CAM in 1984 to provide a form of health insurance for the 90% of the population which could least afford to pay for health services. The price of the CAM is 500 FBu for non-salaried workers, e.g.,farmers, 1,500 FBu for artisans and small scale merchants, and 3,000 FBu for others. Purchase of the card entitles a family to free health care, including drugs, in public health centers and hospitals for one year.

The plan was ill-conceived since proceeds from CAM sales reverted to the Treasury and were, therefore, not used to finance the health care provided to CAM holders. In 1989 new legislation allowed communes to retain revenues generated from CAM sales and health center collections, but did not stipulate that such revenues must be utilized to finance health care. Moreover, revenues generated by public hospitals continue to be sent to the Treasury.

To date CAM sales have not been brisk. Only 15% of Burundian households have opted to use this form of payment. DesRochers estimates 1989 commune receipts from CAM sales and health center collections at 64.5 million FBu, accounting for about 5% of total commune revenues. Only 10% of these health related receipts are used to finance health center operations.

The CAM is an insurance program in name only since proceeds from card sales are not used to pay for health services. The program has not contributed thus far to improving the accessibility and quality of health care, nor has it been seen as a way to capitalize on the seasonality of rural income. In essence the CAM amounts to a voluntary tax with minimal visible benefits. There are many reasons why the program has not caught on. Purchase of the card does not guarantee access to care and drugs. Stock outages in public facilities force cardholders to purchase drugs from private pharmacies. Moreover, the card is not honored in private facilities since there is no mechanism through which to reimburse care they provide to cardholders.

There is an element of adverse selection associated with CAM purchases. Young individuals without children and the elderly, with low health services utilization, tend not to purchase the card, while families with many children, who tend to be high utilizers, find the card more attractive. Utilization patterns clearly underscore this phenomenon. While only 15% of the population have CAMs, this group accounts for about 90% of public health center utilization. Because the CAM can be purchased any time, the card is frequently purchased just prior to hospitalization, resulting in considerable savings. According to the director of L'Hopital Prince Regent Charles, family members even purchase the CAM <u>after</u> a patient is hospitalized.

When one considers the price of the CAM relative to probable health services utilization and the extremely low fees in health centers, the card is not a good bargain for a large segment of the population. Lack of resources is also frequently mentioned as a reason for not purchasing the card. Whatever its shortcomings, the card is probably here to stay. The MOH must restructure so that the quality of health services and the availability of drugs in public facilities are improved. An obvious requirement is that CAM generated revenues actually be used to fund health services. A major issue is which facilities and which services should be covered by the card. Clearly this mechanism should not become a substitute for direct MOH funding of public facilities.

Use of the CAM as a true insurance mechanism could involve setting up a pool from which to reimburse health centers, as well as secteural and national hospitals. The same mechanism could be utilized to finance the care of cardholders in the "secteur agrée" and the non-religious private sector.

Expanding the role of the CAM raises several operational issues for a health finance study:

1. Which facilities and services should be covered.
2. What reimbursement mechanisms should be used.
3. How reimbursement levels should be determined.
4. Whether participation should be mandatory or optional.
5. Whether adverse selection should be minimized by open seasons and/or waiting periods.
6. Whether the premium structure should be tied to income levels.
7. What utilization controls, e.g., copayment, should be used.

9.4.4 <u>Fee-for-Service</u>

<u>PUBLIC FACILITIES.</u> A cost recovery program based on fee-for-services has

existed in public sector health facilities since 1983. At this time, however, health center collections are turned over to the commune while hospital collections must be sent to the treasury. Since the facilities cannot use these funds to finance their operations there is little incentive to rigidly apply the fee schedules.

The fee structure is based on an elaborate relative value schedule which assigns work units to various medical and surgical procedures based upon their complexity and then multiplies these units by a unit price, e.g., 50 FBu, to determine the price of the procedure. This unit price should be determined by dividing projected operating costs for a given period of time, e.g., a year, by the projected number of work units. At this time, however, these unit prices, or multipliers, appear to be arbitrarily set, e.g., 50 FBu for certain facilities and 200 FBu for others. The MOH should consider establishing cost related prices, with adequate reduction for those who cannot pay. For health centers, basic fees should be set at a level which encourages the population to purchase the CAM.

"SECTEUR AGREE". The MOH has also negotiated a fee schedule with CARITAS for use in religiously affiliated hospitals and health centers. This schedule is shown below:

Table 9.3
FEE SCHEDULE

	STATE	**RELIGIOUS AFFILIATION**
New Visit	30 FBu	60 FBu
Return Visit	20 FBu	40 FBu
Hospitalization: room	100 FBu	100 FBu
ward	50 FBu	

he "secteur agrée" fee schedule has been derived through negotiation rather than based on cost analysis. Within the context of a comprehensive cost recovery program the MOH should consider the establishment of a uniform fee structure for both public and "secteur agrée" facilities as well as mechanisms for reimbursing the latter through the CAM program.

9.5 PRIVATIZATION AND DECENTRALIZATION OF PUBLIC FACILITIES

Another approach being pursued by the MOH to improve health services delivery and to reduce its budgetary burden is the decentralization of management and privatization of selected public sector health facilities. Annex 9 examines the operation of two of these facilities in order to gain some understanding of this strategy.

The privatization and/or decentralization of public sector health facilities is an innovative approach to improving management, worker productivity and quality of care. This approach could also free scarce MOH funds for reallocation to other facilities.

A review of who utilizes these two facilities raises some interesting issues. About 30% of the revenues derived by both institutions is from private patient payment, indicating that there may be a market for some form of private health insurance.

The problems associated with the CAM are also evident. Prince Rugasore Clinic (CPLR) does not honor the card because it is not reimbursed for services it provides to CAM holders. Conversely, half of the patients seen at HPRC have CAMs. Some patients even obtain the card after entering the hospital. However, because proceeds from card sales are not available to cover hospitalization costs, the 40 million FBu required to cover these costs must be provided from the MOH budget.

MFP members, who make up 6% of the population, account for 15% of HPRC revenue and 55% of the income received by CPLR, further underscoring the equity issues raised in section 9.4.3. In this instance, the problem is compounded by the fact that MFP enrollees receive care at lower prices, which have to be subsidized by the MOH. Self-pay patients who could afford to pay the higher fee are also receiving an MOH subsidy. A more equitable approach would be the utilization of a dual fee schedule with reduced fees restricted to lower socioeconomic groups.

A final question which must be asked is where are the indigent. They were not mentioned at CPLR and they make up less than one percent of the patient load at HPRC. Perhaps many of the patients one would consider indigent have succeeded in purchasing the CAM or in otherwise paying for care. An analysis of HPRC utilization by income would perhaps answer this question.

9.6 PARTNER INVOLVEMENT IN HEALTH CARE FINANCING

Partner agencies involved in health financing include Belgium, UNICEF and the World Bank.

Belgium is seeking MOH approval for a four year, $6 million project in four health secteurs. The project would provide training, technical assistance and logistical support, including drug distribution. Fee schedules covering the cost of treatment and drugs would be based on the extent and complexity of care. Revenues would be retained within the secteur and used to replenish the drug supply. Surplus funds would be utilized to support operating costs at all levels. The CAM might be used exclusively for hospitalization. {71}

UNICEF has implementated a modified version of the Bamako Initiative in MUYINGA, but the model does not include the creation of a revolving fund for the purchase of drugs. Health committees would use revenues from CAM sales and health center collections to pay for operating costs and other locally planned health related activities. The MOH would continue to supply health centers with drugs. It is assumed that the MOH drug budget would be adequate to cover drug costs if purchases were limited to generics on the essential drugs list. UNICEF would like to eventually replicate this model throughout the country. However, a recent evaluation by the London School of Hygiene and Tropical Medicine of the early phases of project implementation raises serious questions regarding project design.{89}

The World Bank is funding a six year (1987-1993) $US 14 million population and health project. One component of this project is health financing policy development aimed at: (a) improving resource allocation in the health sector; (b) developing new financing mechanisms and (c) exploring the feasibility of self-management and self financing at the health center level.{64} The World Bank representative expressed concern about the progress and prognosis of this project when asked about Burundi's health activities.

