

A COMPARATIVE ANALYSIS OF
CCCD PROJECT
HEALTH CARE FINANCING ACTIVITIES

September 1988

**Resources for
Child Health
Project**

REACH



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I. EXECUTIVE SUMMARY

A. Introduction

The African region Combatting Childhood Communicable Diseases (CCCD) Project began providing immunizations, oral rehydration therapy for children afflicted with diarrhoea, and malaria prophylaxis services in 1982, after having been approved a year earlier. The project was designed to build upon the smallpox and measles immunization campaigns which the United States Agency for International Development (USAID) had initially supported with the assistance of the Centers for Disease Control (CDC) and the World Health Organization (WHO) in the late 1960's and continued to expand via the Strengthening Health Delivery Systems (SHDS) project during the mid-1970's. Initial project preparation began in 1979 and included a cost-effectiveness analysis of the set of preventive and curative services initially envisioned in the project. This analysis found that this service package was cost-effective relative to other health sector packages in enhancing the prospects for child survival, a concept emerging from the discussions about how to achieve the globally acclaimed goal of "health for all by the year 2000". In 1980, the project was proposed and approved as one component of a larger multi-donor and multi-recipient country initiative called the Concerted Action for the Development of Africa (CADA). In September 1981, the Project Paper (PP) was approved with an authorized spending of \$47 million over the life of the project (LOP) through fiscal year (FY) 1988.

The CCCD project was designed to be implemented via the existing publicly operated health service delivery system without increasing staffing or expanding the set of facilities where such services would be provided. It was envisioned that all recipient CCCD project countries^[1] would be expected to participate in financing the recurrent costs and providing the human (and some other) resources to implement the project. The project also anticipated that more affluent CCCD countries would provide a larger share of the financial requirements, either on an in kind basis or via direct budgetary allocations. While the PP had virtually no analysis of the financing issue, it was noteworthy that the financing section of the PP suggested that a) the project activities may not be sustained via existing country resources and that donor assistance may be required for a long time, and b) project activity recurrent costs were not well known and that the availability of foreign exchange might be a binding constraint to the continuation of these activities.

By the time the first country project agreement (ProAg) was negotiated with Zaire in August 1982, the economic and financing aspects of the project had become more important. In virtually all of the country-specific ProAgs, language was introduced to ensure that country governments would provide financial support for the project's activities through a) direct budget allocations, often with an increasing share of the recurrent costs being covered, b) implementing user charges for the CCCD project, and possibly other services, or c) some combination of a) and b).

[1] There are thirteen such countries as of 1988: Burundi, Central African Republic (CAR), Cote d'Ivoire, the People's Republic of the Congo (Congo), Guinea, Lesotho, Liberia, Malawi, Nigeria, Rwanda, Swaziland, Togo, and Zaire.

Further, the ProAgs included language which required regular analyses of the cost of service provision, and, typically, additional governmental assurances that it could guarantee a continuation of these services and provide adequate financial support subsequent to the project agreement completion date (PACD).

Thus, it was envisioned that CCCD project services would ultimately be financed in two ways: a) from user fees, and b) general government revenues obtained by taxes and/or other charges. Given the mix of CCCD services, a theoretical case can be made for financing these services in such a manner. The preventive immunization services yield positive social benefits which extend beyond those which accrue to any individual. In such instances, a classic public finance rationale exists for publicly supporting the delivery of such services so that the eradication benefits will be realized by the entire society. It is assumed that the private benefits which accrue from the other two CCCD services (ORT and malaria prophylaxis) to individuals and households in cases where fees are charged which equates the private marginal benefit of using the service with the marginal cost of providing the service equate with the social benefits which accrue from the consumption of those two services. To the extent that either of the curative services yield social benefits which are distinct from the private benefits, a case can be made for the subsidization of these services as well. This situation would clearly pertain where enhanced opportunities for child survival represents a necessary condition for a reduction in the demand for additional children, and, therefore, the rate of population growth.

The analysis of the financing component of the CCCD project unfortunately shows that while some progress has been made to achieve financial sustainability of the project in CCCD countries, particularly with respect to the development and implementation of user fees, the theoretical financing strategy outlined above has not yet been achieved in any of the country projects. In the subsequent paragraphs of this summary, information is provided about what the financing achievements have been, and what additionally is required in order to ensure the longer term financial sustainability of such health sector activities. The analysis first reviews the country-specific ProAgs to ascertain what the countries and AID agreed to regarding the financing component of each country project. Second, the analysis then addresses the capacity of CCCD project governments to finance the recurrent cost of the CCCD set of services by reviewing the macroeconomic context of each country-specific project. Third, the highlights of a review of the CCCD project financing activities, including alternative fee-for-service (FFS) systems studied and/or implemented in CCCD project countries are presented. Fourth, a summary evaluation of alternative health financing options is provided. Fifth, the conclusions of this analysis for financial sustainability of CCCD project activity are presented. Finally, recommendations for future AID CCCD project support with respect to financing and economics are made.

B. Macroeconomic Context of CCCD Project Services

The purpose of this analysis is to define the similarities and differences in the macroeconomic context of health sector activities in general, and specifically in governments' capability to financially support CCCD project services. The economic similarities are presented first with the differences following.

In virtually all CCCD project countries, the rate of economic growth has been slower during this decade than would have been expected, given a review of such performance up until 1980. During the early and mid-1980's, the rate of growth of output per capita has generally stagnated, if not actually declined since project implementation. In addition, most countries have experienced increased rates of inflation during this period and that has resulted in reduced purchasing power for many households and increased economic uncertainty for those who might invest in their own economies, due to:

- a) uncertainty in calculating the real economic return from their investment;
- b) whether they can realize the return in a financial form which they would prefer, i.e., in some internationally recognized currency; and
- c) reduced confidence in the ability of the policy makers to effectively manage the economy, such that future prospects for growth from the private sector is eroded.

Third, the global economic recession of the early 1980's compounded the problem of negative trade balances faced by CCCD project countries which typically were exacerbated during the mid 1970's due to oil price increases and a secular reduction in the terms of trade between agricultural and manufactured items. Since most CCCD project countries have open economies with between 25 to 50 percent of many countries' GNP resulting from international trade activities, it is clear that when this important sector of an economy is experiencing difficulty, other domestic sectors, including health care delivery, are adversely affected in several important ways. These include:

- a) reduced government tax revenue since import and, to a lesser extent, export duties typically comprise at least 25 to 40 percent of the total tax revenue;
- b) reduced supplies of foreign exchange available for financing recurrent inputs such as spare parts and pharmaceutical and medical supplies when trade imbalances persist; and
- c) an increasing share of the foreign exchange is used to service the outstanding external debt, thus reducing the capacity to import additional items in future periods.

Finally, international donors require additional assurances that appropriate economic policies are being defined and implemented when they are requested to provide additional foreign exchange resources without observing positive trade balance performance.

This later point typically leads to the fourth common macroeconomic contextual circumstance which has constrained CCCD project government financing of the CCCD project activities throughout the life of the CCCD project. Facing foreign exchange shortages, most CCCD project countries have requested IMF financial assistance via the annual Standby Agreement

(SBA) or the multiple period Extended Fund Facility (EFF). In order to obtain this assistance, various economic performance conditions have been imposed, which typically have included:

- a) reducing the growth of money supply;
- b) restricting government spending and reducing the government expenditure share of gross national product (GNP);
- c) improving the management of their external public debt;
- d) imposing greater management discipline on the parastatal firms and entities; and
- e) restricting government employment by restraining new spending.

While the aforementioned contextual macroeconomic issues have affected all CCCD project countries to one extent or another, it is important to also acknowledge several important differences between the economic realities facing the project countries. First, while all of the countries are relatively poor, per capita incomes (estimated for 1985) between the countries range from a low of \$170 (Zaire and Malawi) to a high of \$1,110 (Congo) and several other countries over \$650 (Swaziland, Côte d'Ivoire, and Nigeria). This difference alone implies that an average household in the more affluent CCCD project countries have between four and seven times as much income as those in the poorest countries, and these differentials are not explained solely by differences in price levels between the countries.

Second, while most CCCD countries have relatively open economies in the sense that the international trade sector represents an important share of GNP, there are substantial differences amongst the countries. For some countries the external trade sector represents over forty percent of GNP (Zaire, Togo, Liberia, Côte d'Ivoire, and Congo), whereas for other countries, such as Burundi, Lesotho, and Rwanda, the share is less than 15 percent. For purposes of health financing, the relevance of these structural differences are several fold. First, those countries where the external sector is large are more vulnerable to adverse shifts in global economic trends, although when external demand for their products is rising, they also have the potential for rapid improvements in their foreign exchange earnings and a greater capacity to service outstanding external debt. Second, the data supports the proposition that in those CCCD countries which tend to have more open economies, the share of total tax revenue which international trade sector taxes comprise is less than in other countries, i.e., their tax structure is more broadly based. Third, while the tax structures of countries with more open economies may be more broadly based when export earnings are adversely affected, other sources of government revenue, such as individual and corporate income taxes, and sales taxes, which in part are derived from export related economic activity, are adversely affected as well. Thus, a careful country-specific analysis of each country's capacity to finance public sector activities is in part related to an analysis of the external sector and its relationship to the government's ability to raise revenue and control the foreign exchange earnings of the economy.

Third, there are considerable differences in the amount of external assistance which each country receives. Some countries such as Burundi, the Central African Republic [CAR], Lesotho, and Togo, obtain amounts of such assistance which equals over 15 percent of their total GNP. Further, some countries such as the Congo, Lesotho, and Liberia obtain over 25 percent of their annual food grain consumption in the form of external food aid. These differences in external assistance, may imply individual country differences to mobilize external resources. It may also reveal important differences in the country's ability to finance additional activities such as CCCD type health services.

Fourth, there are major differences between the CCCD project countries regarding their monetary situation, particularly with respect to currency convertibility into foreign exchange. These CCCD countries with Central Fond African (CFA) currency (CAR, the Congo, Côte d'Ivoire, and Togo) have a greater capability, at least in the short run, to finance imports given that the French Treasury provides convertibility to the CFA franc. Such countries, however, are more constrained in pursuing independent monetary policy due to the fact that they have no independent central banks, and that the French have mechanisms built into this convertibility arrangement to constrain individualistic economic behavior.

Finally, while most CCCD project countries have been experiencing economic difficulties such that the IMF has been involved in reviewing macroeconomic policy problems with them, the extent to which the IMF has imposed and then monitored macroeconomic performance targets has varied considerably. Some countries have been the recipients of many IMF agreements and considerable assistance (in some instances in collaboration with assistance from the World Bank via their Structural Adjustment lending program) whereas others have operated more on their own. A debate exists about what the ultimate impact the IMF has had on development in general, and on human resource development activities in particular, but it remains an important potential actor in virtually every CCCD country now and for the foreseeable future, and can influence the financing of many development activities, including CCCD service programs.

C. CCCD Project Financing Activity Review

As was mentioned above, at the time of country-specific ProAg signing, it was envisioned that CCCD service financial sustainability would be attained by a) obtaining government commitments to finance a share (generally an increasing one) of the recurrent cost of the project's services and b) developing and implementing a fee-for-service system. This review of the financing activities undertaken under the CCCD project has established several important findings pursuant to that objective.

First, in order to establish a financing strategy, it is important to know how much CCCD project services cost and what the structure of those costs are. An important assumption was made in the design of the project that CCCD services would be provided via the existing publicly-supported health care facilities. This assumption implied that the CCCD project was to provide the incremental cost support for CCCD activities and that the financing strategy was designed to support the incremental recurrent cost support for the services subsequent to the investment phase of the project. The analysis of the various studies and evaluation reports indicate that:

- a) the total recurrent cost of each country CCCD project has not yet been fully ascertained, in part due to the lack of all project financing participants being defined and cost information being obtained;
- b) there are differences in the estimated cost of the country specific projects from one document to another;
- c) to the extent that cost information is available on a country specific basis, the data show that a sizeable share, perhaps more than 75 percent, of the recurrent costs of the CCCD project services are foreign exchange using; and
- d) based on the information available and rough estimates of the under-reported costs, i.e., other likely donor contributions, e.g., from UNICEF, the incremental cost of the CCCD project services represent no more than 5-7 percent of total Ministry of Health (MOH) expenditures of CCCD country governments.

Second, the review of the financing component of the CCCD project showed that most countries had not financed their agreed upon share of the assumed incremental cost of the project's activities from domestically controlled sources of public finance (not counterpart funding via PL-480 generated resources). This finding was particularly true for the cost elements which required foreign exchange. Given the above analysis of the macroeconomic context of the project countries, it is understandable that most CCCD country governments would encounter such difficulties. Further, the existing poor macroeconomic performance of most CCCD countries does not appear to be resolving itself in the short run in order that government sources of financial support can be relied upon in the near future. This finding is particularly true given that the financial base for the service system upon which the CCCD services are expected to be based is shaky as well. Where information was provided about the financial situation of the publicly provided health care system in most countries, it suggested that both the local currency and foreign exchange used in service providing inputs into the delivery system were underfinanced. Thus, it is difficult to ascertain a) how incremental CCCD project services will be financed via government sources, and b) how the system upon which CCCD services are expected to be based will also be financially sustained via governmental sources.

Third, the evaluations and special studies revealed that fee-for-service health care was more widespread than previously expected in CCCD project countries and that it had been incorporated into the government's health financing policy statements in most of them. In some countries, such as Zaire, Burundi, the Congo, Lesotho, Rwanda, and Swaziland, revenue from all health service fees amount to between 7 and 80 percent of the total variable cost component of the recurrent cost of the health services provided (not including the cost of expatriate personnel and the amortization cost of capital assets used in the delivery of these services). The fees charged are primarily a modest ambulatory registration fee per episode of illness and then for a complement of drug therapy. It also appears that pharmaceutical products are the items for which there is the most willingness-to-pay. There are a number of instances where drug revolving funds have been successfully established and which are generating a surplus. These will undoubtedly be successful as long as there is

sufficient foreign exchange available to expand their operations. Efforts to rationalize pharmaceutical procurement via such mechanisms as the essential drugs program will further support the total growth of such funding mechanisms.

There are a number of issues which remain to be resolved with respect to the development of FFS systems, particularly so that they do not exclude certain indigent groups. For example, little information is presently available about a) the price elasticity of demand for various services, b) what might happen if fees are established on a different set of services or if various discounts might be employed, and c) whether any of these ideas are administratively feasible. Limited information suggests that all of these issues and others warrant further operational research.

Finally, limited information has been presented in the various studies and evaluations which suggest that there are a number of CCCD project countries which have developed socially and privately operated prepayment and/or health insurance systems. At present, the data suggest that no CCCD type services are covered as a part of the service benefit packages of these insurance systems. More information is warranted about these existing financing mechanisms and how they might be utilized to support CCCD and related services.

D. Health Financing Options: A Summary of the Alternatives

While the CCCD project identified the issue of financial sustainability as being important to address, from the perspective of hindsight, the focus of its financing strategy as presented in the country specific project agreements was narrowly defined, i.e., government budget allocations and fee-for-service. As is demonstrated in the analytical review of health financing options, and based on information which has accumulated over the last five to seven years, there are a number of other options which conceivably could be employed in various circumstances. These options include:

- a) privately developed health insurance;
- b) domestic and/or international philanthropy;
- c) a variety of community financing options, including community donations and assessments, festivals and raffles, labor donations and various prepayment schemes; and
- d) various government financing options which have not been included in the project analyses conducted to date. These options include health specific taxes, explicit reallocation of resources from other sectors, including defense, to the health sector, or the development of publicly supported insurance programs. In addition, this review includes donor support as a longer term financing option in those instances where countries are making every effort to improve economic performance and require additional foreign exchange financial support to sustain the progress which they may have made in service coverage.

This analytical review poses a number of criteria for use in evaluating the various health financing options, including revenue raising potential, foreign exchange raising potential, equity in a risk sharing sense, political feasibility, administrative feasibility, and the efficient use of resources. Based on this set of evaluation criteria, it finds that there is no option which achieves high marks on all accounts. Thus, trade-offs must be assessed and evaluated in light of the country-specific health financing circumstances which pertain in a particular time defined context.

E. Conclusions

While a number of specific conclusions arise from such a comprehensive review of health financing efforts via the CCCD project, it is important to highlight seven major conclusions:

1. In reviewing the available information regarding the cost of CCCD projects, the fact that about 60 to 75 percent of the cost is foreign exchange using requires that future financing strategies for CCCD and the related health care delivery system structure address this financing issue explicitly. Embodied in the country-specific project agreements for the CCCD project was an assumption that such cost elements would be financed via government support. However, given the macroeconomic context of most CCCD project countries, that assumption is not supported by the evidence of the last seven years during which this project has been operating. As a corollary to the above finding, it is assumed that alternative, foreign exchange saving technologies will be reviewed by both economists and the medical community to find economical ways to reduce the foreign exchange cost components of these and other potentially substitutable services, such as inpatient pediatric care.
2. Since virtually all other health financing options only raise local currency, it is incumbent upon the donor community to explicitly address its financial responsibility for sustaining these important child survival activities in some of the most impoverished countries in the world for the foreseeable future, in combination with efforts to improve domestic financing capacity. However, without assurances that foreign exchange will be available from donors, if necessary, efforts to resolve the financial sustainability issue will be thwarted.
3. It is important that the objective of the health financing component of the CCCD project be the financial sustainability, not solely of the incremental cost of the CCCD project services, but of the health care delivery system through which CCCD services are primarily provided. This observation implies that a more careful analysis of health care service delivery costs be conducted on a periodic basis in order that the full financing responsibility is known and addressed. The past is replete with examples of underrepresenting the true cost of health service provision and sustainability problems result from the use of such tactics. To ensure that the health financing problem be addressed in this manner, it is important to provide the CCCD project with additional support from the REACH project, and by other AID and other donor health financing activities underway in each country.

4. There appears to be considerable diversity in the set of health financing options which individual countries find appropriate in their specific settings. This finding implies that country-specific health financing strategies, according to the present efforts being developed in various Nigerian states, become the modus operandi in future CCCD project activities.

5. Fee-for-service health care financing is a reality in virtually all countries. The efforts which have been initiated via the CCCD project to develop and utilize this financing mechanism should be strengthened within the context of a more broadly defined financing strategy. It is important to recognize, however, that in most CCCD project countries, there are no good mechanisms presently available to convert locally raised resources into the necessary foreign exchange required to provide CCCD project services. In addition, ways to address the adverse impact of fees on the medically indigent must become an integral component of any effort to use fees as a mechanism for financing health care services. This latter comment implies that additional analysis of the impact of fees on service use be conducted on a regular basis. Further analysis must be conducted of the revenue and service use impact of alternative ways of packaging services within a particular fee structure and how the resulting implied subsidies of one type of service, i.e., immunizations, may affect the use of other health care services.

6. There appears to be an emerging experience in many CCCD project countries with various forms of prepayment and/or health insurance. This experience requires a more in-depth analysis in terms of what is being presently financed, how the premiums are being collected and administered, how providers are being reimbursed, what the benefit package may be, what actuarial information underlies the benefit and premium structure, what service use experience is emerging, given various forms of benefit coverage, and what problems these insurance entities have experienced and addressed. In conducting this review, it is important to ascertain the role of the social security system in each country, and in providing health care coverage as one component of that system.

7. In some countries, particularly those in which Islamic culture predominates, the recent experience is that considerable health care financing is occurring via locally controlled philanthropy. In addition, in several West African countries there are "friendly societies" which help local people regularly finance weddings, funerals, and other significant life events. The potential for such financing sources to provide health care has apparently been overlooked in many countries given the generally low and potentially variable per capita income levels which exist. However, in some situations, this financing mechanism may warrant greater attention than it has received to date and it warrants further study.

F. Recommendations

1. In future CCCD project financing activities, it is important that country-specific health financing strategies be developed and tailored to the context existing in each country. This approach implies that an agreed upon set of financing options which have been reviewed by country health and finance officials are developed and a strategy for implementation is established. Further, this strategy must be sector-wide which includes CCCD project activities, but which is more comprehensive than that.

2. It is important to implement a more continuous monitoring of health care costs and financing activities which are operating throughout CCCD countries in order to improve upon the policy recommendations considered to date. Without continuous improvement in what is known about health financing experience, it will be impossible to know what works, and how and why it works in specific contexts. Studies about alternative health financing modalities, including the revenue raised, services used and other contextual economic, cultural, administrative and social attributes which may influence its financial and administrative viability, are required on a regular and periodic basis for each country where the CCCD project is operational or contemplated. Some of these envisioned studies must be undertaken within the context of an "operational research" strategy which will provide the initial capital necessary to start drug revolving schemes on a national rather than solely on a community or local basis, implement alternative health insurance schemes, or raise revenue from fees in consort with regular infusions of foreign exchange from external sources tied to various forms of conditionality.

3. The language of the forthcoming country-specific ProAg amendments (or initial agreements) must contain more carefully crafted language about analytical studies required, operational research activities to be developed and monitored, and agreements regarding the regular infusions of the necessary foreign exchange to financially sustain these services. The World Bank has begun to require that health financing analyses predicate the development of a country's health project and that certain country policy problems be addressed prior to the initiation of donor support. The idea warrants inclusion into the subsequent planning for the continuation of the child survival services which have become more widely available as a consequence of the initial effort by AID and other donors throughout Africa.

II. INTRODUCTION

A. History of the CCCD Project

The United States Government's Agency for International Development (USAID) has been supporting the development of preventive health care services in Central and West Africa for many years. During the late 1960's and early 1970's, for example, AID provided a number of countries in the region with assistance (in part via the Centers for Disease Control) to eradicate smallpox and expand the numbers of immunized children for other diseases including measles. Additional assistance was provided via the SHDS project during the late 1970's to launch pilot Expanded Programmes of Immunization (EPIs) in several selected countries in Africa. It was recognized that this assistance was necessary to continue in order to attain the goal of "health for all by the year 2000" as expressed by the WHO and its member countries in 1978.

Thus, in 1979, AID began preparing the project documents and background studies necessary to justify the present CCCD project. One of the important background studies conducted was a cost-effectiveness analysis of immunization and oral rehydration services in the context of an African country (Barnum, 1980) which indicated that such a service package was, under most circumstances, cost-effective relative to other ways in which resources could be allocated in the health sector in most African countries at that time. In 1980 the CCCD project was proposed as one component of a larger multi-country initiative CADA and was approved in principle at a meeting in Brussels in December, 1980. The CCCD project paper was developed subsequent to that meeting, was signed in September 1981, and authorized spending up to \$47 million over the life of the project (LOP) through FY 1988.

These resources were envisioned to assist individual African countries in providing and expanding immunization coverage of children and women of child bearing ages through the EPI, ORS treatment for the control of diarrheal disease, and providing simple care or prevention for diseases of local importance, including yellow fever, yaws, and possibly malaria. It was envisioned that most of these services would be provided on a vertical basis, under the jurisdiction of each country's ministry of health and with

the assistance of the CDC and the WHO, rather than being integrated into the existing health service delivery system operated by the government in each country. ^[2]

All recipient countries of CADA funds for CCCD type projects were expected to participate in financing a share of the costs and providing the human and other resources to implement the project, with the more affluent countries providing a larger share of the project financing requirements, either in kind or via budgetary allocations^[3] In addition, at the time of signing the PP, the issue of financing and long-term program sustainability had not been fully addressed in the PP, and was postponed until the mid-project review. It was noteworthy, however, that the financing section of the PP suggested that a) the project activities may not be sustained via existing country resources and that donor assistance may be required for a long time, and b) project activity recurrent costs were not well known and that foreign exchange might be a binding constraint to the continuation of these activities.^[4]

Subsequent to signing the PP and prior to negotiating the first ProAg with Zaire in August 1982, a substantial change occurred relative to the financing issue. In that ProAg, and, in most of the subsequent country ProAgs, the financing issue has become a significant, if not primary component of each CCCD project. This issue has become increasingly important as the project has matured and the midterm evaluations have all identified it as being critical for the sustainability of project activities. Given that the project is presently being reviewed and ideas are being presented about how the project will continue, it is fortuitous that this document presents a comparative review of the financing aspect of the country-specific CCCD projects and, as a consequence, will provide guidance for how this issue might be addressed in the future.

[2] The present project implementation strategy has sought to provide the aforementioned services to the population via the existing health facilities operated by each country government's Ministry of Health. The extent to which the project's services are viewed as being vertically implemented within any given country is unclear. The present implementation strategy, however, is clear in the sense that the CCCD service costs are considered incremental costs rather than the full costs of establishing an independent implementation organizational entity. The issue of whether such services are delivered by the existing health care delivery system and how the cost of the new services should be considered has been a recurring issue before the WHO. See for example, WHO, Family Planning in Health Services, Technical Report Series No. 476, 1971.

[3] Page 25, CCCD Project Paper, 1981.

[4] Page 54, CCCD Project Paper, 1981.

B. CCCD Health Service Package Defined

It is important to define the set of health services which are included in the CCCD project/program package from a health financing perspective. Typically, the project set of services includes:

- a) immunization services for children and women of childbearing age (tetanus-toxoid);
- b) appropriate case management, including oral rehydration therapy for diarrhoea in infants and young children; and
- c) treatment and chemoprophylaxis for children and pregnant women for malaria.

To enhance the delivery of these services, a country CCCD project also includes support for a) health education, b) health and management information systems, c) personnel training, and d) operational research.^[5] This set of health services and related support activities have generally been woven into the fabric of each project country's health care delivery system of hospitals and rural based facilities, including health centers and dispensaries. If the country is a large one, such as Zaire and Nigeria, the project is envisioned to be initially implemented in a selected set of states, regions, provinces, or zones.

As was mentioned in the above paragraph, the CCCD project has been implemented within the context of an existing government-operated and financed health care system. ^[6] This implies that the delivery of CCCD services will be defined, in one way or another, by the strengths and/or weaknesses of the existing system, including management systems, information flows, logistics and supplies, and medical skills of health personnel. In addition, if the government-supported health care system has financial difficulties due to shortages of a) foreign exchange, b) personal emoluments, including salaries, housing, and other allowances, which are low relative to health personnel alternatives, or c) other resources, such as those reflected in poor logistics or problems in medical supplies, the CCCD project activities will be adversely affected.

^[5] During the CCCD Project design phase in 1980 and 1981, malaria treatment and prophylaxis (considered a single entity in the PP) was not generally viewed as being an important component of the project with the control and treatment of yaws and yellow fever given more prominent attention. However, by 1982, malaria treatment and prophylaxis had been included and was an important component of the first country program in Zaire, signed in that year. See the Zaire ProAg, August 31, 1982, and the AID, CCCD Project Paper, September 15, 1981.

^[6] Refer to the comment made in footnote 1 above.

