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EVALUATION OF THE HEALTH SYSTEMS DEVELOPMENT PROJECT (0057)

- ACTIVITIES IN THE KONGOLO ZONE -

PREPARED FOR :

USAID/KINSHASA

PREPARED BY :

BETSY STEPHENS

INTERNATIONAL SCIENCE AND

TECHNOLOGY INSTITUTE, INC.

2033 M. ST. N.W.

WASHINGTON, D.C. 20036

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TABLE OF CONTENTS

| | |
|---|----|
| 1. Background | 1 |
| 1.1. Brief History... | 1 |
| 1.2. Major Accomplishments and Problems... | 4 |
| 2. Description... | 6 |
| 2.1. Principles of the Kongolo Program... | 6 |
| 2.2. Present Status of the Kongolo Program... | 9 |
| 3. Strengths of the Kongolo Program... | 12 |
| 3.1. Demonstration... | 12 |
| 3.2. Organization... | 12 |
| 3.3. Operations... | 13 |
| 4. Constraints and Weaknesses... | 15 |
| 4.1. The Setting... | 15 |
| 4.2. Organization and Planning of the Program | 17 |
| 4.3. Operations... | 20 |
| 5. Sustainability... | 24 |
| 6. The Water Program... | 27 |
| 6.1. Background... | 27 |
| 6.2. Achievements... | 28 |
| 6.3. Constraints... | 30 |
| 6.4. Sustainability... | 30 |
| 6.5. Future Plans... | 31 |
| 7. Conclusions... | 33 |

Appendix I Persons Interviewed and Sites Visited.

1

EVALUATION OF THE HEALTH SYSTEMS DEVELOPMENT
PROJECT (0057) ACTIVITIES IN THE KONGOLO ZONE

1. BACKGROUND

1.1. BRIEF HISTORY

The Health Systems Development Project (HSDP) began in August 1978 as a two year project. An American technical assistant (who arrived in October 1978) and short term consultants worked with the Planning Cell in the Ministry of Public Health (MOPH) to develop the planning, administrative and logistic support capability to organize and service a national basic health care system that would be implemented through health development zones. Kongolo was selected as a demonstration zone in which to introduce a prototype integrated health delivery system.

USAID hired a coordinator (on a Personal Services Contract) to work in Kongolo from April 1979 until the EOP (August 1980). Peace Corps volunteers arrived in July 1979, including a coordinator, who resided in Kongolo, and five others, who lived in villages in the zone.

Although the Kongolo zone program was supposed to have received logistic and technical support from the Project unit in Kinshasa, very little was provided because of the heavy demands on the TA in Kinshasa, and the distance and almost total lack of communication. In Kongolo, there was poor commun-

ication and little coordination between the USAID funded coordinator, Peace Corps and the zonal medical team.

Following an evaluation of the HSDP in July 1980, the activities with the MCFH Planning Cell were phased out on schedule, but a two year extension was negotiated with the GOZ to continue support to the Kongolo Program. The Project unit in Kinshasa was continued under the Zairois director and subsequently a deputy was appointed. In August 1981, a Peace Corps volunteer joined the Project unit to facilitate communication with Kongolo, prepare training manuals, and organize a nurse training program. At about the same time a new group of volunteers replaced the first group in Kongolo. Members of the Project unit staff made several visits to Kongolo, to assist with planning and organizing the program. Peace Corps volunteers began collaborating closely with members of the zonal medical team. Finally, the zonal medical director, who had been in office for nearly two years and who had been a significant impediment, was suspended early in 1982, leaving a team of two doctors dedicated to the development of primary health care services in Kongolo.

There were no detailed objectives or an action plan for implementing the Kongolo zone program until several years after the project began. The expected outputs relating to Kongolo that were specified in the original Project Paper (March 1976), were subsequently amended and refined in a series of documents. In the Project Paper it was anticipated that the National Health Committee Council, with the aid of technical assistance from the contractor, would produce detailed plans for implementing the rural health program structure which had been outlined by the Council in 1975. (In actuality, the contractor worked with a Planning Cell in the MCFH, not the Council). It was expected that commodities would be made

available to help "initiate" a demonstration program in a specified zone.

The agreement with the contractor, Planning and Human Systems, Inc. (August 1978) simply specified that an "initial" integrated health delivery system would be established and operating in the Zone of Kongolo. The project evaluation in July 1980 found that, while this output was not achieved, some worthwhile activities had begun in Kongolo, including the establishment of five village and local health committees and the initiation of a measles vaccination program. Based on the recommendation of the evaluation team that the project be extended to support Kongolo zone activities, a revised Project Paper was prepared which led to an HSDP extension agreement with the GOZ in September 1980.

Outputs stated in the extension agreement with the GOZ included the preparation and implementation of an action plan for the Kongolo zone and further elaborated components of the system, including village health workers (animateurs) and, where appropriate, village pharmacies; 12 rural dispensaries staffed by nurses, and a central hospital. Preventive and promotive activities were to be emphasized, including the provision of a simple potable water system and latrine construction.

Detailed project objectives were outlined for the first time in the Kongolo zone plan which was developed in Kinshasa (July 1981) following consultations with the Kongolo medical team and Peace Corps volunteers:

The stated goal is to provide to the population of Kongolo a primary health care service that is universally accessible, affordable, scientifically and socially acceptable, for which the community takes responsibility.

ity. Objectives include : -

- recruitment and retraining of health personnel in primary health care
- selection and training of (60) village health workers and their placement in health posts.
- establishment of 12 equipped and functioning health centers
- equipping the hospital to provide administrative, technical and logistical support to peripheral activities
- a functioning zone health team that provides technical and administrative support
- collaboration with village midwives.