9.7 MAJOR ISSUES/CONCLUSIONS

Because public financing for health services is inadequate, progressively greater

reliance must be placed on obtaining funding from other sources, i.e. efficiently managed cost recovery.
However, there is a lack of a coherent strategy for the development and implementation of cost recovery mechanisms and for resolving problems associated with existing financing methods:

a) MFP: 80,000 public sector employees and their families are covered through this insurance plan. The system provides excellent coverage for this population group, but is characterized by poor utilization controls, significant abuse, and high costs despite attempts to correct these problems. Per capita government expenditures for these relatively affluent beneficiaries are several times the national average, raising serious equity issues. However, a reformed MFP could serve as a model for a health insurance plan accessible to perhaps 20% of the population.

b)CAM: This "insurance" permits communes to retain funds generated through CAM sales. Only a small percentage of these monies is utilized to pay for health services. Cardholders receive "free" care only in public health centers and hospitals since there is no mechanism for reimbursing private facilities. Participation in this program is extremely low because of perceived poor quality of health services and the limited availability of drugs in public facilities.
c)Fee-for-Service. Fee schedules in both the public sector and the "secteur agrée" are not related to unit cost and do not permit sufficient cost recovery. There is little incentive to collect fees in the public sector since health center collections are turned over to the commune and hospital collections revert to the Treasury. Public sector fees are too low to stimulate purchase of CAM.

d)Privatization. The privatization of previously public health care facilities is an innovative approach to improving the efficiency of health services while reducing the MOH budgetary burden. However, steps must be taken to ensure that the poor are not denied access to care.

9.8 **RECOMMENDATIONS**

1. Conduct a comprehensive health care financing study to formulate an economic model of the health secteur to evaluate cost recovery mechanisms. The centrally funded Health Financing and Sustainability (HFS) project could provide technical assistance to analyze:
   - the institutional, legal, political and organizational, context of HCF;
   - the unit costs of services within the health secteur and health services utilization
   - the ability and willingness of households to pay for services directly or through health insurance.

2. Formulate a strategy which provides a framework for the design of a coherent system of cost recovery mechanisms including the continued privatization of public facilities.

3. Enhance the sustainability of health care financing by assisting the MOH in developing institutional capacity in financial management and HCF through:
   - accounting and financial management training at all levels;
   - technical assistance in the design of financial management and cost recovery systems

10. HEALTH POLICY

10.1 CURRENT HEALTH POLICY DIRECTIONS

The 1988 health sector policy statement of the MOH outlines policy statements in 17 areas (see Table 10.1). The document is a commendable first effort at getting concepts down on paper. At the same time it has been noted that the document "lacks adequate focus, prioritization and detail for use in planning specific programs and coordinating donor activity." {101}

TABLE 10.1
1988 MOH HEALTH POLICY STATEMENTS

I. POLICIES IN NEED OF DYNAMIC IMPLEMENTATION:

-DRUG POLICY	-PRIVATE AND NGO MEDICAL SERVICES
-FAMILY PLANNING	-DECENTRALIZATION OF HEALTH SERVICES
-HEALTH EDUCATION	-HEALTH CARE FINANCING

II. POLICIES FOR NORMAL IMPLEMENTATION:

-PREVENTIVE MEDICINE	-TRADITIONAL MEDICINE
-SOCIAL MEDICINE	-INSTITUTIONAL REINFORCEMENT
-CURATIVE MEDICINE	-PLANNING AND SUPERVISION
-PERSONNEL	-PROFESSIONAL HEALTH ORGANIZATIONS
-RED CROSS	-WATER AND SANITATION
-INTERSECTOR/INTERNATIONAL COLLABORATION	

The MOH is serious about updating their policy statements. They began discussions in late 1991 by focusing on the issues of health care financing. This is an excellent opportunity, therefore, to encourage the MOH to address priority policy strategy issues. Policy dialogue in conjunction with the negotiation of new or continuing projects is probably the most effective way to encourage strategic planning. Table 10.1 indicates those policies which the assessment team feels are of most importance in developing dynamic implementation strategies.

Family planning and population policy development should continue, but at the same time an all out effort to activate contraceptive services at health centers (and through other channels) is required. Perfecting and filling organizational charts at the national level won't increase contraceptive prevalence. Chapter 4 discusses the policy environment for family planning.

Likewise the essential medicines policy which may be considered adequate (see Chap 8) suffers from the absence of a true decentralization and financial autonomy at the health secteur level. This is the real stumbling block to getting adequate stocks of medicines in the health centers.

10.2 CURRENT POLICY, STRATEGY AND INTERVENTIONS

The primary policy concerns of the MOH at this time are and should be decentralization, health care financing and partner coordination. The MOH seems committed to building a decentralized primary health care system, and they have many of the resources that they need to construct such a system, but they cannot seem to decide on the specifications of the structure to be built.

Given the excellent analysis made by Helfenbein of the management development needs of the MOH in November 1989 (Analysis of Management Development Needs of the Burundi MOH...){97}, it is worthwhile to take a second look at his assessment.

> The most important structural issue facing the Ministry is the extent to which it can decentralize the management of health services. For decentralization to become an operational reality, two essential management functions will have to be conducted at the sectoral level: planning and financial control, the latter based on financial autonomy. [This] needs to be accompanied by financial decentralization and by implantation of effective support systems such as the Health Information System (HIS) and training which can be mobilized at the secteur level by the secteur heads.
>
> Interventions must continue to ensure that the development of systems fosters the capability to manage a decentralized structure. The secteur medical officer needs support systems to enable him to plan, organize, direct, coordinate and evaluate.
>
> At the policy and strategy level, it is important to initiate a strategic planning process, the goal of which would be to give the Ministry's broad policy agenda focus and purpose which everyone understands and to which everyone is committed.
>
> The next two years [1990-1991] could be critical for the future development of the health secteur. The staff is new, young and motivated. It is important to take advantage of these characteristics while the new MOH sector policy statement is still fresh and launch a strategic planning exercise to define priorities and detail strategies to give the policy teeth and backbone.

We are now more than two years later, and the strategic planning efforts have yet to produce the desired result. Partner agencies are becoming either frustrated by the lack of direction from the MOH or insistent on imposing their own policies and strategies. This latter approach, while defensible by an attitude of "let's get something going," has resulted in partner initiated efforts (and policies) being attached directly to the Cabinet of the MOH rather than to the department/direction where they would normally be found (see Chapter 2).

The MOH must move quickly to define the operational unit of decentralization and financial autonomy and then use this unit as a planning tool and mechanism for coordination of partner agencies (see Chapter 11.) This is the most important policy and strategic planning activity required. Specific recommendations are included which can encourage this to take place.

Discussions with MOH staff as well as partner agency representatives indicate that nearly everyone is thinking "health secteur" rather than "health province." The definition of the health secteur as the unit for decentralization must, however, go hand in hand with the concept of financial autonomy at the level of the health center/commune and health secteur. It should also be used in the coordination of partner assistance. If this does not happen in 1992, then the MOH will have missed a golden opportunity to accelerate and reinforce primary health care and health for all.

10.3 **RECOMMENDATIONS**

The MOH and other partner agencies should adopt the health secteur as the unit for decentralization, financial autonomy and partner coordination. This decentralization

decision would require political and strategic actions including the following:

1. Get the health secteur map into circulation at the MOH and among partner agencies to encourage people to consider the health secteur as an autonomous decentralized unit and as a mechanism for partner agency coordination.

2. Establish and maximize use of a data base of health secteurs to facilitate planning for factors such as NGO identification, existing partner agency assistance and potential partner assistance.

3. Establish a small working group to specify the investment and operational costs of an average health secteur. This should include several MOH staff as well as health secteur chiefs, provincial medical officers, hospital directors and NGO representatives with field experience in the development of decentralized health care systems.

4. Obtain agreement and action from the Ministry of Territory to direct administrative communes to make all receipts from the sale of CAM cards and direct fees available to support health center costs and purchase of medicines.

5. Begin discussions with NGOs who are managing reference hospitals to participate in the planning and management of health secteurs.

6. Present the concept of the health secteur to partner agencies as the MOH coordination strategy. Ask partners to finance the development of selected health secteurs and/or provide a specific health resource to all health secteurs, e.g. training of health secteur personnel.

7. Begin health secteur reinforcement in two or three secteurs as soon as possible with partner agencies who are willing (and have the technical expertise) to lead the way.