C. Financing The CCCD Health Service Package

The mix of health care services included in the CCCD project is not inconsequential for the development of a health financing strategy. It contains preventive services which individual women and children must consume, such as immunizations for measles, polio, tuberculosis, diphtheria, pertussis (whooping cough), and tetanus, and chemoprophylaxis for malaria. In addition, it provides for the administration of efficacious basic curative medical care for two important disease problems among children in Africa, malaria and diarrhoea. Theoretically and empirically it has been demonstrated that, with the exception of the most impoverished (subsequently defined in the paper as the medically indigent) in poor countries, people are willing to, and do pay the full cost^[7] of efficacious curative medical care to both private and publicly supported health providers.^[8] At the same time, preventive health care services, such as immunizations, have generally not been able to self-finance their recurrent costs by the use of user charges, particularly to the extent that society would benefit from their consumption. This has been due to such reasons as the existence of externalities^[9] individual lack of full information about the benefits resulting from consumption of the services, and the tendency for myopic behavior on the part of many individuals, which has meant that the sum of individual demands for preventive health care is less than what society as a whole would a) prefer in order to achieve either herd immunity (in the case of polio) or disease eradication, and b) pay for the full cost of service delivery.^[10] For the reasons mentioned

[7] The term "full cost" refers in this instance to both the time and money costs which equal the opportunity cost of the resources used in the provision of those services, including returns to entrepreneurial skills and risks, including those risks which are typically encountered when foreign exchange rates change.

[8] See World Bank, Financing Health Services in Developing Countries: An Agenda for Reform, World Bank Policy Study, (Washington, D.C.: World Bank, 1987); and David de Ferranti, Paying for Health Services in Developing Countries: An Overview, World Bank Staff Working Papers, Number 721, (Washington D.C. World Bank, 1985); and Ricardo Bitran, et al., Zaire Health Zones Financing Study, REACH Project Study, (Arlington, VA: John Snow, Inc., 1987)

[9] An externality (positive and/or negative) exists when the value which society as a whole places on a set of benefits (or costs) does not equal the sum of the benefits (positive or negative) which individuals and/or households, by themselves, place on those same benefits (or costs).

[10] Ricardo Bitran, et al., op.cit., 1987, Dayl Donalson and David Dunlop, Sector Reviews, Ethiopia, A Study of Health Financing: Issues and Options, Report No. 6624-ET, (Washington D.C.: World Bank, April 1987). See also Michael Zubkoff and David Dunlop, "Consumer Behavior in Preventive Health Services," in Selma Mushkin, ed., Consumer Incentives in Health, (New York: Prodist, 1974); and David Salkever, Social Science and Medicine, 1976.

above, a theoretical case can be made for providing financial support from government resources for the delivery of preventive health services such as immunizations.

Conceptually, the mix of CCCD project services, as described above, could be financed from a combination of user charges for the curative medical care services for diarrhoea and malaria along with a government subsidy for preventive services such as immunizations and health education. To one extent or another, eleven of the thirteen country-specific ProAgs provide information which suggests that such an effort was made to formally ensure that such a financing strategy had been agreed to by AID and each country. ^[11]

D. Review of the Topics Addressed in the Paper

In the sections which follow, several topics are analyzed. First, an analysis is presented of the health financing objectives and requirements which are included in the thirteen country-specific ProAgs. This analysis is followed by an analytical presentation of the macroeconomic context of the CCCD countries in order to ascertain whether the health financing options emphasized and implemented via this project (which included a mix of government subsidies and user charges) could achieve the financing objectives of each country-specific project. An analysis is presented of the existing empirical evidence of how current financing strategies have been implemented. Subsequent to that analysis, a review of all potential health financing options is presented. This review covers private or individual options, community options, and governmental or social options. Criteria are presented which can assist in ascertaining the appropriate set of financing options for use in developing a stronger financing component in subsequent CCCD project activities. Recommendations are presented on the basis of the above analyses about how future CCCD project health financing activities might evolve in light of the varying country-specific contexts so that the financial constraint to project sustainability might be reduced over the LOP of the subsequent CCCD project.

[11] See information about the financing components of the country specific projects as defined in their ProAgs and summarized in Table 1 and Appendix B.

III. HEALTH FINANCING OBJECTIVES AND REQUIREMENTS IN THE COUNTRY SPECIFIC CCCD PROAGS

A. A Comparison of the Conditions Precedent

Even though the issue of country financing of the recurrent costs of a health project, such as the CCCD project, was not specifically addressed in the Project Paper, in twelve of the thirteen African country CCCD projects which have been implemented between August 1982 and October 1986, conditions precedent (CPs) were included in the country ProAg pertaining to health financing. In Table 1, the thirteen country-specific CPs pertaining to health financing are summarized and a comparative analysis is presented in the following paragraphs.

In the country-specific ProAgs, the CPs focused on three basic topics which were considered necessary to address early and continuously throughout each project. These topics were:

- a) the role of government financial support to the CCCD project services;
- b) studies which would address various aspects of implementing cost recovery activities, with a particular focus on user charges; and
- c) user charge system implementation and related incentives necessary at the local level to successfully implement such systems of cost recovery. In addition, in each of the country ProAgs, there was a requirement that an annual cost study be conducted to ascertain if cost savings might be possible in each country and thereby reduce financing requirements.

i. Government Financing

Eleven of the thirteen ProAgs contained specific CPs requiring that the recipient country government budget and finance a certain share of the recurrent cost of the CCCD project above and beyond what was assumed to be normal government counterpart assistance to the project via personnel salaries and other normal fringe benefits and project housing (only the Liberia and Malawi ProAgs excluded this type of CP). In addition, in about half of the country cases, it was assumed that the government would pay for an increasing share of the cost of project transport and supervision as well as for medical supplies and their storage and distribution as the project matured. In seven instances, the ProAg actually contained a CP that placed the government in a position of either assuming full responsibility or a certain large share of the financial responsibility for the project activities subsequent to the LOP (excluding in addition to Liberia and Malawi, the countries of Burundi, Guinea, Rwanda and Swaziland).

Only one ProAg CP specifically addressed the problem of financing the foreign exchange costs of the project during the life of the project (Nigeria, the last country in which a CCCD project was initiated in October 1986), although one other country (Burundi, the next to last country to sign a ProAg) did agree to study the problem early in the LOP.

Table 1.A: An Analysis of the Financing Components of CCCD Country Project Agreements (cont.)

II. Studies

Country	1 Gov't Will Study System To Cover Rec Costs	2 Gov't Will Consider User Fee System To Cover Rec Cost	3 Gov't Will Evaluate Ability To Cover FX Rec Cost	4 Gov't Will Work With External TA To Financially Sustain Project
1. Burundi	yes		yes	
2. Central African Republic	yes	yes		
3. Congo	yes	yes		
4. Cote d'Ivoire				
5. Guinea	yes	yes		
6. Lesotho				
7. Liberia				
8. Malawi	yes	yes		
9. Nigeria	yes			yes
10. Rwanda	yes	yes		
11. Swaziland				
12. Togo	see comment (4)	see comment (4)		
13. Zaire				

Table 1.B: An Analysis of the Financing Components of CCCD Country Project Agreements

III. Alternative Financing Systems

Country	1 Gov't Will Implement A Fee-For-Service System	2 Gov't Will Recover Portion Of Transport Subsidy From Employees	3 Gov't Will Retain Funds Generated Via FFS in MOH Revolving Funds	4 Gov't Will Implement Approved Study Recommendations	Comments
1. Burundi					
2. Central African Republic					
3. Congo					(1)
4. Cote d'Ivoire					
5. Guinea	yes				
6. Lesotho					
7. Liberia	yes	yes	yes		
8. Malawi				yes	
9. Nigeria				yes	(2)
10. Rwanda					(3)
11. Swaziland					
12. Togo					(4)
13. Zaire	yes				(5)

- Notes:
1. FX is fixed foreign exchanged.
 2. FFS is fee-for-service.
 3. LOP is length of project.

- Country Comments
1. Congo: the government agreed to study & possibly implement an autofinancing system.
 2. Nigeria:
 - a. No Proag signed, only a memorandum of understanding.
 - b. Gov't commits to a 66% contribution to the programme's cost at the LOP.
 3. Rwanda: study will also define mechanisms to return recovered funds to the national budget.
 4. Togo: the fee study agreement was implied only in the midterm evaluation.
 5. Zaire: Gov't will cover up to 90% of expendable project commodities by the end of the project.

It should be mentioned, however, that seven other countries agreed to assume full responsibility for all the costs at the project agreement completion date (PACD). Also only one (again Nigeria) agreed to address the problem of financial sustainability of CCCD project activities by developing state-specific financing strategies, which may include a number of health financing mechanisms tailored to the views of the local decision makers.

ii. Cost Recovery Studies and Implementation

Seven country ProAgs (Burundi, Central African Republic, Congo, Guinea, Malawi, Nigeria, and Rwanda) required that studies of systems to cover recurrent costs be conducted. In addition, in two other country ProAgs (Liberia and Zaire), it was mandated that cost recovery systems, based on user charges, be implemented or existing cost recovery systems extended. In five of the seven countries mentioned above (Central African Republic, Congo, Guinea, Malawi, and Rwanda), a CP was agreed upon that the country would consider implementing fees for service/user charges as one component of a cost recovery system. In addition, in Togo, after the initial evaluation of the CCCD project in 1984, when a recommendation was made to develop a system of user charges in order for the country to finance an increasing share of the recurrent costs, country officials agreed to consider the use of such a cost recovery system.^[12]

In summary, with the exception of Côte d'Ivoire, Lesotho, and Swaziland, all of the other country-specific ProAgs or early recommendations from an evaluation, either recommended that a study be conducted or a system implemented specifying a program for cost recovery, which would, in most instances, focus on user charges as the primary mechanism for achieving that goal. Since in both Lesotho and Swaziland^[13] user charges have been used to finance health care for some time, certain recommendations were made about how fees being charged could be increased in order that a larger share of the recurrent costs of CCCD and related primary health care services could be financed.^[14]

B. Country Status on Meeting Health Financing CP Requirements

From reviewing the country evaluations and REACH reports, it appears that CCCD project implementation has been slower than initially envisioned by the country ProAgs. In addition, there were several countries where economic adversity has been particularly acute subsequent to the initiation

[12] Marty Makinen, "Togo/CCCD Financial and economic Consultancy Report 1985," Abt Associates Inc., Cambridge, MA., May 1985.

[13] See Lesotho and Swaziland CCCD Project Evaluations, both of which were conducted in 1986.

[14] In order to implement these recommendations, it is important that studies be conducted of both the demand for and the cost of providing all health services, including CCCD services, to ascertain the extent to which fees might be increased to recover a larger share of the recurrent costs by between 50 and 100 percent, given the objective of revenue maximization.

of the project, e.g., Zaire, Congo, and Togo such that the country has been unable to provide the local financial support initially envisioned in the ProAg.^[15]

With respect to the the health financing CPs and related implementation activities, all required studies indicated in the ProAgs have been completed and each of the country-specific midterm evaluations, with the exception of Côte d'Ivoire and Nigeria^[16] have reviewed progress made regarding the financing aspect and CPs. In the studies and evaluations, a number of recommendations have been made regarding the steps which are required to improve the progress toward financial sustainability (see Tables 18 to 21 and Appendix C for the specific details of these recommendations). For a number of countries, especially the former British colonies such as Malawi and Nigeria, which inherited a certain philosophical outlook regarding the role of the state in providing and financing health care services to the population, the decision to even consider reversing the legacy of free health care has been difficult to make.^[17] However, both countries have agreed to study alternative cost recovery systems, including fees-for-service (specifically in the case of Malawi), and have indicated a willingness to implement "approved study recommendations".

In many other countries, tangible progress has been made in meeting the spirit of the financing component of the various country projects. For example, in Liberia, certain fee structures which were in place at the beginning of the project have been changed and revised upwards. The CDC economist, Dr. Debra MacFarland, has been recently in Liberia (January, 1988) to obtain information and prepare a report on the progress which has been made on this subject. In Zaire, studies have been conducted to learn more about the role of user charges in financing health care services provided via official providers of health care zones.^[18] In addition, consumer decision making regarding health care services in rural Zaire is presently being investigated via the financial assistance provided by the REACH Project and AID/Washington in order to ascertain the extent to which prices, alternative providers, and availability, amongst many other

[15] See the next section below in which these issues are discussed in greater detail.

[16] The project was implemented in Nigeria in October 1986 and a midterm evaluation study has just completed the fieldwork stage. However, it has not, as yet, (April 1988) prepared its report.

[17] Most former British colonies defined the role of the state in the provision and financing of health and other social services in a manner consistent with the results of the debate which occurred in the United Kingdom on this point from early in the twentieth century and through the second World War, and which resulted in 1948 in the state assuming control of the health care delivery system and assuming full responsibility for its financial integrity without any user charges.

[18] Ricardo Bitran, et al., 1987.

factors, affect service use, including CCCD project assisted services.⁽¹⁹⁾ It is anticipated that the results of this study will assist Zairian policy makers in establishing improved cost recovery strategies for both CCCD and other health services via user charges and possibly emerging prepaid insurance plans.

Finally, the health financing work being conducted by the World Bank or the CCCD and REACH projects financed by AID are being coordinated in the case of Burundi. A sector wide sources and uses of health expenditures study was conducted in September and October, 1987 and financed by the REACH project in Burundi.⁽²⁰⁾ The mid-term evaluation of the CCCD project which was conducted at about the same time used the information and analysis of the Rosenberg study (1987) and recommended that the financing strategy for the CCCD project assisted services await the results of the World Bank financed health sector financing study which was about to be started shortly after the project evaluation completion.

While the foregoing demonstrates that progress has occurred regarding the health financing component of the CCCD project, the reviews and evaluations clearly demonstrate that much remains to be completed, either within the specific context of the CCCD project or as a separate generic sectoral activity. For example, it is important to know more about the determinants of the demand for health care services in general and specific to those provided by the CCCD project in order to improve the design of fee structures and insurance benefit packages which include these services. In addition, little is known about the impact on equal access by imposing certain fees on CCCD type services or by imposing or raising user charges. At the moment, with the exception of the health zones financing study in Zaire (which analyzed information from a non-random and likely to be the most successful set of ten zones out of over three hundred), there is little quantitative information about what the revenue potential and related financial management issues there are regarding user charges for CCCD services. Thus, while progress has been initiated, there is much yet to be accomplished before financial sustainability can be assured for CCCD type health services.

⁽¹⁹⁾ See Ricardo Bitran, memo to REACH Project, January 1988, which describes how such a study will be implemented in Zaire, beginning in March 1988.

⁽²⁰⁾ Elca Rosenberg, Burundi: A Study of the Financing of the Health Sector, a draft REACH Finance Study (Arli gton, VA: JSI, October 1987).

IV. MACROECONOMIC SITUATION IN CCCD COUNTRIES

In the previous section of the paper an analysis was presented of the CCCD project ProAgs regarding financing the project's services. As the analysis shows, virtually all project countries had agreed to provide governmental financial assistance directly from their own budget and many had additionally agreed to finance an increasing share of the project's recurrent cost, including the foreign exchange component, as the project matured. Finally, many countries had also agreed to study and implement other financing mechanisms, including fees-for-service.

All of the agreed upon financing mechanisms in the various country ProAgs are predicated on the capability of the general economic situation prevailing in each country to support the proposed activities, both financially and with the allocation of real resources, such as personnel and logistics support. In this section of the paper, the general macroeconomic situation prevailing in the CCCD project countries is reviewed to ascertain the feasibility of the agreed upon support pledged by the project countries when signing the ProAgs. This analysis also reviews the country-specific circumstances with respect to donor concerns regarding macroeconomic performance, particularly as defined by the IMF in their SBA.

The most important economic aspect of the CCCD project countries is that they are all poor, with some being poorer than others. In 1985, according to the World Bank, per capita incomes in the CCCD project countries ranged from a low of \$170 in Malawi and Zaire to a high of \$1,110 in the Congo (refer to Table 2). In addition, while the range of per capita incomes is fairly wide, most countries (seven) had per capita incomes under \$400, and the only two countries, Nigeria and the Congo (both oil exporters), had per capita incomes over \$700. Even these two countries experienced significant economic difficulties due to the oil price decline which has occurred since 1985, and all of the countries have experienced serious balance of payments difficulties during the decade of the 1980's, in part due to oil price shocks and economic policies which generally stifled private economic initiatives which could have improved economic performance.^[21]

A. General Macroeconomic Performance: Growth and Inflation

For most of the CCCD countries the macroeconomic performance over the last two decades, and particularly during the 1980's, has not improved the poor income levels which had previously existed. In Table 2, the average rates of economic growth over the two decade period of 1965-1985 indicate that only four countries, Nigeria, the Congo, Swaziland and Lesotho have experienced real rates of per capita economic growth above 2 percent per year during the 1965-85 period and three countries, the CAR, Liberia, and

[21] See David Dunlop, A Comparative Analysis of Policies and Other Factors Which Affect the Role of the Private Sector in Economic Development, AID Program Evaluation Discussion Paper No. 20, (Washington, D.C.: AID, December, 1983).

Table 2: Macroeconomic Indicators of African Countries in Which CCCD Programs Have Been Implemented

Country Name	Pop. in millions mid-1985	GNP/P \$ '85	GNP dot '65-'85	GDP		Gov't Consumption Share of GDP		Overall Gov't Def GNP '85	Official Per Cap 1985	Dev Asst % GNP 1985
				Resource 1965	Balance 1985	1965	1985			
1. Burundi	4.70	230	1.9	-2	-10	7	11	-2.7	30.4	13.7
2. Central African Republic	2.60	260	-0.2	-11	-14	22	12	-2.4	40.5	15.9
3. Congo Brazzaville	1.90	1,110	3.8	-17	3	14	16	82 -13.1 83 -3.3	38	3.5
4. Cote d'Ivoire	10.10	660	0.9	7	13	11	14	-0.1	12.4	1.9
5. Gambia	0.75	230	1.1	-5	-33	19	27	82 -7.0	79.9	35.1
6. Guinea	6.20	320	0.8	na	4	na	14	na	19.3	0.65
7. Lesotho	1.5	470	6.5	-38	na	18	na	-0.9	61.1	16.5
8. Liberia	2.20	470	-1.4	10	6	12	21	-8.4	41.1	8.8
9. Malawi	7.00	170	1.5	-14	-4	16	15	-5.5	16	11
10. Nigeria	99.7	800	2.2	-2	4	7	9	na	0.3	<1
11. Rwanda	6.00	280	1.8	-5	-9	14	17	86 -1.7	30.1	10.7
12. Swaziland	0.76	670	2.7	12	na	16	na	-9.1	25.6	3.5
13. Togo	3.00	230	0.3	-6	-11	8	14	-2.1	37.5	17.5
14. Zaire	30.60	170	-2.1	15	2	10	6	-2.4	10.6	7.5
Total	177.01									

Source: World Bank, World Development Report, 1987
 IMF, International Financial Statistics Yearbook, 1987
 World Bank, Financing Adjustment With Growth in Sub-Saharan Africa, 1986-90, 1986
 World Bank, Population Growth and Policies in Sub-Saharan Africa, 1986
 Katrina Galway, Brent Wolff, and Richard Sturgis, Child Survival: Risks and the Road to Health, Institute for Resource Development/Westinghouse, March 1987.

Notes: Gambia is not an official CCCD country, but has a similar program funded by the British and UNICEF.

Zaire, recorded negative per capita growth rates during this period. [22] Thus, virtually all countries have or are now experiencing a situation where 1985 living standards are either worse today than twenty years ago or have barely kept pace with inflation and population growth. [23]

The generally dismal economic performance by the CCCD project countries, particularly since the late 1970's, is attributable to several factors. These factors include: a) poor world economic performance which reduced the demand for CCCD project country exports, b) poor domestic economic policies (alluded to above), and c) further deterioration of the terms of trade (in part oil price-related). Further, the project countries generally did not experience an increased demand for their products following the world economic recovery which began in 1983. Most of them experienced severe financial and economic trouble and have been forced to take drastic actions that required IMF and World Bank intervention and debt rescheduling.

The domestic contribution to the crisis can be attributed to inappropriate monetary and exchange rate policies and to public sector mismanagement. Exchange rate over-valuation was normal during the early 1980's and resource misallocations resulted, particularly between traded and non-traded goods. Publicly owned and operated firms were not managed according to private sector incentive and penalty structures, and instead of generating surpluses for use as a source of government revenue, these entities typically operated at a deficit which further compounded the central government budget imbalances. This problem was particularly acute in the CAR, Guinea, Togo, and Zaire: these countries have had to undergo significant restructuring as defined by IMF and World Bank conditionality imposed on further financial support. [24] Of the CCCD project countries, only Burundi, Malawi, Rwanda, and Swaziland have not been subject to such conditionality.

B. Foreign Trade

As Table 3 shows, the export share of GNP in many CCCD project countries is high. However, with the exception of the two oil exporting countries of Nigeria and the Congo, most of the CCCD project countries have run current account deficits since their independence (the current account balances for 1985 are presented in Table 3) which suggests that imports have comprised an even larger share than exports and that the current

[22] Subsequent to 1985 all four countries have also experienced economic difficulties due to oil price declines (Nigeria and Congo) and the international pressure imposed on the Republic of South Africa (Swaziland and Lesotho).

[23] Inflation in the CCCD Program countries generally has been higher since 1973 when the first oil price rise occurred.

[24] See table 7.A to 7.G for further detailed information about the specific nature of the conditionality imposed by the IMF in their Stand-by Agreements.

Table 3: Macroeconomic Indicators of African Countries in Which CCCD Programs Have Been Implemented: International Trade

Country Name	Export Share of GDP 1985	Current Acc Bal Mill\$ '85	Trade Balance		
			TBAL '85 mill\$	GDP '85 mill\$	Share of GDP 1985
1. Burundi	11	na	(82.99)	970	-8.6
2. Central African Republic	25	-31	(36.70)	610	-6.0
3. Congo Brazzaville	56	210	(617.60)	2,160	-28.6
4. Cote d'Ivoire	46	105	1,387.80	5,220	26.6
5. Gambia	31	na	(475.29)	170	na
6. Guinea	25	na	na	1,980	na
7. Lesotho	14	9	(283.00)	260	-108.8
8. Liberia	43	76	184.00	1,000	18.4
9. Malawi	25	na	80.15	970	8.3
10. Nigeria	17	1242	4,353.00	75,300	5.8
11. Rwanda	9	-42	(55.0)	1,710	-3.2
12. Swaziland	na	-11	(104.20)	360	-28.9
13. Togo	41	-48	(8.00)	700	-1.1
14. Zaire	39	377	239.08	4,810	5.0

Source: World Bank, World Development Report, 1987
 IMF, International Financial Statistics Yearbook, 1987
 World Bank, Financing Adjustment With Growth in Sub-Saharan Africa, 1986-90, 1986.
 World Bank, Population Growth and Policies in Sub-Saharan Africa, 1986.

Notes: Gambia is not an official CCCD country, but has a similar program funded by the British and UNICEF.

account deficit problem has a structural component to it. Togo, for example, has had a trade balance surplus only in 1974 when a phosphate boom occurred.

Typically, imports of the CCCD countries are diversified and difficult to reduce. Often, necessity items, such as food, and other important intermediate goods, such as petroleum, dominate imports. Food imports, for example, have been growing in most of the CCCD project countries as per capita food production has often not kept pace with population growth since 1970 (refer to Table 4). In some CCCD project countries, such as Lesotho, Liberia, and the Congo, per capita cereal imports comprise at least 30 percent of total per capita consumption and much of that food is provided on highly subsidized terms.

Unlike imports, however, the export structure of most CCCD countries are dominated by few products. In Côte d'Ivoire, for example, coffee and cocoa comprise about 50 percent of total export revenue and in Togo, phosphates, coffee, and cocoa represent about two-thirds of total export revenue. Fluctuations in the price of these products cause significant changes in the terms of trade for each of the countries. Since the late 1970's, primary product prices relative to other items have dropped and balance of payments difficulties and external debt have increased.

C. Exchange Rates, Foreign Reserves, and Currency Status

Four CCCD countries, the CAR, the Congo, Côte d'Ivoire, and Togo are members of the Franc Zone. Their currency, the CFA franc, is related to the French franc at a fixed rate of exchange (i.e., it is pegged at that rate) and is fully backed by France. A monetary and financial arrangement between these countries and France guarantees convertibility between the CFA and French francs. Other elements of the arrangement require these countries to deposit at least 65 percent of their foreign reserves at the French Treasury which, in turn, commits itself to supplying them with all the foreign reserves they may need for their international transactions, regardless of the state of their balance of payments. Thus, the foreign reserve constraint of these countries is more flexible than it would otherwise be, although it remains more complicated due to the potential pressure imposed by French Treasury policies. The monetary policies of the two CFA zone Central Banks (West and Central Africa respectively) which are determined in coordination with member countries of each zone and French authorities, also determine the aggregate (and specific country) allocation and the rate of growth in the money supply within each country. Thus, although convertibility is unconditional given a supply of CFA francs, the amount of foreign exchange convertibility which any country can exercise is defined by the institutional mechanism described above.

Unlike the CFA franc, the currencies of most of the other countries are not fully convertible. As a consequence, most of the other countries tend to impose restrictions on current account payment transactions. However, with the exception of Nigeria, they all peg their currencies to

Table 4: Macroeconomic Indicators of African Countries in Which CCCD Programs Have Been Implemented: Food Availability

Country	Cereal Imports 1985 000 MT	Food Aid Cereals FY 1985 000 MT	Cereal Imp/P 1985 KG	Food Aid per Cap FY 1985 KG	Daily Calorie Supply/Capita	
					1965	1985
1. Burundi	20	17	4.26	3.62	2,391	2,116
2. Central African Republic	17	12	6.54	4.62	2,130	2,050
3. Congo Brazzaville	90	1	47.37	0.53	2,255	2,549
4. Cote d'Ivoire	272	0	26.93	0.00	2,357	2,505
5. Gambia	na	19	na	29.8	na	2,207
6. Guinea	140	47	22.58	7.58	1,899	1,728
7. Lesotho	118	72	78.67	48.00	2,065	2,358
8. Liberia	116	20	52.73	9.09	2,155	2,311
9. Malawi	23	5	3.29	0.71	2,132	2,448
10. Nigeria	2,199	0	22.06	0.00	2,185	2,038
11. Rwanda	24	36	4.00	6.00	1,665	1,919
12. Swaziland	na	10.4	0.00	13.68	na	2,570
13. Togo	79	23	26.33	7.67	2,378	2,236
14. Zaire	331	138	10.82	4.51	2,188	2,154

Source: World Bank, World Development Report, 1987
 IMF, International Financial Statistics Yearbook, 1987
 World Bank, Financing Adjustment With Growth in Sub-Saharan Africa, 1986-90, 1986.
 World Bank, Population Growth and Policies in Sub-Saharan Africa, 1986.