The plan also specified the water source program as a priority promotional activity. Objectives for the water source program were stated in assorted Peace Corps documents. Fifty spring boxes are to be completed by August 1982 and 150 by August 1984.

1.2. MAJOR ACCOMPLISHMENTS AND PROBLEMS

The project has partially achieved all of its major objectives. There is an implementation plan and an incipient low-cost integrated health care system has been established in the Kongolo Zone. Health committees have been formed at zone and village level to organize and manage health-related activities. Ten health centers and three health posts are opened or in the process of opening. Personnel have been recruited to staff the centers and are receiving in-service training. Approximately five village health workers have been trained,

three of whom are working at health posts; two of whom are being integrated into health center staffs. The health team, which is an integral part of the hospital, is effectively supervising the health center program. Some logistic and administrative support is provided by the hospital and some by the project, although plans have been made to merge the two. Approximately 30 spring boxes have been constructed.

The rural health care system is now in a very embryonic stage. Prior to preparation of the implementation plan, there was no common agreement on the operational focus of the Kongolo project. There were numerous activities in Kongolo but they were uncoordinated and thus contributed little to building a unified network of health care services in the zone. With the aid of Peace Corps volunteers health committees were being established in three villages, a vaccination campaign was launched (primarily in Kongolo and the villages in which Peace Corps volunteers resided), and spring boxes were constructed. Drugs and supplies were sent by USAID (the majority of which were for the hospital, some of which were useless medicines that had expired, equipment that didn't work, tertiary care supplies). And three health centers were being developed with support of the hospital team (in accordance with guidelines adapted from another zone, Kasongo).

Real progress toward achieving project objectives began very recently, more or less coincident with the development of the plan in July 1981. HSDP activities were integrated with the zonal health program, resulting in a unified effort to extend health care services in the Kongolo zone. All of the Peace Corps volunteers redirected their focus from individual villages to providing technical and managerial support to the coordinated network of health centers and health posts, and water source activities. Moreover, the project unit in Kinshasa, which had not been very active in the Kongolo program, began providing more concerted planning, administrative and logistic support, including expediting the recruitment and training of

nurses. Commodities for the rural health units had been ordered through USAID and had begun arriving in late 1980.

2. DESCRIPTION

2.1. PRINCIPLES OF THE KONGOLO PROGRAM

The Kongolo program follows the basic philosophy and structure for zonal health services that has been approved by the MOPH. Detailed operational guidelines have been adapted to the Kongolo zone from a mission-supported health service in the zone of Kasongo in Kivu.

There is supposed to be a zonal health committee, with broad representation from the entire zone, which provides a link between the beneficiaries and the technical team. (This committee has not been active) Responsibility for planning, implementation and evaluation rests with the technical team which include the zonal medical officers, the hospital administrator and pharmacist, and the coordinators of special services (e.g. vaccinations and health education). The operational headquarters is the hospital, which serves as a referral center for the peripheral units. There is a hospital management committee, which oversees the financial planning and management of the hospital and pharmacy.

The zone has been divided into 17 health service areas, each of which should have a health center and from four to six dependent health posts, depending on the dispersion of the population. The areas were delineated on the basis of population size and distribution -- 5,000 - 7,000 people considered a minimum number necessary to support a health center by auto-financement.

The requisites for establishing a health center are that a health committee be formed with representation from each of the communities within the catchment area. The health committee raises funds by soliciting every household in the area and the community must construct and furnish the center and build a nurse's home. The project provides basic equipment and the initial inventory of medicines. The health committee is responsible for continual oversight of the center and for ensuring that the center is responsive to community needs.

The health center is staffed by a nurse, who is in charge; a medical aide-- responsible for assisting the nurse, dispensing medications, health education, nutrition rehabilitation and home visiting; a secretary -- responsible for record keeping, financial management, and weighing babies in the pre-school clinic; a worker, who maintains the clinic and is responsible for cycling to the depot for medications and vaccines; and a watchman.

The first major activity of a new health center is a census of the entire population within the catchment area. A dossier is prepared for each household, listing every member of the family. These are filed by village or sector and are the basis for identifying clients when they attend the clinic. Persons outside the catchment area pay a higher fee for curative services and are not entitled to preventive services.

Most centers provide curative services every morning and pre-natal and pre-school clinics in the afternoon several times a month, sector by sector. The aide does periodic home visiting and nutrition rehabilitation clinics in the afternoon. In centers with dependent health posts, the nurse visits each one once per month (or once in two months in the case of very extended health areas) for pre-natal and pre-school clinics. The nurse transports the vaccines on his bicycle in cold boxes.

The health post is organized and managed by a village health committee. The post is staffed by a volunteer village health worker (animateur) who has a stock of a few basic medicines which he dispenses for approximately an hour a day. Cases that he cannot treat are referred to the health center. The village health worker is also responsible for health promotion, including motivating participation in the preventive health clinics, and for village health education.

The health centers are supervised by the zonal doctors. They visit once a month, meet with the health committee, and review the operations of each member of the center health team. The health posts are supervised by the center nurse, with occasional visits by the doctor. Logistic support is provided by the pharmacist and special service coordinators.