8. Reinforce the health secteur office with a MOH-funded operations budget. Provide additional management training for the health secteur chief, pharmacy technicians (see Chap. 8) and family planning coordinators (see Chap 4).

9. Privatize ONAPHA as a not-for-profit NGO to assure a commitment to production of essential medicines in adequate supply to health secteur pharmacies. In the meantime, fill the system with imported essential medicines by NGOs and partner agencies.

10. Conduct health cost financing studies aimed at the health center and health secteur level to assist developing secteurs in fixing prices to optimize cost recovery.

11. CROSS-CUTTING ISSUES AND RECOMMENDATIONS

11.1 MATRIX OF CROSS-CUTTING ISSUES

A matrix results from crossing the principle elements which were analyzed in the previous chapters is shown as Annex 9. For example, IEC becomes a cross-cutting issue particularly in the areas of family planning, AIDS and nutrition, while the cross-cutting issues of pharmaceuticals deal primarily with health cost financing, management and strategic planning.

The most important cross-cutting issues become more apparent in Table 11.1 which consists of a matrix crossing the support mechanisms (policy, management, health care financing) along one axis and the program component interventions along the other axis.

Table 11.1
CROSS-CUTTING ISSUES:
SUPPORT MECHANISMS & PROGRAM INTERVENTIONS

	FP	AIDS	MEDS	IEC	NUT	CCCD
POLICY & STRATEGIES	X	X	X			X
MGT & DECEN-TRALIZATION	X	X	X	X		
HEALTH COST FINANCING			X			X

Table 11.1 demonstrates that most of the problems (and cross-cutting issues) are occurring in the implementation and financial support of specific program interventions. Specifically:

o Nutrition does not seem to require any special efforts at this time.

o AIDS and IEC are relately well funded and have well planned strategies, but their integration and decentralization to rural areas needs to be strengthened.

o Family Planning is also well funded but seems to lack a well planned service delivery strategy to improve service delivery at health centers. IEC materials while "in development" require a distribution campaign to get them in the hands of the users.

o Pharmaceutical production and distribution needs a decisive push at the strategic implementation level to initiate decentralized cost recovery and reinvestment mechanisms.

o PEV/CCCD stands out as the principle program which has, to some extent, decentralized operations. While the program is still overly-centralized and vertical, it is moving in the right direction. The issue confronting PEV is if the cost can be sustained by the MOH. This will require a financial policy decision by the MOH and/or continued commitment of partner agencies.

11.2 DECENTRALIZATION

11.2.1 Factors favoring successful decentralization

Decentralization must be accompanied by financial autonomy, strategic planning, and coordination by the MOH with partner agencies. The lessons learned from PEV show that decentralization is possible, but at the price of substantial support by partner agencies. It is worthwhile to examine the factors which enabled PEV to attain high levels of vaccination coverage:

- Population in close proximity of health centers permits vaccinations to be given at the health center rather than by mobile teams at the colline level;
- A felt need by the population for vaccination of their children;
- A perceived need at the national level with political commitment;
- Good road infrastructure to facilitate supervision and vaccine delivery;
- Stable economy with good access to kerosene at an affordable price;
- Good strategic planning at the national level;
- Good partner support around a common "non-partisan" issue;
- Many people perceive a benefit/good in receiving injections;
- Motivated supervisors at the health secteur (training, vehicles and fuel);
- A good health information system and relatively easy communications;
- Sufficient supply of free vaccines with no cost recovery necessary; and
- Clear lines of authority for program management within the MOH.

11.2.2 Constraints to successful decentralization

Other program interventions should profit from the management structure that has been established by PEV, but other interventions must deal with non-PEV type problems:

- a felt need for services does not exist (family planning, IEC)
- personnel do not perceive the need (family planning,IEC)
- personnel get bored with the intervention (IEC)
- the supply/cost recovery system breaks down (medicines)
- personnel are too busy and don't want to add any new activities
- the intervention requires concerted community action (water/sanitation)
- the intervention is not a priority of most partner agencies (water)
- the intervention requires a high investment cost (water systems)
- information collection must be done at the community level (sanitation)
- the intervention requires monthly checkups (prenatal care)
- personnel have not been trained in the intervention (water/sanitation)
- the intervention solution may be more social than medical (malnutrition)
- the intervention requires vector control (trypanosomiasis)
- the commune participates in the activity management (cost recovery)
- there is religious opposition to the intervention (family planning)
- the intervention requires inter-ministerial agreements (family planning, water/sanitation, cost recovery)

Decentralization of financial/management autonomy and material/financial investments to health secteurs can serve as a tremendous motivation to health centers and the health secteur office. Rather than unconditionally promising the same autonomy/investment package to all centers, however, it may be wise to condition the degree of autonomy or the amount of investment on meeting specified program objectives in areas such as family planning and IEC.

11.3 **PARTNER COORDINATION**

The lack of a good coordination of partners has been a major complaint registered in discussions with partner agencies. The imposition of vertical special interest programs by partner agencies has been a complaint raised by the MOH. The two go hand in hand. When the MOH lacks a clear strategic plan for coordination of partners, partners feel justified to push through programs based on their own strategies/priorities. This may result in vertical programs with a quasi-independence to the MOH. This also may occur even when the MOH does have a strategic plan if partners have already decided what they intend to finance before negotiations with the MOH.

Coordination among partner agencies does takes place informally and is perhaps more apparent in preventive activities such as IEC, Family Planning and AIDS than in curative care. While frequent meetings of the heads of partner agencies do occur, they do not deal with the technical level of management coordination that is required for the decentralization process.

It is possible to categorize current partner support. Table 11.2 indicates the considerable diversity in the types of assistance now available from partner agencies. Nearly every component of primary health care and support activities exists to some extent. The elements of construction are there to build a decentralized primary health care system, but a coordination plan is needed.

Table 11.2
TYPES OF ASSISTANCE FROM PARTNER AGENCIES

PARTNER AGENCY	PRIMARY FOCUS	SECONDARY FOCUS
WORLD BANK	INFRASTRUCTURE	POPULATION
UNICEF	PEV	PHC REINFORCEMENT (ABIB)
USAID	PEV/CCCD	FAMILY PLANNING
OMS	AIDS	TRAINING
FED	WATER/SANITATION	HEALTH PROVINCE
BELGIUM	HEALTH SECTEUR	IODINE SUPPLEMENTATION
FRANCE	MEDICAL SCHOOL	RURAL TEACHING HOSPITAL
ACTION AID	COMMUNITY DEVELOPMENT	HEALTH CENTERS
CARITAS/CATHOLIC	HEALTH CENTERS	IEC
INTERPHARMA	TRAINING IN MEDS	
PROTESTANT	HOSPITALS & HEALTH CENTERS	IEC
CHINA,CUBA,RUSSIA	HOSPITAL TECHNICAL ASSISTANCE	
BAD/ADF	TRAINING	RESEARCH
UNFPA	FAMILY PLANNING	IEC
GERMANY	WATER/SANITATION	HOSPITAL TECHNICAL ASST.
CECI (CANADA)	NURSE TRAINING	AIDS

The health secteur provides a unit for coordination of partners, however to successfully develop a health secteur it must receive assistance across the board and not just in one or two areas. For example, while the FED work in water and sanitation has been significant in the health secteur of Bubanza, this is not sufficient to develop the health secteur as a decentralized unit for PHC. Either a partner agency must be able to supply an assistance package that includes all categories of assistance required, or a plan of partner complementary assistance in various areas must be carefully pieced together. The development of a health secteur may be expected to require resources in the following areas:

- o INFRASTRUCTURE
- o EQUIPMENT
- o MEDICINES
- o TRAINING
- o FUNCTIONING COSTS
- o MANAGEMENT TECHNICAL ASSISTANCE
- o OPERATIONAL RESEARCH IN MGT OF SERVICES

Each of these categories include several sub-categories of assistance which may be specific to one partner group. For example, some partners may be interested in infrastructure renovation projects rather than construction, or interested in hospitals rather than in health centers. Some partners may prefer to work in one geographical area while others want their assistance to go to all health secteurs. The strategic planning by the MOH must identify these general areas of partner interest, based on what they are already doing or propose to do and then try to fill in the gaps.