Notes: Gambia is not an official CCCD country, but has a similar program funded by the British and UNICEF.

other leading international currencies or the SDR. ^[25] The tendency to peg a country's currency to one or more internationally recognized currency constrains monetary policy options regarding the rate of increase in the money supply. Burundi and Rwanda peg their currencies to a fixed rate of exchange with the US dollar, and, Liberia has used the US dollar as its currency although that policy was recently changed. Guinea, Malawi, and Zaire peg to the SDR and Lesotho and Swaziland peg to the South African rand. ^[26] Swaziland's and Lesotho's currencies may be partially convertible due to their special ties to the South African rand. In order to avoid foreign exchange shortages, countries with inconvertible currencies must develop appropriate monetary and price policies to keep their real exchange rates at the right levels, which, in the context of the last two decades, would have been to consistently depreciate their currencies. However, of the CCCD project countries, only the Congo and Malawi effectively depreciated their currencies during the 1970 - 1982 period. As the balance of payments and currency discussions would imply, it would be expected that foreign reserve holdings for the CCCD countries would be low. Table 5 shows that the 1985 international reserve holdings of CCCD countries are in fact very low, with only Rwanda having more than three months of import coverage reserves. ^[27]

However, foreign reserve holdings may be misleading and may not reflect the true economic situation prevailing in a particular country. For example, Togo represents a country which has borrowed heavily from abroad in order to finance large government deficits. This heavy external borrowing is reflected in Table 5 by the high shares of public debt as a proportion of GNP and exports. By engaging in this practice, the country has had large holdings of foreign reserves at various times when such reserve ratios are calculated. However, this and other related practices indicates that the foreign reserve ratio may not be a good comparative measure across countries at one point in time.

[25] The SDR is a unit of account developed by the IMF and is valued according to the values of the set of currencies included in the agreed upon market basket of currencies which the IMF uses to define the SDR. For further information about the SDR and the IMF, see the International Financial Statistics Yearbook.

[26] The SDR is the IMF unit of account which is defined as a combination of the market determined exchange rates of a selected number of principally traded currencies in relation to the US dollar. See the IMF, International Financial Statistics Yearbook, 1987, (Washington D.C.: IMF 1987) pages 4 and 5 for a more detailed description of the market basket and the present weights of the other principal currencies.

[27] Excluding India and China, the average low income country's international reserves in 1985 was 2.1 months. The average for middle income countries was 3.3 months in 1985 and for industrialized countries it was 4.2 months. See Table 15, World Development Report, 1987.

Table 5: Macroeconomic Indicators of African Countries in Which CCCD Programs Have Been Implemented: External Debt

Country	International Resources Mths Import Coverage 1985	External Pub & Pvt Debt as % GNP '85	External Debt Service (Pub & Pvt)		External Pub Debt as % GNP 1985	External Debt Service (Public)	
			as % GNP 1985	as % EX 1985		as % GNP 1985	as % EX 1985
1. Burundi	2.1	39.7	2.0	16.6	39.7	2.0	16.6
2. Central African Republic	2.8	44.9	2.0	11.8	44.9	2.0	11.8
3. Congo Brazzaville	0.1	na	na	na	86.5	15.9	19.6
4. Cote d'Ivoire	0.1	110.2	na	na	88.5	9.0	17.4
5. Gambia	na	na	na	na	58.2	3.3	10.7
6. Guinea	na	na	na	na	70.2	3.6	na
7. Lesotho	1.5	30.1	3.2	6.2	30.1	3.2	6.2
8. Liberia	0.0	85.3	1.7	3.8	85.3	1.7	3.8
9. Malawi	1.9	75.7	7.4	11.3	75.7	7.4	11.3
10. Nigeria	2.0	17.8	5.5	32.1	17.2	5.3	30.8
11. Rwanda	3.9	19.1	0.9	4.3	19.1	0.9	4.3
12. Swaziland	2.2	49.4	5.5	5.4	na	na	na
13. Togo	6.0	121.0	13.7	27.5	121.0	13.7	27.5
14. Zaire	1.8	na	na	na	111.8	7.9	8.6

Source: World Bank, World Development Report, 1987
 IMF, International Financial Statistics Yearbook, 1987
 World Bank, Financing Adjustment With Growth in Sub-Saharan Africa, 1986-90, 1986
 World Bank, Population Growth and Policies in Sub-Saharan Africa, 1986

Notes: Gambia is not an official CCCD country, but has a similar program funded by the British and UNICEF.

D. Public Finance

In order to ascertain the extent to which the government can finance CCCD project activity, or any other service as well, it is instructive to analyze the capability of CCCD countries to raise public revenue. The data presented in Table 6 defines the structure of central government revenue for the respective countries helps to define that capability. First, the data in Table 6 show that the most important source of public revenue are taxes levied on international trade, primarily import duties. In five of the fourteen countries shown, such taxes comprise over 40 percent of government revenue, and in all but the Congo, international trade taxes comprise over 20 percent.

When exports, thus, foreign exchange earnings are growing, it is relatively easy to finance imports. Since such a large share of government revenue is derived from import taxes, when imports grow government tax revenue increases as well. However, when export earnings fall due to declining terms of trade and/or a global recession, both of which occurred in the early 1980's, the adverse impact on government revenue is clear.

Income (individual and corporate) and various forms of sales taxes, including the value-added tax, comprise the other primary sources of tax revenue. These taxes are levied on economic activity which is domestic in origin. However, it is important to recognize that a sizeable share of domestic economic activity is closely associated with economic activity related to the export sector in all of these economies, particularly when, as was indicated earlier, exports typically represent over one-fourth of GDP (Table 3) in the CCCD project countries. Thus, trends in the export sector also affect government revenue from these two taxes as well.

Several countries obtain a large share of their revenue from corporate (privately owned entities) income taxes or from a share of the surpluses earned by parastatal corporations or agricultural marketing boards (shown as nontax revenue in Table 6). Nigeria and the Congo, for example, in the year for which the data pertained for each of them, obtained a large share of their government revenue from corporate taxes and in both cases the primary tax-paying entities were oil companies (export oriented entities). In the cases of Guinea and Togo, which also had higher than average government revenue shares from these sources, they were relying on both private and publicly held corporate entities involved in mining activities (phosphates in Togo and iron in Guinea).

Finally, it is important to point out that all of the francophone CCCD project countries obtain revenue via contributions to a government-sponsored social security system, which in some cases, provides health benefits. While the share of the population which is covered by the system is generally not large, an institutional mechanism is in place which can conceivably be used to support other services over time.

To summarize, a substantial share of virtually all CCCD project countries' government revenues is obtained from sources which are directly related to the international trade sector or affected in important ways by it. When export activities are adversely affected by either unfavorable terms of trade and/or slow world economic growth, the ability of CCCD project countries to raise revenue to finance any government-provided

Table 6: Macroeconomic Indicators of African Countries in Which CCCD Programs Have Been Implemented: Structure of Government Revenue

Central Government Revenue Shares												
	Year	Share Cent Gov't Rev is Total Gov't Share	Ind Income Taxes	Corp Income Taxes	Social Security Contrib	Employer Payroll	Prop	Domestic Sales...	Int'l Trade	Other	Nontax Rev	Property Income
1. Burundi	1981	na	10.08	11.23	2.87	1.75	8.95	28.82	24.09	0.56	10.86	7.93
2. Central African Republic	1981	>95	7.88	8.57	6.50	3.96	0.44	21.29	40.76	3.62	9.29	0.43
3. Congo Brazzaville	1980	70-79.9	6.78	32.54	3.56	1.18	0.06	6.17	10.47	0.95	19.02	17.26
4. Cote d'Ivoire	1984	na	5.90	4.46	4.39	3.61	2.70	15.73	26.71	--	--	21.64
5. Gambia	1982	>95	9.81	6.05	--	0.45	--	4.58	68.51	0.21	9.42	5.16
6. Guinea	1983	na	3.75	14.51	4.76	0.45	0.04	1.35	37.64	0.17	34.48	25.54
7. Lesotho	1985	>95	8.00	3.14	--	--	0.03	10.35	67.81	0.12	10.54	5.91
8. Liberia	1986	>95	32.04	7.03	--	--	0.61	24.85	28.56	1.88	4.26	0.06
9. Malawi	1985	>95	10.90	23.71	--	--	0.12	28.49	21.46	0.40	14.85	0.67
10. Nigeria	1978	na	0.06	59.71	--	--	--	4.77	22.35	--	13.11	12.49
11. Rwanda	1980	na	6.91	9.80	4.13	--	1.06	19.32	42.39	1.35	13.98	3.34
12. Swaziland	1986	>95	16.01	10.22	--	--	0.26	13.71	50.56	0.45	6.73	3.88
13. Togo	1986	na	7.35	20.71	6.24	--	0.77	7.64	32.14	0.29	22.64	8.61
14. Zaïre	1983	>95	17.50	13.04	1.10	1.21	0.10	24.43	28.83	2.11	11.67	--

Source: IMF, Government Finance Statistics Yearbook, 1987

service is severely constrained. In addition, the countries' ability to finance the important foreign exchange using inputs required in many health sector activities, including CCCD project activities, is constrained.

When countries face the revenue constraints which have been defined above, it is not atypical for them to engage in deficit financing, often by increasing the supply of money and thereby creating additional inflation. As was indicated above in Table 2, government deficits in the CCCD project countries were sizeable, ranging from a low of about 0.1 percent of GNP in Côte d'Ivoire in 1983 to over 9.1 percent in Swaziland, with the median being between 2.5 and 3.0 percent. As the decade of the 1980's has continued, the various CCCD project evaluations and special studies financed by the REACH Project have generally reported that the size of the government deficit has increased as a share of total government expenditures. The increased domestic borrowing used to finance the local currency component of the government deficit has contributed to money supply expansion (in the non CFA countries) and, thus, more rapid inflation. In addition, the increased international borrowing required to finance the foreign exchange component of the deficits over a period of years has contributed to the international debt crisis which most of the CCCD countries face today.

E. External Debt

As has been reported above, the increased budget and current account deficits that the CCCD countries have accumulated, particularly since the late 1970's, have been the principal reasons for the present external debt crisis which most of the countries are still struggling with. Among the CCCD project countries for which data are available (refer to Table 5), only Nigeria and Rwanda, and to some degree Lesotho, had a relatively manageable external debt problem as of 1985, i.e., it comprised 17, 19, and 30 percent of GNP respectively. ^[28] For some countries such as Togo and Zaire, external debt amounted to more than 100 percent of 1985 GNP.

With this heavy indebtedness, most CCCD countries have been unable to honor their debt service commitments in the early 1980's. Even high credit rating countries such as Côte d'Ivoire and Nigeria have required assistance. In Côte d'Ivoire debt service payments went from an average of 8 percent of export revenue in the 1962-75 period to over 30 percent in 1980-85, and in 1982, it was as high as 37 percent. Similar scenarios can be provided for most of the other CCCD countries as well.^[29] To reduce

^[28] Since 1985, Nigeria has experienced considerable difficulty due to the oil price decline in 1985 and a continuing high import level.

^[29] These scenarios imply that a) export earnings tended to fall, reducing total foreign exchange revenues, b) import requirements, as defined by the living standards of the day, remained at their existing levels, and c) the share which the fixed debt servicing costs of the reduced export earnings going to pay off the interest of the previous debt was rising. Clearly the ability to address this type of situation implied that some "requirements" and interest payments had to be foregone.

this burden, Côte d'Ivoire and Nigeria (and other countries as well) were able to negotiate a rescheduling of their external debt in 1983 and 1984 respectively.

In many instances, CCCD countries also sought the assistance of the World Bank and the IMF to assist them in resolving their financial crises via a longer term World Bank Structural Adjustment Program loan and short term IMF assistance via a Standby Agreement (SBA) or an EFF. With the possible exception of the small (geographically) CCCD countries of Burundi, Lesotho, Rwanda, and Swaziland, (two of which are economically dependent on South Africa) the remainder of the CCCD countries have sought assistance from the IMF for short term support. With the exception of the agreements between the IMF and the Congo and Nigeria, the conditions underlying the assistance provided by the IMF to the other countries are summarized in Tables 7.A to 7.G. It is instructive to review the structure of these conditions.

F. External Debt Conditionality

Tables 7.A to 7.G present the extent to which country economic policies are reviewed and performance terms defined by the IMF in CCCD country-specific SBAs. As the tables report, seven of the CCCD countries were under a SBA at the time of the CCCD ProAg. The IMF organizes its conditions to a SBA according to the following issues:

- a) monetary and financial policies;
- b) public sector policies, including
 - i) recurrent expenditure restraints,
 - ii) tax system changes,
 - iii) parastatal corporations, and
 - iv) overall budget;
- c) external debt policies;
- d) exchange rate policies;
- e) wages and price policies; and
- f) other structural adjustment policies.

There is a typical pattern in the conditionality experienced by the seven CCCD countries which were under a SBA at the time of signing the CCCD project ProAg. This pattern includes the following conditions:

- a) limit credit expansion;
- b) reduce public sector employment;
- c) control public subsidies;
- d) improve the administration of expenditures;
- e) introduce increases of sales and excise taxes;
- f) introduce new taxes and/or user charges;
- g) improve parastatal performance;
- h) reduce the government deficit as a percentage of GDP;
- i) control the level and maturity of external debt;
- j) improve debt management; and
- k) introduce standard clauses into international contracts regarding exchange rates.

Table 7.A: IMF Conditionality Status of CCCD Countries, via Standby Agreements,
and Extended Fund Facilities: Monetary and Financial Policies

Conditions Pertaining in IMF SBA or EFF at Time of Proag

Country	I. Monetary & Financial Policies						
	A Credit Expansion Limit	B Reduce Liquidity Growth	C Reform Interest Rates	D Increase Credit Share to Private Sector	E Mobilize Domestic Savings	F Set Net Foreign Reserve Target	G Other: Credit Allocation Criteria
1. Burundi							
2. C.A.R.	yes	yes	na	na	yes	na	na
3. Congo							
4. Cote d'Ivoire	yes	na	na	na	yes	na	yes
5. Guinea	yes	na	na	na	na	yes	na
6. Lesotho							
7. Liberia	yes	yes	na	na	na	na	na
8. Malawi	yes	na	na	yes	yes	na	na
9. Nigeria							
10. Rwanda							
11. Swaziland							
12. Togo	yes	na	na	na	na	na	na
13. Zaire	yes	yes	na	yes	yes	yes	yes

Table 7.B: IMF Conditionality Status of CCCD Countries, via Standby Agreements, and Extended Fund Facilities: Central Government Current Expenditure Restraint

II. Public Sector Policies

A. Central Government Current Expenditure Restraint

Country	1	2	3	4	5
	Wage/ Salary & Employment Reductions	Control Expenditure on Goods & Services	Capital Transfers & Subsidies	Limit New Invest	Improve Administration of Expenditures
1. Burundi					
2. Central African Republic	yes	yes	yes	yes	yes
3. Congo					
4. Cote d'Ivoire	yes	na	yes	yes	yes
5. Guinea	yes	na	yes	yes	na
6. Lesotho					
7. Liberia	yes	yes	yes	na	yes
8. Malawi	yes	yes	yes	na	yes
9. Nigeria					
10. Rwanda					
11. Swaziland					
12. Togo	yes	na	yes	yes	yes
13. Zaire	yes	yes	yes	yes	yes

- Notes: 1) SBA = IMF Standby Agreement (one year)
2) EFF = Extended Fund Facility (multiple years, up to five)

- Sources: 1) IMF, Fund Supported Programs, Fiscal Policy, and Income Distribution, Occasional Paper No. 46, (Washington, D.C.: IMF, Sept. 1986).
2) IMF, International Financial Statistics: Supplement on Fund Accounts, Supplement Series No. 3, (Washington, D.C.: IMF, 1982).

Table 7.C: IMF Conditionality Status of CCCD Countries, via Standby Agreements, and Extended Fund Facilities: Tax System Changes

Country	II. Public Sector Policies							
	B. Tax System Changes							
	1 Improve Income Tax System	2 Improve Corporate Tax Pay	3 Intro. or Increase Property Taxes	4 Intro. & Increase Sales/Excise Taxes	5 Improve Import Duties	6 Reform Export Duties	7 Intro. New Taxes/ User Charges	8 Improve Tax Administration
1. Burundi								
2. Central African Republic	yes	yes	na	yes	yes	na	yes	na
3. Congo								
4. Cote d'Ivoire	na	na	na	yes	yes	yes	yes	na
5. Guinea	na	na	na	yes	na	yes	yes	yes
6. Lesotho								
7. Liberia	na	na	na	yes	na	na	na	yes
8. Malawi	na	na	na	yes	yes	na	yes	na
9. Nigeria								
10. Rwanda								
11. Swaziland								
12. Togo	yes	yes	yes	na	na	na	yes	yes
13. Zaire	yes	yes	yes	yes	yes	yes	yes	yes

Notes: 1) SBA = IMF Standby Agreement (one year)
2) EFF = Extended Fund Facility (multiple years, up to five)

Sources: 1) IMF, Fund Supported Programs, Fiscal Policy, and Income Distribution, Occasional Paper No. 46, (Washington, D.C.: IMF, Sept. 1986).
2) IMF, International Financial Statistics: Supplement on Fund Accounts, Supplement Series No. 3, (Washington, D.C.: IMF, 1982).

Table 7.D: IMF Conditionality Status of CCCD Countries, via Standby Agreements, and Extended Fund Facilities: Parastatal Corporations and Overall Budget Policies

Country	II. Public Sector Policies			
	C. Parastatal Corporations		D. Overall Budget	
	1 Improve Performance	2 Improve Management	1 Reduce Deficit as % GDP	2 Reduce Domestic Arrears
1. Burundi				
2. Central African Republic	yes	yes	yes	yes
3. Congo				
4. Cote d'Ivoire	yes	na	yes	yes
5. Guinea	yes	na	yes	na
6. Lesotho				
7. Liberia	yes	yes	yes	na
8. Malawi	yes	na	yes	na
9. Nigeria				
10. Rwanda				
11. Swaziland				
12. Togo	yes	na	yes	yes
13. Zaire	yes	yes	yes	na

Notes: 1) SBA = IMF Standby Agreement (one Year)
2) Extended Fund Facility (multiple Years, up to five)

Sources: 1) IMF, Fund Supported Programs, Fiscal Policy, and Income Distribution, Occasional Paper No. 46, (Washington, D.C.: IMF, Sept. 1986).
2) IMF, International Financial Statistics: Supplement on Fund Accounts, Supplement Series No. 3, (Washington, D.C.: IMF, 1982).

Table 7.E: IMF Conditionality Status of CCCD Countries, via Standby Agreements,
and Extended Fund Facilities: External Debt and Exchange Rate Policies

Country	III. External Debt Policies		IV. Exchange Rate Policies		
	A Control Level & Maturity of External Debt	B Improve Debt Management	A Reform Exchange Rate	B Liberalize Trade (Export and Import)	C Have Standard Clauses
1. Burundi					
2. Central African Republic	yes	yes	na	na	yes
3. Congo					
4. Cote d'Ivoire	yes	yes	na	na	yes
5. Guinea	yes	yes	yes	na	yes
6. Lesotho					
7. Liberia	yes	yes	na	na	yes
8. Malawi	yes	yes	yes	yes	yes
9. Nigeria					
10. Rwanda					
11. Swaziland					
12. Togo	yes	yes	na	na	na
13. Zaire	yes	yes	yes	yes	yes

Notes: 1) SBA = IMF Standby Agreement (one year)
2) EFF = Extended Fund Facility (multiple years, up to five)

Sources: 1) IMF, Fund Supported Programs, Fiscal Policy, and Income Distribution, Occasional Paper No. 46, (Washington, D.C.: IMF, Sept. 1986).
2) IMF, International Financial Statistics: Supplement on Fund Accounts, Supplement Series No. 3, (Washington, D.C.: IMF, 1982).

Table 7.F: IMF Conditionality Status of CCCD Countries, via Standby Agreements, and Extended Fund Facilities: Wages and Prices

Country	V. Wages And Prices						
	A Restrain Wages	B Have Wage Guidelines	C Intro Flexible Prices	D Reduce Cost/ Price Distortions	E Review Key Sector Prices to Increase Production	F Increase Energy Prices	G Review Price Controls
1. Burundi							
2. Central African Republic	na	na	na	na	na	na	na
3. Congo							
4. Cote d'Ivoire	yes	na	na	na	na	yes	na
5. Guinea	na	na	yes	na	na	na	na
6. Lesotho							
7. Liberia	na	yes	na	na	na	na	na
8. Malawi	na	yes	yes	yes	na	yes	na
9. Nigeria							
10. Rwanda							
11. Swaziland							
12. Togo	na	na	yes	yes	yes	na	yes
13. Zaire	yes	yes	yes	yes	yes	yes	yes

Notes: 1) SBA = IMF Standby Agreement (one year)
2) EFF = Extended Fund Facility (multiple years, up to five)

Sources: 1) IMF, Fund Supported Programs, Fiscal Policy, and Income Distribution, Occasional Paper No. 46, (Washington, D.C.: IMF, Sept. 1986).
2) IMF, International Financial Statistics: Supplement on Fund Accounts, Supplement Series No. 3, (Washington, D.C.: IMF, 1982).

Table 7.G: IMF Conditionality Status of CCCD Countries, via Standby Agreements,
and Extended Fund Facilities: Other Policies

Country	VI. Other Structural Adjustment Policies				VII. Other
	A Restructure Key Sectors	B Improve Management	C Allocate Toward Private Sector	D Develop Improved Investment Planning	i.e., Object to Policy Measures
1. Burundi					
2. Central African Republic	na	yes	yes	na	na
3. Congo					
4. Cote d'Ivoire	na	na	na	na	na
5. Guinea	na	na	na	na	na
6. Lesotho					
7. Liberia	na	na	na	na	na
8. Malawi	yes	na	yes	na	na
9. Nigeria					
10. Rwanda					
11. Swaziland					
12. Togo	yes	na	yes	yes	na
13. Zaire	yes	na	na	yes	na

Notes: 1) SBA = IMF Standby Agreement (one year)
2) EFF = Extended Fund Facility (multiple years, up to five)

Sources: 1) IMF, Fund Supported Programs, Fiscal Policy, and Income Distribution, Occasional Paper No. 46, (Washington, D.C.: IMF, Sept. 1986).
2) IMF, International Financial Statistics: Supplement on Fund Accounts, Supplement Series No. 3, (Washington, D.C.: IMF, 1982).

These and other conditionality terms, which were included in country specific SBAs and fully defined in Table 7, emphasize the point that reductions in government commitments are deemed essential by the IMF for improvements in economic performance when the IMF is asked to provide financial assistance to a country unable to meet its international financial obligations.

Among the conditions which appeared most often and which are important for assessing the capability of a country to develop and sustain a CCCD program include: a) reduce public employment; b) cap program subsidies; and c) reduce the public deficit as a share of GDP. Given that the countries which obtain IMF support, must adhere to the aforementioned conditions and make verifiable improvements in certain performance targets during the life of the SBA to obtain additional assistance from the IMF, even small projects like a CCCD project which requires government support either in kind or by financial contribution to the recurrent cost of the activity can be jeopardized when such assistance is requested. ^[30]

G. Implications for the CCCD Program and Policy Recommendations

The ability of the CCCD project countries to finance their agreed share of the CCCD projects costs is certainly affected by the increasingly impoverished economic situation they have experienced since the late 1970's. The continuing decline in per capita GNP makes resources increasingly scarce for any activity, including those of the CCCD project.

The financing of the CCCD project implies social costs: the resources must be drawn from other uses into the project's set of activities through public or private channels. The extent to which the CCCD project implies new resource commitments or that existing resources must be reprogrammed from similar existing activities, including a vertically oriented immunization campaign, requires country-specific analyses which demonstrates that net social welfare will increase. Most economic decision makers in Finance and Economic Planning Ministries would want to review such an analysis prior to making such a decision.

Public participation is crucial especially since CCCD project activities are expected to be provided via MOH facilities and that at least the immunization component of the project is a prevention-oriented activity. However, it has become clear upon reviewing the macroeconomic situation in the participating countries that the government's ability to devote additional resources to the project is limited.

It is possible for governments to make modest adjustments although the extent of adjustment possible within the context of each country varies. For example, little analysis has been conducted about the potential for reallocation a) within health sector budgets and b) across sector budget allocations. In the African context within health sector budget reallocation has perhaps been most thoroughly analyzed in the context of Tanzania. In that country, a significant reallocation occurred over the

^[30] Only Lesotho and Swaziland had not obtained IMF SBA support prior to the CCCD Project ProAg signing.

decade of the 1970's away from hospitals and to rural focussed health care, including immunizations and other preventive measures. This reallocation, however, occurred during a period of total expenditure growth within the sector, such that the budget of no activity, i.e., hospital based care, was actually cut (in nominal terms).^[31] The situation facing CCCD project countries during the decade of the 1980's and early 1990's is different, where even nominal expenditure levels for certain services have been reduced.

The second alternative of reallocating across sectors warrants additional analysis. In one study of this type of option, it was found that if defense expenditures in the twenty most populous African countries (five of the CCCD project countries were included in the study) were reduced by 10 percent (in the 1976-78 period) health sector expenditures could be increased by about 25 percent.^[32] This finding was due to the fact that the health sector share of the total government budget is relatively low (in the late 1970's between 1.7 and 8.1 percent of total recurrent and capital expenditures by the respective central governments). A similar finding would be expected from data from the mid 1980's. The issue is whether the public policy makers in each CCCD project country can make and then implement this type of reallocation over an extended period of time to institutionalize and then obtain the benefits of the CCCD set of health services.

The revenue structures of the CCCD project countries indicate considerable differences across countries with some more vulnerable to international trade fluctuations than others (refer to Table 5). In addition, the IMF has incorporated into virtually all CCCD project country SBAs conditions to introduce and increase sales and excise taxes, other new taxes, and user charges. The economic rationale for these revenue enhancement suggestions are to broaden the government's revenue base and to reduce the share of government revenue which may be adversely affected by international trade fluctuations. Over time as government revenue policies are changed to incorporate the conditionality suggestions, and if economic growth occurs, it may be possible to obtain additional financial support from the government, even assuming a constant health sector share allocation. However, there are many competing claims for these scarce resources, from agriculture, education, water supply managers, key industries, to, and including the military.

As the economic situation analysis indicates, many CCCD countries face foreign exchange shortages due to the countries structural current account deficits. Some francophone countries in the CFA zones do not face the same convertibility problems as exist in other CCCD countries. However, since the foreign exchange share of CCCD project activities is in the range of 60 to 75 percent of the total recurrent cost of CCCD project services, the

[31] For further analysis of the Tanzanian case, see David W. Dunlop, "Underfinancing of Social Services in Tanzania: The Case of Primary Health Care," Paper prepared for PPC/E, AID, Washington D.C. February 1984.