The Kongolo program is established on the principle of auto-financement. Each new unit receives an initial stock of equipment and medications and is expected to generate adequate funds for their replenishment. The health centers must also cover the salaries of the aide, the secretary, the worker and the watchman. Money is raised by the payment for services. For curative consultations, a fee is charged at the time of the first visit for a given illness and covers all followup treatment for that illness. The fee paid for pre-natal consultations covers the entire pregnancy. The registration charge for pre-school consultations entitles the child to all preventive health services for one year, except nutrition rehabilitation, for which there is a flat fee for ten sessions. Persons attending the clinic for curative care who live outside the catchment area, pay the same fee as members pay for the first visit, but they are also charged for each followup treatment.

Estagrigo (the cotton company) covers the health expenses of its employees and their families. The company has a contract with the hospital which assures that, for a pre-paid monthly sum, all hospital services are rendered to Estagrigo dependents. Services provided at the health centers are reimbursed on a fee for-service basis directly to the center in response to monthly invoices. (Estagrigo fees are considerably higher than standard rates). PNS (Project North Shaba) pays a monthly health benefit directly to its employees. However, the health team has requested that PNS consider contractual arrangements that are similar to the Estagrigo agreements. PNS has made some minimal contributions to the project, including the occasional transport of materials from Kinshasa, the provision of subsidized gas, and some assistance with vehicle and hospital repairs.

The nurses are supposed to be paid by the GOZ. In fact, it often takes at least one year for an employee to be officially appointed and added to the payroll; and several years for those on the payroll to have annual raises and promotions reflected in the salary they receive. Therefore the HSDP is temporarily paying salaries of newly recruited nurses and Estagrigo is paying others whose dossiers have not yet been processed.

2.2. PRESENT STATUS OF THE KONGOLO PROGRAM.

The former Medical Director prevented the establishment of oversight committees so it was not until after his departure early this year that the zonal health and hospital management committees were formed. During his tenure there was no control over hospital finances or accountability for any health monies in the zone. Thus, it was not possible to ascertain the value of GCZ payments or locally generated income. The hospital had a record of income for the first time in March and the management committee is now

beginning to plan a budget. A formal request was submitted by the Project unit in Kinshasa to the GOZ to allow the hospital to retain and manage its receipts instead of remitting them to the national Treasury (a provision accorded a few hospitals in the country). Pending the response, which may take several more years to obtain (despite the fact that it was discussed between USAID and the GOZ in 1980), the hospital is keeping the money.

The de facto health center supervision team consists of two medical officers, the HSDP coordinator (a Peace Corps Volunteer), the vaccination program coordinators (a PCV and her counterpart), the health education coordinators (a PCV responsible for developing village and health center educational and motivational activities, and the Zairois Chief of MCH who has promoted school health education throughout the zone), and the water source program adviser (a PCV).

A nurse was recruited to assist the supervisory team but has not proven capable of taking responsibility. The pharmacy is now divided between the hospital and the HSDP but, once they are merged, the hospital pharmacist (a Zairoise sister), will become an integral part of the team. A statistician is presently in training and will join the hospital administrator's staff to organize the collection and analysis of zonal health service statistics. He will also be part of the team.

At the present time there are three health centers in full operation. An additional center will open in May and another later this year. Both will provide a full range of services. Five other centers have been partially opened since the arrival of 11 newly recruited nurses in late December. Since there was pressure to open these centers rather quickly, the communities

have not yet raised all the necessary funds. For the time being the clinics are operating out of temporary quarters and the nurses and secretaries are spending a large part of their time on the censuses. Most of the nurses are fresh out of their training and are not yet adequately prepared to work in isolation on a program that emphasizes preventive health care. Moreover, the centers are not fully supplied, lacking in several cases, crucial equipment like baby scales.

Only one health center has opened health posts (3). There is one other health post operating but it will soon be upgraded into a health center. Two of the four animateurs are salaried-- one, who will be an aide when his post becomes a health center, and another, who has been operating a small mission-sponsored dispensary, which has now become a health post.

Most of the training of health center staff has been on-the-job observation and participation in established centers. Before any of the centers opened, 3 nurses, and 3 secretaries, and 1 aide went to Kasongo to learn center procedures. All of the others were trained by spending several weeks working alongside counterparts in health centers in the Kongolo zone. Village health workers are trained by nurses in the health centers. Clear, practical diagnosis and treatment strategies, that were developed in Kasongo for nurses and village health workers, have been reproduced for Kongolo. There are also guidelines for the secretary. These provide the basis for both pre-service and in-service training. A curriculum for training nurses has been developed, and a session is scheduled to begin in May 1982.

The vaccination program has retrenched temporarily and is in the process of organizing a cold chain that reaches the health centers. Previously, the vaccination program was totally dependent upon refrigeration in Kongolo and a mobile team that went out periodically to individual peripheral villages. In an attempt to provide broader and more continual coverage, and to reduce dependence on a vehicle, it is planned that the centers will be equipped with refrigerators. A cyclist can cover 80 kilometers in a day. Thus vaccines can be fetched from Kongolo by health centers within that radius (which includes all the centers established to date). Health posts are then to be serviced regularly out of the centers.

3. STRENGTHS OF THE KONGOLO PROGRAM.

3.1. DEMONSTRATION.

The Kongolo program has been successful in demonstrating the potential for introducing a zonal based primary health care service. It has validated, in a very preliminary way, the GOZ policy orientation toward decentralization and community control and the emphasis on village based basic health services. The fact that the program was, in large part, adapted from another zone (Kasongo) reaffirms that the concepts are replicable in Zaire. (However, since both programs received outside support, it has not tested the potential for replicability by the GOZ alone.)