Table 11.4 illustrates how this issue of partner coordination might be approached in Burundi. This table is for illustrative purposes only, and while it does reflect the general situation, it is not meant to be precise. The point is not so much which agencies are present in the table at this time, but that by looking at partner assistance by health secteur and by types of assistance required by health secteurs it is possible to bring partner coordination to the level of the service providers.

The above table indicates that the current mix of partner assistance proposed to health secteurs has great potential, but there are still quite a few gaps and question marks. USAID could possibly contribute to the health secteur development in one or more of the following areas:

- o continued support to PEV/CCCD or budgetary support to the MOH for operational costs of health secteur supervision/cold chain.

- o family planning training, service delivery and IEC support to all health secteurs

- o A bilateral project to assist the development of health secteurs.

- o grants to NGOs to support the development of selected health secteurs

- o primary health care documentation (health secteur, health center, nursing school reference libraries) as done by INTRAH

Table 11.4

PARTNER ASSISTANCE TO BURUNDI HEALTH SECTEURS

SECTEUR	RESIDEN	CS	HOP GER	INFRA	EQP	MEDS	TRAIN	FONC	MGT TA
BUBANZA	225849	12	CATH	FED/WB	FED	UNI/CATH	FED	PEV/ET/FED	CATH
BUJ-RUR	292469	8	ETAT	WB	-	UNICEF	-	PEV/ETAT	-
RWIBAGA	77088	7	ETAT	WB	-	UNICEF	-	PEV/ETAT	CATH
BURURI	76405	5	ETAT	WB	-	UNICEF	-	PEV/ETAT	-
MATANA	114328	9	ETAT	FED/WB	CTB	UNI/PROT	CTB	PEV/ET/CTB	CTB
RUMONGE	172177	9	ETAT	WB	-	UNICEF	-	PEV/ETAT	-
CANKUZO	142194	7	ETAT	FED/WB	FED	UNI/FED	FED	PEV/ET/FED	FED
CIBITOK	282625	15	ETAT	FED/WB	FED	UNI/FED	FED	PEV/ET/FED	FED
GITEGA	258410	14	ETAT	WB	-	UNICEF	-	PEV/ETAT	-
KIBUYE	169713	10	PROT/M	WB/NGO?	NGO?	UNI/PROT	GRANT?	PEV/ET/PROT	PROT
MUTAHO	136004	5	ETAT	CTB/WB	CTB	UNI/CTB	CTB	PEV/ET/CTB	CTB
KARUZI	301651	9	PROT/A	WB/NGO?	NGO?	UNI/PROT	GRANT?	PEV/ET/PROT	PROT
MUSEMA	190134	7	PROT/B	WB/NGO?	NGO?	UNI/PROT	GRANT?	PEV/ET/PROT	PROT
KAYANZA	253543	9	ETAT	WB	GERM	UNI/GERM	GERM	PEV/ETAT	GERM
KIRUNDO	404564	10	ETAT	WB	-	UNICEF	-	PEV/ETAT	-
MAKAMBA	240741	9	ETAT	CTB/WB	CTB	UNI/CTB	CTB	PEV/ET/CTB	CTB
KIBUMBU	210691	11	ETAT	CTB/WB	CTB	UNI/CTB	CTB	PEV/ET/CTB	CTB
MURAMVY	229592	12	ETAT	WB	-	UNICEF	-	PEV/ETAT	-
MUYINGA	385518	14	ETAT	WB	-	UNICEF	-	PEV/ETAT	-
KIREMBA	214241	6	CATH	WB	CATH	UNI/CATH	CATH	PEV/ET/CATH	CATH
NGOZI	269573	7	ETAT	WB	-	UNICEF	-	PEV/ETAT	-
RUTANA	198011	12	ETAT	FED/WB	FED	UNI/FED	FED	PEV/ET/FED	FED
BUTEZI	116276	8	CATH	FED/WB	FED	UNI/FED	FED	PEV/ET/FED	CATH
RUYIGI	137841	9	ETAT	FED/FR	FED	UNI/FED	AAB?	PEV/ET/FED	FED//AA
BUJUM-V	226628	20	ETAT	WB	-	UNICEF	-	PEV/ETAT	-
	5326266	244							

11.4 RECOMMENDATIONS:

1. Apply the lessons learned from the successful PEV program and compare/contrast their application to other program interventions in primary health care.

2. Condition the degree of decentralization of autonomy and material/financial investment at the health secteur level on meeting specified program objectives in areas such as family planning and IEC.

3. Encourage partner agencies to support selected activities such as family planning and PEV in all health secteurs and/or to provide broad spectrum assistance to develop selected health secteurs.

4. Encourage partner agencies to maintain in-country technical assistance to assist the MOH with strategic planning for health secteur coordination.

BURUNDI
HEALTH SECTOR ASSESSMENT

ANNEXES

ANNEX 1: METHODOLOGY

1.1 THE ASSESSMENT TEAM

The USAID Burundi Health Sector Assessment was conducted by a six member team of consultants from John Snow, Inc. (JSI) plus two CDC epidemiologist on assignment to USAID/Burundi. The field work in Burundi took place during January 1992. Table 1.1 indicates the names of the team members, their area of the health sector assessment and days spent on this work in Burundi.

Table 1.1
TIME LINE OF FIELD WORK IN BURUNDI

JANUARY 1992	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Franklin Baer, policy & COP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bob Watt, Logistics	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
Richard Brown, Family Planning	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Judith Brown, Nutrition & IEC	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Thomas Murray, Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Arthur Lagace, Health Financing																						X	X	X	X	X	X
Bradley Herch, CCCD																						X	X	X	X	X	X
Geselle Falkenberg, AIDS																						X	X	X	X	X	X

1.2 SCOPE OF WORK

The scope of work requested a chapter on the specific domain covered by each consultant including a discussion of problems, issues and recommendations for specific program interventions. A final chapter was to integrate cross-cutting issues and summarize recommended interventions. The team members felt that this approach and the specific questions in the scope of work for each consultant (see Table 1.2) were quite appropriate and adopted this strategy for the preparation of the report.

The principle area of omission in the scope of work observed by the team was that of an assessment of the work of CCCD especially through the PEV program which has served as a catalyst for primary health care in Burundi. With the CCCD project ending next year USAID must decide whether to discontinue these interventions or continue activities through a bilateral project or some other mechanism. The team was asked to consider the consequences of these options.

The late arrival of the two CDC consultants raised the question as to whether their assessment should be included in the health sector assessment report prepared by JSI or submitted to USAID as a separate document. The team felt that these should be included in the JSI report.

1.3 THE TEAM'S METHODOLOGY

The team methodology consisted of the following activities:

1) Review of documents collected and catalogued by USAID
2) Initial contacts with MOH and partner agencies
3) Visits to health centers, hospitals and offices in the health sectors of Bujumbura, Gitega, Muyinga, Ngozi, Muramvya, Matana, Kibuye and Makamba
4) Second round of discussions with MOH and donor agencies
5) Presentation of draft recommendations to USAID
6) Discussion of recommendations with key MOH people
7) Submission of draft report to USAID
8) Informal discussion of findings with MOH and donor representatives
9) Presentation of findings to the Minister of Health
10) Submission of the proposed final report to USAID and JSI
11) Submission of the final report to USAID by JSI

1.4 A PROBLEM IN TERMINOLOGY

Conducting a health sector assessment in a country where decentralization is being considered by health sector can become confusing. To avoid this confusion this paper uses the term "health sector" when referring to the domain of health and the term "health secteur" to refer to the geographical unit being considered by the MOH for decentralization of the health system.