[32] David W. Dunlop, "Health Care Financing: Recent Experience in Africa," Social Science and Medicine, 17.24 (1983b) 2017-2025.

financing strategy developed for CCCD services must specifically address that aspect of the problem within the larger context of financing the foreign exchange costs of the health care delivery system upon which these services rest.^[33]

While the CCCD project has been developed to assist public entities such as the MOH in participating countries to provide this set of services within the facilities which the MOH operates, the economic realities of the participating countries indicate that other delivery mechanisms must be explored and where identified, supported to expand the delivery of CCCD services simply due to the fact that the governments of project countries cannot support any rapid expansion of these services based on their own resources. Where mission facilities exist or where private voluntary organizations might be interested in expanding the delivery of these services, they warrant support. Further, to the extent that they implement user charges or other financing mechanisms to financially sustain these services, it reduces the government's responsibility to provide these services, although it is undoubtedly important that the government continues to monitor service delivery and related benefits.

Finally, in the case of malaria prophylaxis and ORS, the CCCD project may want to develop several operational experiments with private health providers and ascertain how they can increase their involvement more greatly than heretofore has been the case. As is discussed in greater depth later (see section five), the private good attributes, such that most of the benefits of consumption accrue to the individual and/or household, private providers can be used to expand these services. To the extent that such services can be made more widely available to the population by such means, the government can be spared from making such efforts.

[33] For additional information on estimates of the foreign exchange share of the CCCD project, see the following sections of the document and Table 9.

V. EMPIRICAL EVIDENCE RE: CCCD PROJECT HEALTH FINANCING ACTIVITIES

A. Introduction

In this section the country-specific project health financing activities are comparatively reviewed. This review is based on an analysis of mid-term evaluation documents, REACH project special studies, and the recommendations which were made regarding subsequent health financing activities. The analysis first addresses the question of the cost of country-specific CCCD projects and the composition of those costs. Then the analysis addresses various aspects of health financing, particularly as it relates to the CCCD project activities. Fees-for-service are specifically addressed as is the subject of drug revolving funds and/or village pharmacies. Other pertinent information is presented in comparative tabular form. Management and administrative issues are addressed to the extent that such aspects of the financing problem are raised.^[34] It is anticipated that this review will provide a context for establishing a set of recommendations for future CCCD project activities pursuant to health financing.

B. CCCD Project Costs

i. Total Cost

In Table 8, comparative total project cost data is presented from two sources, the CCCD project Annual Report for 1986 prepared by the CDC in Atlanta, Georgia, and the set of mid-term project evaluations which were conducted between June, 1984 and October 1987.^[35] For the eight countries for which comparative data are available, five country project cost data were comparable, Burundi, the Congo, Lesotho, Rwanda, and Togo. For the other three, Zaire, Liberia, and Malawi, substantial differences appeared between the two sources of cost information. In part, these differences were due to differences in the way in which other donor contributions were evaluated by each information source as either being a part of the CCCD project or not. For example, in some cases, UNICEF's activities were counted as a part of the project activities and in other instances it was not.

Second, Table 8 indicates that the mid-term evaluation estimates are generally a minimum estimate. This is due to the fact that in most instances no estimate was provided of the country contribution to CCCD

[34] These issues were discussed at some length in the prior section of the paper which dealt with a comparative analysis of health financing options in a generic sense.

[35] Two country CCCD projects have not had a mid-term evaluation. The Cote d'Ivoire project is planned to be conducted in 1988 and the Nigerian project is only in its second year of operation and it is not expected that a mid-term evaluation will be conducted there until perhaps late 1989.

project staffing and the related salary and fringe benefits related thereto. Most of the country budgets provided in AID documents did not include an analysis of these important cost elements. Rather the budgets included information about intended government expenditures on such items as petrol, drug procurements, and supervision per diems. In addition, most project documents referred to other donor participation in the projects, but the actual cost contribution was often not included. Further, in one or two evaluations, an analysis was made of non country-specific CCCD project contributions which were made to the project in the form of CDC technical assistance, REACH consultants for both financing and immunization services, and other resources from the WHO and UNICEF. While this type of technical assistance services is generally not included as a part of the recurrent costs of such project activities, it is important for it to be included in a full cost analysis of the project costs, and amortized appropriately, including, in some cases, within a one year period.

Finally, it was unclear in many evaluations whether the country project cost component was, in actuality, funded by the US via PL480 or CIP local currency generations, or by actual budget allocations which would indicate a true reallocation of resources within the country's own budgetary resources. Thus, the distinction between the US contribution from AID and the local budget was often blurred.

As a consequence of these aforementioned problems, it is difficult to know whether any of the cost information in any evaluation or the CDC Annual Report (1986) provides a true cost estimate of any of the country specific CCCD projects. This situation appears to be one where the recently prepared Guidance for Costing Health Services Projects (1987) prepared by the REACH Project for the Asia/Near East (ANE) Bureau of AID could be used with an impact.

In spite of the difficulties mentioned in calculating operating and development costs for a CCCD project, it was instructive to use cost information from the 1986 Annual Report to estimate the per-capita cost of the CCCD project on a country by country basis.^[36] These calculations are presented in Table 8 and show that the per capita cost varies from a low of \$0.22/ person to develop and implement CCCD services to a high of \$1.41/ person or seven fold higher (the weighted average for all country-specific projects was calculated to be \$0.42/person). Some of the variation in these average figures may be due in part to the issues already described above. In the case of Nigeria and Zaire, the project has only been implemented in several specific zones or states and not on a national basis which would undoubtedly account for some of the variation and a downward

[36] While most CCCD Project services principally address the health problems of women and children, the entire population of the country and its perceptive households benefit as well. Thus, when considering a financing strategy for such a project, an estimate of the per-capita cost of a project represents a useful first approximation of what the minimum benefits would be necessary to justify the intervention.

Table 8: Estimates of CCCD Country Project Costs

Country	Estimated Total Cost Per Evaluation in million \$	Estimated Total Cost Per CCCD 1986 Annual Report in million \$	Estimated Total Cost Per CCCD 1986 Annual Report Data in million \$	Estimated Expenditure Share Which CCCD Project is of MOH Recurrent Expenditures in the Mid-1980's
1. Burundi	>1.2	1.07	0.22	0.9
2. Central African Republic	na	0.91	0.35	2.4
3. Congo	>1.12	1.17	0.61	unknown
4. Cote d'Ivoire	na	6.71	0.61	na
5. Guinea	na	1.54	0.25	unknown
6. Lesotho	0.8	1.04	0.68	3.1
7. Liberia	>2.3	1.05	0.44	max 5.0
8. Malawi	7.4	2.75	0.38	na
9. Nigeria	na	43.41	0.44	na
10. Rwanda	2.1	2.03	0.34	min 2.8
11. Swaziland	na	0.99	1.41	min 1.9
12. Togo	>1.5	1.51	0.48	max 4.0 approximately 2.4
13. Zaire	>7.0	11.02	0.31	1984 1.4 1985 0.7

Source: Project Evaluations and 1986 Annual Report

bias in the per-capita cost estimates as well. In spite of the above defined possible reasons for per capita project cost variations, it would be useful to know more about why these estimated project costs vary.⁽³⁷⁾

Again while the cost information may contain certain problems as defined above and represent only the incremental cost of the delivery of these services, the per capita cost figures suggest that the CCCD project child survival services are relatively inexpensive on a per capita basis. Further, when this per capita cost figure is compared with estimates of 1985 per capita income in each CCCD project country, as presented in Table 2, it suggests that CCCD services typically cost between one and two tenths of one percent of per capita income. When viewed from this perspective, CCCD services are not expensive.

Finally, in Table 8, information is presented which provides an estimate of the share which reported CCCD project costs represent of total MOH expenditures (allowing for the problems of cost estimation which have been defined above). For the eight countries where the data were available to make this estimate, it shows that the CCCD project (excluding local labor expenses) represents between one, and, at most, five percent of the annual expenditures of a country's MOH, with the median being around two to three percent. Even allowing that local labor costs might represent an additional 50 percent increase in costs, total CCCD project costs would generally comprise no more than five percent of an MOH's annual expenditure. This figure, however, represents, fifty percent of the total preventive health care share of recurrent MOH expenditures of many African countries, with the median figure being about thirty to forty percent.⁽³⁸⁾

ii. Foreign Exchange Share of Project Costs

In Table 9, information is presented from country-specific mid-term evaluations about the foreign exchange share which each identified source of financing to the country-specific CCCD project is estimated to have paid (or will expect to pay) based on the budgetary and expenditure information provided in the evaluation. This analysis shows that for the estimated

⁽³⁷⁾ The reason for the possible downward bias in the reported per-capita cost of Nigeria and Zaire is due to the fact that the figure is calculated using the entire population of the country when the services are only being provided to a considerably smaller subset of it. With respect to possible other factors, which might account for the intercountry differences in the figures, include: a) differences in factor prices between countries; b) possible differences in administrative costs required to implement the services, and c) differences in the potential for achieving economies of scale between countries. For example, if the population density is higher in one country relative to another, then it will be possible to provide services at a lower cost per person in the more densely populated country than in the less densely populated one, holding all other factors constant.

⁽³⁸⁾ This estimate is based on information provided from two CCCD country mid-term evaluations and from the authors' knowledge of other countries in Africa.

Table 9: An Analysis of the Empirical Evidence About Financing CCCD Project Activities From Evaluations and REACH Project Studies: Cost Information

Country	REACH Study	Evaluation	Est % LOP Total Cost FX USAID	Est % LOP Total Cost FX Gov't	Est % LOP Total Cost FX Other Donors	Est % LOP Total Cost FX Gov't + USAID + Donors	Est LOP Total Cost (mill \$)
1. Burundi	yes 10/87	yes 10/87	100.0	approx 70	na	>75.0	>1.2
2. Central African Republic	yes 10/87 & 9/86	yes 11/86	na	na	na	na	na
3. Congo	no	yes 5/86	58.1	na but low since 1985	100 (UNICEF) French na	na	min 1.12 excl other donors
4. Cote d'Ivoire	no	yes 5/87	na	na	na	na	na
5. Guinea	yes 12/86	yes 6/87	99.7	3 yrs 54.1	na	95.9	na
6. Lesotho	no	yes 9/86	75.4	16.7	na	62.1	0.8 (200,000/yr)
7. Liberia	no-see evaluation	yes 4/86	min 80	100.0 excl in-kind-contrib	100.0	min 90	2.3 excl in-kind contrib & donations
8. Malawi	no	yes 10/86	89.5	60.5	100.0	84.7	7.4
9. Nigeria	no-see JHU	no	na	na	100.0	na	14.1, excl Nigeria contr
10. Rwanda	yes 1/87	yes 10/86	64.5	79.5	100.0	72.8	2.1
11. Swaziland	no	yes 9/86	64.5	73.9	na	67.7	na
12. Togo	no-see evaluation	yes 6/84	95.0	100.0 not incl personnel	100.0	>80.0	min 1.5 excl labor
13. Zaire	yes 1/87	yes 1985	100.0 1983/1986	28.8 1984/1985	100.0	>75.0	min 7.0+ 1983/1990

- Notes: 1. CP = Community participation
2. EA = Equity of Access
3. PHC = Primary Health Care
4. CCCD = Combatting Communicable Childhood Diseases
5. Swaziland health expenditure information includes expenditures for water and sanitation activities, traditional healers, other private sector services, MOH, & other government agencies.
6. FFS = Fee for Service
7. FX = Foreign Exchange

total cost of CCCD projects, excluding the local personnel costs for reasons defined above, the foreign exchange component of the project cost varies from a low of 62 percent to as high as 95 percent, with the average being between 75 to 80 percent,. This share is very high relative to other types of health services where the figure has been estimated to be about 40 to 50 percent ^[39] and for other social and human services programs including primary education where the figure is closer to ten percent. ^[40]

The relatively high foreign exchange component of the CCCD project is consistent for virtually every country and source of CCCD project financing for which information is available (and presented in Table 9). AID's foreign exchange share varies from a low of an estimated 58 percent to as high as nearly 100 percent. Other donors involved in the project consistently support the activity with 100 percent foreign exchange contributions. Finally, the support agreed to by country governments has an implied foreign exchange share which is typically above 50 percent (ranging from a low of 17 percent to 100 percent).^[41]

iii. Summary

A number of country-specific CCCD project evaluations have recommended various types of cost studies (see Appendix C). The evaluations which have been conducted have generally not been able to ascertain what the total cost of the projects have been, even though all country project ProAgs have indicated that a full accounting of project costs be periodically conducted. One of the important reasons for desiring that type of information is to structure a fee schedule which will cover the recurrent

^[39] David Dunlop, World Bank Cost paper, 1984.

^[40] See, for example, Larry Wolff, Controlling the Costs of Education in Eastern Africa: A review of Data, Issues, and Policies, report No. 4907-EAF, (Washington, D.C.: World Bank, August 3, 1984).

^[41] The case has been made that since this set of project activities cost relatively little in comparison with other types of health care services in particular, and other economic activities in general, that the relatively high foreign exchange share of total service costs which this set of services represents is so low that any country should be able to finance it. This argument rests on at least two premises: a) the short-run health and long-run demographic private and social benefits derived from this set of services is considerably greater than what might be obtained from other competing uses of scarce resources; and b) the CCCD services can be derived in isolation of the publicly operated health care system, such that the full foreign exchange cost of CCCD services is represented by the incremental cost of this set of services.

With respect to the first premise, the authors are unaware of unambiguous empirical evidence to fully support such an assertion against those with a different view of the world. We encourage efforts to amass such evidence. In addition, most economists are moved by information which define revealed preference positions taken by key resource allocation decision makers, such as ministers of finance or heads of state who

costs of each project. Further, without full cost information, it is rather difficult to conduct the desired cost-effectiveness studies which were recommended in several evaluations and which is important to conduct for purposes of increasing the efficiency of resource allocation within the AID project portfolio.

Further, to the extent that it is possible to estimate the foreign exchange content of the CCCD project, the available information suggests that there is a high foreign exchange content of the country-specific projects. Given this finding and the fact that most project countries' macroeconomic performance has been poor and is still sluggish, the importance of continued donor financial support cannot be over emphasized if such activities are to be financially sustained during at least the next half-decade.

C. Country CCCD Project Financing

In Tables 10, 11, and 12, data are presented which summarize what is known about health financing policy and in particular about the state of developing user charges as a form of cost recovery throughout the CCCD project countries. With respect to financing being a part of the health policy of the CCCD project countries, the data in Table 15 shows that nine of the thirteen countries have included financing into their health policy pronouncements and at least one other one, the CAR has implemented a fee system at a few government health facilities. In addition, in two of the remaining three countries, information which is available suggests that cost recovery via user charges is also occurring in those countries as well in many privately operated health facilities, such that the policy makers

reflect, via their decisions, the relative value of alternative uses of scarce resources. In the case of the CCCD project countries, the evidence amassed on revealed preferences is that there are other more important uses of each countries scarce foreign exchange resources. This situation may be due to decision makers not knowing what the benefits are due to a lack of knowledge, or that they all weight these benefits differently than others might.

Regarding the second premise, the CCCD project has been implemented in all participating countries via the publicly supported health care delivery system. According to the draft project extension amendments which have been crafted to provide policy guidance to the future development of these services through at least 1991, the publicly operated health care delivery system will continue to be the vehicle used to provide such services over the project extension period. If this decision cannot be altered, then the relatively minor incremental foreign exchange (and for that matter) all of the costs of the CCCD services, is not the relevant indicator of the true foreign exchange cost of the CCCD services. In that case, the relevant indicator is the costs required to sustain the entire publicly provided health care system. On the other hand, if the decision made by AID and other officials can be changed, such that CCCD services might be provided outside of the publicly operated health service system, then the incremental cost figures reported in this document for implementing CCCD services are too low due to the fact that these costs are based on the presumption that these services would be incorporated into an

not only are aware of that practice, but also are allowing it to continue. One of the two, Nigeria, is also actively exploring with the assistance of the CCCD project and the World Bank, ways by which the country, or its individual states, might develop financing strategies for their respective health services which may include some form of user charges.

To the extent that information is available about the structure of fees, the data presented in Table 10 suggest that fees are most commonly levied as a registration fee for outpatient care (generally based on the illness episode) and inpatient care (generally based on the length of stay) and for drugs, either separately, via the mechanism of the village or community pharmacy, or at the health facility itself. In general, drug fees are established by marking up the procurement price of the drug by a certain percentage in order to generate a surplus which can then be used not only to replenish pharmaceutical supplies, but also pay for the acquisition of other goods and services used in the delivery of CCCD and related services.

This typical fee structure described above generally implies that for CCCD project supported services the two curative oriented services, i.e., chemotherapy for malaria and ORS for diarrhoea, comprise the principal source of fee revenue, either via charges on drugs and/or via service registration fees. Several countries, including the Congo, Guinea, Lesotho, and Togo have implemented a policy to charge for immunizations via the selling of vaccination cards or by charging for well-baby visits (in the case of Lesotho).

As has been briefly referred to in an earlier section of the paper, in some countries, particularly those with a francophone orientation, revenue is also being raised via health insurance. In Burundi, the government has implemented such a plan which covers a variety of services, including reimbursement for drugs from private pharmacies. Other programs also exist in countries such as the Central African Republic, Liberia, and Zaire. It would appear that a more in-depth study of the various prepayment insurance options which have emerged in CCCD project countries is warranted, and such a study would document the amount of revenue collected, benefit packages, costs of administration, government subsidies, if any, population coverage, length of operation and whether preventive services such as immunization services are included.

The limited information available from the evaluations and the special REACH reports about total revenue from fees and/or health insurance premiums suggest that the amount is variable across countries. Data on this issue was available from six countries (Burundi, the Congo, Lesotho,

reflect the true cost of service delivery within another structure is unknown at present and warrants some additional analysis if this alternative is to be pursued further. Furthermore, if the option of other than the publicly supported health care delivery system is to be pursued as an alternative for delivering CCCD services, it will be important to ascertain the extent to which CCCD project countries are willing to consider these other alternatives as well.

Table 10: An Analysis of the Empirical Evidence About Financing CCD Project Activities From Evaluation and REACH Project Studies: Financing and Fee Structure Information

Country	I. Financing Information		II. Fee Structure			
	Does Gov't Health Policy Include Financing?	Other Relevant Policies	Fees Charged At Gov't Facilities	Amount/OP Cure Visit	Amount/Immunization Visit	Total Amt. Raised at Government Facilities ('000 \$)
1. Burundi	yes	fees are charged at HC's & hosp- Also Soc. Sec. for civil servants & insur. cards @ 500FRW/yr	yes, for consultation & drugs	na	normally no fee	5,461 - 1986
2. Central African Republic	not as of 11/86	fees collected at some gov't units- French expenditure priorities matter (25% total budget)	not normal	na	na	na
3. Congo	yes defacto	are vaccination card user charges- users pay for chloroquine- gov't est self-financing pharmacies	yes (EPI/82)	na	100-500 CFA 250 typical per card	unknown in '85 8.12 million CFA from 3 towns = 54% govt CCD amt
4. Cote d'Ivoire	unknown	na	unknown	na	na	na
5. Guinea	yes	gov't pays salaries- users pay oper costs- curative fee cross subsidize prev. svcs.- domestic economist defines health actions- health proj. must have funding plan	yes (5/86)	na	50/FG/card	na
6. Lesotho	yes, fees charged	na	yes, for IP & OP etc.	na	see comments	FY '86 440 9.7% MOH re. budget
7. Liberia	yes, in part due to CCD Proag terms	have IP & OP registration & revisit fees- drug fee based on cost of drug- exempt TB & leprosy subsidize children- drug fees easier to collect	yes	varies see comments	no charges	na
8. Malawi	yes, no MOH budget growth	some MOH FPS in hospital but no study for CCD	no, except hosp. medicine & MCH	zero	zero	unknown
9. Nigeria	not at present	financial situation studies planned for four states	basically no fees	zero	zero	unknown
10. Rwanda	yes	user fees and charges for drugs	yes	20FRW/\$0.23	zero	\$660
11. Swaziland	out-patient	EA, PHC esp CCD	yes	15/\$0.41	zero (1/86)	\$492
12. Togo	not at time of evaluation	fees charged for medicines & medical services by private providers	na	na	see Table 12	see Table 12
13. Zaire	yes, via health zones	health health zone given autonomy to est. cost rec. systems to fit local condit. GOZ only pays salaries	yes	varies \$0.33-83 & some-medicine	no charges	na, studies show most successful zones financing to 80% OP costs

Notes:

1. CP = Community Participation
2. EA = Equity of Access
3. PHC = Primary Health Care
4. FPS = Fee-for-Service
5. Swaziland health expenditure information includes expenditures for water and sanitation activities, traditional healers, other private sector services, MOH, & other government agencies.

Table 11: An Analysis of the Empirical Evidence About Financing CCCD Project Activities From Evaluations and REACH Project Studies: Pharmacy Financing

Country	Pharmacies	Issues		
	Do Village Pharmacies Exist?	Financial Management	Service Quality	Comments
1. Burundi	private pharms exist	na	na	Gov't allows private pharmacies distribute all medications, incl CCCD items (not immunizations). Ins will pay private pharms 80 % of cost.
2. Central African Republic	yes but new	yes thefts reported	workers poor train & supervision (incentive?)	Gov't supplies 20% of chloroquine requirements for country, rest privately handled.
3. Congo	Gov't operates self-financing pharmacies	none reported	there may be incentive probs quinimax inject relative: chloro	Gov't pharmacies selling quinimax injections at 28 times the cost of chloroquine
4. Cote d'Ivoire	na	na	na	na
5. Guinea	na	na	na	Private pharmacies exist and FFS medicine is widely practiced
6. Lesotho	na	na	na	na
7. Liberia	there is no indication of any existing	na	na	the financial constraint of the gov't is so severe that it has not purchased any drugs since FY 1984. The Christian Mission Assoc. has been recommended to be the procurement agent for ORS & CCCD malaria prophylaxis
8. Malawi				
9. Nigeria	no	na	na	revolving drug funds are being evaluated for use in other states in Nigeria local ORS production is commencing
10. Rwanda				
11. Swaziland	na	na	na	na
12. Togo	probably not directly	na	na	there is a concern that gov't employees will mis-handle locally collected funds
13. Zaire	do not appear to, but zones have similar programs in HCs	na	na	na

- Notes:
1. CP - Community participation
 2. EA - Equity of Access
 3. PNC - Primary Health Care
 4. CCCD - Combatting Communicable Childhood Diseases
 5. Swaziland health expenditure information includes expenditures for water and sanitation activities, traditional healers, other private sector services, MCH, & other government agencies.
 6. FFS - Fee for Service

Table 12: An Analyses of the Empirical Evidence About Financing
 CCCD Project Activities from Evaluations and REACH Product Studies:
 Comments on Fees, etc.

Country	Comments
1. Burundi	<p>There are three sources of individual health service financing: a) fee-for-service at government facilities, b) drug fees at pharmacies, and c) annual health insurance card fees. In addition, the government provides a form of social security health care coverage for civil servants. The government is under extreme international pressure, particularly given the 1987 IMF Stand-By Agreement.</p> <p>The government is considering the idea of allowing each facility to retain locally raised revenue.</p>
2. Central African Republic	<p>At two government facilities fees are 3 levied for curative services, mainly in-patient care. At one of the two, fees are not collected or recorded. At others, fees are lower and retained at unit and more is collected.</p> <p>At a mission hospital and related rural units, a prepaid preventive plan exists and fee-for-service for in-patient and out-patient covers large share of recurrent cost.</p> <p>Experience indicates a willingness to pay for quality health care and that user fees can cover a large share of the recurrent cost.</p>
3. Congo	<p>ORS is rarely purchased. There is disincentive for Doctors who make money when IVs are used.</p> <p>The country has experienced great economic hardship since 1985 when the price of oil dropped by more than 50%. This has meant that government revenue has fallen as well and the MOH budget has been cut by about 50%.</p>
4. Cote d'Ivoire	Check with World Bank
5. Guinea	Fees are just being implemented as of 1987 and are supported by World Bank and the African Development Bank, in addition to the CCCD Project.

6. Lesotho In-patient and out-patient fees are regularly collected.
At some centers well baby visits cost M 0.5 (\$.22). Immunization cards are often sold for up to M 1.5 (\$0.69/1986 exchange rate). Funds are retained by local health administrations, but amount collected is not known though it is known to be used locally. Potential exists to charge fees for both a birth record card and well baby visits. However, the price elasticity of demand for such services is unknown. Potential for a study exists where fees are charged relative to where no fees exist. Rough calculation suggests that modest fees of M 1.0/birth card and M 0.5/well baby visit collected from 75% of mothers could generate about M 225 thousand, or about 50% of the recurrent cost of the CCCD program, not counting potential fees for ORS.
7. Liberia Out-patient fee schedule has a small registration fee which varies between hospital and clinic and age of patient.
Also there is a repeat visit fee which similarly varies. Under five years of age the fee is \$0.25. In-patient fees also exist and are based on services provided.
Drug fees are based on cost and vary from \$0.25 per course of treatment to \$1.00. No fees are charged to IB and Leprosy. Immunizations charged a registration fee only. No fees are charged if referred to hospital, etc. All fees are deposited in the government treasury until a local financial management system can be developed.
Fee system is simple and has few loop-holes. Present fees cannot recover a large share of cost of preventive services.
The system is more equitable given discrimination according to age and disease.
There are some development projects where third party payment for health care services exists, i.e. firms.
8. Malawi MOH fee for 1 kwaona (\$.50) was rescinded in 1986 by the MOH.
9. Nigeria Fees are being considered as one of a number of ways in which health services, including those of CCCD, financed.

10. Rwanda It is estimated that 7% of the operating costs of government health facilities is covered by revenues from fees.
In 1986 the government allowed local communes to retain government health center revenues at the local level.
11. Swaziland⁽¹⁾ Government revenue increased by 6.3% per year over 1980-86 period, and 3.4% per year over the 1980-83 period.
These figures indicate a buoyant revenue structure, particularly since the introduction of the sales tax in 1983.
12. Togo The government has agreed to implement a self-financing system to recover costs of chloroquine and kerosene for refrigerators.
The system is to be based on vaccination card sales via village development committees and chloroquine sales via TogoPharma outlets.
Chloroquine is to be sold at cost including transport and cards will cover cost of kerosene on a four year phased basis.
13. Zaire Fee-for-service is widely used in country as a primary cost-recovery method. Other cost recovery methods employed include prepayment and third party payment by firms for their employees. Some preventive services, such as ante-natal and young child care, charge fees equivalent to out-patient care. Post fees are charges on a per episode basis. Medicine is sometimes included in the initial fee and sometimes is additional. Hospital fees are on a per service basis and greatly vary from zone to zone.
It is considered inappropriate to charge for immunizations due to adverse impact on demand, but fees are levied on chloroquine and ORS although they vary substantially.
External contributions via NGOs and the GOZ each provide about 15% each of the total capital and recurrent cost of zones.

NOTES: 1. Swaziland health expenditure information includes expenditures for water and sanitation activities, traditional healers, other private sector services. MOH and other government agencies.