3.2. ORGANIZATION

Kongolo has begun to open up a network of health units that provide

access to health services in rural areas. The services are standardized, contributing to more effective supervision, quality control, and logistic support. However, both the management and operations are decentralized, to the extent possible, reducing dependency, and increasing the potential for self-reliance at community level, as the system becomes better established.

One of the most significant strengths of this project is that it has an institutional base within the system. HSDP/Kongolo is no longer identifiable as a separate entity but is an integral part of the Kongolo health program.

There is, in addition to USAID, considerable other outside assistance to the program. Monies from missions and Estagrigo have been raised for the hospital and health centers on an ad hoc basis, primarily for capital expenditures. The pre-paid scheme arranged with Estagrigo provides a certain amount of assured money for operations.

3.3. OPERATIONS

An excellent system of supervision has been introduced into the program which provides technical support to isolated health workers. At present, the health team is making regular monthly visits to all the centers (although that will no longer be possible as the system expands, unless the health team is enlarged). So much emphasis has been put on the health centers that it is becoming more prestigious for nurses to work in the rural sector than at the hospital.

The training program, still in the process of development, is conceptually good. The strategies of care are clear, relatively simple, and provide a basis for training that is directly related to performance. The pre-service temporary placement of new health workers with experienced ones working in a real situation, is very practical.

The record keeping system in the health centers has several very strong aspects. There are checks and balances that ensure tight accountability of income and expenditures. The service statistics are very well maintained. There is an excellent filing system for identifying patients requiring followup care which is used for pre-natal clients, tuberculosis, leprosy and chronic illnesses.

The census provides accurate population data and could be useful for any number of village-based research activities. The register, made up from the census, is organized into family folios that are potentially valuable for followup of preventive health services. They are currently used primarily for verifying that a patient lives within the catchment area, although some centers are also culling the files to identify non-participating pre-school residents. Invitations are then sent to the families to promote registration in the pre-school consultation clinics.

The program has produced benefits that have been perceived by the population. Villagers are aware of dramatic drops in infant and child mortality following mass measles vaccinations. Some are aware of a diminution of problem births in villages in which there are pre-natal clinics. However, the greatest credibility has come from the introduction of curative care services. Even in the case of pre-school "preventive health" clinics, in addition to vaccinations, deworming and malarial treatment are considered by clients to be the most important services.

Although there are certain illnesses for which people in the area often go to traditional healers (in particular, psychological disturbances, broken bones and gynecological problems), they prefer so-called Western medicine for treating others. During the period since Independence, as there was practically no health service in the Zone,

the population flocked to itinerant drug dealers and other charletans (who often use microscopes to "diagnose" and treat with injections, giving them false credibility). The introduction of a rural health program that primarily offered preventive and promotive care, with few, if any, immediately perceptible benefits, would have little community support.

4. CONSTRAINTS AND WEAKNESSES.

4.1. THE SETTING

There are an unusual number of obstacles to overcome in order to establish and maintain a health service in Zaire. In the first place, there is the colonial legacy which left behind a dependent mentality. During the Belgian presence services were controlled and implemented by foreigners. Zairois were neither trained nor given responsibility as technicians or administrators, except at lower levels. The lack of background and experience prior to Independence created a void. Zairois are now in positions of responsibility, but there remains a dependence on missionaries and other foreign assistants, and a lack of confidence in the management of services unless a foreigner is in control.

In the existing desultory economic situation, corruption has become widespread. Moreover, there are people filling slots who are incompetent or irresponsible. However, it is very difficult to remove someone from his position for a variety of reasons, including, a shortage of trained people to take the place, lethargy of the system, family ties, complicity at higher levels, etc.

The COZ system is very inefficient. Communications are unreliable. There is no regular transport between Kinshasa and most of the interior,

little postal service and almost no telecommunication. Moreover, the bureaucracy is hierarchical and slow moving. Most decisions are taken at the top but must pass through innumerable channels first. Thus it can take years to process a single appointment. An individual can receive official word of his appointment without being given the means of transport or the housing to which he is entitled, delaying further the filling of a post. Another problem that specifically affects the health sector is the inefficiency and unreliability of the National Pharmacy (DCMP) which is supposed to supply the hospital (e.g. zone) with a quota of medications.

The training that doctors and nurses receive in Zaire does not prepare them well for rural service. It tends to be curative oriented and based on rote learning in the classroom with no practical experience. Graduates have neither the technical skills nor the background for taking the necessary initiative that is required for working effectively in rural areas.

It is difficult to recruit staff who are willing to work in the public health service and in rural areas. Private practice, or a position in a private or parastatal agency, is much more lucrative. The nurses who were recruited for the Kongolo program are very young. On the one hand, they are more receptive to new ideas and can be more easily trained for rural service. On the other hand, they do not particularly like living in small, isolated villages and it takes a long time for them to gain credibility in the community.

There are a number of traditional beliefs and practices that impede development of an effective health care system. There is an almost blind confidence in diagnosis by microscope and treatment by injection (although it would be more cost-effective to reduce the use of the microscope and distribute pills rather than give shots).