Table 1.2
USAID/JSI BURUNDI HEALTH SECTOR ASSESSMENT-SCOPE OF WORK

NB	AREA	PER	QUESTION TO ANSWER DURING THE HEALTH SECTOR ASSESSMENT
1A	MGT	TM	How appropriate are current mgt strategies to decentralize health care?
1B	MGT	TM	What are supports/constraints to implementing mgt reforms at all MOH levels?
1C	MGT	TM	What is (has been) the impact of donor involvement in mgt interventions?
1D	MGT	TM	What are the mgt interventions which could best impact family planning?
1E	MGT	TM	What is the current status of HIS integration into MOH management?
1F	MGT	TM	How can BHSS improve MOH mgt from the central to peripheral levels?
2A	POL	FB	How appropriate are current health care policy directions?
2B	POL	FB	What is (has been) the donor role in policy formation and reform?
2C	POL	FB	What is the relationship between current policy, strategy & interventions?
2D	POL	FB	What is the policy environment (supports/constraints) for family planning?
2E	POL	FB	What policy reforms/priorities should be included in BHSS?
2F	POL	FB	How can BHSS strengthen policy, strategy & interventions links?
3A	FIN	AL	What is (has been) donor (ML,BL,NGO) involvement in health financing?
3B	FIN	AL	What is status (and potential) of participation in insurance programs?
3C	FIN	AL	What are diferences in user fees and cost recovery between GRB & NGO CS?
3D	FIN	AL	What are the differences in public vs private rural CS use levels? Why?
3E	FIN	AL	What's the feasibility of a private/public mix of PHC delivery & financing?
3F	FIN	AL	What's the impact of privatization of urban curative care on cost & quality?
3G	FIN	AL	What are the alternatives in financing secondary care, esp for AIDS?
3H	FIN	AL	How can BHSS improve cost recovery as well as access & quality of PHC?
4A	NUTR	JB	What is the extent (and regional differences) of malnutrition?
4B	NUTR	JB	What are the principle causes of malnutrition?
4C	NUTR	JB	What's the status/impact of nutrition programs of MOH, donors, NGOs?
4D	NUTR	JB	What are the supports/constraints to MOH (& IEC unit) nutrition programming?
4E	NUTR	JB	What interventions should BHSS support in nutrition?
5A	IEC	JB	What's the status and impact of MOH Hlth Edc? What about donor involvement?
5B	IEC	JB	What are supports/constraints to effective MOH IEC & the proposed IEC unit?
5C	IEC	JB	How can BHSS strengthen IEC interventions in NUT, FP, AIDS, etc.
6A	FP	DB	What are donor/MOH interventions in FP at central, intermed & periphery?
6B	FP	DB	What's the estimated level of FP interventions throughout the country?
6C	FP	DB	What's the current policy environment for FP & a national planning policy?
6D	FP	DB	How can BHSS support FP efforts among donors and MOH?
7A	LOGS	BW	What are supports/constraints of the system for MEDS & equipment supply?
7B	LOGS	BW	What is the role of public and private sector in MEDS supply?
7C	LOGS	BW	What's the feasibility of drug financing/supply proposed by the MOH?
7D	LOGS	BW	What's the status of donor assistance & relation to MOH Direc of Logistics?
7E	LOGS	BW	How do urban and rural MEDS supply systems compare?
7F	LOGS	BW	How can BHSS best support MEDS distribution in line with MOH directions?
8A	AIDS	BH	What is HIV prevalence & what is the potential impact of AIDS?
8B	AIDS	BH	Is the current level of donor support for AIDS sufficient?
8C	AIDS	BH	How appropriate are the impact indicators used by AIDS national program?
8D	AIDS	BH	Should AIDS be a central focus of BHSS support?
8E	AIDS	BH	How can BHSS best support efforts in AIDS control?

Note: BHSS = Burundi Health Systems Support Project

ANNEX 2: GETTING AND SPENDING

"Getting and Spending", a preliminary report of a household survey, recently completed by the Institute for Development Anthropology, provides valuable insights into the nature of the economy in both the rural and urban sectors.

RURAL. Ninety five percent of the population of Burundi resides in rural areas. The average rural household has 5.4 members. Most homes have more than three rooms. Nearly all have access to running water either in the home or in close proximity. Less than 6% have electricity.

Adults have on average less than 3 years of formal education. While 63% are engaged in agriculture, most income is derived from other sources. This is shown in the following table:

Table A2.1
INCOME (FBu) DISTRIBUTION BY QUARTILE

SOURCE	1	2	3	4	MEAN
AGRICULTURE	4,100	11,600	24,800	28,800	17,300
SALARIES	0	1,000	7,400	300,500	77,200
BUSINESS	3,200	13,400	32,200	113,200	40,500
OTHER	1,400	4,100	6,800	3,700	4,000
TOTAL	8,700	30,100	71,200	446,200	139,000

According to the report these estimates understate actual income; they do nevertheless reflect highly unequal income distribution. The richest quartile has an income level forty times greater than the poorest, accounting for about 80% of rural income. Households in the lowest quartile earn less than $50 per year. Moreover, because this group relies more heavily on agriculture, a greater proportion of its income is seasonal, further affecting its purchasing power.

Over 40% of rural income is spent on basic foodstuffs while about 7% is spent on housing. Annual health care expenditures are estimated at 1,600 FBu ($8) per household, less than 1% of income, but the study does not indicate how these expenditures vary by income level.

URBAN households average 6.4 members, 1.0 greater than their rural counterparts. While urban housing standards are higher than those in rural areas, most of the urban population still lacks modern conveniences. Three-fourths of the homes lack piped water and nearly two-thirds have no electricity.

Urban adults average 6.2 years of formal schooling, twice the national average. Surprisingly, over 25% are actively engaged in farming. Nearly one-fourth are unemployed. Urban household income distribution is summarized in the following table:

Table A2.2
INCOME (FBu) DISTRIBUTION BY QUARTILE

SOURCE	1	2	3	4	MEAN
AGRICULTURE	600	11,900	8,800	30,100	12,800
SALARIES	5,100	90,100	335,200	922,400	338,200
BUSINESS	12,100	53,300	102,800	589,500	189,400
OTHER	700	1,000	6,100	181,000	47,200
TOTAL	18,500	156,300	452,900	1,723,000	587,600

Average urban household incomes are over four times greater than those found in rural areas. Moreover, they reflect an even more skewed distribution, with the poorest quartile receiving less than one percent of total income. As in rural areas, the top two quartiles account for 93% of all income. The income level and composition of the third urban quartile closely resembles that of the richest rural quartile.

A comparison of expenditure patterns reflects differences in rural and urban economies as well as the income elasticity of demand for various goods and services. Proportionally less is spent on basic foods in urban areas, but higher housing costs consume over twice as much of the urban household income.

Urban households spend an average 42,200 FBu (US$210) per year on health care, or 5.6% of their incomes. On average these households spend twenty-five times more on health care than rural households. Again, while the study does not directly relate these expenditures to income, one can infer that they are concentrated in the upper half of the urban population since average urban health expenditures exceed first quartile urban income by a factor of 2.

Implications. While conclusions drawn from this brief analysis are tentative, they appear to be consistent with the consensus of opinion on the state of the Burundian economy, and they imply the following:

1. As stated elsewhere in the health sector analysis, public expenditures on health care account for about 5% of the GRB budget, half of the level advocated by WHO. Because of projected slow economic growth and continued fiscal restraint, it is unrealistic to expect significant increases in GRB funding for health care in the foreseeable future. It is for these reasons that the MOH is attempting to increase efficiency in health services delivery and to expand available resources through improved cost recovery.

2. The implementation of cost recovery systems appears feasible because a large segment of the population can afford some form of health insurance premium or can otherwise pay for health care.

3. There is however, a significant proportion of the population which may be unable to afford such services. It is therefore imperative that any cost recovery system assure that no one is denied access to health care because of an inability to pay.

ANNEX 3: OPTIONS FOR DECENTRALIZATION

The operational unit for decentralization must be defined geographically in order to assure complete coverage of the country and to provide the denominators for the health information system. This unit could be one of the following:

- o Colline.
- o Commune
- o Health Secteur
- o Province

A colline contains approximately 2,000 people in scattered households of 5 people per household. Since there is no existing health infrastructure at the colline level, decentralization at this level does not merit practical consideration except in the area of community empowerment.

Burundi is divided into 114 administrative communes with an average population of 50,000. Political administrative decentralization has already occurred at the commune level, with at least 1 to 3 health centers already in existence in each commune. However, supervision of 114 communes directly from the national level would be nearly impossible. In addition, while a commune management structure does exist, their management of health care services would require considerably more technical support than is available at the commune level.

The health secteur regrouping of approximately six communes and ten health centers with a population around 200,000 appears to be a more manageable unit for decentralization. The existence of a health secteur chief and their current role in supervision, reporting and distribution of medicines is already a big step to decentralize to the health secteur level. The health secteurs as created by the MOH are not political administrative units. While some consider this a weakness it is actually more of a strength since the limits of a health secteur may be changed by the MOH, as for example recently happened when the health secteurs of Cankuzo and Murore were combined into one health secteur. The health secteur also permits the MOH to establish a more flexible innovative administrative unit independent of, but managed in collaboration with, the political administrative structure.