Rwanda, Swaziland, and the ten health zones in Zaire). The amounts raised varied from the substantial share reported for the ten health zones in Zaire of at least 80 percent of the total recurrent cost (not including an allowance for depreciation and expatriate personnel), to a low figure of about seven percent in Rwanda, as reported by Shepard, Carrin, and Nyandagazi,, (1987). In Burundi, it was estimated that fees comprised 19 percent of total expenditures on health in 1986.^[42] In three major towns in the Congo it was reported that the revenue from fees comprised 54 percent of the amount allocated by the government to the CCCD project. In FY 1986 in Lesotho, the amount collected from fees was nearly ten percent of the recurrent MOH budget and in Swaziland in 1985, fees comprised over 40 percent of total health expenditures in that country. Even allowing for the fact that these figures may not be completely accurate, they indicate that once fee systems are established, fee systems can generate a sizeable share of the cost of providing health care, including CCCD type services.

There remain a number of fee system issues regarding:

- a) the structure of fees;^[43]
- b) the capability for estimating revenue given a fee structure;^[44] and
- c) many other related technical points and issues.

Certainly these issues are relevant when one is attempting to maximize the revenue and address the equity aspects of fee systems. However, given the present state of the development of health financing systems in the CCCD project countries in March 1988, as has been reported in this paper, it is

^[42] It is estimated that either direct fees or health insurance reimbursements cover about 25 percent of the cost of rural hospitals and health centers in Burundi in 1986. See Elca Rosenberg, 1987.

^[43] See the study by Marty Makinen and Steve Block, "Pricing Cost recovery in Primary Health Care in Guinea," December, 1986; Ricardo Bitran, et al., Zaire: Health Zones Financing Study, 1986; Ricardo Bitran, Review of Demand or Health Care Services, 1987; Dayl Donaldson and David Dunlop, Ethiopia World Bank Report, 1987, for discussion about the specific issues of a) whether it is better to establish fees on a per visit or per illness episode basis, b) how to allow exemptions or fee reductions when the illness has negative social externalities as in the cases of TB and leprosy for example, c) how to structure allowances for the medically indigent, d) whether there are different behavioral responsiveness to fees by different population subgroups such as children vs. adults, e) whether time price differentials between potential consumers should be addressed in the establishment of money prices, f) what mix of services can be packaged together to reduce the drop off in the repeat visits for immunizations, g) whether one type of health care service should be cross-subsidized by another service, and if so, which ones and how much, h) how one should estimate the price elasticity of demand for various forms of health care services, etc. A number of the same issues were raised by those involved in the economic component of the country-specific project evaluation studies conducted on each country from 1984 to 198 . For the detailed recommendations, see Appendix C.

important to address these issues in situations where fee systems have a high likelihood of making a difference in the financial sustainability of publicly operated health facilities and related CCCD services.^[45]

The analysis presented in this paper of the health financing situation as it exists in CCCD project countries suggests that other studies might be more fruitful in certain contexts at the present time. At this time it is important to monitor all examples of cost recovery systems by using a standard management information system which might be developed for broader use by the CCCD project in monitoring the progress of the entire project.^[46]

[44] See one revenue estimating model prepared by Randy Ellis which has been used in Kenya, 1987.

[45] The work of Shepard, Carrin, and Nyandagazi, 1987, and Bitran in Zaire, 1988, represents good examples of the work required and where the location is appropriate.

[46] Both the work by Taryn Vian, 1987, in Zaire and the effort of the Asia/Near East Bureau, via the REACH Project, 1987, to standardize the reporting of health project costs represent examples of potential information systems which could be used to develop more consistent information.

VI. A REVIEW OF HEALTH CARE FINANCING OPTIONS

The available information presented in Table 1 about health financing options agreed upon by CCCD countries and AID in their ProAgs shows that two financing options were considered feasible for implementing in the CCCD country-specific ProAgs: a) central government financing and b) fee-for-service. While most CCCD country agreements addressed the health financing problem, and specifically the responsibility of governments to participate in the financing of the CCCD project services, a number of other financing options can at least be theoretically considered. In addition, each option, including those which already have been included in country project agreements, theoretically can be implemented in many different ways depending upon information about a number of specific issues.

In this section, the various health financing options are presented^[47]. These are organized for purposes of analysis into three groups: a) private options, b) community financing options, and c) social/governmental options. In addition to describing each option, an analysis is presented of the criteria for determining the feasible set of health financing options which could be used to finance not only CCCD type services, but all health services. Finally, an analysis is provided of the experience to date with health financing in the CCCD project countries, focussing particularly on how each of the financing options have contributed to the financial sustainability of CCCD projects.

A. Available Financing Options

In Table 13 the health financing options which have been reported in the literature are presented. The varied nature of the list of options suggests that the potential for diversity in financing health care is substantial. To the extent that information exists about how health care is financed throughout the world, it de facto supports the potential diversity referred to above, with some countries reporting a large share of health services being financed by private fees-for-services to others primarily being financed by direct government support, to other countries having large health insurance programs in place either financed by workers and employer contributions or some other general tax revenue source.^[48]

[47] For earlier discussions of health financing options, see Zschock, 1979; de Ferranti, 1985; Dunlop 1983b; and the World Bank 1987.

[48] de Ferranti, 1985; Dunlop 1983; National Health Insurance Resource Book, 1976; OECD, Financing and Delivering Health Care: A Comparative Analysis of OECD Countries, (Paris: OECD, 1987); and Milton and Ruth Roemer, Comparative Health Services Study, 1983.

Table 13: Health Financing Options and Related Issues

A. Private Options

1. Fee for Service
2. Fee for Service Coverage (Insurance)
 - a. Paid Fully by Individual/Household
 - b. Co-financed by Employer (see below)
 - c. Co-financed by Society via Government (see below)
3. Private Philanthropy
 - a. Domestic
 - i. Individual Gifts
 - ii. Community Raised
 - iii. Backed by Religious Group or PVO (NGO)
 - b. International
 - i. Individual Gifts
 - ii. Religious Group or PVO

B. Community Financing Options

(Decisions made by local decision makers for a local constituency)

1. Fee for Service
2. Drug Sales
3. Personal Prepayments
4. Production-based Prepayment
5. Income Generating Schemes
6. Community Labor
7. Individual Labor
8. Donations and Assessments
9. Festivals, Raffles, etc.

C. Social/Governmental Financing Options

1. Direct Budget Allocation From Given Revenue
2. Direct Budget Allocation Along With Increased Revenue (Generally From Taxes)
3. Improve Resource Allocation Within the Publicly Operated Health Sector
 - a. Alter the Structure of Public Subsidies Across
 - i. Facility Type
 - ii. Ownership Type i.e., Public, Mission, and Private
 - iii. Program i.e., Preventive (individual patient related as well as services provided on a social basis such as health education and water and sanitation services) and Curative
 - b. Change Incentives for Management of Facilities
4. Reallocate Resources Across Sectors to Enhance Health Improvements e.g., Water and Sanitation and possibly Housing
5. Support the Development of Social Insurance Programs
 - a. Individual Private Employer Based
 - b. Social Security Type Program
 - c. Cooperative Based

This set of financing options has been developed with the assistance of the following articles and documents: de Ferranti, 1985; Stinson, 1982; and Donaldson and Dunlop, 1987.

i. Private Options

As is presented in Table 13, there are a number of private payment mechanisms used to finance health care services throughout the world. They range from individual user charges for specific services received, through various forms of private health insurance, to private philanthropy.

Prior to the 1980's, it was not widely appreciated that a primary source of financial support for health care delivery in many countries appears to have been private payments for care rather than government.^[49] In addition, for countries where this share has been monitored over time, it appears that the private payment share has grown^[50].

As has been noted above, the CCCD project countries were typically asked to study and then implement one of these alternatives, principally user charges, as the preferred cost recovery mechanism alternative to government support via tax revenues and budget allocations. While this financing mechanism can and has been used to finance a certain share of health care where the benefits of the receipt of the care are readily discernible to the individual or his immediate household, it has generally not been seen as the way to achieve social objectives of increasing coverage of immunization services (an important service component of the CCCD project) to the point where social benefits (in the form of positive social externalities) can be realized.^[51] From the perspective of achieving social welfare objectives, both the poor and the non-poor alike have a tendency to under-consume those services (or goods) for which they see no immediate benefit from the act of consumption.

[49] See the data presented in de Ferranti, 1985 for information from over fifty countries throughout the world on the estimated private share of total health expenditures. He found that in twenty of the fifty-two countries in his sample the private expenditure share was over fifty percent of the total and that in thirty-eight of the fifty-two countries private expenditures comprised a share greater than twenty-five percent of the total. See also the data presented in Annex Table 7, in the World Bank, Health Sector Policy Paper, (Washington D.C.: World Bank, February 1980).

[50] David Dunlop, one of the authors, has personal knowledge of this trend in Uganda, Sudan and Tanzania.

[51] Zubkoff and Dunlop, 1974; Herbert Klarman, 1965; Burton Weisbrod, 1961; John Cullis and Peter West, 1979, pg. 34; de Ferranti, 1985, pg.44-45; Charles Griffen, 1987, pg. 14-16; Randy Ellis, 1987, pg.7; and World Bank, 1987, pg. 27. In a recent critique of an earlier draft of this paper Makinen suggested that "...externalities resulting from CCCD services are not great. This argues for charging for CCCD services along with curative services." (pg. 4, 1988). It is curious that the evidence on which he based his unique conclusion was not presented. All of the other persons cited in this footnote have suggested that immunizations represent the classic case where fees should not be charged precisely because the identified social benefits which have accrued to a number of high income countries, including the U.S. which Weisbrod in his classic

However, a tempering influence may exist under certain circumstances. For example, just because under-consumption may occur, it is conceivable that in some situations, which may exist in one or more of the CCCD countries, the revenue from fees charged may enable more people to obtain immunization services than would be the case if no other revenue options were implemented. This possibility may be reality in parts of CCCD project countries where immunization coverage is very low. In addition, for those who are not so affluent (a relative term depending on the specific context) under-consumption also occurs due to the lack of sufficient income in the household. Thus, for those CCCD services where there may be a direct discernible benefit to the individual or the immediate household, as in the case of ORS and malaria prophylaxis, user charges may still not be a sufficient source of financing by itself, simply due to the fact that the indigent will not consume enough to realize the potential benefits to themselves as well as realize the social benefits which would accrue to society as a consequence of wider coverage and greater service use. However, consumer education can be employed in a situation where under-consumption is occurring in order to increase consumer awareness of both the individual and societal benefits which accrue from individual consumption decisions.^[52]

Finally, user charges or fee-for-service (FFS) only raise local currency. As was discussed in the previous section, one of the principal macroeconomic problems facing nearly all CCCD project countries, is the general shortage of foreign exchange in the economy as a whole and that adversely affects the availability of certain key resources in the provision of health services, namely drugs and other medical and logistics supplies required to sustain the delivery of CCCD and other health services in the countries involved in the CCCD project.^[53] To the extent that there are external sources of foreign exchange funds or that a larger share of the necessary resources to produce health care services including CCCD services become available via local sources, the system developed for providing these services to the people of the various countries can be sustained. It is recognized that one of the important roles of the CCCD project manager is to make a convincing case to the Ministry of Finance and other sources of revenue that such additional resources are required.

study, 1961, quantitatively estimated as a consequence of attaining high immunization coverage.

[52] More operational research is needed on the extent to which health care education can increase the demand for both curative and preventive health care services. See Donald Sheperd and Logan Brenzel, "The Cost-Effectiveness of Health Education in Developing Countries," 1985.

[53] David W. Dunlop and Mead Over, "Determinants of Drug Imports to Poor Countries: Preliminary Findings and Implications for Financing Primary Health Care", in Alan Sorkin ed., Human Resources in Economic Development, (JAI Press, 1988 forthcoming).

Several CCCD countries have various forms of individually subscribed health insurance plans which have emerged in the last few years. Bitran et al.^[54] has described how two individually subscribed plans work in two health zones in Zaire. The Burundi project evaluation briefly describes a health insurance program available for rural households since enactment in 1984 (an insurance card is purchased), for which an annual household fee will provide all forms of health care to the holder. The Swaziland midterm evaluation also reports that about 3 percent of the total recurrent expenditures on health care is financed by health insurance, but does not describe what type of insurance plan it is, how it operates, or who is enrolled. Other African countries are also beginning to have experience with various forms of health insurance, which, for the most part, are individually subscribed or operated by individual firms or groups of firms for their own employees.^[55] At the present time, it does not appear as if any CCCD project activity or service has been included within the context of any health insurance plan in the project countries. However, it would appear that efforts in this direction may expand rapidly in the next decade as more organizations and groups become involved in resolving health financing problems throughout the world.

The most important rationale for considering health insurance as a means for financing health care, including CCCD project services over time is that most people generally prefer to pay a small but certain sum on a periodic basis into a fund which they can then draw on when required, rather than risk the possibility of an uncertain but possible large financial loss at some undefined time in the future.^[56] However, there are at least three problems which health insurance programs must address. The most important economic problem with individually subscribed health insurance programs is the problem known as adverse selection, where only those individuals or households who have information about or suspect that their health status is poor enroll for the program. Where this phenomenon occurs, the financial basis upon which the insurance premium has been established is clearly eroded.^[57] In addition, it is well known that in more affluent countries, those who are medically indigent typically are not enrolled in such insurance programs due to their inability to finance the premium, even though they may be aware that it is important for them to be enrolled in such a program based on the adverse selection argument raised above. Finally, where a health insurance benefit package is not designed to include small but positive fees (deductible clauses) and possibly a

^[54] R. Bitran et al., Zaire Health Zones Financing Study, REACH Project Study, (Arlington, VA. John Snow, Inc., 1987).

^[55] Such countries include at least Ethiopia, Kenya and Sudan.

^[56] The fact that a number of savings and investment societies have developed and flourished in Africa provides additional supporting evidence that the general risk averse behavior observable in many societies is prevalent in Africa as well. For further information on this point, see the discussion on cultural and social feasibility later in this section.

^[57] For a more complete analysis of a similar health insurance program and the issue of adverse selection, see Dayl Donaldson. Nepal Study, 1982.

modest co-insurance component, there is a tendency for those who are enrolled in a health insurance program to over-consume (or engage in the behavior known as moral hazard) due to the fact that the price to the consumer at the point of consumption is lower than would otherwise be the case without insurance.

With the exception of instances of the 1984/5 drought in Ethiopia, forms of international and domestic philanthropy have generally not been encountered as a major form of health financing. It is generally assumed that such assistance is available for some types of initial capitalization but that it is not widely used as a means by which recurrent costs can be financed on a regular basis. However, this form of financing is more widespread than initially believed. For example, in two countries where Islamic institutions dominate, i.e., Sudan and Pakistan, it is customary for the more affluent individuals in each community to be invited by those who operate health facilities to be on an informal board of directors of the facility and receive periodic requests from the facility to support it by financing both recurrent items such as supplies and medicines as well as capital items such as equipment and ward remodelling and/or replacement.

In the case of Sudan where other forms of financing have been curtailed for a variety of governmental and social reasons, it is not unusual for hospitals to raise over 50 percent of their recurrent costs by contributions and gifts and virtually all of their foreign exchange requirements as well from individuals and friends living outside the country. ^[58] In the case of Pakistan, besides the more formal form of Zakat or social welfare fund at the local level, there is a locally raised fund from the more affluent which is used to pay for necessities of the hospitals and for any indigent care which is otherwise uncovered. While these sources of funds may not appear to be reliable in the longer term, at least in the case of the aforementioned countries such activities have been a part of health care financing for a long time and they appear to raise a sizeable share of the financial resources necessary to operate the facilities, although the exact amounts are not presently known. Additional research is necessary in order to ascertain the extent of private philanthropy throughout the countries in which CCCD project activities exist, how it might be used to support such activities, and ascertain the extent to which it can be relied upon.

In the countries where the CCCD project is active, it would also be important to learn the extent to which religious mission activity is another source of philanthropic support for the services embodied in the CCCD project. There is evidence to suggest that in countries such as Zaire, Rwanda, Burundi, Togo, Liberia, CAR, Malawi and possibly Nigeria, Lesotho and Swaziland that both PVOs and religious groups have operated health facilities and/or child survival type programs for a long time and are interested in providing CCCD type services to defined population groups and each of these religious groups receive at least partial assistance for operating their facilities and services from both domestic and

[58] David W. Dunlop, "Selected Notes on Financing Health Care in Sudan, Circa 1987." Paper prepared for the World Bank Health Sector Review, February/March 1987.

international sources of giving.^[59] It is also significant that some of the most innovative forms of cost recovery systems, including examples of both health insurance and FFS (fee-for-service) have been implemented by religious organizations at their health facilities or for their outreach health programs.^[60]

ii. Community Financing Options^[61]

There are a number of alternative locally based community health financing mechanisms which have also been used in a number of countries. These options are listed in Table 13 and include such activities as drug revolving funds, donated labor, and community raffles. The experience with such health financing methods has been analyzed by Stinson (1982 and 1987) and that experience is summarized below in two tables reproduced from Stinson's work (Tables 14 and 15). Without reviewing in detail the information presented in Stinson's summary tables which provides an evaluation of these financing methods, it is useful to focus on several aspects of his and others (refer to footnote 14) experience and findings related to these alternative mechanisms.

First, Stinson draws the distinction between those community financing Mechanisms which can, if implemented and managed well, provide a regular and generally uninterrupted flow of revenue for recurrent cost financing. These methods include:

- a) FFS;
- b) drug sales;
- c) personal prepayment;
- d) production-based; and
- e) income generation.

The other four methods which Stinson identifies, are considered as providing periodic financial assistance, and often are appropriate as a way for financing certain capital costs as in construction or renovation of buildings or to finance the initial cost of acquiring certain equipments or an initial stock of drugs.^[62]

[59] Dunlop, 1983; Rosenberg, 1987; Bitran et al., 1987; Levin and Weaver, 1987; Bekele et al., 1986; Shepard, Carrin, and Nyandagazi, 1987; and AID/W PVO Office for Child Survival.

[60] Bitran et al., 1987; Levin and Weaver, 1987; Bekele et al., 1986; Shepard, Carrin and Nyandagazi, 1987.

[61] This section draws heavily on the work of Wayne Stinson, 1982 and 1987, and is supplemented from comments provided in the work by de Ferranti, 1985, and Cross et al., 1986.

[62] Refer to Appendix Tables in Appendix D for a more in-depth review of these and other issues.

Table 14: An Analysis of Alternative Community Financing Methods in Terms of Their Equity Adjustment Capability Related to Income Differences and Risk Sharing (1)

Risk Sharing Capability	Adjustments for Income Differences		
	Some	Little	None
Major Risk Sharing	<ul style="list-style-type: none"> - personal prepayments (2) - income generating schemes - community labor 	- donations/assessments	<ul style="list-style-type: none"> - individual labor (4) - festival/raffle ticket sales
Some Risk Sharing	<ul style="list-style-type: none"> - personal prepayments (3) - production-based prepayments 		
No Risk Sharing	- Fee-for-Service		- Drug Sales (2)

- Notes:**
1. Analysis based on Stinson (1982).
 2. Drug prices are generally not reduced for those with low incomes, although other funds may be made available to provide special support for such individuals or households.
 3. It depends how the mechanism is established. If additional fees are levied at the point of service use to the individual, then risk sharing is only partial.
 4. While this mechanism has not been implemented in such a way as to adjust for income difference, it is theoretically possible for such adjustments to be built in to account for income differences amongst individuals in the community.

Table 15: Cross Tabulation of Sources and Uses of Community Financing

Financing Uses	SOURCES						Summary
	Service Fees	Drug Sales	Raffles, Festivals, ad hoc Assessments	Cost Sharing, Volunteer Labor	Revolving Funds	Cooperative	
Drugs	Benin, Brazil (Lassner), Zaire	Dominica, Liberia, Mexico, Philippines, Somalia, Zaire, Thailand			Dominica, Liberia, Philippines, Thailand	India	Benin, Brazil (Lassner), Zaire, Dominica, Liberia, Mexico, Philippines, Somalia, Thailand, India
Construction; maintenance			Brazil (Lassner)				Brazil (Lassner)
Supervision	Benin, Zaire					India	Benin, Zaire, India
Curative Services	Benin, Brazil (Lassner), Zaire			Thailand		India, Bolivia (Miller)	Benin, Brazil (Lassner), Zaire, India, Bolivia (Miller), Thailand
Preventive activities	Benin, Brazil (Lassner), Zaire			Thailand	Haiti		Benin, Brazil (Lassner), Zaire, Thailand, Haiti
Capitalization (or loan)		Dominica, Philippines	Liberia			Philippines	Dominica, Liberia, Philippines
CHWs	Benin, Zaire			Bolivia (Gonzalez), Liberia (unsuccessful); Philippines (unsuccessful); Swaziland	Haiti	India	Benin, Zaire, Bolivia (Gonzalez), Liberia, Philippines, Swaziland, Haiti, India
Sanitation/Nutrition		Thailand			Haiti, Philippines		Thailand, Haiti, Philippines
Summary	Benin, Brazil (Lassner), Zaire	Dominica, Liberia, Mexico, Philippines, Somalia, Zaire, Thailand	Liberia, Philippines, Brazil (Lassner)	Thailand, Bolivia (Gonzalez), Liberia, Philippines, Swaziland	Dominica, Liberia, Philippines, Thailand, Haiti	India, Bolivia (Miller), Philippines	Benin, Brazil (Lassner), Dominica, Liberia, Mexico, Philippines, Somalia, Thailand, Bolivia, Swaziland, Haiti, India, Bolivia (Miller), (Gonzalez)

Source: Stinson, et. al., 1987.

Second, in Table 14, an analysis is presented, based on Stinson's 1982 analysis of alternative community financing options, which defines the impact of each of these financing methods in terms of two equity attributes: a) differential financial access based on income and b) whether financial risks are shared across the population relative to benefits. This analysis shows that of the nine mechanisms included, only two, fee-for-service and drug sales, do not have a risk sharing capability, with the obvious exception being intra-household transfers from parent to child.

Further, there are only three with no capacity to adjust for income differences between potential community beneficiaries. However, in two of the three cases, adjustments can be made to account for that issue if that method is implemented. For example, in the case of drug sales, an additional fund can be created for those individuals and households who are medically indigent. Similarly, individual labor donations to the provision of health care can be coordinated to allow for individual slack time, account for the time contribution differences amongst individuals according to the differential skill contributions, as well as allow for the possibility that an individual might make a larger financial contribution instead of a certain amount of labor. Even contributions from festival and raffle ticket revenue can be modified according to income differences by establishing informal mechanisms which indicate that the more affluent make an additional contribution as well.

Three community financing mechanisms, personal prepayments (health insurance), income generating schemes as in the case of profit contributions to health care from a community owned cooperative, and community labor projects such as in the construction of a rural health center, have both income adjustment features as well as providing for risk sharing across members of the population. Thus, from the perspective of these two attributes of equity, these three mechanisms are the only ones which should be implemented.

It is instructive to ascertain which types of community financing activities have been implemented and what has occurred. According to an earlier analysis conducted by one of the authors and based on Stinson's earlier study (1982), thirty-two health projects had been implemented throughout Africa between 1960 and 1980 which had been identified as having a community financing component (six were listed as being from CCCD project countries).^[63] Of those thirty-two projects, eighteen had employed a fee-for-service system, fourteen had introduced a drug sales program, three had experimented with personal prepayment, and two had implemented a production prepayment scheme (more than one mechanism had been implemented in nine projects and in five cases no specific financing mechanism was indicated). In the six projects identified in CCCD project countries, four FFS mechanisms were implemented and three had developed a drug sales program, and, in one case, no financing mechanism had been identified.

[63] Dunlop, 1983, pg. 2024.

In Stinson's review of the AID funded Primary Health Care Operations Research Project (PRICOR) assisted projects (refer to Table 15), fifteen projects had used one or more forms of community financing. Unlike the earlier information reported above, only three had implemented FFS systems. However, seven had initiated a drug sales program, with five incorporating a revolving fund for drug replenishment as well. Cooperatives were introduced in three cases, raffles and festival tickets, or ad hoc assessments were used in three instances and volunteer labor which reduced the cost of the project was implemented in five country projects. Three CCCD countries were represented in the set of fifteen countries where PRICOR had provided assistance. In those three countries, all of the aforementioned mechanisms were implemented in at least one country with the exception of the development of cooperatives.

The principal objective for the use of revenue raised via the implemented community financing methods in the PRICOR assisted projects was to finance drugs, with community health worker (CHW) compensation being the second most frequently mentioned item. It turns out that the method most frequently used to compensate CHWs was to use volunteer labor. This method did not always work due to competing claims for labor time during critical agricultural activities such as land preparation, planting, weeding, and harvesting.

In the case of financially supporting preventive health activities including immunizations, the most frequent source of community financing employed was the introduction of fees. One of the countries where this method was employed was Zaire where it has been reported that health zones typically use fees for financing all forms of health care services and where it is reported that the share of recurrent costs covered via such payments is reported to be high, perhaps as high as 80 percent.^[64]

Finally, Stinson in 1982 concludes his review of such mechanisms by stating, "community financing is, at best, only a partial solution to the problem of health care finance, and it may be ultimately more difficult and less productive than reallocation of government spending"^[65] He further summarizes the findings of the PRICOR assisted operations research health financing studies with the following remarks: "In all of the PRICOR locations...all but a minority of the population were able to pay at least a part of the cost of Primary health care. This (and other) 'optimistic' findings must be tempered, however, by full recognition of the difficult and time consuming process that researchers, community residents, and program managers appeared to require in order to make community financing viable. Hopes that community financing will be easy because of the large sums that people are already paying for health care are likely to be both self-servicing and illusory. Most PRICOR-supported managers redesigned

^[64] Bitran et al., 1987, report that the recurrent costs covered include local salaries and fringe benefits, drugs, including the value of donated drugs, supplies, vehicles, equipment and building maintenance, transport, food, utilities, and other miscellaneous items. It did not include expatriate personnel costs and depreciation of capital assets.

^[65] Stinson, 1982, pg. 1.

their programs in order to make them cheaper and more attractive (to consumers). The sort of hands-on community mobilization effort apparently required for community financing may simply lie beyond the capacity of many bureaucratic organizations.....community financing, while beneficial if it preserves essential goods and services or makes them more accessible, is nevertheless difficult and time consuming to establish and should not be encouraged (or promised in project proposals) if the required level of effort cannot be invested. Above all, the PRICOR studies document what community organization theorists have argued to years, namely, that community decision-making and management are critical for the sustainability of community-based projects."^[66] To date, it does not appear that the CCCD project has been able to invest in the community-based financing mechanisms which Stinson suggests are required for such mechanisms to be successful and to test the extent to which such a mechanism can be relied upon. Some modest investments utilizing this approach may be warranted in future CCCD project activities.

iii. Social/Governmental Options

There are three basic ways that society, generally via governmental action, can finance priority health activities, including CCCD type services. These include:

- a) allocating a share of existing governmental resources (i.e., holding government taxes and other sources of revenue constant) to the priority health activities;
- b) allocating a share of governmental resources to health activities, only after enhancing revenue via taxes or from other sources of nontax revenue; and
- c) develop various types of health insurance programs which may be partially subsidized from general tax revenues.