There is a reliance on some traditional healing that is very efficacious (especially bone setting and psychological treatment), and on other treatments (for example for gynecological disorders), that often have very bad results. While there are many traditional potients that have a salubrious effect on various types of illness, the ingredients and dosages are not consistent and therefore can be harmful. Sometimes clients rely on traditional medicine for diseases that can be effectively treated at the clinic and wait too long before they attend the health center, other clients use both the clinic and the village healer at the same time, reducing the effectiveness of the treatment.

4.2. ORGANIZATION AND PLANNING OF THE PROGRAM

The major constraint in the development of the Kongolo program has been that for the first three years there were no detailed objectives and no agreement among the responsible organizations and individuals on an approach to implementation. The program officially started before there was a plan of action. There was a vague idea at the level of the Project Unit and USAID/Kinshasa that a "low-cost integrated health delivery system" should be introduced in the Kongolo zone to test the viability of a national zonal based primary health care service that was still to be defined. At the Kongolo level, there was little agreement between the USAID coordinator, Peace Corps, and the Zonal Medical team as to how the system should be implemented.

The village based approach introduced by the first group of Peace Corps Volunteers was an experiment in developing self-reliant village health services. In retrospect, it was a less constructive approach to building a rural health program in the Kongolo zone than the subsequent Peace Corps supported effort to strengthen the zonal system.

An independent program was established in each of the villages, and there was no support system that could have provided the supervision which would have been necessary to ensure continuation after the volunteers left. Moreover, the presence of the volunteers created a dependency because, although they trained residents, they provided close supervision and were available for referrals (several were nurses). They also expedited the ordering and transport of necessary medications and equipment. No new village health projects developed in the zone as a result of the demonstration in the first three villages. In fact, when the second group of volunteers arrived, they were placed in the original villages.

Expectations were raised among villagers that the health service would be continually upgraded and that more curative services would be offered. Expectations were raised among volunteers who were trained that they might ultimately be salaried (although that was not foreseen in the programming). Several, but by no means all of the village health workers, have since been integrated into the Kongolo program. However, the adjustment to the new system has been difficult because their previous training was too specialized.

The action plan for Kongolo was finally developed in Kinshasa in July 1981, after consultation with the Kongolo medical team and Peace Corps Volunteers. It was sent to Kongolo (but it was not shared with the zonal medical team until after the departure of the incumbent Peace Corps coordinator). Subsequently, an accelerated implementation plan was agreed upon, in order to take advantage of HSDP funds before the Project's expiration in August 1982. A group of nurses was taken to Kongolo by the Director of the Project unit in December and five new centers were opened in January. Because of the pressures there was not time to adequately prepare the villages or to assemble all the necessary basic equipment. The new centers are therefore not operating an optimal program. Nor have all the project objectives been met. Only ten

centers are (or will soon be) opened, there are only four health posts, and the formal training of nurses is just about to begin. There are no plans for formal training of other members of the health center team or village health workers, or for any training of traditional midwives.

Misunderstandings between USAID, the Project unit in Kinshasa, and Kongolo have continually plagued the Project. In the first place, the budgetary breakdown in the proposal was very general so that each major expenditure or group of expenditures, has to be negotiated separately between USAID and the Project unit, resulting in serious delays and frustration. Kongolo has never been given a budget for planning purposes so that, outside of routine operating expenses, each request is ad hoc and money received from Kinshasa is not always earmarked.

There has never been a fully agreed upon plan identifying commodity requirements. The initial orders, placed between 1978 and 1980, preceded the implementation plan for the Kongolo zone and therefore were made in a vacuum. Several shipments arriving from the United States during that period contained surplus American goods, that had not been ordered by USAID/Kinshasa, but that, it appeared, were being "dumped". This created local resentment, especially considering that expectations had been raised when USAID agreed to supply commodities to Kongolo. Some materials that could not be used were sent back to Kinshasa and were subsequently returned to Kongolo.

Once the implementation plan was agreed upon, a list was developed by the Project unit in Kinshasa and then negotiated with USAID, but not confirmed with Kongolo. All requisitions from Kongolo are modified by the Project unit and/or USAID so that equipment and supply requirements are never fully met and frequently commodities arrive that haven't been ordered. Moreover, there is no flexibility in the system so that, for example, while more refrigerators are needed than the number which appeared on the original list (due to a sound reorganization of the

vaccination program), USAID disallowed the order. (Requests for a new vehicle to replace the one that is there, which was already somewhat run down when it was sent to Kongolo in mid 1979, have also been refused.)

Prior to last December, no packing lists accompanied the Kongolo shipments. In one case, a letter arrived from USAID stating that a certain shipment was not to be released until authorization was received from Kinshasa, but the shipment wasn't identified. Further problems are caused by long delays in filling the orders and by USAID commodities sometimes being inappropriate. For example, drugs are supplied in liquid form which is significantly more expensive and has a shorter life than pills, and American bicycles are sent that cannot be repaired because spare parts are not available in Zaire.

There has been minimal collaboration between PNS and the Kongolo health program and there are a number of constraints to negotiating a pre-paid health plan with PNS. Under the original arrangement, by which PNS reimbursed employees for health expenses, the system was abused. The abuses were discovered when a patient (who wasn't even ill) was given a prescription by the Medical Director for an inordinate amount of expensive medication. Thus PNS introduced a standard health benefit to the monthly salaries of employees. Changing that cannot be done without the agreement of the employees' union. Withdrawing the benefit from the salary to put into a prepaid scheme might not appear attractive to the employees (even though there would be financial advantages to them). Another issue is that many of the PNS employees do not live within the catchment area of the Kongolo program.