The fifteen provinces have populations ranging from 150,000 to 550,000. With the existence of a medical provincial chief, the province is also a possible choice for decentralization especially as eight of the provinces currently consist of one health secteur. It could be possible, therefore, to make the province the decentralized management center, with the secteur simply being a subdivision to facilitate supervision. This might provide some economy of personnel and administrative offices over the short term, but would not provide the same degree of autonomy and opportunities for innovation that a health secteur strategy could provide.

Discussions with MOH staff as well as partner agencies indicate that nearly everyone is thinking "health secteur" rather than "health province" as the unit for decentralization. At the same time, however, only one or two partner agencies are planning or proposing projects to assist in the establishment and support of health secteurs as financially autonomous units for decentralization.
The definition of the health secteur as the unit for decentralization must go hand in hand with financial autonomy at the health center/commune and health secteur. Ideally all receipts at the health center level should be kept in an individual account at the health secteur or commune level for the purchase of medicines and functioning costs. The health secteur pharmacy should receive an annual budget from the MOH which could be divided as a subsidy among health centers.

ANNEX 4: PARTNER AGENCY MANAGEMENT ASSISTANCE

UNICEF and USAID provide vehicles and fuel through PEV/CCCD for the monthly supervision of health centers by health secteur chiefs. At one point in 1991 when funding to PEV/CCCD was halted because of management problems, the supervision and supply of health centers temporarily suffered. The monthly supervision is also when monthly reports are compiled and forwarded to the central level.

The World Health Organization supports a management training course at the University of Burundi. The course is taught by a Zairian who worked previously in the decentralized rural health system in Zaire.

Germany is providing two MDs to the hospital at Kiremba over a three-year period. It also supports training in hygiene in conjunction with the maintenance of water adduction systems. Some 2.7 million DM will be made available for these activities through the KFW, the German bank responsible for implementing financial cooperation activities. Historically, Germany has been the most active sponsor of potable water systems in Burundi.

France has 12 MD specialists serving as faculty at the University Hospital in Kamenge. France also provides medical training in France for Burundians, many of whom, unfortunately, do not return to Burundi. The French Cooperation intends to make changes to increase in-country training to improve the return rate of MDs trained abroad. The French Cooperation also plans to construct a hospital in Kinyinya (health secteur of Ruyigi). The 50-bed teaching hospital will focus on management in an effort to introduce concepts of financial planning, personnel administration, supervision and accounting. The focus of this work is, however, on hospital based curative care, not on the management of health centers and the health secteur.

UNFPA plans to support coordination of Family Planning activities at the Provincial level. Family Planning coordinators will be placed in each province to work with the medical director and supervise FP activities at the health centers.

A Canadian NGO, the Center for Canadian Studies and International Cooperation (CECI), has provided technical assistance in pedagogy and supervision at the three Burundian nursing schools as well as assistance with AIDS IEC in secondary schools.

CARITAS is assisting activities of the Roman Catholic community in Burundi. CARITAS prepares training plans for nursing personnel and plans for medication distribution at health centers. It assists 49 health centers and 4 hospitals throughout Burundi. The government provides about 1% of the salaries of CARITAS staff at the health facilities. CARITAS has identified the need for improved management procedures at their health facilities, particularly in the areas of planning and budgeting.

The Protestant churches (Methodist, Adventist, Baptist and Anglican) in Burundi operate 20 health centers and 6 hospitals. For example, one hospital operated by the Methodist Church in Kibuye has some 37 staff including an MD specialist. While there are no job descriptions, "everyone knows what to do." An administrator received training in accounting in Nairobi in 1991, but annual budgets are not prepared. The Anglican Church would like to take over the state hospital in Matana. They are also interested in seeking funding in support of the health secteur for which Matana would be the reference hospital.

USAID through PEV/CCCD assisted the MOH in setting up a national HIS and will provide long-term assistance to the MOH in epidemiological surveillance during 1992/93. The same technical assistance responsible for the HIS.

The above observations demonstrate that numerous partner agencies are involved in some degree of management training support at the national level (PEV/CCCD, World Bank, WHO), the intermediate level (FNUAP,FED), hospital based (French, CARITAS, Protestant), health secteur (Belgium, FED, CCCD), nursing schools (CECI), health center (UNICEF, World Bank, Catholic, Protestant) or community (KFW/Germany). It would be nice to say that these efforts are coordinated and complementary, but the reality appears to be that each agency is working without understanding how their effort fits into the master plan of decentralization.

The MOH central administration and the bilateral and multilateral projects use 40 general practitioners and practically all of the Public Health specialists. Rural hospitals have a total of 26 MDs. As shown in Table 4.1, there is an obvious concentration of specialized medical personnel in Bujumbura compared to the interior of the country. But even in Bujumbura, apart from the Medical Faculty at Kamenge, there is an insufficiency of medical specialists.

TABLE A4.1
GEOGRAPHIC LOCATION OF NATIONAL AND TECHNICAL ASSISTANCE MEDICAL PERSONNEL IN BURUNDI, 1991

	BUJUMBURA			INTERIOR			GRAND TOTAL	% nat'ls in rural areas
1.Specialists:	nat'l	T/A	ToTal	nat'l	TA	Total		
Public Health	17	9	26	0	0	0	26	0
Surgery	6	7	13	1	15	16	29	14%
OB/GYN	9	4	13	1	9	10	23	10%
Internal Med.	15	4	19	0	3	3	22	0
Pediatrics	7	2	9	1	4	5	14	13%
ENT	3	1	4	0	3	3	7	0
Opthamology	2	2	4	0	2	2	6	0
Stomatology	5	2	7	1	2	3	10	17%
Anesthesia Resuscitation	3	1	4	0	0		4	0
Other Specialties	9	4	13	0	4	4	17	0
Total	76	36	112	4	42	46	158	5%
Generalists	90	7	97	70	12	82	179	44%
TOTAL	166	43	209	74	54	128	337	31%
Percentage			62%				38%	

source: UNDP Programme of Technical Cooperation 1991-92

Projections for the futureshown an average of 20-30 general practitioners being graduated annually. According to the health sector plan, this will result in a shortfall of some 100 MDs. The situation is equally bleak for specialists trained at the Faculty of Medicine. Shown below in Table 4.2 are various specialists expected to complete training from 1996 through 2000.

TABLE A4.2
PLANNED MEDICAL SPECIALISTS

	1996	1997	1998	1999	2000
Surgeons	3	2	1	1	1
OB/GYN	3	2	1	1	1
Internists	1	2	3	1	1
Pediatricians	3	1	2	1	1
Biologists	1	0	2	2	2

Source: UNDP

The above tables indicate that Burundi does not have sufficient human resources either in general medicine or specialized medicine. The MOH will continue to resort to Technical Assistance in the hospital sector and at the program and project levels.

The three nursing schools in Burundi located in Ngozi, Bururi and Gitega provinces together graduate about 200 nurses annually. The schools located in Ngozi and Bururi graduate first-level nurses, or those who have completed two years of training beyond the equivalent of junior high school (10 years)

The nursing school in Gitega trains both first- and second-level nurses. The second-level students study an additional two years beyond the first level. They graduate as Medical Technicians.

The Bujumbura National Public Health Institute, a project to be financed by the African Development Bank is designed to strengthen the MOH capacity to devise and implement health activities. This is supposed to be accomplished by the construction, renovation and extension of an 8 block area in Bujumbura where training, research, laboratory testing and consultancy services will be made available to the MOH.

Total project cost would be about $10 million. The African Development Fund would loan the money for a period of 50 years with a 10 year grace period. Although designed to become completely self-financing in four years, this project is anticipated to consume 7% of the MOH's 1993 operational budget. In a situation where budget allocations for medicines are woefully inadequate and budgets for operational costs of health secteurs are virtually non-inexistant, we must question whether this is an appropriate investment at this time.