There are variations within each of these three basic ways that governments can assist financing priority health activities. In the case of the first alternative mentioned, the implied reallocation of resources can occur either within the health sector itself, i.e., from urban based hospitals to rural based CCCD type services, or from another sector or entity receiving government support, such as a parastatal corporation or from the ministry of agriculture, to the health sector or a specific subset of that sector, such as CCCD type services. This option also assumes that there is no other alternative way of financing the reallocation, given the total financial constraint faced by the government, i.e., there is no external source of financial support, or the government is not able to borrow additional resources from domestic sources without simply expanding the money supply and creating additional inflation.

The second alternative way the government can help finance priority health activities is by relaxing the revenue constraint by imposing additional taxes or by securing other revenue from such sources as a share

^[66] Stinson, 1987b pg. 10.

of the profits from successful parastatal corporations.^[67] In this case, the additional revenue may either be earmarked to financing priority activities or it may flow into the general revenue pool and then be allocated to the health sector or specific activities within its jurisdiction. There have been a number of instances in the last decade where various countries have entertained the notion of a "health" tax, the revenues from which would flow specifically to financing one or more specific services provided via the MOH facilities and programs.^[68] However, two principal arguments have been advanced against such a tax. These arguments include: a) a flat rate tax such as a head tax is regressive, i.e., it takes a larger share of a poor household's income than from one which is more affluent; and b) the benefits of such a tax often do not flow directly back to those who paid the tax, particularly in situations where the revenue flows to the central treasury, is co-mingled with all other forms of revenue, and is reallocated at that level to all competing claims on government resources.

Many economic and political issues are involved in determining which of many alternative taxes could be raised or administered in a more appropriate manner, i.e., with more local control over the allocation of the revenue to competing claims for resources. These include issues of production and consumption economic efficiency where the imposition of a particular tax might alter the allocation of resources away from certain production or consumption activities, such that total output or consumer satisfaction is reduced; economic growth considerations where a tax may reduce the time path of increased economic output; equity arguments based on burden fairness or certain interpersonal discrimination; and administrative control and management efficiency considerations, particularly with respect to the managerial capabilities of governmental decision makers. Even though these issues exist, it is possible to design or reconfigure taxes to address most, if not all of them. Further to the extent that the social benefits outweigh the social costs of tax administration, a case can be made to raise government revenues via increased taxes, which in general are relatively low in Africa.^[69]

The precise evaluation of these and other considerations require a detailed analysis by those with experience and expertise in the field of public finance. However, several practical considerations can be reviewed quickly in a field situation to ascertain whether a more detailed analysis may be warranted. For example, one important concept to investigate is the

[67] The authors are aware that there are few instances where parastatals have been financially successful in practice without some form of government subsidy. However, the theoretical case remains valid.

[68] One recent example where a country had entertained the concept of a "health" tax was the case of Ethiopia, where during the prior regime of Haile Salaisse, such a tax had existed in rural areas for financing rural based health care services. The tax had been structured as a percentage of the "head" or poll tax and had been levied at the time of selling the harvest.

[69] Refer to the section on public finance and Tables 2 and 6.

concept of tax buoyancy. This term is used to define the relationship between the revenue raising capability of a total tax structure in comparison with the growth rate of the economy as a whole.^[70] If one can ascertain that the share of government revenue as a proportion of GDP is increasing over time, one can say that the tax structure as a whole is buoyant, such that, over time, if the economy is expanding, the government can more easily finance a set of preferred activities than it might otherwise be able to do. Thus, a buoyant tax structure is preferred in cases where the economy is growing, and, vice versa, in instances where it is not.

Another example of an analysis which can be quickly conducted in a field setting is to review whether tax revenue from certain taxes has increased after tax rates have been increased. There are many instances where a new tax has been imposed or where an existing tax rate has been increased but where revenue has not increased. One of several phenomena may be occurring in such situations. Tax avoidance or the development of parallel markets may occur. These phenomena can be monitored relatively easily by visits to key markets and stores and to certain key border crossing points. The point of this review is to ascertain whether the tax or its increase will create more administrative burdens on the government than what the revenue yield may be.

Finally, for persons concerned with the health sector, it is useful to review the specific excise tax structure and revenue collections on such items as cigarettes, other tobacco products, and alcoholic beverages. It has been clearly demonstrated that there are significant adverse health effects associated with each of these substances, and the consumption of these items cost countries substantial sums of premature medical expenditures for those persons who choose to consume, as well as losses in production due to premature death and disability. Tax rates on these items should be increased to the extent that the tax rates do not result in increased parallel market activity in these items and corresponding declines in tax revenue. Finally, to the extent that any tax increases reduce the consumption of such items, it will reduce the drain on the country's supply of foreign exchange necessary for the importation of other items.

It was identified above that the government has a third option for financing health care; the development of one of several forms of health insurance. In the Latin American region many governments have developed a social security system which finances not only health care for its beneficiaries, but also, and more importantly (in terms of the flow of funds), finances such benefits as pensions, unemployment insurance, and workman's compensation.^[71] Such a system is also common in other countries in the world, including those in the Middle East.

[70] This concept can also be used to analyze any specific tax or set of taxes under consideration for improving government revenue.

[71] Zschock 1979 and 1982.

Generally, social security systems which finance health care services as well, are financed by periodic deductions from the salaries of workers who are employed by firms of a certain minimum size and larger, and by some form of matching payment from the firm. The beneficiaries are typically those who are employed and their immediate household members. Such systems often have established their own health facilities from which services are provided to those who are eligible. The principal services which are covered include hospital care and other forms of ambulatory curative medical care, although there is increasing attention being given to such preventive services as maternal ante- and post-natal care and well baby and child growth monitoring for household beneficiaries. Immunizations are also being expanded as is education about the appropriate use of ORS.

As is the case with other forms of prepaid insurance plans, social security operated health insurance systems provide for risk sharing within the employed population. In addition, given the usual flat rate deduction method of defining the worker contribution, such a system accommodates income differentials by increasing the de facto premium (perhaps up to some fixed limit) which more affluent workers pay for the health care benefits they obtain.

However, such a system does not accommodate the health care requirements of the entire population. Such systems do not generally cover the rural and agriculturally based groups which comprise the largest set of people throughout Africa as well as in other third world regions of Latin America and Asia.^[72] It is typical that such systems provide care to primarily urban based households where most large scale employment opportunities predominate. Thus, without additional governmental effort to expand social security system coverage and health service availability, financial and service delivery inequities remain between people in each country. Such efforts to expand coverage and service availability has only been accomplished in the more affluent countries of Europe, North America and Japan, and, in most instances, with a correspondingly large commitment of socially available resources.^[73]

It should be mentioned that there is increasing interest by both countries and donor agencies such as the World Bank and AID in socially financed and managed health insurance systems which would provide widespread financial coverage for a selected set of health services, possibly including those which have been made available via the CCCD project. At the present time such interest has not resulted in the actual establishment of an operational system in any poor country. However, the issue is being actively explored by such countries as Indonesia, Pakistan, and Ethiopia, all of whom are working out how such a plan might be organized and implemented within the context of their own resource constraints and

[72] Examples of analysis of efforts to introduce rural based health insurance systems include David W. Dunlop, Korea Impact Evaluation Study, AID 1982 and document from the government of Brazil, MPAS, April 1987.

[73] See OECD, 1987.

organizational capabilities. Further analysis of the experience of Korea's rural health insurance program would yield important information to other countries considering how such a program might be implemented.

Social security systems exist in eight of the thirteen CCCD project countries which have had a French colonial legacy (see Table 6 which presents information on sources and shares of government revenue). However, none of the country-specific studies or analyses, with the possible exception of the evaluation and REACH-funded studies of Burundi, mentioned this source of social service or whether it provided health care as well. It would be useful in subsequent CCCD project health financing work to obtain more information about these systems and what they finance in the health sector. The World Bank is reported to be underwriting a health sector financing study which is expected to provide further information on this and other issues.

In the discussion about social financing of health care services, an important distinction has not yet been made between government financing of health care services such as those provided by the country-specific CCCD projects and government ownership of the means of providing those services. As has been learned by many countries, it is possible to influence the provision of health care services, including the geographical distribution, mix, and quality among other important aspects, without actually owning the means of production, as long as some financial and administrative control (perhaps via licensing and other types of periodic review) is maintained. Clearly, government financial support to health care providers via a nationally organized health insurance system need not be predicated on government assurance of full geographic coverage of the population by publicly owned and operated health facilities. If this basic point were more clearly understood by countries, it is likely that different modalities of service delivery may become more widely acceptable by government, since social objectives can be manipulated via the decisions about how individual health care providers are reimbursed for the services they provide. In the case of CCCD services, the reimbursement rules of the game can be adjusted in order that private providers in many countries would find it in their economic self-interest to provide and document that care. In the case of Zaire, for example, it would be interesting to determine what types of incentives, in the form of government subsidies, perhaps in the form of additional drug import allotments, would be required so that health zones would expand their coverage of immunizations and the use of ORS without requiring any additional government investment in physical plant and equipment.

iv. Donor Financing Option

One of the important objectives of development is to reach a state where a country can continue to expand its economy and improve the living standards of its people without requiring external assistance, i.e., realizing sustainability. While it is recognized that financial independence is only a necessary, but not a sufficient condition for the achievement of sustainability, since it is a necessary condition, it is one that is critical to resolve. The macroeconomic contextual analysis section of the paper unambiguously shows that virtually all of the CCCD project countries have experienced serious macroeconomic problems during the lives of the CCCD projects, from trade imbalances, poor and deteriorating terms of trade, government deficits, low growth rates, poor agricultural output

growth, increasing external debt financing problems and a lack of foreign exchange to finance imports of all types. This analysis, coupled with generally poor prospects for improvement in the next few years, implies that continued donor assistance will be necessary in light of the many other competing claims on foreign exchange allocations if CCCD type services, which have been expanded during the existing projects, are to be sustained to the point where individual countries can provide the financial backing necessary to ensure continuation of the activity from its own resource base.

If the above analysis is correct, then there are at least two issues which remain to be resolved. These issues are: a) can external assistance in the form of foreign exchange support for the procurement of certain required inputs be configured in such a way to enhance country efforts to improve efficiency of operation and thereby reduce the financing necessary for sustainability? and b) can external assistance be configured in such a way that domestic resource mobilization efforts for financing CCCD type services are enhanced and institutionalized to provide local currency support in the short run and foreign exchange guarantees over the longer term?

The Africa Bureau of AID is presently launching an innovative health sector grant program in Niger where the country will obtain periodic tranches of foreign exchange based on the achievement of certain policy reforms.^[74] Other potential options of a similar configuration may also be introduced in certain countries where progress has been demonstrated.^[75] Since such a large share of the items involved in operating CCCD type projects require foreign exchange, it is clear that countries will require donor assistance for the foreseeable future if they will want to sustain the CCCD type activities they have initiated.^[76]

B. Criteria for Evaluating Potential Health Financing Options

There are a number of attributes of the afore-defined health financing options to review prior to establishing a preferred set for use in financing a CCCD type or other health care providing project. In this analysis, eleven such attributes, cum criteria have been chosen for use in evaluating these options. The included attributes are:

[74] AID, Niger Health Sector Program Grant Project Paper, 1986.

[75] See the evaluation of the projects which have been implemented by AID via the Special Fund for Africa. Also review the experience of the IMF and the World Bank in achieving reforms via their lending programs to achieve structural adjustment and resolve macroeconomic imbalances via SBAs and EFFs. In this regard, see Justin Zulu and Saleh Nsouli, April, 1985.

[76] Refer back to Table 9 which shows the extent to which CCCD Projects use foreign exchange items.

- a) revenue raising potential;
- b) potential for generating foreign exchange;
- c) ease of understanding by policy makers;
- d) contribution to the efficient use of scarce resources;
- e) contribution to improved equity in the sense of sharing risk;
- f) political feasibility;
- g) cultural feasibility;
- h) social feasibility;
- i) organizational feasibility;
- j) ease of implementation; and
- k) managerial requirements.

The financing options and the evaluation of each according to the aforementioned criteria are presented in summary form in Table 16.

i. Revenue Raising Potential

There are several important insights which emerge from the evaluative analysis summarized in Table 16. First, most of the options included in the analysis have the potential for raising at least a moderate amount of revenue. For example, in Zaire, Bitran et al., have found that a large share, perhaps as much as 80 percent of the recurrent cost (excluding capital depreciation and the salary and other costs associated with expatriate personnel) of the recurrent costs of health care, including CCCD type preventive and curative services, can be financed via user charges or fees-for-service. It has also been demonstrated that once established and managed properly, that drug sales and revolving funds can also finance a reasonable share of the non-salary recurrent costs.^[77]

It should be mentioned that while Bitran et al., have shown that user charges have successfully raised substantial amounts of revenue for financing CCCD and other health care services in Zaire, there are few other examples in Africa where such amounts of revenue have been raised in public sector facilities, except possibly in Ethiopia, where CCCD type services are free.^[78] In all of the other CCCD project countries where evaluations and REACH studies have been conducted, there are no other examples where large amounts of revenue have been documented as having been raised by user charges. However, it is important to add that user charges and/or drug sales have contributed as one of several important sources of revenue at both public and private health facilities in at least Rwanda (Shepard, Carrin, and Nyandagazi, 1987), Burundi (Rosenberg, 1987), CAR (Pasnik, 1986 and Levin and Weaver, 1987), and Liberia (Bekele et al., 1986).

The only options which do not have the capability of raising modest amounts of revenue are those which either have not been implemented often, i.e., production-based prepayment or income generation schemes, or those which only save costs, i.e., the labor contribution options. Finally, if health activities require a large financial commitment at the outset of the activity, it is important for the government to be involved either by

 [77] Bitran et al., 1987, and Stinson, 1987.

[78] See Donaldson and Dunlop, Ethiopia World Bank Study, 1987.

committing its own funds or by working with external donors. There are a number of examples where private initiatives via PVOs and other domestic and international philanthropic entities have and do provide substantial sums for certain health activities (e.g., religious organizations of all persuasions, groups like the Aga Khan Foundation, and other wealthy individuals such as middle eastern oil royalty). However, these contributions primarily have been for curative and hospital focussed care. Thus, if CCCD type services are to be developed and supported, it is important that the principal financial support for the activities be funded by external donors and governments, even though most governments are under extreme economic pressure and from external financial institutions such as the IMF and the World Bank.

ii. Foreign Exchange Potential

While most of the financing options have the potential for raising revenue, few options can readily finance the foreign exchange costs of CCCD projects with the exception of support from external donors and international philanthropic sources. In Table 17, information is presented which shows the foreign exchange requirements of various CCCD type project investment and recurrent activities. Without exception, all activities require at least some foreign exchange using inputs.^[79] In addition, to the extent that the midterm project evaluations and the REACH studies provided information about the foreign exchange using cost component of the various project activities, it suggests that a substantial share, perhaps as much as 80 percent of the project cost, is foreign exchange using (see Table 9 for the available country-specific data).^[80]

When macroeconomic conditions are such that trade imbalances, inflation, budget deficits and overvalued exchange rates create foreign exchange shortages throughout CCCD project countries, it is important to distinguish between those health financing options which can readily provide foreign exchange support and those which cannot. Thus, to sustain the CCCD country-specific projects, it will be necessary to retain the external support for the project at least over the next five years, and undoubtedly through at least the year 2000.

[79] This table (Table 17) also shows that a number of activities require a substantial account of a consumer's time which is not an insignificant cost which can often alter demand behavior. In the international literature, see Heller, *Social Science and Medicine*, 1982, and Dor, Gertler, and Van der Gagg, *Journal of Health Economics*, 1987. In the US literature, see Jan Acton, *Journal of Political Economy*, 1975.

[80] The 80 percent foreign exchange share is greater than the norm for all health care services. That figure is probably around 40-50 percent. See David W. Dunlop, *Cost Implications of Selected Health Care Components and Programs*, Paper prepared for the Health Population, and Nutrition Division of the World Bank, June, 1984.

Table 16: An Analysis of the Health Financing Options According to a Set of Evaluation Criteria

Criteria for Evaluating Financing Options

Financing Options	(1) Revenue Raising Potential	(2) Foreign Exchange Potential	(3) Easy to Understand by Policy Makers	(4) Contributes to the Efficient Use of Resources	(5) Equitable 6/
I. Private Financing Options 1. Fee-for-Service 2. Fee-for-Service Coverage (Insurance) 3. Private Philanthropy a. Domestic b. International	moderate moderate variable 2/ moderate	none 1/ none depends good	yes somewhat yes yes	yes no unclear unclear	no within group between groups int'l sharing
II. Community Financing Options 1. Fee-for-Service 2. Drug Sales and Revolving Funds 3. Personal Prepayments (Insurance) 4. Production-based Prepayment 5. Income Generation Schemes 6. Community Labor 7. Individual Labor 8. Donations and Assessments 9. Festivals and Raffles	variable moderate moderate 3/ unclear 4/ unclear 4/ saves cost saves cost variable 2/ some	none none none possible possible none none possible none	yes generally somewhat somewhat yes yes yes yes yes	yes yes no unclear unclear yes yes yes yes	no no within group unclear unclear yes yes possibly unclear
III. Social/Governmental Options 1. Budget Reallocation, no Increase in Revenue 2. Budget Allocation With Revenue Increase 3. Socially Managed Insurance	moderate substantial substantial	none none none	yes yes somewhat	unclear depends 5/ unclear	unclear unclear shares risk
IV. External Donor Assistance	substantial	excellent	yes	unclear	unclear

- Notes:
1. Unless the country has an internationally convertible currency or if the country is operating a periodic foreign exchange, there are no official ways for local currency collections to be translated into foreign exchange requirements.
 2. Variable in the sense that some cultures have a history of supporting social services via private philanthropy and other countries and cultures do not.
 3. It is assessed as moderate but could be substantial if it were relatively easy to implement, which it generally is not.
 4. The known experience with this option is low such that it is not possible to anticipate what might be obtained.
 5. It depends on what taxes are involved.
 6. Equitable in the risk sharing sense.

Table 16: An Analysis of the Health Financing Options According to A Set of Evaluation Criteria (continued)

Criteria for Evaluating Financing Options

Financing Options	(6) Feasible Politically	(7) Feasible culturally	(8) Feasible From a Social Perspective	(9) Organizational Feasibility	(10) Easy to Implement	(11) Requires Skilled Mgt Talent
I. Private Financing Options						
1. Fee-for-Service	generally 1/ somewhat difficult	generally unclear	generally unclear	hard 2/ hard 2/	no no	yes yes
2. Fee-for-Service Coverage (Insurance)						
3. Private Philanthropy	yes	generally	generally	yes if orgs exist yes	yes if orgs exist yes	yes
a. Domestic						
b. International	yes	yes	yes			yes
II. Community Financing Options						
1. Fee-for-Service	somewhat generally	depends generally	depends generally	hard hard hard	no no no	yes yes yes
2. Drug Sales and Revolving Funds	somewhat difficult	generally	unclear	hard	no	yes
3. Personal Prepayments (Insurance)	unclear	unclear	unclear	hard	no	yes
4. Production-based Prepayment	unclear	unclear	unclear	hard	no	yes
5. Income Generation Schemes	yes	generally	generally	yes	generally	not much
6. Community Labor	yes	generally	generally	yes	generally	not much
7. Individual Labor	yes	yes	generally	yes	generally	some
8. Donations and Assessments	yes	yes	generally	yes	generally	some
9. Festivals and Raffles	yes	yes	generally	yes	generally	some
III. Social/Governmental Options						
1. Budget Reallocation, no Increase in Revenue	depends on priorities	yes	generally	yes	no	yes
2. Budget Allocation With Revenue Increase	depends on size of tax increase	yes	depends on tax increase	yes	somewhat	yes
3. Socially Managed Insurance	generally	generally	generally	with assist	with assist	yes
IV. External Donor Assistance	yes	yes	yes	yes	generally	yes

Notes: 1. This often depends on the country's political history and whether the government has an implied social contract with publically provided service.
2. It is hard to implement and typically there is no organization to which governments can easily turn to manage and control the resources collected.

Table 17: Costs of a CCD Type Project/Program in Africa Designed to Expand the Use and Availability of ORT, Immunization, and the Treatment and Prophylaxis of Malaria

I. Requirements of Programmatic Cost Categories (1)

Programmatic Cost Categories (2)	Local Currency	Foreign Exchange	Time of Individual &/or Households	Comments
1. Investment Costs				
a. Therapy Development	x	x	some	
b. Protocol Development	x	x		
c. Training	x	x		
d. Media Development & Public Education	x	x		
e. Procurement/Distribution	some	x		
f. Information Systems Development	some	x		
g. Operational Research	x	x	some	
h. Management Improvement	x	x		
i. Other	x	x	some	(3)
2. Recurrent Costs				
a. Continuing Public Education	x	x	x	
b. Service Provision	x	x	x	(4)
c. Medical Supplies Produce & Procurement	x	x	note	(5)
d. Supervision & General Management	x	x	note	(6)
e. Continuing Staff Training	x	x		
f. Information Systems Operation	x	x		
g. Other	x	x	note	(7)

- Notes:
- (1) For a detailed development of the appropriate classification of each expenditure element according to the recurrent and investment cost taxonomy, see the REACH AHC Bureau Guidance for Costing of Health Services Delivery Projects (The Guidance), Arlington, VA: October 1987.
 - (2) The programmatic cost categories listed above are illustrative and do not claim to be exhaustive. Each of them uses a set of resources which includes various combinations of skilled and unskilled labor and other items such as drugs, vehicles, equipment, etc.
 - (3) especially for community based construction
 - (4) including water for ORS, travel costs, and repeat visits
 - (5) only where ORT program utilizes a home preparation
 - (6) only where a project is under community control
 - (7) e.g. building maintenance

iii. Ease of Understanding by Policy Makers

In general the analysis presented in Table 16 shows that most of the health financing options are relatively straight forward and can be explained to policy makers without much difficulty. The only exceptions are the various types of health insurance where the prepayment mechanism is invoked. In addition, the organizational structures required to ascertain coverage, manage financial resource flows from consumers and other premium payers to providers, and set benefit packages amongst other activities, generally requires some form of education. The actual mechanics of how drug revolving funds might be established and how drugs would flow throughout the system in relationship to the flow of financial resources and the management of both of those flows also typically requires workshop-like education.^[81]

iv. Efficient Use of Resources

There are several health financing options, typically those which are based on some form of prepaid insurance, which tend to encourage over-consumption behavior (i.e., moral hazard). Most of the other options either clearly enhance an efficient use of resources from a demand side perspective, i.e., user charges, or have no obvious negative impact of the efficient use of resources by either service providers or consumers.^[82]

v. Equity

The term equity has a number of meanings and interpretations. Several aspects of that term are pertinent in this situation. First, it has been alleged that user charges discourage consumer use when the individual or household are indigent. When health care is rationed on the basis of money prices, there is a tendency for those individuals with low household income to not consume health services to the same extent as those with higher incomes. To the extent that the medically indigent forego health care consumption of health care services which are clearly health status augmenting from an individuals' perspective as well as beneficial from a social perspective, as in the case of all three CCCD type services, then not only do interpersonal inequities result, but also social welfare is reduced due to higher morbidity and mortality and due to the associated adverse demographic effects which accrue over time.

[81] See Cross et al., Social Science and Medicine, 1986, for an introduction to the management issues encountered in the development of revolving drug fund activities.

[82] It is important to point out that the typical present policy of not imposing any fees on the use of health facilities or for health services tends to also create a situation where over use is observed, at least among those who live close to the health facility. For an early observation of this point, see Richard Jolly and Maurice King, "The Organization of Health Services," Chapter 2, in Maurice King, ed., 1966. See also Charles Griffen, 1987 and World Bank, 1987.

It has been argued that if people are clearly willing to pay for their health care, irrespective of price, then the possible adverse impact on health status due to insufficient health care consumption, may only be a theoretical possibility.^[83] Given this possibility as well as an interest in more accurately estimating the health financing implications of price changes, has lead to more emphasis being placed on efforts to empirically estimate consumer responsiveness to health care prices in developing country contexts and for CCCD type services in particular.

The CCCD project in conjunction with the REACH Project, has invested in two studies of consumer responsiveness, one in Zaire (Bitran, 1988), and one in Rwanda (Shepard, Carrin, and Nyandagazi, 1987). The Rwanda study found the demand for ambulatory health care from rural based facilities to be rather unresponsive to price.^[84] However, as both Shepard, Carrin, and Nyandagazi as well as Bitran (1987), report in their reviews of the empirical findings to date, estimates of the price elasticity of demand is dependent on the data and sampling methods used, the choice of econometric model employed, the underlying behavioral assumptions underlying the econometric model used and the variables included in the models. Bitran's conclusion that more empirical work is necessary to establish what is the service specific consumer price responsiveness is supported by the general lack of unambiguous findings.^[85] It is anticipated that his ongoing work on behalf of the REACH project and CCCD activities in Zaire will positively contribute to these empirical problems for preventive services such as immunizations, maternal health care, and curative ambulatory care.^[86]

Second, as was mentioned above, to the extent that the more affluent tend to consume more health services (and other goods and services as well) in comparison to those with lower incomes simply due to a higher income, an equity issue remains due to the interpersonal differences in budget constraints regardless of the willingness to pay by the poor. Further, as was reviewed earlier in the document (see the section on the macroeconomic

[83] The empirical efforts of Levin and Weaver, 1987, in the Central African Republic on behalf of the CCCD and REACH projects tend to support this perspective, as does the work of Sheppard, Carrin, and Nyandagazi, 1987. Similar findings also appear in the evaluation efforts by Bekele, et al., (Liberia), 1986.

[84] Shepard and his colleagues found that the price elasticity of demand for rural facility based ambulatory health care in Rwanda was -0.13 (August 1986 draft of January 1987 paper). Their reported findings in the final draft, dated January 1987, suggested that the price elasticity of demand to be -0.25, and based on a statistically significant estimated coefficient. The results are reported in Table 10 and on page 60 of their 1987 version.

[85] Ricardo Bitran, "Health Care Demand Studies in Developing Countries: A Critical Review and Agenda for Research," paper prepared for the REACH Project, February 1988.

[86] See Ricardo Bitran, "Health Care Demand Study in Zaire, 1988", REACH Project statement of the study's goals, methods, and research questions, February, 1988.

situation in CCCD countries) income levels in most CCCD countries have remained static at best and actually declined in some. This trend in macroeconomic performance implies that there are undoubtedly a number of households in each country where income has declined. What is unknown is the extent to which this decline in income has reduced utilization rates of all types of health care services as well as those provided via CCCD project assistance. Thus, besides obtaining estimates of the extent to which price changes affect the consumption of CCCD services, it is also important to ascertain service specific income elasticities of demand as well. To date the effect of income changes on health service consumption and the related equity implications of those changes has not received the same attention as has been focussed on the impact of price changes.