4.3. OPERATIONS

Although the system is founded on the principle of auto-financement, the formula of charges now employed in the health centers is not raising adequate monies to cover costs. At present, flat service fees are charged

that do not reflect the relative costs of different treatments, nor is there any flexibility to allow for increasing prices of medications. Attempts are made by some centers to attract more clients, especially for pre-school consultations, in order to increase income. While this gives the center an immediate financial boost (and increases preventive health coverage), it will not help the financial situation very much over the long run.

Another principle that is not working in the new centers, is the community responsibility for funding the construction of the health center. In general, less than half of the households contribute and additional funds are raised from missions or other outside sources. Some communities are considering imposing a mandatory membership fee at the time a client first seeks service for those who haven't participated in the initial solicitation. The view of the health team is that more work needs to be done to sensitize the community and encourage people to believe that it is in their own self-interest to make a voluntary contribution. This has worked in some of the older centers that were established over a longer period of time.

The future of the health post concept is problematic. In the first place, it is designed around a voluntary village health worker. The willingness of villagers to work without any monetary incentive still needs to be tested. Moreover, the ability of the health post to be self-financing by selling drugs at a price that is slightly higher than cost, also needs to be tested. Another issue is that reasonable access for the widely dispersed population living in much of the zone, would necessitate more health posts than can be well-supported by individual health centers, unless more staff is added.

A few weaknesses were noted in the still nascent preventive health program. In general, preventive consultations are held in the

afternoon, a less desirable time for clients. Another drawback is that clients living outside the catchment area of a health center are not entitled to preventive health services (although they are entitled to curative health services). Mothers do not appear to place a high value on well-baby care -- pre-school clinics are well attended only when vaccinations are available, or by mothers with sick children. The health workers who were observed did not consistently mark the Road to Health graph, nor did they interpret the marked charts to the mothers, even when there was a significant drop in nutritional status. The nutritional rehabilitation sessions are attended by a small percentage of mothers with malnourished children, either because they don't perceive any potential benefit or because there are too many other demands on the mothers and they are not able to attend. Finally, the followup system that has been introduced into the health centers does not include pre-school preventive health cases, such as children due for sequential vaccinations and borderline malnutrition.

There is very little family planning in Kongolo. No real research has been done so one can only guess at the reasons. There is still some counterreaction to a widespread condom distribution that took place several years ago in a village in which there was an active Catholic mission. There is also official opposition by the local Catholic Bishop. The nurses don't appear to promote family planning among the women although it is officially offered in all health units. There may be, as some say, little demand for family planning in this society in which many children are considered a great asset and there are such high rates of infant mortality. The fact that the nurses are all males may possibly create somewhat of a barrier.

There is reportedly a demand for condoms, but they are out of stock in the HSDP pharmacy!

The health education program is not yet fully planned. Health education materials for the health center aide are being developed and tested. A full scale school health education program has been going for some time. In theory, the Director of the school program is the "counterpart" of the Peace Corps volunteer who is working on the center program, but there is not yet any evidence of collaboration, or a plan for integrating the programs.

The record keeping system in the health centers is comprehensive excepting, there is no accountability for the distribution of drugs. The system is very cumbersome and time consuming, and there probably are a few records that do not have an important purpose and could be eliminated. At present, the center keeps the Road to Health cards for children attending the pre-school clinics. . Letting the mothers keep that card (without replacing it with another clinic filed record) would greatly increase the efficiency of the pre-school consultation sessions. Moreover, it would place more responsibility on the mothers and create a more conducive situation for using the Road to Health chart as an educational tool. If it belonged to the mothers they would most likely take a greater interest. A patient retained card would be useful if an expanded program of home visiting were to be introduced.

5. SUSTAINABILITY

The Kongolo health program is in the early phase of developing a system that has many of the requisite elements for successful continuation after outside support terminates. Most importantly, the program is established within a permanent GOZ institution. All personnel who are working for, or with the Project, either are paid by the GOZ or they (or their counterparts) will be integrated into the government payroll. All Project supported salaries are consistent with local salaries, simplifying the anticipated transition.

The program is founded on the principles of self-reliance and auto-financement so that the largest responsibility for continuation will rest with the community itself. This greatly increases the potential for sustainability. However, it must be emphasized that the potential exists because the Project is developing a zone level support system. It is doubtful that a community based program would survive the termination of outside support without that system.

Other achievements contributing to sustainability are: the introduction of comprehensive and systematic administrative and accountability procedures that should be self-perpetuating; a clear set of programmed strategies for rural health workers; minimal dependence on vehicles for

supervising and provisioning rural health units; and the development of a cadre of trained administrative and service personnel.

However, while the concepts that have been introduced into the Kongolo zone mitigate in favor of sustainability, and a good beginning has been made, nonetheless implementation began very recently and the program is still in an experimental phase. Until some of the problems have been resolved and the program has taken root, it is premature to estimate the probability of continuation.

At least one year of experimentation is need for testing in three major areas :

- 1) a new fee structure has to be found that will cover the costs of operating the health centers;
- 2) an approach to community involvement has to be developed that will ensure adequate participation in the building and management of health centers and;
- 3) a formula for staffing and operating health posts has to be found that is acceptable to the community and provides adequate incentive to the village health workers.