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TABLE A4.3
SPONSOR SUPPORT TO MAJOR HEALTH ACTIVITIES

PROJECT	DONORS (PERIOD)	TOTAL SUPPORT (000 FBu)	ANNUAL (AVERAGE)	TECHNICAL ASSISTANCE	%
PEV/CCCD	UNICEF (1991-93) USAID (1990-92) ROTARY (1991-92) GRB	1,318,150	439,383	50,225	(11.4%)
MCH/PF	USAID (1990-94) UNFAP (1991-92) UNICEF (1991-93) GRB	1,305,009	330,070	33,374	(10.1%)
AIDS/STD	ACDI (1991-92) AGCD (1991-93) CEE (1991-93) OMS (1991) UNICEF (1991) USAID (1991) GRB	1,132,987	660,793	173,533	(26.3%)
LEPROSY TB	AGCD FD (ONG) GRB	396,264	198,132	71,300	(36%)
COMMUN-ICABLE DISEASES	AGCD (1990-91) FED (1990-91) UNICEF (1991-93) GRB	616,092	299,504	123,000	(41%)
WATER & SANITATION	FED (1987-91) GRB	890,081	178,016	141,160	(79.5%)
HEALTH EDUCATION HYGIENE	KFW (1991-93) GRB	267,344	89,115	67,450	(76%)
TOTAL		5,925,957	2,195,013	660,492	(30%)

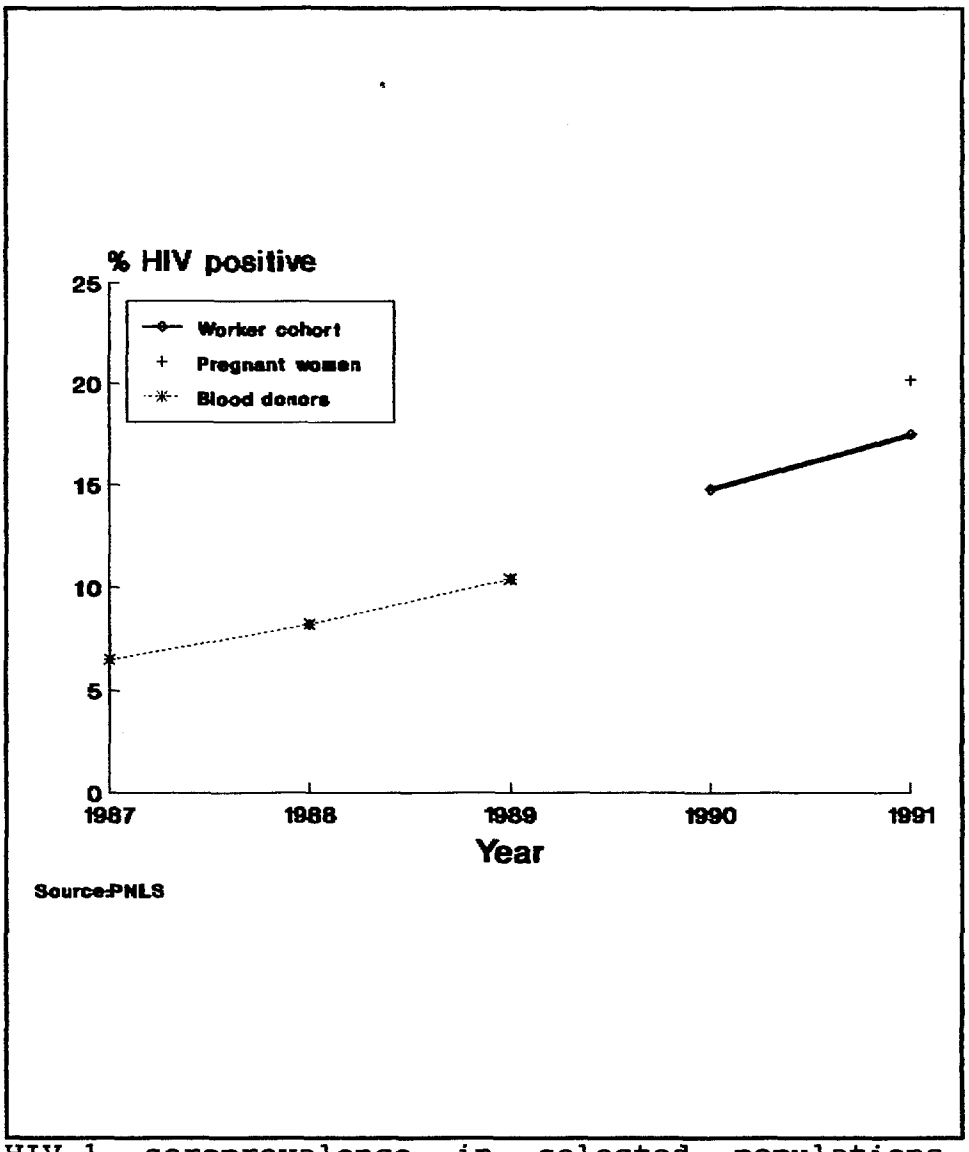
sources: project documents.

ANNEX 5: LIST OF HIV/AIDS CONTROL PROGRAMS AND DONORS IN BURUNDI

A. Donors for HIV/AIDS/STD Activities, 1991
   1. World Bank: support of PNLS = $1.9 million
   2. Belgium: provides some of HIV testing materials
      technical expertise
   3. World Health Organization Global Programme on AIDS
   4. UNICEF: STD control
   5. USAID providesfunding for Burundi HIV/AIDS programs

B. Burundi HIV/AIDS Control Program Staff
   1. Programme Nationale de Lutte contre le SIDA-MST,
      (Ministere de la Sante Publique):
      Dr. Yves Alexandre, WHO/GPA consultant
      Dr. Aloys Kamuragiye,
      Dr. Thaddee Buzingo, Acting Director of PNLS
      Dr. Francoise Bigirimana, STD Coordinator
      Mr. Issa Ngendakumana, Psychosocial Service Coordinator
      Mr. Joseph Seppo, Administrative Director
   2. Information, Education, et Communication (IEC),
      Ministere de la Sante Publique:
      Mr. Jerome Schwigiri, PNLS Coordinator of IEC
      Mr. Thomas Munyuzangabo
   3. Population Services International
      (Social Marketing of Condoms)
      Mr. Greg Wahlmeier, Director for Burundi Project
   4. AIDSTECH, AIDSCOM, AIDSCAP
      short-term consultancy staff

C. Other Donors in Burundi:
   1. UNICEF
   2. World Bank
   3. UNFPA
   4. FED
   5. Cooperation Francaise
   6. ActionAid
   7. CARITAS
   8. Projet d'Appui Canadien (CECI)



HIV-1 seroprevalence in selected populations. Bujumbura, Burundi 1987-91.

ANNEX 7
SUMMARY OF KNOWLEDGE, ATTITUDE, AND PRACTICE (KAP) STUDIES

I. National KAP Survey, January - April, 1990 (sample size=2264)

A. General Knowledge

- 87% understood meaning of "SIDA"

- 7% knew HIV as cause of AIDS
- 84% thought transmission occurs through sexual intercourse
- mother-child transmission was not mentioned

- 57% had heard of condoms
- 66% cited avoiding transmission by sexual abstinence
- 8.7% cited control by using condom

B. Attitudes

- 85% thought AIDS the most important health problem
- 37% believed they will never get AIDS
- 90% thought AIDS to be incurable
- 94% would want to know HIV test results for themselves

C. Practice

- 42% stated change of behavior in fear of AIDS: most common change was decreasing partners
- 22% had used condoms before

II. National KAP Survey of Secondary School Students, 1991

(n=465, ages 14-24 years)

A. Knowledge

- 100% knew how to define "SIDA"
- 90% knew HIV causes AIDS
- 100% knew of transmission by sexual intercourse
- 90% knew of mother-child transmission

B. Attitude

- 88% fear getting AIDS after sexual intercourse
- 16% report mutual condom acceptance between partners
- 8% believe condoms are dangerous
- 6% think condoms "not good"

C. Practice

- 52% had sexual intercourse
- 17% of these had used condoms before

ANNEX 8: PRIVATIZATION OF PUBLIC FACILITIES

Another approach being pursued by the MOH to improve health services delivery and to reduce its budgetary burden is the decentralization of management and privatization of selected public sector health facilities. This annex examines the operation of two of these facilities to gain some understanding of this strategy.

8.1 The "Clinique Prince Louis Rwagasore" (CPLR)

The CPLR is a large clinic located in the center of Bujumbura. It has 60 beds and is staffed by about 20 physicians, including 14 specialists. After conversion from private to public status in 1977, the facility experienced a decline in utilization and in quality of services, due to inadequatefunding and over-centralized management.