Third, another equity attribute which deserves mention is that of risk sharing. To the extent that the medically indigent have a poorer health status which may imply a greater need for medical care if medical care is allocated on the basis of fees-for-service, a regressive situation exists where those who are likely to require more health care due to their poor health status must pay more of their income for it than those not so unfortunately situated. (This would be true unless fees were adjusted across individuals or households to equal the same share of income for each.)^[87] Most of the other alternative financing mechanisms presented in Table 16 embody risk sharing as a component of it. It is important to point out, however, that where fees-for-service are employed for revenue purposes, various methods are used to discriminate between the medically indigent and others who might be able to pay for their care. It is possible to use several different forms of means testing to allocate free care to adjust for the regressivity which exists when fees are employed.^[88]

[87] See the US specific data from Dunlop, Revo, and Tyschen, The Effects of Changing Economic Conditions on Health Status, final report under Contract No. HRA 230-75-0127, Meharry Medical College, Nashville, TN, April 1980 and Harold Lut, Ph.D. Dissertation, Harvard University, 1972. See also international evidence from Afghanistan in Ronald O'Conner, ed., Managing Health Systems in Developing Areas: Experiences from Afghanistan, (Lexington, MA: D.C. Health and Co., 1980) pg. 169; Columbia as reported in Milbank Memorial Fund Quarterly, 1967; and Ethiopia in Central Statistical Office, report on the Rural Health Survey, 1982/83, (Addis Ababa: NCCP, October 1985). There is also corroborative evidence regarding income and health status via nutrition intake which has been demonstrated to be positively associated with income levels of households. See for example, Elca Rosenberg's Ph.D. Dissertation, 1975; David Turnham, assisted by I. Jaeger, The Employment Problem in Less Developed Countries: A Review of Evidence, (Paris: OECD, 1971); and Marcelo Selowsky and Lance Taylor, Economic Development and Cultural Change, 1973.

[88] All of the evaluations and the REACH studies discuss this issue in the various country-specific contexts which are found throughout the CCCD African countries. For an interesting analysis of the free care mechanisms employed in Ethiopia, see Donaldson and Dunlop, 1987.

vi. Political Feasibility

Given the analysis presented in Table 16, it would appear that most of the options are generally feasible.^[89] The options which appear to be not so feasible are those which are private forms of prepayment. The principal reason for these methods to be more difficult to implement has nothing to do with prepayment per se but rather with the general concern which many countries have expressed when financial power has been concentrated in institutions outside the direct and immediate control of government. Many countries, including many among the CCCD project countries, have nationalized banks and other financial institutions, including insurance companies.^[90] Thus, unless these activities remain small scale and possibly operated by PVO and other similar organizations, they may become too visible.

vii. Cultural and Social Feasibility

There are no a priori cultural or social reasons which preclude the use of any of the financing options presented in Table 16. The only possible exception is that of the increased government revenue option via tax increases where there may be concern expressed if the incidence of the proposed tax increases are focussed on specific groups which have been adversely treated and particularly where it is viewed to be unfair. There are enough successful examples of each of these options in a variety of social, political, and cultural settings such that it is important to review option feasibility on indicators other than what might be based on these criteria alone.^[91]

Within the context of the CCCD project countries of West and Central Africa, it is important to mention there are a number of social and cultural differences which have influenced the institutional fabric of how saving and investment activities are typically organized. For example, in a number of West African countries from Guinea to Ghana, men and women societies exist for social mobilization and cooperative labor purposes, and in urban areas of former British controlled countries, "friendly societies" which serve as informal banks and/or lending institutions with rural areas

[89] In the CCCD project countries, it was reported by Pasnik, 1987, that in the Central African Republic the option of user charges was politically sensitive. However, when Levin and Weaver, 1987, returned to the same country about a year later and queried government officials about this issue, they found a different situation and they reported that officials thought that user charges were inevitable.

[90] The IMF, Government Statistics Yearbook, 1987, indicated that of the thirteen countries with CCCD Projects, ten have nationalized insurance industries and two others may have. The one possible exception, Malawi, may be a special case for other reasons, due to the concentration of political power which has existed in the country for some time.

[91] See Stinson, 1982, and Stinson, 1987, for listings of a number of successful health financing activities which occurred in many different cultural and social settings.

are active and prevalent for financing accidents, marriages, and funerals. These and other social mechanisms which already exist in CCCD project countries could conceivably be used to implement innovative forms of health care financing and warrant further study.^[92]

viii. Organizational Feasibility

From an organizational perspective, all of the options can be implemented. Some options, however, clearly require more managerial talent and effort than others. At one level, it is not difficult to introduce and collect fees.^[93] However, when fee collections represent a sizeable fund, many additional procedures must be implemented to minimize the possibility that the resource will be mishandled. This problem is particularly acute when health workers and related personnel do not receive regular pay increases to maintain a reasonable standard of living (refer to the macroeconomic context discussion in section three).

A number of the evaluations and REACH country-specific studies have suggested that there be a reform of the typical system which exists where money is collected at health facilities and then is totally sent to the central government treasury. There is no doubt that this procedure creates disincentives at the local level to collect revenues. However, with the possible exception of the PRICOR project operational research studies on community financing (Stinson, 1987), little analysis has focussed to date on how decentralization is politically implemented and what must be established in terms of management and control procedures and information flows between the local and central level so that central governments can relinquish their authority and control over these revenues and still retain some responsibility to the public and information about how the scarce resources are being managed. Until such procedures are well defined procedurally and politically, the recommendation for change in the flow of funds between the individual facility and the central treasury will remain an unimplementable objective.

From the analysis presented in Table 16, it would appear that the most implementable and easiest to manage options are those which are community based, such as labor donations and raffles, and other donations. It is acknowledged that there are many different types of community organizations which exist in each CCCD project country and it is important to learn the extent to which they can be employed as some type of financial

[92] The authors acknowledge the contribution of Allen Randlov of S&T/Health/AID in bringing these ideas to their attention.

[93] One REACH study claimed that such a system was easy to implement; see Shepard, Carrin, and Nyandagazi, 1987, pgs. 7 and 8. The ease of implementing and managing a fee-for-service system is only relative to a prepayment system which is recognized as being difficult for many technical, i.e., actuarial, managerial, and control reasons. However, fee-for-service systems are not easy to implement. One recent REACH study which supports this point is the study by Taryn Vian, et al., "Financial Management Information Systems in Four Zairian Health Zones," final report from a study sponsored by the SANRU and REACH projects, December, 1987.

intermediary for health service financing. For example, as has been reported earlier in this report, in Islamic oriented countries community institutions have developed to regularly mobilize local donations. However, until more is known about these locally based institutions, it would generally appear prudent to seek other mechanisms to ensure a stable source of financing for recurrent costs of health services.

C. Summary

On the basis of the above analysis, it is clear that a number of options are available for financing health care services, including those which comprise the CCCD project set. Some options, like governmental and donor sources, have raised substantial sums for use in financing health care. Further, the foreign exchange requirements of the health care system operated by the government have traditionally been met from these sources, even though government budgetary allocations do not directly ensure foreign exchange availability for the health sector. At present, the only guaranteed source of foreign exchange funding is that which is obtained from external donors.

To the extent that CCCD project countries are gradually making progress to stabilize their economies, (refer to the macroeconomic context section of the paper) governmental sources of revenue, perhaps enhanced by the gradual development and (expansion in the case of francophone countries) of health insurance programs and typically operated by a governmental entity, will likely comprise the dominant sources of financial support for publicly operated health care programs, including CCCD type services. Irrespective of other decisions which might be made to enhance the financial viability of the health care system in most CCCD project countries, it is clear that these two sources will remain important sources of financial support for the CCCD and related services.

Where user charges can be implemented and well managed, the evidence from Zaire suggests that a large share of the total cost of providing health care services can be financed by fees, in part by subsidizing one type (i.e., preventive with curative) or location of service (i.e., rural clinics with hospitals) by another. Other CCCD project countries, including Rwanda, Burundi, Lesotho, Swaziland, and perhaps others have also implemented fee systems within their health care systems and are collecting modest amounts from the provision of health care via publicly operated health facilities. In addition, with additional external management and technical support, perhaps via the CCCD and REACH projects, it is conceivable that additional financial support can be obtained from that source, particularly if fees are tied to known efficacious treatments like chloroquine for malaria prophylaxis. The mechanism does enhance efficient use of health services on the part of consumers since they must decide whether they are receiving any thing of value for their time. The problem of financial accessibility by the medically indigent can be addressed by developing innovative "free care" as well as by other bundling strategies where packages of care are sold for varying prices based on some form of means testing, which has de facto been in effect in many countries for some time.

The most serious problems with various fee systems appears to be that of accountability and control of financial resources, and ensuring that service quality, in the form of continuous drug supplies and diagnostic

testing capabilities, is maintained via an adequate supply of foreign exchange for the sector. Thus, without politically motivated donor support, it is important to maintain sound macroeconomic policies in order to ensure the continued flow of foreign exchange necessary to complement service fees.

In some settings, community financing will remain an important source of financial support to the health care system, including CCCD services. This appears to be particularly true where:

- a) Islamic cultures provide the local institutional support for a regular flow of donations;
- b) the local governmental structures have been given substantial financial jurisdiction and control over their own affairs; or
- c) other community organizations (religious, ethnic or otherwise) exist and have been involved in similar activities in the past.

This form of financing does not appear to be the type of support, however, that a CCCD type program can rely on for financial sustainability throughout the present set of countries, with the possible exception of Nigeria.

Finally, various forms of prepayment and third party payment systems (in the form of employer fringe benefit packages) appear to be emerging throughout the CCCD countries. How these mechanisms will be involved in financing the publicly operated health care system is unclear, since, in most instances, these forms of financing are typically tied to private health care delivery systems, including facilities operated by religious entities. If publicly operated health facilities could be ensured of an uninterrupted supply of medical supplies and drugs, it is conceivable that such facilities could compete for service business and related financing support which has become privatized in the last decade.

Table 18: Summary of Financing Recommendations From the Country Specific CCCO
Project Mid-term Evaluations: Cost Analyses

Recommendation Type	Country													
	BUR	CAR	CON	CIV	GUI	LES	LIB	MAL	NIG	RWA	SWA	TOG	ZAI	
Cost Analyses														
1. Conduct recurrent cost study for use in fee estab.			x											
2. Conduct a cost-effectiveness study of program						x							x	
3. Base cost studies on service delivery & population coverage goals								x						
4. Cost savings can be realized by improving MOH staff efficiency								x						
5. Cost savings can be realized in provision of immunization services											x			
6. Study savings of IV solution if ORS is used												x		
7. Study total cost of vaccination services													x	

Note: BUR = BURUNDI
 CAR = CENTRAL AFRICAN REPUBLIC
 CON = CONGO
 CIV = COTE D'IVOIRE
 GUI = GUINEA
 LES = LESOTHO
 LIB = LIBERIA
 MAL = MALAWI
 NIG = NIGERIA
 RWA = RWANDA
 SWA = SWAZILAND
 TOG = TOGO
 ZAI = ZAIRE

Table 19: Summary of Financing Recommendations From the Country Specific CCCD
Project Mid-term Evaluations: Financing, Fees

Recommendation Type	Country													
	BUR	CAR	CON	CIV	GUI	LES	LIB	MAL	NIG	RWA	SWA	TOG	ZAI	
Financing, Fees														
I.A. Fee-for-Service														
1. Implement a fee-for-service system		x	x			x	x	x		x		x		
2. Establish fees for drugs or drug revolving funds							x					x		
3. Establish fees for vaccination cards		x					x	x						
4. Explore feasibility of charging for well & sick baby visit						x								
I.B. Impact of Fees on Use														
1. Raise the vaccination card fee after analyzing impact of initial fee on use						x								
2. Revise fee schedules after a review of use, revenue generation, and fund management issues							x							
3. Do not implement fees for ORS and immunizations. Use will be a strong disincentive to use								x						
4. Fees must be equitable and provide incentive to use preventive services, rural facilities, and qualified providers								x						
5. Outpatient demand is elastic. Thus, if true, do not introduce immunization card fee											x			
6. Cross-subsidize CCCD services via outpatient fee increases, incl. emergency care fees & X-ray fees											x			
I.C. Other Recommendations Regarding Fees														
1. Use MIS, HIS, & accountig info to establish fees		x					x							
2. A full fee study must include info at all health care providers in country, not just gov't or CCCD service providers								x					x	
3. Use fee revenue to pay for vehicle & refrigeration maintenance													x	

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Table 20: Summary of Financing Recommendations From the Country Specific CCCD
Project Mid-term Evaluations: Financing, Other

Recommendation Type	Country													
	BUR	CAR	CON	CIV	GUI	LES	LIB	MAL	NIG	RWA	SWA	TOG	ZAI	
Financing, Other														
II.A Financing Strategy														
1. Auto-financing Strategy s/b developed & implemented			x					x		x				
2. A full health care financing study must be conducted in country, incl. experiment evaluation								x					x	
II.B Coordinate Financing Strategy W/Other Donors														
II.C Other Financing Strategy Recommendations														
1. Financing strategy s/b flexible to account for regional differences			x											
2. Use enough time to develop local consensus on financing strategies to be implemented									x					
3. Follow World Bank health financing study when completed for sector	x													
4. A future USAID health sector support project might consider financing CCCD recurrent costs												x		
III. Government Financing Recommendations														
1. Gov't revenues will not increase enough to cover recurrent cost of CCCD services		x									x		x	
2. Given Gov't financial constraints, if new programs are to be started, an old activity must be cut													x	
3. Only release \$ funds to Gov't when there is evidence that Gov't has deposited counterpart funds in special bank account					x									

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TOG = TOGO
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Table 21: Summary of Financing Recommendations From the Country Specific CCCD
Project Mid-term Evaluations: Other Recommendations

Recommendation Type	Country												
	BUR	CAR	CON	CIV	GUI	LES	LIB	MAL	NIG	RWA	SWA	TOG	ZAI
Other Recommendations													
1. If evidence of good faith exists from Gov't to establish financing mechanisms, then ProAg CP has been met	x												
2. Develop a way for individual facilities to keep part of the revenue generated at the facility for their own use		x			x		x			x			
3. Improve cost & rev accounting & MIS & NIS systems		x				x	x				x		
4. Tech & Mgt assistance s/b provided to village pharmacies re: ORS & chloroquine. Also provide initial supplies.		x											
5. Amend ProAg to allow fee revenue to be kept at local level					x								
6. Commercially produce &/or market ORS packets &/or chloroquine						x				x	x	x	
7. Study feasibility of using locally produced chloroquine										x			
8. Use findings from cost recovery study in training programs for health workers													x
9. USAID should be more involved in Gov't budget formulation and defense													x
10. USAID should be more involved in project mgt													x
11. Study why doctors do not want to use ORS & what can be done about it													x

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important aspects of this work is to ascertain what the total set of resources presently being devoted to the delivery of CCCD services via the ongoing CCCD projects. It is not clear what resources governments have provided in the form of personnel, building space and other items required for the provision of CCCD services and it is not clear to what extent those resources being financed from resources are raised by the country instead of by counterpart funds. Further, the cost of the technical assistance provided by the CDC, the REACH Project, and from other donors such as UNICEF and WHO, to the programmatic development of the country-specific CCCD activities is not known on a country-specific basis and it is not known whether such assistance will be necessary in future years in order to sustain the delivery of these services. Finally, estimates of the incremental and marginal cost of the CCCD services in varying country and service delivery contexts are not available.^[96]

Without this type of information about CCCD services:

- a) fee structures will not be developed which will conform to sound economic principles of marginal cost pricing;
- b) it will not be known the extent to which certain fees are being set to cross subsidize other services which may yield social positive externalities (i.e., markup malaria prophylaxis to subsidize child immunizations); or
- c) long term financial sustainability issues cannot be addressed.

There are several basic themes embodied in the set of recommendations related to fees (see Table 19). A first theme is to establish a fee-for-service system or include certain services within the existing set of fees presently in place, especially for the vaccination card which acts as an official and quasi legal record of consumption.^[97] As has been analyzed above, fees for service exist in many CCCD countries, and where they do not, there are significant political and ideological reasons for their reluctance to change their policies. Virtually all countries have fee-for-service medicine practiced in them such that they are all aware of

^[96] The incremental cost of the program is distinguished from the marginal cost. The incremental cost is that cost which is incurred to operate the program as a whole within the context of the existing health care delivery structure in which it will become a part. It is those costs incurred to establish a new product line within the set of existing services or products. The marginal cost on the other hand represents those resource costs incurred in the provision of one additional service to an individual consumer as in the case of one more unit of ORS being used or one more immunization shot provided.

^[97] Victor Fuchs discussed this aspect of consumer preference when he defined a demand for health care which validated health care status. See Victor Fuchs "The Contribution of Health Services to the American Economy", *Milbank Memorial Fund Quarterly*, (October 1966) 65-95.

how the mechanism might work. It is more a matter of how the political aspect of existing policies can be addressed within publicly provided health services.

The second major theme is to evaluate existing fee structures from the perspective of impact on utilization, revenue generation, and service cross-subsidization. This recommendation was made in a number of specific ways and in a number of different countries as presented in Table 19. All of these types of recommendations are important when the policy dialogue has proceeded to the point where efforts are being made to refine fee structures and minimize the negative attributes of the fee-for-service financing option as discussed earlier in the analysis. To the extent that this type of analysis can also be implemented prior to the introduction of fees, it will improve the fee structures which are initially implemented.

Finally, among the other recommendations made about fees, it is important to reinforce the point that analyses of fees must include an analysis of not only the impact of fees at the health facilities where CCCD services will be introduced, (i.e., those which are operated by the government) but also those facilities which may be competitors. The reaction of other providers and consumers to a price change and/or a new product line just makes good sense.

With respect to the other financing recommendations presented in Tables 20 and 21, the following observations are in order. First, the suggestion that financing studies should include the evaluation and monitoring of experimental financing options merits reinforcement. There is a growing history within AID for the use of operational research to improve upon ideas and to make them work better. The problem of health financing, in the context of the CCCD project represents another type of problem which can be systematically addressed and often resolved in a specific context with the continued use of operational research. This recommendation implies that more resources will be required throughout the life of a CCCD program in order to achieve a workable solution to the health financing problem faced by virtually every CCCD project presently being implemented.

Second, it is important to support the recommendation made about the importance of coordinating financing studies and experiments with other donors such as the World Bank and UNICEF. Without such a coordinated effort, country officials may misinterpret findings and recommendations and may not implement difficult policy changes. Clearly countries will be worse off if such circumstances materialize.

Third, it is clear that many countries are unable to meet the governmental financing commitments made when signing the ProAg. While the tone of the government-related financing recommendations suggests that further financial support is unlikely from such a source and that more AID strings should be imposed, it is important to emphasize that while governments are not as likely a source of financial support as they were in the past, it is possible that additional support could be forthcoming if a set of studies on public resource allocation were conducted and discussed with a number of public decision makers. Such studies should analyze the implied trade-offs in terms of services to the people of alternative resource allocations. Further, additional revenue sources can be

identified. The implications in terms of additional recurrent cost support to the health sector of reducing the military's budget allocation by a small amount is always worth the time required to make the calculation.

It should be mentioned at this point that for some countries the lack of financial commitment to the CCCD project may not necessarily be due to the interest of the country in supporting the program but rather due to certain international pressure being imposed on the government via the mechanism of Standby Agreement negotiations or some other set of macroeconomic conditions being imposed on the country to reduce government employment, and public expenditures, including in the health sector upon which the CCCD set of services are based. Virtually every one of the CCCD project countries has experienced these type of conditions during the life of the first CCCD project. It would be useful to ascertain the actual extent to which this has in fact occurred. Policy dialogue with the various short-term donors involved regarding the longer term development gains foregone is undoubtedly warranted in this regard.

Fourth, it is generally thought that financing problems could be resolved, at least in part, by improving the information systems which underlie informed decisions. While this may be true in general, the thesis of these authors is that in order to successfully implement the desired information systems, it is important to implement a set of incentives within the health care delivery system which will ensure that the envisioned improvements will not be subverted. Further, the necessary set of incentives to ensure implementation of information systems is not presently known. Thus, it is recommended that work be initiated at the earliest possible moment in conjunction with efforts to implement information systems to experiment with various pecuniary and non-pecuniary incentive structures designed to enhance the successful implementation of accounting and information systems.^[98] In this regard, it is important to experiment with using the ANE Bureau's Guidance for Costing of Health Service Delivery Projects document for developing more consistent information across countries and programs.

Finally, in conducting this review, several other recommendations have become evident. First, it has been said that financing is only a necessary but not sufficient condition for the achievement of sustainability. In order to satisfy this necessary condition, it is important for the financing component of the CCCD project to receive the same managerial attention that the delivery of CCCD services has also received. It is acknowledged that the CDC has recently filled an open position for a health economist. That step is highly applauded since it represents a management commitment on the part of AID and the CDC to focus regular and continuous attention on this important aspect of the project. It is also acknowledged that the draft project extension document refers to additional AID management support in the area of health economics for this project. This further reinforces the initial move taken by the CDC. To manage all of the studies, experiments, policy dialogue efforts and government specific

[98] A similar recommendation could also be made regarding the implementation of drug logistics systems and supply management in general.

efforts necessary to resolve the health financing problem facing the CCCD project countries represents a management effort which is at least larger than one full time person.

Second, specific studies are required in selected countries about the extent to which health care is financed by domestic philanthropic efforts. Such a study would be most usefully conducted in countries with an Islamic heritage, however, similar studies would also be usefully conducted in other countries as well where "friendly societies" exist. It would also be a study which may be most productively conducted by employing anthropological methods and analytical techniques. It is envisioned that this study would be most helpful as a part of a larger health financing strategy study which might be conducted for an entire country's health care delivery system.

Third, a larger focus is required in subsequent health financing work for the CCCD project. The presumption that user charges, along with donor inputs in the short run and increasing government support over time could finance CCCD project activities, does not allow enough flexibility for country-specific strategies to be developed. At the present time in Nigeria, it is clear that the CCCD project is developing a process by which each state will define its own health financing strategy which will then be implemented in that locality. Such a strategy perspective is the type of process which is recommended more broadly. That strategy is also predicated on the assumption that continuous technical assistance which would work with local talent as a secretariat for local decision makers about the feasible strategy for that local is one which warrants further support.

Finally, further experimentation with various forms of prepayment in conjunction with risk sharing (i.e., health insurance) is warranted. It may be that such efforts may be jointly financed by one or more donors. Continuous monitoring of the experiment is required. Operational research is necessary for such an effort to become successful. In this context, it is important that innovations be attempted with various forms of benefit package pricing and incentives. Clearly the adage that "things take time" must always be remembered.

APPENDIX A:
CCCD Project Countries Human Resources
and Child Survival Indicators

Appendix Table A.1: Macroeconomic indicators of African Countries in Which CCCD Programs Have Been Implemented: Demographic Indicators

Country Name	Pop Growth		CBR 1985	CDR 1985	Total Fertility Rate		Contraception Use Rate 1985	Life Expectancy	
	1980-1985	1985-2000			1985	2000		Male 1985	Female 1985
1. Burundi	2.7	3.1	48	18	6.5	5.9	1	46	49
2. Central African Republic	2.5	2.9	42	16	5.6	5.5	na	47	50
3. Congo Brazzaville	3.1	3.6	45	12	6.3	5.7	na	56	59
4. Cote d'Ivoire	3.8	3.1	45	14	6.5	5.2	3	51	55
5. Gambia	3.6	2.7	49	23	6.5	6.2	5	41	42
6. Guinea	2.4	1.9	50	24	6.0	5.6	1	39	41
7. Lesotho	2.7	2.7	41	14	5.8	4.8	5	53	56
8. Liberia	3.4	3.2	49	16	6.9	5.7	1	49	52
9. Malawi	3.1	3.3	54	22	7.6	6.4	1	44	46
10. Nigeria	3.3	3.4	50	16	6.9	5.7	5	48	52
11. Rwanda	3.2	3.7	52	19	8.0	6.7	1	46	49
12. Swaziland	3.4	3.3	51	14	7.0	6.5	< 1	51	55
13. Togo	3.3	3.2	49	16	6.5	54.0	na	49	52
14. Zaïre	3.0	3.0	45	15	6.1	5.0	1	50	53

Source: World Bank, World Development Report, 1987
World Bank, Population Growth and Policies in Sub-Saharan Africa, 1986.
Katrina Galway, Brent Wolff, and Richard Sturgis, Child Survival: Risks and the Road to Health, Institute for Resource Development/Westinghouse, March 1987.

Notes: Gambia is not an official CCCD country, but has a similar program funded by the British and UNICEF.

Appendix Table A.2: Macroeconomic Indicators of African Countries in Which CCCD Programs Have Been Implemented: Health and Education Indicators

Country Name	Infant Mortality Rate		Child Death Rate		Population per		Literacy Percent Literate of Pop >15	
	1965	1985	1965	1985	Physician 1981	Nursing Person 1981	Male 1985	Female 1985
1. Burundi	142	118	38	23	45,020	na	43	26
2. Central African Republic	167	137	47	27	22,430	2,120	53	29
3. Congo Brazzaville	118	77	19	7	5,510	790	71	55
4. Cote d'Ivoire	174	105	37	15	na	na	53	31
5. Gambia	119	200	54	46	12,310	1,770	36	15
6. Guinea	196	153	53	34	17,110	2,570	40	17
7. Lesotho	142	106	20	14	18,640	na	62	84
8. Liberia	171	127	32	23	9,400	2,940	47	23
9. Malawi	199	156	55	35	53,000	2,980	52	31
10. Nigeria	177	109	33	21	12,550	3,010	54	31
11. Rwanda	141	127	35	26	32,100	10,260	61	33
12. Swaziland	148	128	32	27	7,900	1,040	70	66
13. Togo	153	97	36	12	21,200	1,640	53	28
14. Zaire	135	102	30	20	13,940	1,810	79	45

Source: World Bank, World Development Report, 1987
 Katrina Galway, Brent Wolff, and Richard Sturgis, Child Survival: Risks and the Road to Health, Institute for Resource Development/Westinghouse, March 1987.

Notes: Gambia is not an official CCCD country, but has a similar program funded by the British and UNICEF.