Long term viability is conditional on several major factors. Leadership, as in any program, is critical. Kongolo at present

has two outstanding doctors heading the team. Unfortunately, the Zairois is just about to leave for a two year training program in the United States, and the Belgian is expecting a transfer at the end of the year. Unless these men are replaced by competent and dedicated individual, the entire program may flounder.

The vaccination campaign, which is a very fundamental component, is not likely to be able to continue without outside support because of the inherent costs and more importantly, the logistic problems. There is an institutional framework in Zaire (the Extended Program of Immunizations, PEV) which, if it were to establish a presence in Kongolo, could provide the necessary support. Also a person with greater managerial experience than the present counterpart, will have to be recruited.

Another major constraint to sustainability is the overriding problem of operating within the Zaire setting. Once the project ends there will no longer be an advocate to expedite recruitment, appointments, payment of salaries, obtaining of supplies and medications etc. Moreover, with the general paucity of qualified personnel, it may be difficult to keep the program adequately staffed even if a sufficient number of posts have been established,

Considering the promising foundation that has been laid in a very short time, there is justification for cautious optimism. However, because the program is in such an embryonic

stage, it would require a minimum of an additional two years support to complete the experimental phase and firmly establish the program before there would be a realistic hope of sustainability.

6. THE WATER PROGRAM

6.1. BACKGROUND

Initiation of water source protection and environmental sanitation activities were cited as priority activities in the HSDP Revised Project Paper of September 1980 and subsequently included in the project extension agreement with the GOZ. Thus far, no major environmental sanitation activities (e.g. latrines) have been introduced through the project. However, a spring box construction program was initiated in 1980 by Peace Corps volunteers in Kongolo. Quantitative objectives were specified in various Peace Corps documents: 50 spring boxes were to be constructed by August 1982 and 150 by August 1984. The stated purpose was to provide the beneficiaries with improved access to pure water.

The program depends on community participation. The community itself must choose a mason to work with the technical advisors and an individual to be responsible for maintenance. The community also has to raise a sum of money

to buy the cement, gather the necessary sand and gravel, and provide the labor. The project provides the technical expertise, tools, pipe, and subsidized cement (from PNS). The project team also makes several followup visits to supervise community maintenance efforts.

Spring boxes are an excellent first step in water source development. The technology is relatively simple and inexpensive and can be transferred to the local community. A well-sited, well-constructed spring box is durable and the maintenance minimal. Therefore there is a high probability that a spring box will continue to be useable for many years. It is a good starting point for stimulating community interest in water source improvement.

6.2. ACHIEVEMENTS

The target of 50 spring boxes will most likely be achieved. In addition, there will be a fair number of trained people within the zone, including trainers, and a well-tested training module will have been developed. (In the second training session, to be held in June 1982, several of the trainers will be individuals who were trained in the first session in July 1981).

An independent capability to design and construct spring boxes has already been established within the Development of Farmer Group (DGF) sub-system of Project North Shaba (PNS). DGF extension agents participated in the training sessions and received on the job training when water program team assisted with the construction of several spring boxes.

Close collaboration has been established with the health program. Trainees for the upcoming session are being selected by the health committees. This linkage is important in laying the groundwork for a coordinated health and sanitation education program that will be the responsibility of the health centers.

The project has been well received, as evidenced by the fact that there are more requests from communities than can be met. The Governor of Shaba has become very supportive since the outbreak of cholera in the region and is sending participants from other parts of Shaba to the upcoming training session. The spring box project is the only program of water source improvement in the zone, in which only a handful of villages had an improved water source prior to the project.

6.3. CONSTRAINTS

Despite the achievements, there are not many real benefits resulting from the construction of a spring box. The major objective is to provide access to pure water. However, while the water is pure when it flows out of the pipe, that does not ensure that the water won't be contaminated during its transport and storage prior to use. Another potential benefit is reduced exposure to the risk of bilharzia and, to some extent, malaria. However, if the drainage channels are not properly maintained, stagnant and slow moving pools and inlets will again form. Finally, while the spring box provides a steady flow of water that is easier to draw than an unimproved source, it does not bring the water closer to the village (the average distance is between .5 and 3 kilometers).

6.4. SUSTAINABILITY

The Peace Corps plans to have water source volunteers in Kongolo until 1984 when, it is anticipated that, if the target is met, the zone will be just about saturated. (There are many communities with a water source that is not well sited for a spring box). Therefore, sustainability must be considered in terms of the potential for the maintenance and reparation of the spring boxes, and for continuation of a sanitation education program. The project will have

adequately trained enough people in Kongolo to maintain the spring boxes. However, it is not possible to assess the long term prospects for sanitation education as the program is still in the planning stage and has not yet been launched.

6.5. FUTURE PLANS

Peace Corps has prepared a proposal for a well rehabilitation program in Kongolo. Within the zone there are more or less 100 derelict wells with pumps that were put in during the colonial period. Some were destroyed during the Katanga wars. Others were simply abandoned when they broke down as there were no facilities for maintenance and no Zairois had been trained.

The repair of those wells is a very high priority. It is unlikely that any major improvement in health status can be achieved without better access to greater quantities of water. Moreover, there may be no other village development activity that could have a greater effect on relieving women of some of their heavy burden of work.

Despite the importance of the well program, it would be difficult to justify, in terms of the potential for sustainability, unless it were given an institutional base (in Rural Development or REGIDESO, for example). It would necessit-

ate a commitment of government support, as evidenced by the assignment of adequate numbers of qualified personnel, and resources, to ensure that the project would be able to leave a capability within the institution that could survive.