In 1984 the MOH was granted authority to privatize the CPLR and to decentralize its management. Since converting to private operation in January, 1986, the clinic has received a subsidy from the MOH ranging from 60,000,000 FBu in 1986 to 1,000,000 FBu in 1990. The clinic is now self-supporting and it is considered one of the best facilities in the country. In 1990, the clinic had more than 100,000 outpatient visits.

Clinic management has the authority to hire and fire and to create productivity incentives such as salary increases or bonuses. It also has the flexibility to institute other measures to improve efficiency and quality. Since 1986, it has been able to gradually upgrade its physical plant and obtain new equipment.

The fee schedule authorized by the MOH is considerably higher than that found in other public facilities. For example, it uses a unit price multiplier of 200 FBu in conjunction with the relative value schedule. Private rooms cost 1,200 FBu per day while suites are available for 3,000 FBu.

1990 revenues were 217 million FBu derived as folows:

Drugs	89 million FBu
Outpatient Visits	73 "
Hospitalization	51 "
Other	4 "

According to the clinic manager, revenues were obtained from the following sources:

Mutuelle de la Fonction Publique	55%
Private payment	35%
Other	10%

8.2 The "Hopital Prince Regent Charles (HPRC)

With a complement of 600 beds, the HPRC is the largest hospital in Burundi. It functions as the major referral facility in the country. Its occupancy rate frequently exceeds 100%.

Unfortunately, ineffective management and financial problems have adversely affected the operation of this facility. To correct these problems the MOH has decentralized the management of the hospital in much the same manner as it did the CPLR. According to the hospital director, however, the institution is still experiencing serious shortages of supplies, which adversely affect patient care during this early transitional phase.

A report entitled "Etude Portant Sur L'Autonomie de Gestion de L'Hopital Prince Regent Charles de Bujumbura", presents 1992 cost and revenue projections based on 1990 and 1991 utilization, cost and revenue estimates.

1990 utilization and revenues were as follows:

Table A8.1

HPRC 1990 UTILIZATION & REVENUES

	NUMBER	REVENUE (FBu)
Hospitalization	14,788	49,384,346
Outpatient Visits	131,815	29,345,300
Other	-	5,754,900
TOTAL	-	84,484,546

Hospital utilization by payment source was as follows:

Table A8.2
DISTRIBUTION OF UTILIZATION & REVENUE BY PAYMENT SOURCE

SOURCE	UTILIZATION		REVENUE
	HOSPITAL	OUTPATIENT	
CAM	54.4%	42.0%	47.4%
MFP	7.4%	25.6%	14.7%
PRIVATE PAY	35.9%	28.6%	27.6%
OTHER	2.3%	3.8%	3.5%
NON PATIENT	-	-	6.9%
TOTAL	100.0%	100.0%	100.0%

Whereas the CPLR is intended to be self-supporting, the MOH has chosen to set HPRC fees at a lower level to facilitate financial access to hospital services. The relative value multiplier has been set at 50 FBu rather than 200FBu as used by certain other facilities. As a consequence, continued MOH financial support will be required. MOH subsidy for 1990 is estimated as follows:

Total Operating Expenses	183,292,489 FBu
Total Revenues	84,484,546 FBu
Deficit (MOH subsidy)	98,807,943 FBu

In addition to covering the deficit, the MOH must also reimburse the hospital for services provided to CAM holders. This amount totals 40,037,620 FBu, or 47% of total hospital revenues. The hospital is also seeking an MOH subsidy of 180 million FBu for the purchase of equipment.

ANNEX 9: MATRIX OF CROSS-CUTTING ISSUES

	POL	MGT	FIN	FP	AIDS	PHAR	IEC	NUT	CCCD
POL		X	X	X		X			X
MGT	X		X	X		X			
FIN	X	X				X			X
FP	X	X					X		
AIDS							X		
PHAR	X	X	X						
IEC				X	X			X	
NUT							X		
CCCD	X		X						

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103) STRENGTHENING HEALTH SECTOR FINANCING AND PROGRAM MANAGEMENT AND IMPLEMENTATION IN THE REPUBLIC OF BURUNDI. REACH PROJECT CHARLOTTE LEIGHTON, 1990 (MGT/POLICY)

104) COURS DE NUTRITION. INADES-FORMATION BURUNDI, 1986 (NUTRITION)

105) DOCUMENT NATIONAL SUR LA NUTRITION ET L'ALIMENTATION AU BURUNDI, 1991. (NUTRITION)

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110) ETUDE DE BASE SUR LA COMMUNE. ACTIONAID ET BES BUTAGANYWA, 1990 (NUTRITION)

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-	Mr.	Joseph	Technicien Medical	CDS Burasira	X	X	-	X	-	X
-	Mr.	Victor	Technicien Medical	CDS Busiga	X	X	-	X	-	X
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ASSOGBA,	Mr.	Laurent Napoleon	Expert du BIT	PNUD/Projet BIT	-	X	-	-	-	-
BANDYATUYAGA,	Ph.	Innocent	Charge du Programme des Meds Essentiels	MOH/Dept Budget et Approv.	-	-	-	-	-	X
BARABWIRIZA,	Mr.	Leon	Secretaire General	CARITAS	-	X	X	-	X	-
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BIGIRIMANA,	Dr.	Pierre Claver	Director of Dept of Hygiene & Prevention	MOH	X	X	X	-	X	-
BIGIRIMANA,	Ph.	Donatien	Resp. d'Unite de Production SRO	MOH	-	-	-	-	-	X
BITERA,	Dr.	Raphael	Director of EPISTAT and PS	MOH	X	X	-	X	-	-
BUHETURA;	Dr.	Speciose	Dir of Nutrtion Project	MOH	-	-	X	-	-	-
BUKURU,	Mme	Marguerite	President ABBEF	ABBEF	X	X	X	-	-	-
BUZINGO,	Dr.	Thadee	Acting Director	PNLS	-	X	-	-	-	-
CHEVAILLIER,	Dr.	Marcelle	Dir. of Pathfinder Population Program	Pathfinder	X	X	X	-	-	-
CIZA,	Dr.	Alphonse	Dir. of Health Care	MOH	X	X	X	X	X	-
DE FEYTER,	Dr.	Marc	Dir. of Health Program	Belgian Cooperation	X	-	-	-	X	-
DENAKPO,	Mr	Julien	Health Project Specialist	USAID	X	X	X	X	X	X
FERRARA,	Mme	Antoinette	Program Officer	USAID	X	X	X	X	X	X
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GATHORO,	Mr.	Methode	Chef de Secteur a.i.	Secteur de Muyinga	X	X	-	X	-	X
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HUPIN,	Dr.	Christian	Conseiller Technique Medical	CARITAS	X	X	X	-	X	X
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KARABAGEGA,	Dr.	Fidele	Director	Nat Inst of Public Health	X	-	-	-	X	-
KARANGO,	Mr.	Tite	Chef du Secteur	Secteur de Bubanza	X	-	-	-	X	-
KERSCH,	Dr.	Lydia	Medecine Generale	Hopital Kiremba	X	X	-	X	-	X
KIRANANGANYA,	Ms.	Gaudence	Dir. of Cabinet	MOH	X	X	X	X	X	X
KIROMBO,	Mr.	Gaspard	Directeur	Action Familiale du Burundi	-	X	X	-	-	-
LAWSON,	Ms.	Agathe	Director of Women's Support Project	Ministry Promotion Feminine	-	-	X	-	-	-
LEONG,	Mr.	David	Project Development Officer	USAID	X	X	X	X	X	X
LOBE,	Mr.	Lauren	Country Representative	FED	X	-	-	-	X	-
MANANGA,	Mr.	Meschac	Dir Gen de la Logistique Sanitaire	MOH	-	-	-	-	-	X
MAREGEYA,	Dr.	Emmanual	Dir. Gen. of Public Health	MOH	X	X	X	X	X	X
MBONYINGINGO,	Mr.	Christine	Director of Population IEC Project	Ministry of Communication	-	-	X	-	-	-
MIFIRUNBERE,	Mr.	Consolate	Chef du Secteur	Secteur de Bujumbura Ville	X	-	-	-	X	-
MILLOT,	Mr.	Benoit	Economist/Population & Human Resources	World Bank	X	X	-	X	X	-
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