Appendix Table A.3: Macroeconomic Indicators of African Countries in Which CCCD Programs Have Been Implemented: Education Indicators

Country Name	Percent of Age Group Enrolled in School							
	Primary			Secondary			Higher	Urban Pop % of Total
	Total 1984	Male 1984	Female 1984	Total 1984	Male 1984	Female 1984	Total 1984	1985
1. Burundi	49	58	40	4	5	3	1	2
2. Central African Republic	77	98	51	16	na	na	1	45
3. Congo Brazzaville	na	na	na	na	na	na	6	40
4. Cote d'Ivoire	77	91	63	20	28	12	2	45
5. Gambia	na	na	na	na	na	na	na	na
6. Guinea	32	44	20	13	20	7	2	22
7. Lesotho	111	97	126	21	17	26	2	17
8. Liberia	76	95	57	23	na	na	2	37
9. Malawi	62	71	53	4	6	2	1	na
10. Nigeria	92	103	81	29	na	na	3	30
11. Rwanda	62	64	50	2	3	1	1	5
12. Swaziland	111	111	111	42	na	na	na	18
13. Togo	97	118	75	21	32	10	2	23
14. Zaire	98	112	84	57	81	33	1	39

Source: World Bank, World Development Report, 1987
 Katrina Galway, Brent Wolff, and Richard Sturgis, Child Survival: Risks and the Road to Health, Institute for Resource Development/Westinghouse, March 1987.

Notes: Gambia is not an official CCCD country, but has a similar program funded by the British and UNICEF.

Appendix Table A.4: Macroeconomic Indicators of African Countries in Which CCCD Programs Have Been Implemented: Child Survival and Health Indicators

Country Name	Percent of Children Fully Immunized by Age of One 1985				% Preg Women Imm TT 1985	% Births Asst Tr Attendant 1980	% Infants Low Birth Weight ~1980	% Pop Access to Safe Water	
	TB	DPT	Polio	Measles				Urban 1975-83	Rural 1975-83
1. Burundi	37	27	20	45	12	15	14	90	22
2. Central African Republic	25	14	14	16	16	71	23	na	na
3. Congo Brazzaville	80	59	59	52	na	45	15	42	7
4. Cote d'Ivoire	na	na	na	na	na	na	14	30	10
5. Gambia	98	70	77	79	85	25	na	na	na
6. Guinea	na	na	na	na	na	20	18	69	2
7. Lesotho	91	82	80	73	49	75	8	37	11
8. Liberia	87	23	26	99	60	10	na	71	20
9. Malawi	74	58	56	52	30	40	12	66	49
10. Nigeria	23	na	na	55	11	na	18	60	30
11. Rwanda	86	62	56	66	na	20	20	55	60
12. Swaziland	89	57	56	47	i	25	na	na	na
13. Togo	44	18	9	47	57	50	17	68	26
14. Zaire	34	16	18	20	na	na	16	na	na

Source: World Bank, World Development Report, 1987
 Katrina Galway, Brent Wolff, and Richard Sturgis, Child Survival: Risks and the Road to Health, Institute for Resource Development/Westinghouse, March 1987.

Notes: Gambia is not an official CCCD country, but has a similar program funded by the British and UNICEF

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APPENDIX B:
CCCD Project Country Specific ProAg Statements
Regarding Cost and Financing:

Appendix Table B.1: An Analysis of the Cost and Financing Components of CCCD Country Project Agreements

Country	Financing Requirement	Cost Requirement
1. Burundi	<p>a. condition precedents:</p> <p>i. evidence that Grantee has adequately budgeted for the support of the project, and that the amount is available for project purpose.</p> <p>ii. the Grantee shall furnish to AID evidence that the Grantee has completed by the Project.</p> <p>b. Detailed project description:</p> <p>i. evaluation of the coverage of local recurrent costs through establishment of an alternative financing system and (govt) ability to support recurrent foreign exchange costs.</p>	NA
2. Central African Republic	<p>a. Other Covenants:</p> <p>i. Sufficient funds will be budgeted and made available throughout the Project to support recurrent costs associated with Project operations...</p> <p>ii. The Government's contribution to these costs will be similarly increased over the four-year project period and the Government will assume full responsibility for all costs at the end of the project insuring continuation of field activities.</p> <p>iii. The govt. agrees to contribute to a study of means of self-financing the recurrent costs associated with expanding childhood communicable disease programs.</p> <p>iv. The govt. agrees to consider a user fee or similar system to recoup a portion of those costs.</p>	<p>a. Special Covenants:</p> <p>i. annual program evaluations will include an analysis of project costs and recommendations for more efficient Project operations.</p>
3. Congo	None in the Proag	<p>Project Evaluation Analysis of project costs and recommendations for more efficient Project operations.</p>

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Appendix Table B.1: An Analysis of the Cost and Financing Components of CCCD Country Project Agreements (continued)

Country	Financing Requirement	Cost Requirement
4. Guinea	Conditions Precedent	Special Covenants
	i. The grantee has adequately budgeted for the support of the project and the amount is available for project purposes.	Analysis of Project costs and recommendations for more efficient project operations.
	ii. The Grantee shall furnish evidence that it has completed a study of a fee for service system that will assist in covering recurrent costs in areas covered by the Project (12 months after Proag signing).	
iii. The Grantee shall furnish evidence that it has established and made operational a fee for service system acceptable to USAID.		
5. Ivory Coast	Financing of Project	Special Covenants
	<p>i. The Grantee agrees to assure the resources necessary to obtain the agreed upon portion of offshore commodity requirements and certain local costs described below.</p> <p>ii. The Grantee will assume full responsibility for all costs at the end of the Project insuring continuing continuation of field activities.</p>	i. analysis of Project costs and recommendations for more efficient project operations.
6. Lesotho	Project Financing	Project Evaluation
	<p>i. The Grantee agrees to provide or cause to be provided for the project all funds, in addition to the Grant, and all other resources required to carry out the Project effectively and in a timely manner.</p> <p>ii. The Grantee will assure full responsibility for all costs at the end of the project insuring continuation of field activities.</p>	i. Annual analysis of Project costs and recommendations for more efficient Project operations.

Appendix Table B.1: An Analysis of the Cost and Financing Components of CCCD Country Project Agreements (continued)

Country	Financing Requirement	Cost Requirement
<p>7. Liberia</p>	<p>Project Financing</p>	<p>Special Covenants</p>
	<p>i. The grantee shall furnish evidence that it, acting through the MH&SW, has established a system whereby (1) employees pay for at least half the duty-paid cost of their motorcycles and (2) all monies so collected are either deposited in a revolving fund from which replacement motorcycles will be financed, or used to support other Project</p>	<p>i. annual project evaluations will include analyses of project costs and recommendations for more efficient project operations.</p>
	<p>ii. Registration Fees: a. The grantee will furnish evidence that it (the MH&SW) has implemented a system in identified counties to adjust current registration fees with the understanding that the additional funds are to be retained in a revolving fund within the MH&SW to be used to finance additional Project vaccines, needles and syringes, ORS and chloroquine.</p>	
	<p>b. This system will be employed at all levels of the system, incl. hospitals.</p>	
	<p>c. An implementation plan for the registration fee system referred to in ii., a. above will be completed within six months of the date of the agreement.</p>	
<p>d. conforming adjustments will be made in the registration fee system initiated in a separate AID financed PHC project and that system proposed via this Project. Adjustments will be made in both systems.</p>		
<p>8. Malawi</p>	<p>Cost Recovery Implementation</p>	<p>Special Covenants</p>
	<p>For the long term sustainability of programs supported by this Project, the Cooperating country covenants to actively support, collaborate and contribute to efforts made by this Project to identify methods to efficiently recover at least a portion of the costs of CCCD programs, including the collection of user fees.</p> <p>Once identified and studied, the Country agrees to implement methods for cost recovery which it has approved.</p>	<p>i. annual project evaluations will include analyses of project costs and recommendations for more efficient project operations.</p>

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Appendix Table B.1: An Analysis of the Cost and Financing Components of CCCD Country Project Agreements (continued)

Country	Financing Requirement	Cost Requirement
<p>9 Nigeria</p> <p>(no PROAG, only Memo of Understanding)</p>	<p>Programme Financing</p> <p>i. The FGN commits itself to provide financing in support of the programme.</p> <p>ii. The FGN shall support 42% of these (the programme's) recurrent costs in the first year, and, as the programme progresses, shall assume a greater share of such costs. Its contribution shall not be less than 66% in 1990. Its contribution include supplies, equipment, operations, training, transport, and monitoring/evaluation. Neither the costs of AID funded TA nor FGN staff salaries are included. The FGN contribution includes the full cost of vaccines for the programme.</p> <p>Programme Evaluation</p> <p>i. In years 3 and 5, external evaluators will assess progress achieved in strengthening Nigerian capability to sustain project levels of implementation once AID financed assistance is completed.</p> <p>Programme Activities</p> <p>i. The National Health Planning and Research Directorate of the Federal MOH shall work with John's Hopkins Univ. consultants to a) strengthen financial management skills of Nigerian Institutions, b) perform alternative health care financing studies, and c) develop cost recovery mechanisms.</p>	
<p>10. Rwanda</p>	<p>Grantee Financing</p> <p>i. The Grantee shall furnish for project years after the first project year, a report which defines the amount of Grantee funds provided to the project during the then current project year and the amount budgeted for the succeeding project year.</p> <p>Health Care Financing Study</p> <p>i. The Grantee agrees to participate, in a study of the financing of the health care system in Rwanda with emphasis on the system for collection of user fees, the flow of such funds, and the mechanism whereby such funds are returned to the national budget.</p>	<p>Annual Evaluations</p> <p>Evaluations will consist of analyses of project costs and recommendations for more efficient project operations.</p>

Appendix Table B.1: An Analysis of the Cost and Financing Components of CCCD
Country Project Agreements (continued)

Country	Financing Requirement	Cost Requirement
11. Swaziland	No Identified Activities or Requirements	Annual Evaluations will include analyses of project costs and recommendations for more efficient project operations.
12. Togo	No Identified Activities or Requirements	No Identified Activities or Requirements
13. Zaire	<p>Project Financing (Original Proag)</p> <p>i. By the end of the Project, the GDZ will incorporate 75% of the project's recurrent costs for vaccines, vaccination supplies, and anti-malarial and diarrhoea. (Medications 58% of coverage.)</p>	Annual project evaluations will include analyses of project costs and recommendations for more efficient project operation.
	<p>ii. Proag Amendments 1986. The GDZ will incorporate into its Ordinary budget (or Investment Budget or annexed budget) 90% of recurrent budget costs for expendable commodities such as ORS, anti-malarial drugs, and measles vaccine by the PHCD. These recurrent costs will not be funded by proceeds from the sale of US\$ financed commodities (i.e., counterpart funds). (Assumed project coverage in project areas to be 80%).</p> <p>Fees</p>	
	<p>In order to assure the sustainability of the program, a system of fees for services will be established at the outset of implementation of the PHC program. The objective of this fee structure will be to rely as much as possible on each use-contributions for financing recurrent costs of immunization, diarrheal disease treatment, malaria treatment, and malaria prophylaxis. ...Thus, in PHC zones, an autofinancing system will be established as a component for defraying the costs of CCCD.</p>	

Appendix Table B.1: An Analysis of the Cost and Financing Component of CCCD

APPENDIX C:
CCCD Project Country-Specific Mid-Term Evaluation
Recommendations Regarding Financial Sustainability

Recommendations for Financial Sustainability

I. Burundi

- a. No effort should be initiated to duplicate the anticipated World Bank short-term technical assistance for a financing study unless that study is, for unforeseen reasons, cancelled.
- b. The intent of the CP on financing should be taken to mean evidence of good faith efforts by the govt to establish financing mechanisms which provide for cost-recovery and auto-financing and this CP has been met.

II. Central African Republic

- a. A way should be found to allow individual health facilities to manage part of the revenue generated through fees and to use that revenue to provide improved services at the facilities.
- b. Cost, utilization, and revenue accounting information must be improved at each facility. The cost information should disaggregate the costs of each type of service provided. A health finance specialist should be involved in the redesign of the health information forms.
- c. Charges should be established for drugs provided by hospitals. USAID/W should help provide the management training necessary to implement this policy.
- d. The information acquired through the improved cost accounting system should be used to design a fee schedule for health services at hospitals and other health facilities. USAID/W should provide the technical assistance.
- e. Regional medical officers should provide technical (medical) and managerial assistance to village pharmacies especially re: the use of ORS and the treatment of malaria. In addition, they should provide the village pharmacy with an initial supply of CCCD chloroquine and ORS packets.

III. Peoples Republic of the Congo

- a. In light of the economic situation in the country, especially since the decline in the price of oil in 1985, it is necessary to develop and implement an auto-financing strategy per the section 5.3 of the Proag.
- b. The design of this strategy should include a fee system perhaps for vaccination cards which would generate enough revenue to finance the distribution costs of the CCCD services. There is limited evidence from within the country that the revenue from such fees can cover a significant share of the total cost of these services.

- c. An analysis of the recurrent cost of these services should be conducted prior to the establishment of the fee for the vaccination card. In addition, this study will be useful in conducting a cost-effectiveness analysis of the CCCD project components.
- d. The financing strategy design should be coordinated with the GTZ which is designing a similar system for one of the regions.
- e. The strategy should be designed with some flexibility since there is considerable differences in ability to pay from one region to another throughout the country.

IV. Cote d'Ivoire

No recommendations on financing provided.

V. Guinea

- a. The MOHSA as a part of its efforts to decentralize primary health care, should consider favorably the possibility of leaving a substantial percentage of receipts earned by the peripheral facilities with these units, or at least at the Prefectural level under the control of the Director of Prefectural Public Health (DPS).
- b. If MOHSA agrees to leave some of the funds generated from the sales of CCCD project commodities, e.g., chloroquine and ORS packets, at the health center or at the Prefectural level under the control of the Director of Prefectural level, the CCCD Proag provision 5.4 calling for these funds to be deposited in a separate escrow bank account will have to be amended accordingly.
- c. No U.S. dollar funds should be released under the proposed extension until an advance of at least 50% of the GOG annual contribution (from PL 480 counterpart) has been deposited in a special project bank account.

VI. Lesotho

- a. The HIS should be extended to include additional cost-related management information. The purpose of this is to strengthen management capabilities and to demonstrate convincingly the cost effectiveness of the CCCD interventions in Lesotho.
- b. A uniform health registration card (bukana) should be adopted for use at all health centers and hospital outpatient units, GUL and Private Health Association of Lesotho (PHAL). A uniform pricing policy should be adopted with regard to the bukana and implemented in two steps: a) adopt a price of M 1.0 (keep centers with a higher price, i.e., M 1.5 at that price); and b) raise the price to M 2.0 after ascertaining what the impact is of the initial price is on utilization.

- c. Commercially produce and market ORS packets. Do this to a) increase the procurement choices to mothers; b) improve the efficacy of ORT by making more widely available carefully measured ORS; and c) provides funds to continue the "highly cost-effective" programs of EPI and ORT.
- d. Continue to monitor the financial feasibility of sustaining the CCCD program after the project terminates. If it appears that there might be a sustainability problem, explore the feasibility of charging M 0.5 for each well and sick baby visit.

VII. Liberia

- a. As the regular GOL sources of financing are getting weaker alternative sources of financing should be sought and implemented. AID/W has funds that are available for special studies on financing and cost recovery and should be tapped for this purpose.
- b. MH&SW should expedite implementation of the fee for service scheme and decentralization of health service administration. CCCD should take the responsibility to urge the MH&SW to take action expeditiously.
- c. CCCD Technical Committee should review the manual for financial management developed for the decentralization and county administration of health services, revise it as needed, and make it available to personnel that will be managing revenue generated by fee-for-service and drug revolving funds.
- d. The current fee-for-service schedule should be revised after a careful review of experience gained by the end of its first year of application. The review should look into its effectiveness as a means of generating revenue, its impact on utilization of services, and issues related to the management funds. CCCD should identify randomly selected set of facilities in its project area and initiate collection of appropriate data.
- e. Drug revolving funds are increasingly becoming popular in Liberia. Since willingness to pay is often higher for drugs than for services, management problems notwithstanding, drug revolving funds have better chances of success than fee-for-service schemes. Thus, the possibilities of subsidizing services by revenues of drug revolving funds should be looked into.
- f. Any implementation of a health and/or MIS system should include collection ;and reporting of data on a set of inputs, outputs, and financial aspects of health.

VIII. Malawi

- a. MOH should develop action plans for Malawian sources of financing to pay an increasing share of the CCCD project and other health service costs now paid by donors.
- b. to develop this cost plan for CCCD project activities, the MOH must develop improved service delivery and population coverage goals.
- c. MOH staff efficiency can be improved, and, as a consequence, cost savings can be realized and financing requirements minimized.
- d. the cost recovery studies or actions to be undertaken in this regard, re: CCCD activities, as defined in the Proag have not been done.
- e. given travel costs and long waiting times presently experienced at health facilities in Malawi, the team does not recommend fees be instituted for immunizations and ORS packets. At this time such fees would be a strong disincentive to use.
- f. the MOH should introduce fees for chloroquine where the demand is "high". The fees should be introduced along with similar fees for other curative medicines for which other sources of supply, e.g., local shops and PHAM also charge.
- g. implemented fees must be equitable and must provide incentives for a) preventive as compared with curative service use; b) rural facilities as compared with hospitals; and c) from qualified as compared to unskilled providers.
- h. a complete study of fees must include information of fee structures at all health care providers, including private doctors, traditional practitioners, and pharmacies.
- i. a full study of health care financing must be conducted in the country and experiments must be implemented.

IX. Nigeria

- a. The experience of the first year of project implementation has shown that the original 4 state design of financial and situational analyses followed by workshops in planning budgeting, and resource allocation may be overly ambitious. There appears to be a need for spending additional time in states building consensus on financing strategies before scheduling workshops. Thus, postpone workshops until later in 1988 and build consensus on state specific financing strategies.

X. Rwanda

- a. The current proposals for cost recovery such as raising facility fees or selling drugs through a national pharmacy, should be acted on by the Minister as soon as possible. CCCD should help the GOR accelerate this process as much as possible through technical assistance and/or the initial seed money for the establishment of a revolving drug fund.
- b. In order to increase the quality of health care in govt facilities the GOR should ensure that the receipts from any increase in medical charges stay within the community to be used entirely for health care.
- c. CCCD should look into purchasing its chloroquine supply directly from the Rwanda Pharmaceutical Laboratoire of supplying the Laboratoire with bulk materials for chloroquine production, once the Laboratoire meets USFDA standards.
- d. CCCD should also look into the possibility of supplying to the Laboratoire the machinery necessary to increase production of ORS packets.

XI. Swaziland

- a. Unlikely for govt revenues to increase by the amount necessary to cover the increased cost of the CCCD activities which are in the short run equal to 8.7 % of the proposed MOH budget in 1986/7. (Debatable do the calculation).
- b. OP demand for health care is "elastic". Evidence, 17% decline in OP visits due to a change in OP fees from zero to 1 E (lilangeni). Check with Yoger about this result and Implication. If true, should not introduce immunization card fee.
- c. Cross subsidize CCCD activities by increasing the IP per bed day fee by 50 percent from 1.0 to 1.5 E. Also increase other fees such as emergency fees and X-ray fees.
- d. Potential to reduce the cost of immunization services. Based on findings of Robertson and Quails which indicated wide variation in cost per immunization across facility sites in country in 1985. CK analysis.
- e. Introduce commercial sales of ORS and chloroquine. Money and time price to consumer can be reduced, especially if can procure ORS from Lesotho producer and can minimize overhead markups. Also design commercials to increase commercial sales via new Health Com project.
- f. Govt doesn't know how much it is now contributing to CCCD activities. Thus, improve accounting practices to find this out.

XII. Togo

- a. USAID/Lome and CCCD should encourage the MOH to adopt a FFS system to help support the recurrent costs of CCCD.
- b. USAID and/or CDC should provide the MOH with technical assistance for the design of a FFS system if appropriate.
- c. A future USAID health sector support project might consider picking up some of the recurrent costs of CCCD activities.
- d. The MOH should consider providing chloroquine and ORS on a wholesale basis to private-market sellers to assure the widest possible distribution at lowest cost.
- e. Conduct a study of the expected savings in IV solution for treatment of severe diarrhoea. Study can be financed from Proag operations research money.

XIII. Zaire

- a. One major concern relates to the Zairian Govt. financial support of the project in light of financial circumstances occurring over the last two years. Thus, the Proag must be amended to rectify the problems caused by economic factors and related issues. An extension of project funding and increased funding should be considered so as to achieve the program's objectives of reducing childhood mortality by 50%. USAID/Zaire should consider becoming more involved in the financial and management aspects of the project.
- b. GOZ ordinary budget support for the project should be increased up to the level necessary for the accomplishment of the project's planned operations. USAID may have to reduce its project's investment if the GOZ proves to be incapable of supporting recurrent costs of the current, future, or revamped project. The level of GOZ funding for operating costs should be the key factor to determine if the project will be self-sustainable after USAID funding is removed. Any recommendation for a new activity requiring financial resources should be accompanied by a recommendation indicating which implemented activity should be sacrificed to make funds available for the new activity.
- c. The various existing Zairian systems for recovering cost, the demand for primary health care services, the cost, and the interventions of the PEV/CCCD should be studied. These studies would determine ways of improving the Zairian primary health care program's facilities for recovering costs. The findings of these studies should be used in health worker training courses funded by this project.

- d. USAID should play a bigger role in helping PEV formulate its budget and defend it before the Dept. of Finance.
- e. USAID should play a bigger role in managing the financial aspects of the project, including the counterpart fund component, and the flow and distribution of project resources such as frigs, motorcycles, etc.
- f. A separate cost-effectiveness study should be made for each of the CCCD interventions, as well as a comparison with the cost effectiveness of the whole program.
- g. A study of the total cost for vaccinations should be conducted by consultants.
- h. PEV/CCCD should use funds from fee paying services of other sources to contribute towards fuel maintenance costs for the vehicles and refrigerators. In addition, PEV/CCCD should study the possibility of using more economical frigs in the health centers, and, in any case, not distribute this material before insuring that operating expenses will be covered.
- i. PEV/CCCD should promote studies on the reasons why certain doctors are reluctant to use ORS in health centers and the ways to counteract this reluctance.

APPENDIX D:
Additional Tables Summarizing the Benefits and Issues
of Alternative Community Financing Options

Table D.1: ALTERNATIVE COMMUNITY FINANCING METHODS

Methods	Resources Generated	Types of Cost Supported	Major Factors Affecting Economic Viability	Technical Status Required	Community Prerequisites
Fee for service	Local currency; in kind (produce)	Recurrent: CHW compensation; drugs	Regularity of drug supply; ability of people to pay	Fee setting; accounting	Leadership commitment essential
Drug sales	Local currency; Labor	Recurrent: drugs; CHW compensation	Regularity of drug supply; ability of people to pay; management of capital	Price setting; Inventory management; accounting Premium setting; accounting	Leadership commitment essential
Personal prepayment	Local currency; in kind (produce)	Recurrent and some one-time: CHW compensation; drugs sometimes hospitalization	Willingness and ability of people to pay management and technical factors	Premium setting; accounting	Widespread understanding of prepayment essential
Production-based prepayment	Local currency; Labor	Recurrent and one-time: CHW compensation; drugs; sometimes hospitalization	Market factors affecting production; management and technical factors	Premium setting; accounting	Depends on management structure
Income generation	Labor (used to create cash)	Recurrent and one-time: CHW compensation; drugs	Market factors affecting production; public willingness to participate	Depends on project	Widespread commitment to activities being supported
Community labor	Labor	One-time: facility construction; community projects	Public's willingness to participate	Facility design	Widespread commitment to activities being supported
Individual labor	Labor	Recurrent: volunteer CHWs	Turnover rate of volunteer staff; need for retraining of replacement staff	Health related skills	Community support must develop to ensure long-range support
Donations and ad hoc assessments	Local currency; materials; Labor	One-time: facility construction; equipment purchase	Public's willingness and ability to participate	None	Widespread support essential for assessments, though not for donations
Festivals, raffles, etc.	Local currency	One-time: facility construction; equipment purchase	Public's willingness and ability to pay	None	Commitment of community leaders may be adequate

Source: Stinson II (1982).

Notes: CHW = Community Health Worker

Table D.2: EFFECTS OF ALTERNATIVE COMMUNITY FINANCING METHODS ON THE SCOPE AND ACCESSIBILITY OF PRIMARY HEALTH CARE SERVICES

Method	Income-Related Adjustments	Risk Sharing
Fee for Service	Sliding scales feasible and common	Only the sick pay
Drug sales	Adjustments rare: indigent may be helped by supplemental funding sources	Only the sick pay
Personal pre-payment	Premiums often adjusted for household income	Risks are shared, although users still pay additional fees
Production-based prepayment	Usually all participants benefit equally, regardless of inputs	Risks are shared, although users may still pay additional fees
Income generating schemes	Most community members can contribute in some way	Risks are shared
Community labor	Most community members can contribute in some way	Risks are shared
Individual labor	Not applicable	Not applicable
Donations and assessments	Donations generally reflect donor's resources; assessments are sometimes income adjusted	Risks are shared
Festivals, raffles, etc.		Risks are shared

Source: Stinson (1982).

Table D.3: OVERALL EVALUATION OF COMMUNITY FINANCE ALTERNATIVES

Methods	Strengths	Weaknesses	Appropriate Uses	Supplemental Needs	Common Problems
Fee for service	Familiarity; may draw current private spending into public sector	Mostly supports curative services for those who can afford to pay; no risk sharing	Payment of health workers if moderate by sliding scale	Support for preventive and community work	Many are reluctant to pay minimally trained community worker when traditional or private practitioner is available
Drug sales	Reduces drug costs through use of unpaid labor and emphasis on limited range of essential drugs	Supports mainly curative care for those who can afford to pay; no risk sharing	Coverage of in-country drug costs	Help for the poor; foreign exchange for imports; support for preventive and community work	Supply interruptions; "decapitalization"; black marketing
Personal prepayment	Spreads health costs between the healthy and the sick	People often reluctant to pay for health care except when specifically required	Prepayment of fixed costs, if adjusted for family income	Back-up funds may be needed for cost overruns	Many people prefer service fees when given the option; adverse selection
Production-based	Bases financing on existing economic unit	Available for limited population groups (except where production is communal)	Appropriate for employed persons or for cooperative or communal production	Support for subsistence groups	Especially subject to economic forces
Income generation	Allows community labor to be used for recurrent costs	Start-up costs may be especially high	Most appropriate for multisectoral (especially PVO) projects	Back-up funds	Especially subject to economic forces
Community labor	Uses an abundant resource	Only seasonally available and only for one-time costs	Appropriate for facility construction and maintenance	Support for recurrent costs	Community loses interest if government does not provide expected inputs
Individual labor	Uses an abundant resource	Generally available only part-time; high turnover may raise training costs	Mainly for part-time and supplemental health activities	Referral links for all but simple problems	May be unavailable when needed
Donation and ad hoc assessments	May use readily available local materials; donations allow people to contribute according to ability	Limited utility, mainly for one-time costs	Purchase of equipment or initial drug supply	Support for recurrent costs	May be difficult to motivate
Festivals, raffles, etc.	People may "enjoy" paying	Limited utility, mainly for one-time costs; low efficiency	Purchase of equipment or initial drug supply; capital construction in some countries	Support for recurrent costs	

Source: Stinson (1982).

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