The Peace Corps has proposed an initial experimental phase in which the viability and cost-effectiveness of a variety of simple hand pumps be tested, along with the bucket and pulley system. If this phase is carried out within the designated institution, it will provide an opportunity to assess the potential for sustainability before major resources are committed for the implementation phase.

Although the water project would undoubtedly rely on the PNS Intermediate Technology workshop for the development and adaptation of hand pump, it is not recommended that the project be put under the umbrella of PNS. In the first place, PNS has a limited life, and secondly, water source development is not a mandate of PNS. The involvement of DGF in the spring box construction was a response to expressed needs of farmer's groups but has not been a priority of the project.

7. CONCLUSIONS

An impressive beginning has been made in the development of a system of primary health care for the zone of Kongolo. Although a number of related activities were introduced during the first three years of the project, concerted progress toward implementing a coordinated program didn't begin until the third quadrant of 1981. Therefore, the system is still in an experimental phase, the strategies are being tested. The objectives and the action plan are clear but the application of project principles needs refinement.

The recent achievements of the project are largely due to a providential coincidence of several factors; a competent and dedicated zonal medical team which provided the critical leadership, close collaboration with and technical assistance from the Peace Corps volunteers, significant support from the Project unit in Kinshasa, and the provision of necessary commodities from USAID.

The system is fragile and needs additional outside support until it is more firmly implanted and has begun to create its own momentum. It is estimated that will require two more years-- a year of continued experimentation and

year in which the experience can be adapted into the system. Project personnel in Kongolo should be given the major responsibility for specifying the level and substance of the needed support.

The mechanism for assistance to the Project should be affiliated with a national, or at least regional, program. Direct aid to Kongolo would obviate the outside contact and advocacy that is absolutely essential to expediting the necessary support at sub-regional, regional and national levels. The Basic Rural Health Project (660-0086) might be an appropriate channel. Channeling funds through Project North Shaba should definitely not be considered. Social welfare is not an objective of PNS and moreover, PNS is a free standing agency with a limited life.

In sum, Kongolo has begun to develop a viable health care system. Although the effort is still in its infancy, a foundation has been laid that has the potential for success. There is good reason to be optimistic that, with an additional two years of support, a sustainable health program would be in place in the Kongolo zone.

PERSONS INTERVIEWED AND SITES VISITEDAPPENDIX I

This evaluation was done in collaboration with many of the people who have been involved with HSDP in Washington, Kinshasa, and Kongolo. The team in Kongolo was particularly open and helpful and the USAID Health Officer provided excellent support.

Washington, D.C. (3/19/82 - 4/2/82)

Gilda DeLucca, Health Office, Africa Bureau, AID

Clifford Belchor, former Health Officer, USAID/Kinshasa

Joseph Jacobs, former HSDP Officer, USAID/Kinshasa

Dr. Francis Georgette, Planning and Human Systems Inc,

Dr. Jim Shepherd, Chief, Health Office, Africa Bureau, AID

Kenneth Koehn, former COP, Project North Shaba

Bruce Strassburger, former Peace Corps coordinator, HSDP/Kongolo

Diane Koehn, former HSDP coordinator/Kongolo

Kinshasa (3/5/82 - 3/7/82 and 5/3/82 - 5/7/82).

Richard Thornton, Health Officer, USAID

Timothy Manchester, APCD/PH, Peace Corps/Kinshasa

Lee Braddock, Evaluation Officer, USAID

Ralph and Florence Galloway, ECZ (Eglise du Christ au Zaire)

Dr. Kankienza, Director, HSDP

Citoyenne Chirwisa, Associate Director, HSDP

Norman Sweet, Mission Director, USAID

Walter Boehm, Deputy Mission Director, USAID

Dr. Franklin Baer, COP, Basic Rural Health Project, Zaire

William Pruitt, Director, Peace Corps, Zaire

Kongolo (3/8/82 - 4/2/82)

Dr. Roberti, Acting Medical Officer, Kongolo Zone

Dr. Kahozi, Director, HSDP/Kongolo

Irene King, Advisor, HSDP/Kinshasa (PCV)

Laura Kayser, Coordinator, HSDP/Kongolo (PVC)

Susan Webb, EPI (PEV) Coordinator/Kongolo (PCV)

Jeff Keller, Health Education Coordinator/Kongolo (PCV)

Bill Roberts, Water Source Program Coordinator/Kongolo (PCV)

Frank Webb, Water Source Program Advisor/Kongolo (PCV)

Ed Wilson, Appropriate Technology Advisor/Kongolo (PCV)

Cit. Ngoy, EPI (PEV) Counterpart

Cit. Kayembé, MCH (PMI) Coordinator

Soeur Sikujia Beatrice, Chief, Hospital Pharmacy/Kongolo

Cit. Suamotz, Administrator, Hospital/Kongolo

Bill Dalrymple, Advisor, DGF/PNS

Cit. Mateso, Director, PNS

Robert Ackerman, Advisor, PMU/PNS

Cit. Sedzabo, Chief, Intermediate Technology/PNS

Cit. Kalambay, Chief, Rural Development/Kongolo

Cynthia Kearns, Peace Corps Representative/Lumbumbashi.

In addition visits were made to health centers, health posts, and water sources, discussions were held with nurses, secretaries, aides, and animateurs, and health committee meetings were attended, in the following villages:

Kaseya

Katea

Makutano

Sayi

Kayanza

Kangoy

Masambi

Keba,